

21 February 2022



Dear

Response - Official Information Request

I refer to your request for information received on 11/02/2022. Your request has been considered under the Local Government Official Information and Meetings Act 1987 (LGOIMA) and I provide the following information.

Requested information Tara-Ika

1. All plans for Tara-Ika

Clarification provided by requestor: All design plans currently lodged for Tara Ika, infrastructure, connections, housing plans etc, I'm not sure if it's the master plan I seek but rather something that shows how this development fits into the master plan maybe?

- Please find enclosed documentation containing a copy of the Tara-Ika Master Plan (non-statutory document) which informed the Tara-Ika Structure Plan and Plan Change.
- Please find enclosed documentation containing the version of the Tara-Ika Structure Plan that was notified as part of Plan Change 4 and the version recommended by Council's reporting planner, Lauren Baddock. At this stage no subdivision consent or house plans have been submitted to Council.
- The commissioners to the Plan Change 4 hearing have yet to announce their decision; meaning the final structure plan may be subject to change.
- 2. All consents lodged, approved and to be lodged, plus the Consent pathway being used with all attached documents.
 - No consent application has been lodged with the Council at the time of writing.
- **3.** All assessments undertaken for the development from Ecological, Archaeological, Hydrology, construction, infrastructure, etc.
 - Please find enclosed documentation containing the s32 report (October 2020) and s42A report (November 2021) and associated appendices for all the technical reports prepared for Plan Change 4: Tara-Ika Growth Area.



4. All costs associated to Project, including Central Government contributions, HDC contributions and any others relevant to the Project.

- Costs associated with Tara-Ika have been established via Council's 2021-2041 Long Term Plan (LTP). References to Tara-Ika in the LTP include but are not limited to :
 - Water Supply page 20
 - Wastewater Treatment page 36, 44
 - o Stormwater page 62
 - Land Transport page 76
 - Parks and Reserves page 150
- Further discussion on Tara-Ika is embedded in the:
 - Infrastructure Strategy page 234
 - Finance Strategy page 322

5. Who are the people in this Project? - Steering Group/Governance roles, operations, any boards or groups that have oversight in the project. Is Brent Maguire also in this Project?

Clarification provided by requestor: As it says, who are the governance people to this Project (all, Iwi, private, external parties, etc). What roles do they have and for who?

- The Plan Change 4, Master Plan and Tara-Ika projects are managed and overseen by Council. The projects are business as usual (BAU) and established via the 2021-2041 Long Term Plan.
- There are no external steering or governance groups in operation.
- The Plan Change 4 process is currently before an independent hearing panel.
- Council staff involved in preparation of Master Plan and Plan Change are Lauren Baddock (District Plan Lead) and David McCorkindale (Group Manager Customer and Strategy).

6. Confirmation of Ngāti Raukawa engagement in Tara-Ika and who?

- Records are enclosed.

7. Confirmation of HDC relationship to O2NL primarily and NZTA also.

Clarification provided by requestor: I'm probably more interested in what are the Council obligations to Tara Ika and vice versa as we are being asked to make decisions within this area without relevant information. In regards to HDC/NZTA, it's more about is there a formal agreement in place in regards to 02NL and if so is this available to review.

 Council's role and relationship to Ō2NL is a community advocate and as a regulator/consent authority. Council also holds an approval role for interfaces with the local road and 3-Waters network via Council's position as the local road controlling authority.



- Council's role in Tara-Ika is in preparing and administering the Plan Change 4 and Master Plan processes. Council is also responsible for the delivery of public infrastructure to this growth area. Council will be the regulator/consent authority when land development subdivision applications are submitted.
- There is no formal agreement in place between Council and Waka Kotahi New Zealand Transport Authority (WKNZTA) with regard to Ō2NL or Tara-Ika.

8. HDC position on the current NOR for O2NL and more specific the Tara-Ika portion of the road and any documents supporting this position and by whom?

- At the time of writing Council has yet to formally comment on the Notice of Requirement (NOR) application as submitted. Council's response is subject to due process and will be made available in due course.
- 9. A full contact list of those engaged in this Project. HDC, Horizons, NZTA, Land owners, Iwi as a start.

Clarification provided by requestor: Was really just want a list of those involved in the project as a whole, so we understand who's who in the zoo.

- Horizons Regional Council
- WKNZTA
- Ministry of Education
- Muaūpoko Tribal Authority (MTA)
- Landowners (please find enclosed)
- Submitters (please find enclosed)

10. Any minutes that can be shared in regards to Hui where Iwi are involved.

There have been a number of hui between MTA and HDC. Formal minutes were not taken.
However, summaries of the engagement and outcomes are set out in the s32 and s42A reports.
These are available via the enclosed documentation.

11. The plan change material received to date and a summary of this if available, the process and highlighting the changes sought

- All Plan Change material is available at the following link: horowhenua.govt.nz/PPC4

Documents enclosed:

- 1. Master Plan (full document and image)
- 2. Structure Plan notified version
- 3. Structure Plan recommended changes in response to submissions
- 4. S32 and s42A Reports and Appendices (including technical documents)
- 5. Copies of Ngāti Raukawa Clause 3B Notification



- 6. Tara-Ika Landowner details (as of 10 December 2020)
- 7. Tara-Ika Submitter details

Horowhenua District Council publishes responses to Local Government Official Information and Meetings Act 1987 (LGOIMA) requests that we consider to be of wider public interest, or which relate to a subject that has been widely requested. To protect your privacy, we will not generally publish personal information about you, or information that identifies you. We will publish the LGOIMA response along with a summary of the request on our website. Requests and responses may be paraphrased.

If you have any queries regarding this information, please contact the LGOIMA Officer on 06 366 0999 or email - LGOIMAOfficer@horowhenua.govt.nz

Yours sincerely,

Lisa Slade Executive Sponsor - LGOIMA



Names and legal descriptions of all properties within the Proposed Plan Change 4 Rezoning area

The information is provided below. This data is accurate as of 10th December 2020. Please be aware there is the potential for recent ownership changes, or legal description changes from LINZ that may not have been received by Horowhenua District Council yet.

Legal Description	Property Owner
Lot 4 DP 338819	
Lot 9 DP 342992	
Lot 5 DP 342992	
Lot 4 DP 303832	
Lot 9 DP 89826	
Lot 2 DP 372154	
Lot 6 DP 498422	
Lot 2 DP 89761	
Lot 52 DP 473083	
Lot 2 DP 521898	
Lot 3 DP 88668	
Lot 2 DP 67415	
Part Lot 5 DP 6490	
Lot 1 DP 318739	
Lot 2 DP 318739	
Lot 24 DP 385611	
Lot 22 DP 473083	
Lot 3 DP 521898	
Lot 1 DP 415880	
Lot 1 DP 358855	
Lot 1 DP 85166	
Lot 2 DP 333100	
Lot 30 DP 385611	
Lot 13 DP 393469	
Lot 4 DP 419989	
Lot 1 DP 412235	
Lot 2 DP 89436	
Lot 3 DP 89761	
Lot 8 DP 342992	



Part Lot 3 DP 52030
Lot 1 DP 338819
Lot 3 DP 90641
Lot 2 DP 345483
Lot 4 DP 498422
Lot 1 DP 412756
Lot 1 DP 479776
Lot 5 DP 365692
Lot 26 DP 385611
Lot 2 DP 90641
Lot 2 DP 74420
Lot 3 DP 419989
Lot 4 DP 496816
Lot 1 DP 51729
Lot 1 DP 15213
Lot 7 DP 342992
Lot 2 DP 77522
Lot 4 DP 90641
Lot 6 DP 342992
Lot 2 DP 365692
Lot 1 DP 90641
Lot 2 DP 303832
Lot 1 DP 463745
Lot 1 DP 71041
Lot 26 DP 473083
Lot 9 DP 419989
Lot 4 DP 505572
Lot 2 DP 88668
Lot 27 DP 385611
Lot 1 DP 365692
Lot 1 DP 505572

Lot 1 DP 89132
Lot 3 DP 338463
Lot 16 DP 393469
Lot 5 DP 505572



Lot 2 DP 338819	
Lot 28 DP 385611	
Lot 1 DP 88668	
Lot 6 DP 338819	-
Lot 1 DP 89761	
Lot 3 DP 303832	
Lot 5 DP 303832	
Lot 1 DP 372154	
Lot 1 DP 303832	
Lot 3 DP 496816	
Lot 6 DP 365692	
Part Lot 1 DP 57644	
Part Lot 5 DP 3773	
Lot 1 DP 521898	
Lot 12 DP 473083	
Lot 13 DP 473083	
Lot 14 DP 473083	
Lot 20 DP 473083	
Lot 21 DP 473083	
Lot 23 DP 473083	
Lot 53 DP 473083	
Lot 54 DP 473083	
Lot 1 DP 345483	
Lot 11 DP 89826	
Lot 1 DP 345498	
Lot 2 DP 342992	
Part Section 44	
Block II Waiopehu SD	
Section 43 Block II	
Part Lot 1 DP 4237	
Lot 8 DP 419989	
Lot 2 DP 400621	
Lot 1 DP 25614	
Lot 1 DP 437461	
LOCI DI 45/401	

Lot 1 DP 63980



Lot 2 DP 437461
Lot 3 DP 400621
Lot 3 DP 412756
Lot 4 DP 77522
Lot 5 DP 77522
Lot 6 DP 3773
Part Lot 3 DP 6490
Lot 2 DP 412756
Lot 1 DP 72269
Lot 1 DP 65555
Lot 5 DP 498422
Lot 1 DP 333493
Lot 2 DP 333493
Lot 31 DP 385611
Lot 18 DP 393469
Lot 23 DP 365692
Lot 3 DP 515237
Lot 10 DP 473083
Lot 2 DP 345498
Lot 27 DP 473083
Lot 8 DP 365692
Lot 2 DP 412235
Lot 25 DP 473083
Part Lot 1 DP 86925
Lot 12 DP 365692
Lot 51 DP 473083
Lot 4 DP 342992
Lot 1 DP 65119
Lot 2 DP 65119
Lot 1 DP 473083
Lot 5 DP 90641
Lot 2 DP 479776
Lot 24 DP 473083
Lot 1 DP 342992
Lot 1 DP 404299
Lot 25 DP 385611



Lot 2 DP 419989	
Lot 3 DP 65119	
Lot 7 DP 419989	
Lot 1 DP 357594	
Lot 28 DP 473083	
Lot 2 DP 437978	
Lot 1 DP 24471	
Lot 5 DP 419989	
Lot 14 DP 393469	
Lot 1 DP 71996	
Lot 4 DP 515237	
Lot 2 DP 346490	
Lot 2 DP 338463	
Lot 7 DP 304639	
Lot 1 DP 338463	
Lot 1 DP 496816	
Lot 2 DP 496816	
Lot 5 DP 515237	
Lot 11 DP 71996	
Lot 7 DP 338819	
Lot 1 DP 17171	
Lot 20 DP 393469	
Lot 3 DP 74420	
Lot 9 DP 71996	
Lot 9 DP 90641	
Lot 1 DP 386757	
Lot 2 DP 386757	
Lot 4 DP 521898	
Lot 4 DP 365692	
Lot 3 DP 338819	
Lot 3 DP 342992	
Lot 6 DP 90641	
Lot 2 DP 505572	
Lot 15 DP 393469	
Lot 3 DP 437978	



Lot 15 DP 473083	
Lot 11 DP 365692	
Lot 5 DP 338819	
Lot 2 DP 415880	
Lot 11 DP 473083	
Lot 2 DP 463745	
Lot 17 DP 393469	
Lot 21 DP 393469	
Lot 22 DP 393469	
Lot 19 DP 393469	
Lot 7 DP 365692	
Lot 2 DP 358855	
Lot 4 DP 71996	
Lot 5 DP 304639	
Lot 6 DP 304639	
Lot 1 DP 67415	
Lot 3 DP 505572	
Lot 6 DP 419989	
Lot 29 DP 385611	
Lot 2 DP 86925	
Lot 3 DP 71996	
Lot 2 DP 357594	
Lot 11 DP 90641	
Lot 7 DP 90641	
Lot 10 DP 90641	
Part Lot 1 DP 26381	
Lot 1 DP 333100	
Lot 3 DP 77522	
Lot 1 DP 346490	
Lot 12 DP 89826	
Lot 3 DP 365692	
Lot 13 DP 89826	
Lot 2 DP 515237	
Lot 14 DP 89826	
Lot 2 DP 71996	
Lot 1 DP 50787	



Lot 1 DP 81977			
Lot 1 DP 437978			



Appendix 1: Table of Submission and Further Submission Points with Recommended Decisions and s42A report references.

Table of Submission Points – Reference to s42a Report

This table provides a complete record of recommendations in relation to all submission points. Additionally, it directs submitters' to the topic heading of the s42a report where their submission point has been evaluated. In some instances, a submission point is relevant to more than one s42a topic. In this case, the table references the point in the s42a report where the most substantive assessment is provided.

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/01	04/01.01		-	Oppose	Opposed to the plan change due to limited information on stormwater treatment and potential impact on Lake Horowhenua.	More information on three waters proposal.	Reject	Infrastructure
04/02	04/02.01		-	Oppose	Seeks removal of the local road shown on Structure Plan alongside 180 Gladstone Road (submitter's property) as they do not intend to sell and do not wish to have a road on their property.	Remove local road on submitter's property.	Reject	Well Functioning Urban Environment
04/03	04/03.01		-	Support in part	Supports plan change, but seeks inclusion of a bird corridor.	Include requirement for planting of native trees to establish native bird and butterfly habitats and pathways.	Reject	Natural Environment and Sustainability Matters
04/04	04/04.01		-	Oppose	Opposes plan change on basis that it does	Include land north of Queen Street.	Reject	Whole Plan Change and

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					not include land north of Queen Street.			General Matters
04/04	04/04.02		-	Oppose	Location of development means O2NL will bisect Levin.	Unclear - submission states that the development should not mean O2NL expressway bisects Levin.	Reject	O2NL Impact, Interface, and Timing
04/04	04/04.03		-	Oppose	States 2m front yard setback is not good urban design.	Increase front yard setback.	Reject	Urban Form, Character, and Amenity
04/05	04/05.01		-	Neutral	Insufficient information to understand the impact of O2NL and the proposed Liverpool Street extension on the submitter's property.	Provide further information about the detailed design of O2NL and the proposed Liverpool Street extension (and associated process - e.g. PWA).	Accept in part	O2NL Impact, Interface, and Timing
04/06	04/06.01		-	Oppose	Oppose road connections onto Gladstone Road and road through centre of development due to traffic concerns.	Remove road connections onto Gladstone Road and introduce additional measures to encourage recreational activities on Gladstone Road, as a means of traffic calming.	Reject	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/06	04/06.02		-	Support	Supports requirements for rainwater tank, but seeks requirements for tanks to be increased.	Retain requirement for rainwater tanks and require larger lots (e.g. Greenbelt Residential) to have onsite water supply.	Accept in part	Infrastructure
04/06	04/06.03		-	Oppose	Insufficient information to understand Council's ability to supply reticulated services in a sustainable, reliable manner and the associated costs.	More information on three waters proposal.	Reject	Infrastructure
04/06	04/06.04		-	Support in part	Supports the concept that vehicles should not cross strategic cycleways, but opposes use of rear access lanes due to CPTED concerns.	Include advice on how to design rear access lanes in accordance with CPTED principles and differentiate between local roads and laneways.	Reject	Transport
04/06	04/06.05		-	Oppose	Opposes the generality of activities proposed to be able to establish in commercial zone.	Prohibit liquor stores in Taraika.	Reject	Non-RMA Matters
04/07	04/07.01		-	Support in part	Supports plan change, so long as Land Use Capability	Protection of LUC 1 and 2 soils.	Reject	Natural Environment and

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					(LUC) 1 & 2 soils are not subdivided.			Sustainability Matters
04/07	04/07.02		-	Support in part	Supports plan change so long as stormwater is managed to avoid additional runoff into Koputaroa Stream or under the new expressway into existing drains.	Effective stormwater management.	Accept in part	Infrastructure
04/08	04/08.01		-	Support in part	Provide reticulated waste water to Greenbelt Residential Area so additional development can occur	Allow additional density in Greenbelt Residential areas	Accept in part	Well Functioning Urban Environment
04/09	04/09.01		-	Support in part	Make better use of land by allowing greater housing density in certain areas. This reduces pressure on productive land and allows more housing to be built, addressing housing shortage.	Up-zone Greenbelt Residential and Low Density Residential to Standard Residential	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/09	04/09.02		-	Support in part	Strategic cycleway is a great initiative for health and low emission transport, but should be relocated to the collector road, as this would likely allow it to be built earlier.	Relocate Strategic Cycleway to Collector Road	Accept in part	Transport
04/10	04/10.01			Support in part	Make better use of land by allowing greater housing density in certain areas. This reduces pressure on productive land and allows more housing to be built, Improving alignment with National Policy Statement for Urban Development (NPS- UD) and Proposed National Policy Statement on Highly Productive Land (PNPS-HPL) and future proofs against future growth	Up-zone Greenbelt Residential and Low Density Residential to Standard Residential	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/11	04/11.01		-	Support in part	Make better use of land by allowing greater housing density in certain areas. This reduces pressure on productive land and allows more housing to be built, Improving alignment with NPS- UD and PNPS-HPL. Allows more efficient/cost- effective infrastructure and provides improved economic viability.	Up-zone submitter's land to Standard Residential.	Accept in part	Well Functioning Urban Environment
04/11	04/11.02		-	Support in part	Supports use of strategic cycleways, but suggests relocating to collector road.	Relocate Strategic Cycleway to Collector Road.	Accept in part	Transport
04/12	04/12.01		-	Support in part	Supports use of cycleways, but seeks that they are constructed in a timely manner and not reliant on development occurring. Modifications to	Modify location to follow fixed north/south and east/west roads. Smooth dog leg near Waiopehu Reserve.	Accept in part	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					route suggested so that it follows fixed roads (North/South and East/West) and eliminate 'dog leg' near Waiopehu Reserve.			
04/13	04/13.01		-	Support in part	Seeks that planning is done on the basis of the population doubling over the next 20 years. Raises concerns about water availability in Ōhau River to support this growth. Supports requirement for rainwater tanks and suggests investigating alternate water sources, such as known bores.	Abandon the wetland approach to managing stormwater and instead require use of sumps for house lots and north/south swales.	Reject	Infrastructure
04/14	04/14.01		-	Support in part	Notes pressure on land availability from population growth. Important role for Horowhenua as a food producer. Need to contain growth and maximise land usage, to avoid	Up-zone Greenbelt Residential and Low Density Residential to Standard Residential.	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					sprawl. Already have too many lifestyle blocks.			
04/15	04/15.01		_	Oppose	Water runs through the submitter's property west of Arapaepae Road during heavy rain. The proposed wetlands will not be sufficient for denser housing. Need specifically designed sumps and swales. Oppose to use of wetlands.	Replace wetland proposal with sumps and swales.	Reject	Infrastructure
04/16	04/16.01		-	Support in part	Zoning should be consistent for entire properties.	Change zoning on submitter's property to be consistent across whole property.	Accept in part	Well Functioning Urban Environment
04/16	04/16.02		-	Support in part	Roads and cycleways should follow ownership boundaries.	Relocate roads and cycleways to follow ownership boundaries.	Accept in prat	Transport
04/16	04/16.03		-	Support in part	Open space needs to be designed so as not to impact on views to ranges (e.g. from large planting).	Protect views of ranges when designing reserves.	Reject	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/17	04/17.01	Ministry of Education	Objective 6A.1	Support in part	Supports intent of policy, but seeks that reference to 'social infrastructure' be included to cover education facilities.	Include 'social infrastructure' to Objective 6A.1.	Accept	Minor drafting edits
04/17	04/17.02	Ministry of Education	Policy 6A.1.4	Support	Supports policy reference to education facilities.	Retain as proposed.	Accept in part	Well Functioning Urban Environment
04/17	04/17.03	Ministry of Education	Policy 6A.1.5	Support	Supports reference to walking and cycling, given children in Taraika may walk or cycle to school.	Retain as proposed.	Accept in part	Well Functioning Urban Environment
04/17	04/17.04	Ministry of Education	Policy 6A.6.3	Support in part	Supports intent of policy in enabling education, however states that wording about limits on the scale of education activities is unclear and creates uncertainty.	Remove reference to 'limits on scale' and consider introducing education activities as a permitted activity with limits on scale, noting that the Ministry will likely rely on the designation process.	Accept in part	Well Functioning Urban Environment
04/17	04/17.05	Ministry of Education	-	Support in part	Further refinement of the rule framework to enable education facilities.	Further refinement of the rule framework to enable education facilities.	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/18	04/18.01		_	Oppose	Oppose the location of the arterial road running from Queen Street E to the centre of Tara-Ika due to proximity to Redwood Grove.	Move road further east.	Reject	Well Functioning Urban Environment
04/18	04/18.02		_	Oppose	Oppose the location of the greenspace and education site, these should be located to create a buffer between Redwood Grove.	Introduce a greenspace buffer around Redwood Grove, or require low volume roading connectivity to the rear of eastern Redwood Grove to provide for future connectivity/subdivision.	Reject	Well Functioning Urban Environment
04/18	04/18.03		-	Oppose	Oppose the residential zoning between SH57 and the O2NL corridor - medium density, green space, or commercial would be more suitable.	Change zoning to medium density, commercial zoning, or green space.	Accept in part	Well Functioning Urban Environment
04/18	04/18.04		-	Oppose	Opposes the zoning in the southwest corner. This should be medium or standard density.	Change zoning to medium or standard density.	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/18	04/18.05		-	Oppose	Oppose the low density residential zoning at Tararua Road, near SH57.	Change zoning to medium density or mixed use zoning.	Accept in part	Well Functioning Urban Environment
04/19	04/19.01		-	Oppose	Oppose Plan Change in its entirety, as the land should be used for food production given nature of the land and distance from Lake Horowhenua.	Reject Plan Change in its entirety.	Reject	Whole Plan Change and General Matters
04/19	04/19.02		-	Oppose	Oppose due to the potential impact of O2NL. Taraika will mean Levin still straddles a State Highway, resulting in effects such as noise, light, and air pollution.	Reject Plan Change in its entirety.	Reject	O2NL Impact, Interface, and Timing
04/19	04/19.03		-	Oppose	Oppose due to insufficient water supply to meet current needs.	Reject Plan Change in its entirety.	Reject	Infrastructure
04/19	04/19.04		-	Oppose	Oppose due to lack of health services. Adding more residents is unfair to	Reject Plan Change in its entirety.	Reject	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					those who already live here.			
04/19	04/19.05		-	Oppose	Considers the consultation process a 'rubber stamping' exercise and not genuine due to ground breaking ceremony attended by the Prime Minister.	Reject Plan Change in its entirety.	Reject	Whole Plan Change and General Matters
04/19	04/19.06		-	Oppose	Proposal will continue to pollute Lake Horowhenua.	Reject Plan Change in its entirety.	Reject	Infrastructure
04/20	04/20.01		-	Oppose	Opposes current low density zoning, supports a change to standard density zoning.	Change low density zoning to standard density.	Accept in part	Well Functioning Urban Environment
04/21	04/21.01	Fire and Emergency New Zealand	-	Support in part	Notes that all properties (both reticulated and non- reticulated) need suitable firefighting water supplies.	Introduce provisions requiring subdivisions to ensure 'firefighting water supply', and for buildings to have a firefighting supply in accordance with the NZ Firefighting Code of Practice SNZ/PAS 4509:2008.	Accept in part	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/21	04/21.02	Fire and Emergency New Zealand	-	Support in part	Supports the proposed road carriageway widths, as these are suitable for fire trucks to access properties.	Retain as proposed.	Accept	Transport
04/21	04/21.03	Fire and Emergency New Zealand	-	Support in part	Supports approach to managing risk from natural hazards.	Retain as proposed.	Accept in part	Natural Environment and Sustainability Matters
04/21	04/21.04	Fire and Emergency New Zealand	-	Support in part	Supports development of a stormwater management solution capable of dealing with firefighting flows.	Ensure stormwater solution is capable of managing stormwater without causing adverse effects on the receiving environment.	Reject	Infrastructure
04/22	04/22.01		-	Oppose	Submission states that consultation process was not inclusive enough.	More specific consultation undertaken with landowners who did not participate in the Master Plan process.	Reject	Whole Plan Change and General Matters
04/22	04/22.02		-	Oppose	Extent of low density and greenbelt residential land is wasteful and does not cater for the needs of those in	Up-zone Greenbelt Residential and Low Density Residential to Standard Residential.	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					most need of housing.			
04/22	04/22.03		-	Oppose	Cycle network is disconnected and does not provide sufficient connections into Levin.	Improve cycle connectivity to Levin.	Reject	Transport
04/22	04/22.04		-	Oppose	Submission questions what protection is proposed for Waiopehu Reserve.	Advise appropriate protections for Waiopehu Reserve.	Reject	Natural Environment and Sustainability Matters
04/22	04/22.05		-	Oppose	Insufficient integration evidenced between O2NL and Taraika.	Show evidence of consultation and consideration of how O2NL and Taraika will integrate with each other.	Reject	O2NL Impact, Interface, and Timing
04/23	04/23.01			Support in part	Extent of low density is a waste of land. Standard density would be a more efficient use of land, would better mirror the proposed development pattern to the east, provide for more housing near key infrastructure (e.g.	Up-zone Low Density Residential to Standard Residential.	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					collector road and cycle route) and improve the economic viability of constructing said key infrastructure.			
04/23	04/23.02		-	Support	Support no restrictions on vehicle crossings into secondary collector roads.	Retain as proposed.	Accept in part	Transport
04/24	04/24.01		-	Oppose	The 'street network' terminology contained within the Master Plan document is inconsistent with that used on the Structure Plan.	Address inconsistency.	Reject	Non-RMA Matters
04/24	04/24.02		-	Oppose	Protection of cultural sites (e.g. Maunu Wahine and Waihau Waterhole) is referenced as a key design principle in the Master Plan but there is no associated policy or rule in the Proposed Plan Change.	Introduce policy which requires these specific sites to be protected.	Accept in part	Culture and Heritage

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/24	04/24.03		Objective 6A.1	Oppose	Notes that solar access is an important component of good urban design.	Seeks inclusion of "achieves good solar access to buildings" to Objective 6A.1.	Reject	Urban Form, Character, and Amenity
04/24	04/24.04		-	Oppose	Notes inconsistency in zoning terminology between planning maps (Low Density Residential) and structure plan (Low Density Area).	Address inconsistency.	Accept	Minor drafting edits
04/24	04/24.05		-	Oppose	Extension of medium density area on either side of the primary north south connector road and removal of low density overlay would better align with the proposed policy framework.	Increase extent of medium density overlay and remove low density overlay.	Accept in part	Well Functioning Urban Environment
04/24	04/24.06		-	Oppose	Zoning parks and reserves as 'open space' does not allow sufficient flexibility and should not occur until the reserve has been vested, to allow the zone boundaries	Rezone open space areas to residential.	Reject	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					to be accurately determined.			
04/24	04/24.07			Oppose	The cost of providing infrastructure to the extent shown on the Structure Plan has a disproportionate effect on smaller landowners and requires them to construct infrastructure over and above what is required for their development. Clarification sought regarding the timing of development funding and how this will be linked with the timing of infrastructure construction.	Ensure developer only has to pay for the infrastructure needed for their own development.	Accept in part	Infrastructure
04/24	04/24.08		-	Oppose	Restricted Discretionary Activity status for subdivision is too restrictive and contrary to the NPS- UD.	Make subdivision a permitted or controlled activity, subject to conditions.	Reject	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/24	04/24.09		-	Oppose	Remove the rule requiring access via rear access lanes for properties fronting strategic cycleways and amend associated policy to allow more flexibility for creative design.	Remove the rule requiring access via rear access lanes for properties fronting strategic cycleways and amend associated policy to allow more flexibility for creative design.	Reject	Transport
04/25	04/25.01	Horowhenua District Council		Support in part	The extent of low density residential zoning on the Tararua Road side of the Plan Change area needs to be reviewed in light of new information about the likely location of an O2NL interchange at Tararua Road and in light of policy direction from the National Policy Statement - Urban Development.	Up-zone to standard density.	Accept in part	Well Functioning Urban Environment
04/25	04/25.02	Horowhenua District Council	-	Support in part	The medium density residential area should be extended as per the image provided in the submission. This area	Rezone area indicated to medium density.	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					is well suited for medium density development because it is located near open space, the commercial zone, and active transport routes.			
04/25	04/25.03	Horowhenua District Council		Support in part	Given the plan change encourages an increase in building density, there may be some instances where buildings that exceed the maximum permitted height may be appropriate. The proposed plan change does not currently have any direction on this matter. The introduction of a policy relating to this matter would assist with implementation.	Introduce a policy guiding how proposals for a height breach should be determined.	Accept	Urban Form, Character, and Amenity
04/25	04/25.04	Horowhenua District Council	-	Support in part	Rainwater tanks are a requirement in the residential zone. However, it is not	Include an advice note clarifying how these requirements should	Accept	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					clear how this requirement will apply to multiple joined dwellings.	apply to multiple joined dwellings.		
04/25	04/25.05	Horowhenua District Council	-	Support in part	The current provision which sets out the requirements for rainwater tanks could be clarified by the addition of wording specifying that the tanks are required to be designed and installed in accordance with the requirement.	Addition of wording specifying that tanks are required to be designed and installed in accordance with the requirement.	Accept	Minor drafting edits
04/25	04/25.06	Horowhenua District Council	-	Support in part	The s32 report references a non- notification provision for all complying subdivisions. This provision appears in the commercial, open space, and greenbelt residential zone, but not the residential zone. This appears to be an error.	Introduce a non- notification provision for complying residential subdivision.	Accept	Minor drafting edits
04/25	04/25.07	Horowhenua District Council	-	Support in part	Currently Table 15A-3 only requires a	Amend Table 15A-3 Standards Applying to	Accept	Minor drafting edits

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					concept plan for medium density standalone dwellings. However, it appears that this should also apply to attached units.	Subdivision and Residential Dwelling Units to include a "*": reference for Medium Density Attached Units: 150m2.		
04/25	04/25.08	Horowhenua District Council	-	Support in part	At present the requirement for "Those matters described in Sections 108 and 220 of the RMA" to be considered as a matter of discretion only applies in some zones. It is noted this requirement appears in the remainder of the Horowhenua District Plan. This should be addressed for consistency.	Include "Those matters described in Sections 108 and 220 of the RMA" as a matter of discretion for restricted discretionary subdivision in all zones.	Accept	Minor drafting edits
04/25	04/25.09	Horowhenua District Council	-	Support in part	Matters of discretion (i) and (ii) of 15A.8.1.4(a) are quite similar and could be combined	Combine matters 15A.8.1.4(i) and 15A.8.1.4(iii) into one	Accept	Minor drafting edits
04/25	04/25.10	Horowhenua District Council	-	Support in part	That 15A.8.2.2(b)(i) and 15A.8.2.3(b)(ii)	Reword provision to be clear that the standard	Accept	Minor drafting edits

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					be reworded for clarification purposes to be consistent with the requirements of the National Policy Statement on Urban Development. It should be clear that car parking is not required (with the exception of disabled parking) but that if on site car park that car parking is not required (with the exception of disabled parking) but that if on site car park is provided then it should be to the rear of the building(s).	only applies where the applicant chooses to provide carparking.		
04/25	04/25.11	Horowhenua District Council	-	Support in part	Introduce a policy to clarify the purpose of the Arapaepae Road Special Treatment Overlay and associated rules.	Introduce a policy to clarify the purpose of the Arapaepae Road Special Treatment Overlay and associated rules.	Accept	Well Functioning Urban Environment
04/25	04/25.12	Horowhenua District Council	-	Support in part	Correct the second bullet point of standard 15A.6.2.6(c), fencing	Correct the second bullet point of standard 15A.6.2.6(c), fencing in relation to 'other	Accept	Urban Form, Character, and Amenity

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					in relation to 'other boundaries', to say the maximum height of the fence when it meets the road shall be 1.2m (not 1m), to be consistent with standard 15A.6.2.(a), front road boundary.	boundaries', to say the maximum height of the fence when it meets the road shall be 1.2m (not 1m), to be consistent with standard 1A.6.2.(a), front road boundary.		
04/25	04/25.13	Horowhenua District Council	-	Support in part	Currently it could be difficult to determine what qualifies as a serviced based commercial activity.	Include examples of "service based" commercial activities" to Policy 6A.5.2 to improve clarity.	Reject	Minor drafting edits
04/25	04/25.14	Horowhenua District Council	-	Support in part	Improve the clarity of the provisions through the proposed wording changes.	Make the following additions (shown in underline italics) to 15A.1.2 (a) to improve clarity - Commercial Activities (excluding entertainment activities) occupying a maximum floor area of up to 250m2, Retail Activities occupying a maximum floor area of up to 250m2.	Reject	Minor drafting edits
04/25	04/25.15	Horowhenua District Council	-	Support in part	Improve the clarity of the provisions through the	Maximum floor area limits.	Accept	Minor drafting edits

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					proposed wording changes.			
04/26	04/26.01	Horowhenua District Residents and Ratepayers Association	-	Oppose	The submitter questions whether hydrology maps and the location of water courses were considered to developing the Plans for Tara-Ika, what steps will be taken to prevent adverse effects on water, and what steps were taken to engage with all those affected by water entering Lake Horowhenua.	Unclear.	Reject	Infrastructure
04/26	04/26.02	Horowhenua District Residents and Ratepayers Association	_	Unclear	The submitter questions whether there is a proposal for a roundabout at the intersection of Arapaepae Road and the termed 'Liverpool Street extension' and, if not, why not.	Unclear.	Reject	Transport
04/26	04/26.03	Horowhenua District Residents and	-	Oppose	The submitter questions whether infrastructure has	Unclear.	Reject	Infrastructure
Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
----------------------	---------------------	--	-----------	--------------------	---	-----------------	-------------------------------------	--
		Ratepayers Association			sufficient capacity to cope with additional loading from Tara-Ika and the financial impacts of installing and maintaining new infrastructure in Tara-Ika.			
04/26	04/26.04	Horowhenua District Residents and Ratepayers Association		Unclear	The submitter questions what measures are proposed within the proposed plan change to manage effects arising from climate change. The submitter also seeks modelled hydrological changes to the water table across the District and proposed measures to mitigate risk of damage to infrastructure.	Unclear.	Reject	Natural Environment and Sustainability Matters
04/26	04/26.05	Horowhenua District Residents and Ratepayers Association	-	Unclear	The submitter questions whether development contributions will be reintroduced before	Unclear.	Reject	Non-RMA Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					the Proposed Plan Change is adopted.			
04/26	04/26.06	Horowhenua District Residents and Ratepayers Association	-	Unclear	The submission questions what steps are being taken to ensure the proposed plan change content (e.g. structure plan, rules, objectives, and policies are followed).	Unclear.	Reject	Whole Plan Change and General Matters
04/26	04/26.07	Horowhenua District Residents and Ratepayers Association	-	Unclear	The submitter questions whether there is sufficient resources available to build 400 houses a year and, if not, what Council's responsibility on this matter is.	Unclear.	Reject	Non-RMA Matters
04/26	04/26.08	Horowhenua District Residents and Ratepayers Association	-	Unclear	The submitter questions the social impacts of mixed density development.	Provide an assessment of the social impacts arising from mixed density development.	Reject	Well Functioning Urban Environment
04/26	04/26.09	Horowhenua District Residents and	-	Unclear	The submitter questions whether sufficient space has been allocated for	Unclear.	Reject	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
		Ratepayers Association			carparking around the commercial zone.			
04/27	04/27.01		-	Support	Supports the plan change.	Changes to the specific provisions as detailed in following submission points.	Accept in part	Whole Plan Change and General Matters
04/27	04/27.02		-	Support in part	Seek to be involved in conversations about street naming, alongside Council, iwi and the community. In particular for some street names to reflect the submitter's Irish heritage.	Involvement in street naming process.	Accept in part	Culture and Heritage
04/27	04/27.03		-	Oppose	Subdivision should be a controlled activity rather than discretionary activity.	Change activity status of complying subdivision to controlled.	Reject	Whole Plan Change and General Matters
04/27	04/27.04		-	Oppose	The matters of discretion for subdivision are too restrictive and will add additional cost and delay, including the design and layout of subdivision, the timing and staging of works, and	Simplify the matters of discretion.	Accept in part	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					minimising the use of cul-de-sacs.			
04/27	04/27.05		-	Support in part	Change the low density zoning on the Tararua Road side of the submitter's property.	Change the low density zoning on the Tararua Road side of the submitter's property.	Accept in part	Well Functioning Urban Environment
04/27	04/27.06		-	Support in part	The submitter would like to make provision for a retirement village.	Enable retirement villages.	Reject	Well Functioning Urban Environment
04/27	04/27.07		-	Support in part	Consider the location of high voltage transmission lines in regard to heath and visual impact.	No change requested.	Reject	Infrastructure
04/28	04/28.01	Electra	_	Support in part	The submitter supports plan changes that support good urban design, but is concerned the proposed plan change does not provide sufficient protection for the existing power lines.	Work with Council to ensure safe and beneficial outcome.	Reject	Infrastructure
04/29	04/29.01	Rangeview Villas Body Corporate	-	Oppose	The submitter refers to the proposed roading connection	Remove reference to a Liverpool Street	Reject	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					with Arapaepae Road directly opposite Liverpool Street, Levin and the concept of this being connected in the future. The submitter opposes this on the basis that it will cause disruption, reduced values, and safety issues for Rangeview Villas residents and that this connection is not required.	extension in all planning documents.		
04/30	04/30.01	Horizons Regional Council		Support in part	The submitter generally supports plan changes that provide for growth by giving effect to a growth strategy or master plan. This approach is considered, in general, to give effect to One Plan Objective 3-3 and Policy 3-4.	None	Accept in part	Whole Plan Change and General Matters
04/30	04/30.02	Horizons Regional Council	Objective 6A.3, Policies 6A.3.1 & 6A.3.3, Objective 6A.6,	Support in part	The submitter notes that Lake Horowhenua is a threatened habitat	Policy 6A.6.2 Ensure public parks are of a size, shape and type that enables functional and	Accept in part	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
			Rule 15A.6.2.1, Policy 6A.6.2 Rulee 15A.8.1.2		under the One Plan and that discharge of stormwater is a non- complying activity. The Koputaroa catchment has known flood carrying capacity issues and the submitter holds indicative ponding information which suggests there may be areas in Taraika that experience surface ponding during heavy rain. The submitter supports objectives, policies, and rules relating to managing the quantity and quality of stormwater, specifically provisions Objective 6A.3, Policies 6A.3.1 & 6A.3.3, Objective 6A.6, Rule 15A.6.2.1 (rainwater tanks) and requirements to comply with Chapter 24 of the District	recreational uses by requiring all subdivision and development to comply with Structure Plan 013. Provision 15A.8.1.2(a) Matters of Discretion for Subdivision (vi) provision of land for publically accessible open space and recreation that is appropriately located and of a practicable size and shape to support management of stormwater during heavy rain events in accordance with Structure Plan 013.		

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					Plan. However the submitter requests some changes to the wording of Policy 6A.6.2 and provision 15A.8.1.2 so that they more clearly give effect to related Objective 6A.6. Requested additions shown in italics underlined.			
04/30	04/30.03	Horizons Regional Council		Support in part	The submitter notes that the Three Waters Infrastructure Plan supporting PPC4 states that large private carparks and commercial roofs over 500m2 need to provide their own water quality treatment, but that there is no explicit provision requiring this in the proposed plan change.	Include an explicit provision relating to stormwater management on large private carparks and commercial roofs over 500m2.	Accept in part	Infrastructure
04/30	04/30.04	Horizons Regional Council	-	Support in part	The submitter supports the requirement for rainwater tanks on	Introduce a non- complying activity status for residential activities	Reject	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					residential properties, but requests non- complying activity status where these are not provided.	that do not provide an onsite rainwater tank.		
04/30	04/30.05	Horizons Regional Council		Support in part	The submitter supports inclusion of objectives, policies, and rules that seek to achieve connectivity, safety, and transport choice. Specifically the submitter supports Objective 6A.1, Policy 6A.1.1, and Rule 15A.6.1.1. The submitter supports medium density development in the centre of Tara- lka as this supports connectivity and active and public transport options. The submitter notes a lack of provision for public transport in the proposed plan provisions. The submitter requests	Objective 6A.4 Achieve a high amenity, connected, walkable environment. Policy 6A.4.2 Enable and encourage a range of housing types and section sizes in Taraika to meet the variety of needs and preferences in our community, while ensuring a high level of residential amenity and connectivity. 15A.8.1.2 Subdivision (a) Matters of Discretion (viii) The provision of any new roads, cycleways, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, car	Accept	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					some changes to the wording of proposed plan change policies and provisions to improve clarity and make specific reference to public transport. Additions shown in italics underlined.	parking and manoeuvring areas, bus stops and tuning areas, and any necessary easements.		
04/30	04/30.06	Horizons Regional Council		Support in part	The submitter states that consideration should be given to how public and school bus services will enter and exit Tara-Ika from Arapaepae Road and that consideration needs to be given to how safe crossing locations will be provided for pedestrians and cyclists, particularly before and during construction of O2NL.	Consideration for how buses, pedestrians, and cyclists will enter and exit the development from Arapaepae Road.	Accept in part	Transport
04/30	04/30.07	Horizons Regional Council	-	Support in part	The submitter states there is no modelled flood data for this area, which does not	Delete reference to the 2008 Horizons hazards	Accept	Natural Environment and

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					mean there is no history of flooding - just that there is no data. The submitter supports the inclusion of Rule 15A.8.3.1 Subdivision (a) Matter of Discretion (ix) avoidance and mitigation of natural hazards but requests reference to the 2008 Horizons hazards report be deleted, for consistency with other provisions within the proposed 15A chapter.	report in 15A.8.3.1(a)(xi).		Sustainability Matters
04/30	04/30.08	Horizons Regional Council	-	Support	The submitter supports Rule 15A.8.4.1(b) Condition (i), in particular the requirement for lots not serviced by reticulated waste water to be at least 5,000m2 as this is consistent with One Plan requirement.	None.	Accept	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					The submitter also supports the restricted discretionary activity status.			
04/30	04/30.09	Horizons Regional Council	-	Support	The submitter notes that the proposed plan change area is largely covered by Class 3 soils, with a small patch of Class 2 soils in the rural residential subdivision and reserve. Subject to this being the cases, One Plan Objective 3- 4 and Policy 3-5 would be unlikely to apply	None.	Accept in part	Whole Plan Change and General Matters
04/30	04/30.10	Horizons Regional Council	-	Oppose	One Plan Objective 3- 2: Energy and Policy 3-7 seek to encourage renewable energy and energy efficient developing, including through housing and subdivision design and layout. The submitter does not	Objective 6A.1 To achieve an integrated, efficient, and connected development encouraging subdivision and development design to enable energy efficiency and reduced energy consumption Insert a new policy 6A.1.6 Require	Accept	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					consider PPC4 gives effect to this objective and policy and seeks changes to the wording of objectives, policies, and rules to encourage energy efficient design. Additions shown in italics underline.	subdivision layout that will enable buildings to utilise energy efficiency and conservation measures. Amend Rule 15A.8.1.2 Subdivision (a) Matters of Discretion (iii) The design and layout of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision), energy efficiency and conservation, and access to solar energy.		
04/30	04/30.11	Horizons Regional Council	-	Oppose	The submitter states that there are two areas of threatened habitats in Taraika. One of these is designated as Waiopehu Reserve on Structure Plan 013. However, the	Appropriately identify the indigenous vegetation area in the north-west on Structure Plan 013.	Accept in part	Natural Environment and Sustainability Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					other is near to the Open Space area within the Arapaepae Road Special Effects Overlay but does not appear to be identified or protected. Land disturbance and vegetation clearance of these areas is a Non-Complying Activity in the One Plan.			
04/30	04/30.12	Horizons Regional Council		Support in part	The submitter states that there are several waterways flowing through Tara-Ika which have Domestic Food Production Value under the One Plan. Many activities associated with subdivision (e.g. land disturbance, vegetation clearance etc.) will trigger resource consent under the One Plan where these activities occur in or adjacent	Include general wording near the beginning of Chapter 15A advising plan users of One Plan requirements.	Accept	Natural Environment and Sustainability Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					to such streams and in or adjacent to threatened habitats.			
04/31	04/31.01	Incite (on behalf of a range of Redwood Grove properties)		Oppose	The submitter states that the proposed 'standard residential' zoning for Redwood Grove does not align with Objective 6A.4 of the Plan Change and that this zoning should be changed to low density, in line with earlier versions of the Master Plan, to better give effect to this objective.	Change rezoning of Redwood Grove properties and properties adjoining Redwood Grove to low density residential.	Reject	Well Functioning Urban Environment
04/31	04/31.02	Incite (on behalf of a range of Redwood Grove properties)		Oppose	The submitter opposes the local roads which connect Redwood Grove into the rest of Tara-Ika. This is on the basis that the Redwood Grove properties are subject to a private covenant which prevents this from happening. The submitter also opposes the current	Remove the local roads connecting Redwood Grove and Tara-Ika and shift the arterial and collector roads east and west of Redwood Grove, so they are at least 100m away.	Reject	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					position of the arterial and collector roads east and west of Redwood Grove, submitting that they will have an adverse impact on the amenity of the existing properties.			
04/31	04/31.03	Incite (on behalf of a range of Redwood Grove properties)		Oppose	The submitter is concerned that the proposed infrastructure (including roading, three waters infrastructure, power, telecommunications, and gas) needed to service Tara-Ika will have a negative impact on the current amenity they enjoy.	Unclear.	Reject	Infrastructure
04/31	04/31.04	Incite (on behalf of a range of Redwood Grove properties)	-	Oppose	The submitter is concerned that the proposed rezoning will have a financial impact on Redwood Grove properties, through an increase in rates, given Council	None.	Reject	Non-RMA Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					does not charge financial or development contributions.			
04/31	04/31.05	Incite (on behalf of a range of Redwood Grove properties)	-	Neutral	The submitter requests that the Plan Change hearing be heard solely by qualified and experienced independent commissioners.	None.	Reject	Non-RMA Matters
04/31	04/31.06	Incite (on behalf of a range of Redwood Grove properties)	-	Oppose	Recognise and protect character of Redwood Grove.	The submitter requests that in addition to Redwood Grove and adjoining properties being zoned Low Density Residential instead of Standard Residential as proposed, they also be subject to a 'buffer' changing the minimum site size for these properties to 2,000m2.	Reject	Well Functioning Urban Environment
04/31	04/31.07	Incite (on behalf of a range of Redwood Grove properties)	-	Oppose	The submitter seeks a screening provision along the boundaries of some Redwood Grove properties (refer to attached map) to protect the amenity of Redwood	Introduce a screening provision as a matter of discretion for subdivision as follows: 15A.8.1.2 Subdivision (a) Matters of Discretion (xxi) Any subdivision within the Redwood	Reject	Urban Form, Character, and Amenity

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					Grove residents and provide privacy for adjoining neighbours. This ranges from 2.1m fence on some properties, a 6m wide and 3-5m native plant screen, to no screening requirement.	Grove Buffer is to provide screening on the common boundary with any property on Redwood Grove as per the direction detailed on Planning Map 30 (refer to amended map provided by submitter). In order to satisfy this matter of discretion, the application for subdivision must include details of any landscaping or fencing as per the direction detailed on Planning Map 30 and must specify mechanisms for ongoing maintenance and legal protection of any necessary screening.		
04/32	04/32.01	Leith Consulting	15A.6.1.1	Oppose	The submitter considers that further assessment into the feasibility of requiring properties fronting Strategic Cycleways to be accessed via rear access lane only. The submitter states	Further consideration of the feasibility of the existing provision and exploration of alternatives.	Reject	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					that this could deter development and/or result in a number a resource consents being sought to depart from this standard which could collectively adversely impact on the integrity of the Structure Plan. The submitter also notes there could be other means of achieving a safe cycling environment.			
04/32	04/32.02	Leith Consulting	15A.6.2.1	Support in part	The submitter supports the requirement for rainwater tanks, however seeks further flexibility on the size, shape, and nature of the tanks to assist with the tanks integrating with the built environment. For example, the specified tank size should be a minimum size rather than	Review rainwater tank provision in line with the submitter's suggestions.	Accept in part	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					prescribed, with consideration given to other factors such as larger tanks connected to toilet flushing and outdoor taps, clarification of bulk and location requirements, explicit standards prohibiting non-potable water uses connecting to the town water supply, and further safe guards to protect against cross contamination.			
04/32	04/32.03	Leith Consulting	15A.6.2.4	Support in part	The submitter seeks clarification on how the building setback from front boundary standard applies to a structure housing a vehicle, seeking that in cases where a vehicle takes direct entry to a structure from the road, a 5m setback should apply with the 2m setback	Impose a standard requiring structures housing vehicles to be setback 5m from the road boundary.	Accept in part	Urban Form, Character, and Amenity

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					applying to living areas.			
04/32	04/32.04	Leith Consulting	15A.8.1.2(a) & 15A.8.1.2(b)	Support in part	The submitter suggests that the conditions and matters of discretion for subdivision be given further consideration in regard to how they enable and facilitate medium density development. In particular, the submitter suggests that medium density should be design-led rather than allotment size led. The submitter suggests reducing the number of conditions and matters of discretion and replacing these with a robust design guide focusing on positive urban design outcomes.	Review medium density provisions, with a view of introducing a design- led rather than condition-led approach.	Reject	Well Functioning Urban Environment
04/33	04/33.01	Truebridge Associates	Issue 6A.1	Support in part	The submitter notes a typo in the second	Correct typo.	Accept	Minor drafting edits

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					line of the first paragraph.			
04/33	04/33.02	Truebridge Associates	Issue Discussion Paragraph 3	Support in part	The submitter notes the word "a" is missing from the third line of paragraph three.	Correct typo.	Reject	Minor drafting edits
04/33	04/33.03	Truebridge Associates	Explanation and Principal Reasons	Support in part	The submitter states that it is important that not only Māori Culture is recognised and that a collaborative approach is taken to recognise current owners as well, achieving a balance of all cultures in the naming of streets and reserves.	Expand the explanation and principal reason to include reference to a range of cultures.	Accept in part	Culture and Heritage
04/33	04/33.04	Truebridge Associates	Methods for Issues and Objectives	Oppose	The submitter states that statement at the top of page 10 is incorrect as they believe it is inconsistent with the activity status of subdivision.	Linked to submission point 04/33.08.	Reject	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/33	04/33.05	Truebridge Associates	Methods for Issues and Objectives	Oppose	The submitter states that bullet point 4 on page 10 of Chapter 6A needs to be clear that infrastructure as required for the particular proposal as its share of the overall requirements for the greater area.	Clarify intent of bullet point 4 on page 10 of Chapter 6A.	Reject	Infrastructure
04/33	04/33.06	Truebridge Associates	Methods for Issues and Objectives	Oppose	The submitter states that the heading 'other' on page 10, needs to include reference to developers.	The submitter states that the heading 'other' on page 10, needs to include reference to developers.	Reject	Non-RMA Matters
04/33	04/33.07	Truebridge Associates	15A.1	Oppose	The submitter states that paragraph 3 of page 1 needs to be amended to refer to 'existing areas' rather than 'existing zones'.	Amend paragraph 3 of page 1 of chapter 15A To refer to 'existing areas' rather than 'existing zones'.	Reject	Minor drafting edits
04/33	04/33.08	Truebridge Associates	15A.3.1(a)	Oppose	The submitter seeks that subdivision of land in all zones be a controlled activity, rather than restricted discretionary to give certainty to developers.	Make subdivision a controlled activity, subject to conditions.	Reject	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/33	04/33.09	Truebridge Associates	15A.3.3	Oppose	The submitter opposes restricted discretionary activity status for commercial buildings on the basis that there are standards to follow.	Change activity status to permitted.	Reject	Well Functioning Urban Environment
04/33	04/33.10	Truebridge Associates	15A.4	Oppose	The submitter states there are no activities listed under the Discretionary Activity heading.	Add Discretionary Activities.	Reject	Minor drafting edits
04/33	04/33.11	Truebridge Associates	15A.4.2	Oppose	Consequential change to 15A.4.2 - the submitter states that subdivisions that do not comply with the "controlled" activity conditions (rather than restricted discretionary activity conditions) should be a discretionary activity.	Consequential change to 04/33.08.	Reject	Whole Plan Change and General Matters
04/33	04/33.12	Truebridge Associates	15A.4.3(b)	Oppose	The submitter notes the word "not" is missing from the second line.	Add "do not comply" to 15A.4.3(b).	Accept	Minor drafting edits

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/33	04/33.13	Truebridge Associates	15A.5 & 15A.5.1.1	Oppose	The submitter opposes the non- complying activity status for vehicle crossings in Strategic Cycleways. The submitter states that there are a number of cycle and walkways with site access over them elsewhere in the District and that this activity status will slow or stop development in affected areas.	Provide for crossings in strategic cycleways as a controlled activity when accompanied by a traffic assessment.	Reject	Transport
04/33	04/33.14	Truebridge Associates	15A.6.2.1	Unclear	The submitter states that the detailed requirements for rainwater tanks should be in the Engineering Standards, not within the Tara-Ika chapter.	Relocate rainwater tank provisions to engineering standards chapter of the Plan.	Reject	Infrastructure
04/33	04/33.15	Truebridge Associates	15A.6.2.3	Oppose	The submitter states that the rule requiring integral garages to be either recessed back from the main pedestrian	Review design guide before including such as provision.	Reject	Urban Form, Character, and Amenity

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					entrance by 1m or account for no more than 50% of the front façade of the dwelling is a design guide issue.			
04/33	04/33.16	Truebridge Associates	15A.6.2.6	Oppose	The submitter states that fence paling height of 1.2m in uneconomic and wasteful.	None specified.	Reject	Urban Form, Character, and Amenity
04/33	04/33.17	Truebridge Associates	15A.6.3.1(b)	Oppose	The submitter specifies there is a typo in the standard.	Correct typo.	Accept	Minor drafting edits
04/33	04/33.18	Truebridge Associates	15A.6.3.1(b)	Oppose	The submitter states that the provision relating to 'inside display window' signs is very hard to interpret and should not be required.	Remove 'inside display window' rule.	Accept	Urban Form, Character, and Amenity
04/33	04/33.19	Truebridge Associates	15A.8.1.1(b)(i)	Oppose	The submitters notes a typo in the word "designed".	Correct typo.	Accept	Minor drafting edits
04/33	04/33.20	Truebridge Associates	15A.8.1.2(a)	Oppose	Linked to the submitters request that subdivision should be a controlled activity,	Shift 15A.8.1.2(a) Matters of Discretion - (i), (vi), (x), (xii), (xiii), (xv), (xix), (xx) to matters of control and remove	Accept in part	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					the submitter requests that several 'matters of discretion' for subdivision be shifted to 'matters of control' and that a number of other 'matters of discretion' be removed entirely.	all remaining matters of discretion.		
04/33	04/33.21	Truebridge Associates	15A.8.1.2(b)	Oppose	The submitter opposes the requirement for a building siting plan to be submitted for medium density subdivision on the basis the requirement is unclear and too restrictive.	Amend requirement to just require a potential building option.	Reject	Well Functioning Urban Environment
04/33	04/33.22	Truebridge Associates	-	Oppose	The submitter states the provision relating to infrastructure requirements for subdivision (e.g. 15A.8.1.2(b)(ii) should be amended for all zones to reflect the costs of providing infrastructure beyond	Amend 15A.8.1.2(b)(ii) and corresponding provisions for other zones to provide for offsetting of infrastructure costs.	Accept in part	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					what is required for the individual development (e.g. for future proofing) should be offset.			
04/33	04/33.23	Truebridge Associates	-	Oppose	Linked to the submitters request that subdivision should be a controlled activity, the submitter requests that several 'matters of discretion' for subdivision be shifted to 'matters of control' and that a number of other 'matters of discretion' be removed entirely.	Shift 15A.8.2.4(a) Matters of Discretion - (v), (vi), (vii), (ix), (x), (xiii), (xiv) to matters of control and remove (iii), (iv),(xi), (xii) entirely.	Accept in part	Whole Plan Change and General Matters
04/33	04/33.24	Truebridge Associates	15A.8.3.1	Oppose	Oppose matter of discretion (iii).	Remove matter of discretion 15A.8.3.1(a)(iii).	Reject	Whole Plan Change and General Matters
04/34	04/34.01	WKNZTA	-	Support in part	WKNZTA is generally supportive of the intent to provide additional housing, but has some concerns about the	None.	Accept in part	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					level of information provided and the provisions currently proposed to protect existing SH57 and proposed O2NL.			
04/34	04/34.02	WKNZTA		Neutral	WKNZTA note that O2NL passes through Tara-Ika but that the design is not sufficiently advanced to determine the final form and required mitigation. WKNZTA seek development within 100m either side of the indicative corridor be either 'downzoned' to Low Density Residential (as opposed to the proposed standard density) or be staged to occur after O2NL. WKNZTA also seek ongoing collaboration with Council on this matter.	Change the zoning of the land on either side of the indicative O2NL corridor to low density residential, or stage the zoning so that development in this area happens after O2NL decisions are made.	Accept in part	O2NL Impact, Interface, and Timing
04/34	04/34.03	WKNZTA	-	Support in part	WKZNTA note that Tara-Ika will increase traffic onto existing	Further information about potential roading	Reject	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					SH57, the associated east/west intersections, and the wider roading network which need further assessment and potentially upgrading.	impacts to enable upgrade planning.		
04/34	04/34.04	WKNZTA	-	Support in part	WKZNTA seeks provision for open space and the north- south, east-west corridors be strengthened.	Unclear.	Accept in part/reject	Well Functioning Urban Environment
04/34	04/34.05	WKNZTA	-	Support in part	WKNZTA seek a number of transport related 'amenity' improvements, including traffic calming to reduce traffic speed, reduced speed limits, cycle lanes, place making, prioritisation of pedestrians at traffic lights and improving co-ordination between water, transport, and landscape systems.	Range of transport related amenity improvements.	Reject	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/34	04/34.06	WKNZTA		Support in part	WKNZTA support the inclusion of indoor noise design standards in line with their guidance material, for properties near to the existing state highway. However, WKNZTA seek additional provisions to control noise effects, including reduced density or no build zones where current SH57 and 100m either side of the 300m wide indicative O2NL corridor.	Either change the zoning of land between Arapaepae Road and the O2NL corridor be zoned low density residential, while the land covered by the 300m indicative O2NL corridor and the land 100m either side be either zoned low density residential or have no development rights. WKNZTA propose they could reconsider the 'no development' area through the O2NL Notice of Requirement Process.	Accept in part	O2NL Impact, Interface, and Timing
04/34	04/34.07	WKNZTA		Oppose	WKNZTA note that the development will accommodate a significant number of people, increasing the amount of traffic needing to cross SH57 but this has not been subject to an Integrated Traffic Assessment.	Prepare an integrated traffic assessment to inform future assessment of large scale subdivision and development that results from the plan change and respond accordingly (for example, consider introducing	Reject	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
						development thresholds).		
04/34	04/34.08	WKNZTA	-	Oppose	WKNZTA seek that the development area be staged to align with the WKNZTA Safe Networks Programme and the O2NL programme, with the ability to decline subdivisions where the state highway does not have the capacity for additional vehicle movements.	Stage the development around the WKNZTA Safe Networks Programme and introduce the ability to decline subdivisions when there is insufficient capacity in the state highway network.	Reject	Transport
04/34	04/34.09	WKNZTA	-	Neutral	WKNZTA notes that SH57 is likely to be revocated once O2NL is open but that this work is yet to begin. The submitter requests consideration of how development between SH57 and O2NL occurs to ensure connectivity and integration, given	That conversations about revocation occur to ensure integrated roading design	Accept in part	O2NL Impact, Interface, and Timing

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					the revocation project is yet to start.			
04/34	04/34.10	WKNZTA	_	Support in part	WKNZTA support the requirement for onsite stormwater detention and emphasise the importance of good stormwater design to avoid runoff entering the state highway network.	Continue discussions for an integrated stormwater management solution.	Accept in part	Infrastructure
04/34	04/34.11	WKNZTA	-	Oppose	WKNZTA are concerned about the impact that signage on or near the State Highway could have on traffic safety.	Include standards requiring WKNZTA signage standards to be complied with and specify that digital sign boards visible from the state highway should be a non-complying activity.	Acecpt in part	Transport
04/34	04/34.12	WKNZTA	-	Oppose	WKNZTA seek that commercial activities adjoining or taking access from a State Highway should be a non-complying activity.	Commercial activities adjoining or taking access from a State Highway should be a non-complying activity.	Reject	Transport

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/35	04/35.01	MTA	-	Neutral	The submission sets out Muaūpoko rohe and historic association with the land and establishes a clear link between Muaūpoko wellbeing and the whenua (land), maunga (mountain), lakes and waterways in the area.	Refer to other submission points.	Accept in part	Culture and Heritage
04/35	04/35.02	MTA		Neutral	The submission details that there are a number of sites of historic and cultural significance to Muaūpoko, including Waiopehu Reserve and Maunu Wāhine. Waiopehu Reserve contains native bush and is the habitat of the endangered native carnivorous snail, Powelliphanta traversi. Muaūpoko has kaitiaki obligations over these and other species.	Appropriate protection of cultural sites, native species, and habitats.	Accept in part	Culture and Heritage

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/35	04/35.03	MTA	-	Neutral	The submission details Crown breaches of the Treaty of Waitangi and the impact that this had on Muaūpoko people.	Refer to other submission points.	Reject	Culture and Heritage
04/35	04/35.04	MTA	-	Neutral	The submission notes that Muaūpoko have an obligation to care for, protect, and enhance the natural environment. The submissions notes concerns about the potential impact of water takes and stormwater and waste water discharges on waterways.	Ensure protection of native species and habitats and good environmental outcomes for waterways.	Accept in part	Infrastructure
04/35	04/35.05	MTA	-	Neutral	The submission notes that the Tara-Ika growth area is located within an area that Muaūpoko have been in for over 1000 years and therefore is likely to contain artefacts, sites of	Earthworks and other construction must be subject to robust cultural monitoring protocols and accidental discovery processes agreed with Muaūpoko.	Accept in part	Culture and Heritage

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					archaeological significance or possibly Tangata koiwi that could be uncovered during construction.			
04/35	04/35.06	MTA	-	Neutral	The submission notes the opportunity to create a positive legacy, including new jobs, planting, housing (including affordable housing), and cultural expression.	Prioritisation of Muaūpoko members in new jobs, use of planting to enhance and restore waterways, specific provisions in the Plan Change to require provision of housing for people on low-moderate incomes, and take specific steps to connect cultural and spiritual history.	Accept in prat	Non-RMA Matters
04/35	04/35.07	MTA	-	Neutral	The submission notes the Tara-Ika project is occurring alongside the Ōtaki to North Levin highway project, which is the most significant developments to occur in the region since the railway arrived in the 1870s. The gifting of the	Recognises Muaūpoko to the design and naming of public parks and streets, implement Plan provisions to protect the connections/viewshafts between the Tararua Ranges, Taitoko/Levin, Punahau (Lake	Accept in part	Culture and Heritage

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					name 'Tara' recognises this significant impact and needs to be cherished and respected. This includes Muaūpoko stories, ancestors, and association with the whenua of Tara- Ika being intentionally and consciously recognised through development stages and processes such as design, and the naming of public parks and streets. The spiritual pathway from wāhi tapu in the Tararua Range to Taitoko need to be protected from the built environment to avoid interrupting the connections and view path from the maunga to Punahau and onwards to the moana.	Horowhenua) and the sea.		
Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
----------------------	---------------------	-------------------	-----------	--------------------	--	---	-------------------------------------	--
04/35	04/35.08	ΜΤΑ	_	Neutral	The name 'Taraika' should be spelt 'Tara- Ika' in the plan change documents.	Change spelling to 'Tara- Ika'.	Accept	Minor drafting edits
04/36	04/36.01		-	Support	The submitter notes general support for the proposed plan change and the emphasis on enhancing connections within and across the area, the mix of housing density, inclusion of walking and cycling tracks, and ensuring quality development.	None.	Accept in part	Whole Plan Change and General Matters
04/36	04/36.02		_	Support	The submitter seeks a cycle/walking connection from Pohutukawa Drive into the development area be reintroduced, or alternatively direct pedestrian access from the submitter's property onto the proposed arterial road along the rear (southern) boundary	A cycle/walking connection from Pohutukawa Drive into the development area shown on Structure Plan 013 or provision for direct pedestrian access from the submitter's property to the new arterial road specified.	Reject	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					of the submitters property.			
04/36	04/36.03			Support in part	The submission notes a future arterial road along the southern boundary of the submitter's property. Currently this boundary is planted with large pine trees and a farm style fence. This submitter notes that this is unlikely to be consistent with the urban streetscape envisioned for the area and seeks specific consideration be given to introducing new fencing and planting types to this area that better reflect the intended outcome.	Council to remove the existing pine trees and erect a suitable fence, and install appropriate planting.	Accept in part	Urban Form, Character, and Amenity
04/37	04/37.01		-	Oppose	The submitter opposes having higher density housing types in a low density area,	Build low density housing by the O2NL corridor.	Reject	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					citing concerns about an increase in crime.			
04/38	04/38.01	Prouse Trust Partnership	Objective 6A.1, Policy 6A.1.2	Support	The submitter supports objectives and policies that seek to enhance cultural, heritage and ecological values. Specifically, the submitter supports the use of the name Tara-Ika.	None.	Accept in part	Culture and Heritage
04/38	04/38.02	Prouse Trust Partnership	-	Support in part	The submitter seeks further protection of heritage values associated with the Prouse Homestead and surrounds by avoiding/minimising impacts from stormwater management (e.g. wetlands) and roading connections.	Refer to other submission points.	Accept in part	Culture and Heritage
04/38	04/38.03	Prouse Trust Partnership	Structure Plan 013	Oppose	The submitter seeks for the road connecting their property to Redwood Grove be removed given Redwood	Remove Redwood Grove connection and 'downgrade' collector road running north- south through	Reject	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					Grove is already established and that the collector road located on the submitter's property be changed to a local road to reduce impact on the heritage setting of the Prouse Homestead.	submitter's property to a local road.		
04/38	04/38.04	Prouse Trust Partnership	_	Oppose	The submitter seeks flexibility in where local roads are provided to allow for better lot yield and development viability.	Allow flexibility in location of local roads.	Reject	Transport
04/38	04/38.05	Prouse Trust Partnership	Structure Plan 013 and Planning Map 30	Oppose	The submitter seeks a standard residential zoning on their property (instead of low density residential) to enable better flexibility and more efficient use of land and consistency with remainder of growth area.	Change zoning to standard residential.	Accept in part	Well Functioning Urban Environment

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/38	04/38.06	Prouse Trust Partnership	Policy 6A.2.3 and Provisions 15A.8.1.2(a)(xiii) and 15A.8.1.2(b)(ii)	Oppose	The submitter opposes the requirement that developers must construct and vest all infrastructure shown on their property as this may require them to construct infrastructure over and above what is required for their development or result in land being acquired without compensation.	Address growth funding to ensure costs are distributed fairly.	Reject	Infrastructure
04/38	04/38.07	Prouse Trust Partnership	Objectives 6A.3 & 6A.6, Policy 6A.3.1	Oppose	The submitter opposes the three waters plan (appendix 6 to s32 report) on the basis that it discusses a wetland on the submitter's property as a means of dealing with stormwater from both the development area and O2NL but does not provide clarity on how intended	Remove wetland from submitter's property.	Accept in part	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					outcomes will be managed across parties.			
04/38	04/38.08	Prouse Trust Partnership	-	Oppose	The submitters raises concerns that O2NL and Tara-Ika are progressing at different speeds, resulting in issues such as showing O2NL accurately on the Structure Plan and progressing joint stormwater management options.	None specified.	Accept in part	O2NL Impact, Interface, and Timing
04/38	04/38.09	Prouse Trust Partnership	-	Oppose	The submitter opposes limits on rear sections and the infrastructure requirements specified in the matters of discretion as referenced in submission point 04/38.06.	Do not restrict rear sections, address infrastructure concerns.	Accept in part	Whole Plan Change and General Matters
04/38	04/38.10	Prouse Trust Partnership	15A.1.1.1	Oppose	The submitters seeks provision for existing activities (e.g. farming) to be made	Add 'existing activities' under 15A.1.1.1 Permitted Activities.	Reject	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					under 'Permitted Activities'.			
04/38	04/38.11	Prouse Trust Partnership	-	Neutral	The submitter is concerned that rezoning the land to residential could make rates unaffordable during the time between rezoning and development occurring.	Provide rates relief.	Reject	Non-RMA Matters
04/39	04/39.01		-	Oppose	The submitter raises concerns over infrastructure planning and resulting environmental outcomes, including the impact of stormwater on Lake Horowhenua, potential for sewerage overflow, and water restrictions.	Unclear.	Reject	Infrastructure
04/39	04/39.02		-	Oppose	The submitter states that consultation with iwi has been insufficient on the	Engage with the people of Ngai Tara/Muaūpoko tribe.	Reject	Whole Plan Change and General Matters

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					basis that it has been with the Muaūpoko Tribal Authority only. The submitter states that consulting with iwi authorities only is not in accordance with Treaty of Waitangi requirements. The submitter also states that the timeframe for consultation on draft master plan (Aug-Sep 2020) was insufficient as it did not allow for public speaking rights at a Council meeting.			
04/39	04/39.03		-	Oppose	The submitter opposes the use of the name "Taraika". The submitter does not believe that MTA have the right to gift this name and states that the spelling originally put forward is incorrect.	Engage with the people of Ngai Tara/Muaūpoko tribe.	Reject	Culture and Heritage

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
04/39	04/39.04		-	Oppose	The submitter states that the plan change has insufficient information about matters such as land ownership, Gladstone Green development business owners/shareholders, and Council conflicts of interest.	Unclear.	Reject	Non-RMA Matters
04/40	04/40.01			Oppose	The submitter opposes additional contaminants entering the Lake, the Pot, or the Sea. The submitter seeks further information about infrastructure works referred to in the Finance, Audit, and Risk agenda paper dated 27th January 2021 and seeks soil testing at Pakipaki Dunes, Hokio, and the Pot.	Sufficient water and waste planning ahead of housing construction.	Reject	Infrastructure
04/40	04/40.02		-	Oppose	The submitter seeks sufficient water and waste planning, including a new	Sufficient water and waste planning ahead of housing construction.	Reject	Infrastructure

Submission Number	Submission Point	Submitter Name	Provision	Support/ Oppose	Summary of Submission	Decision Sought	Reporting Officer Recommendation	Topic in s42A where point is evaluated
					regional landfill, before new houses are built.			
04/40	04/40.03		-	Oppose	The submitter opposes unsafe roundabouts that can't be used by trucks.	Unclear.	Reject	Transport
04/40	04/40.04		-	Oppose	The submitter opposes ratepayers funding growth.	Seeks for development contributions to cover cost of growth.	Reject	Non-RMA Matters
04/40	04/40.05		-	Oppose	The submitter opposes the use of the name "Taraika", stating it does not actually recognise Māori heritage. The submitter states that consultation on this was insufficient, as only MTA were consulted.	Unclear.	Reject	Culture and Heritage

Table of Further Submission Points – Reference to s42a Report

This table provides a complete record of recommendations in relation to all submission points. Additionally, it directs submitters' to the topic heading of the s42a report where their submission point has been evaluated. In some instances, a submission point is relevant to more than one s42a topic. In this case, the table references the point in the s42a report where the most substantive assessment is provided.

Further Submission Number	Further Submission Point	On what submission	Name	Support/ Oppose Submission	Reason	Relief Sought	Recommendation	Topic in s42a report
FS04/01	FS04/01	04/06		Support	Support's submitter comment opposing location of roads with access onto Gladstone Road due to traffic impacts	Remove access onto Gladstone Road and encourage recreational activity by discourage vehicle access	Reject	Well Functioning Urban Environments
FS04/02	FS04/02	04/29		Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/03	FS04/03	04/29		Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/04	FS04/04	04/29		Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/05	FS04/05	04/29		Support	Impact of extending Liverpool Street through Fuller Close would have a	Remove Liverpool Street extension	Reject	Transport

				major impact on Rangeview Villas			
FS04/06	FS04/06	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/07	FS04/07	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/08	FS04/08	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/09	FS04/09	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/10	FS04/10	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas, cause pollution, noise, access to the village would become more difficult and properties would be devalued	Remove Liverpool Street extension	Reject	Transport

FS04/11	FS04/11	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/12	FS04/12	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/13	FS04/13	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas, impact on the quiet, safe environment, and devalue homes. Noise, traffic, safety effects. There are other roads available.	Remove Liverpool Street extension	Reject	Transport
FS04/14	FS04/14	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/15	FS04/15	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport

FS04/16	FS04/16	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/17	FS04/17	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/18	FS04/18	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/19	FS04/19	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/20	FS04/20	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/21	FS04/21	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport

FS04/22	FS04/22.01	04/20	Truebridge Associates Limited (jointly on behalf of	Support	Remove low density area to maximise the residential land available, as it is difficult to revist low density areas with infill in the future. With the loss of land that will occur with the expressway, it is important to maximise the area available for residential development	Remove low density areas wihin Tara-Ika	Accept in part	Well Functioning Urban Environments
FS04/22	FS04/22.02	04/06	Truebridge Associates Limited (jointly on behalf of	Partially Support	Risk of poor outcomes due to risk of poorly maintained rear access	Allow access from either front or rear of site with there is careful consideration of effects, including supporting traffic assessment.	Reject	Transport
FS04/22	FS04/22.03	04/24	Truebridge Associates Limited (jointly on behalf of	Support	-	All bullet points 1- 11 in original submission be implemented	Accept in part	Further Submissions not already assessed
FS04/22	FS04/22.04	04/25	Truebridge Associates Limited (jointly on behalf of	Partially Support	Agree that medium density areas should be extended and low density areas changed to standard density to allow more efficient land use	Remove low density and increase medium density areas as shown	Accept in part	Well Functioning Urban Environments

FS04/22	FS04/22.05	04/25	Truebridge Associates Limited (jointly on behalf of	Partially Support	Partially supports submission in relation to zoning type, but states complying subdivision should be permitted or controlled	Change activity status of complying subdivision to permitted or controlled	Reject	Whole Plan Change and General Matters
FS04/22	FS04/22.06	04/27	Truebridge Associates Limited (jointly on behalf of	Support	Complying subdivision should be permitted or controlled	Change activity status of complying subdivision to permitted or controlled	Reject	Whole Plan Change and General Matters
FS04/22	FS04/22.07	04/27	Truebridge Associates Limited (jointly on behalf of	Support	Remove low density area to maximise the residential land available	Remove low density areas within Tara-Ika	Accept in part	Well Functioning Urban Environments
FS04/22	FS04/22.08	04/28	Truebridge Associates Limited (jointly on behalf of	Support	Current overhead lines would ideally be placed underground over time as development progresses. This should be done in collaborative way between Council, Electra, and landowners in keeping with current District Plan rules. Electra have stated they are willing to work with	All parties work together with the long term goal of undergrounding the transmission lines and that a rule in the District Plan be formulated to address this matter.	Accept in part	Infrastructure

					Council to ensure a safe and beneficial outcome.			
FS04/22	FS04/22.09	04/31	Truebridge Associates Limited (jointly on behalf of	Oppose	Changing the proposed zoning of Redwood Grove from standard density to low density on the basis of a private covenant would not be appropriate. The interested parties could cancel the covenant, allowing them to utilise the residential zoning. They should be bound by the activity status of the new zoning to be consistent with the area they are in. The location of an arterial road running of Queen Street to the east of Redwood Grove into the new hub of the area allows development two houses deep, which is ample space to buffer Redwood Grove. Utilities will be placed underground and will not be visible and the new sanitary sewer may improve the Redwood Grove's sewer service	Do not impose a low density residential overlay	Accept	Well Functioning Urban Environments
FS04/22	FS04/22.10	04/32	Associates Limited (jointly on	Partially Support	Further consideration given to vehicle access across strategic cycleways	Consider all points raised in original submissions	Keject	Transport

			behalf of					
FS04/22	FS04/22.11	04/32	Truebridge Associates Limited (jointly on behalf of	Support	Agree with comments about rainwater tanks	Consider all points raised in original submissions	Accept in part	Infrastructure
FS04/22	FS04/22.12	04/32	Truebridge Associates Limited (jointly on behalf of	Support	Agree with comments about setbacks	Consider all points raised in original submissions	Accept in part	Urban Form, Character, and Amenity
FS04/22	FS04/22.13	04/34	Truebridge Associates Limited (jointly on behalf of	Oppose	O2NL has not commenced at this stage, but it is clear the O2NL corridor would be zoned residential. NZTA cannot suggest or have accepted zoning that are placed for the purpose of mitigating the impact of the expressway. This will reduce the value/opportunity of the land affected. Council have spent nearly three years working up three scenarios for the location of the roading corridor, tow of which have clearly	-	Accept in part	O2NL Impact, Interface, and Timing

					indicated what the zoning of the land would have been if the current location had not bene adopted. The upgrades to Queen Street East/SH57 is a safety upgrade related to the existing situation and is an NZTA asset. Costs or requirement cannot be placed on the rezoning of Tara-Ika. NZTA are covered by statute and it is not necessary for Council to accommodate to zone to allow for their objectives. NZTA state they could not gain a trade competition. It should be noted that if NZTA create the perception it is uncertain where the road will be, it could have an effect on land values and lower compensation they may have to pay in land acquisition.			
FS04/22	FS04/22.14	04/34	Truebridge Associates Limited (jointly on behalf of	Partially Oppose	We have carried out testing within Tara-Ika development area that indicates subsurface soakage is of such a rate that onsite treatment and	Develop a joint wetland area for emergency events only	Accept in part	Infrastructure

					disposal is possible within each development.			
FS04/22	FS04/22.15	04/38	Truebridge Associates Limited (jointly on behalf of	Support	We have carried out testing within Tara-Ika development area that indicates subsurface soakage is of such a rate that onsite treatment and disposal is possible within each development.	Take on board all of Prouse's requests	Accept in part	Infrastructure
FS04/22	FS04/22.16	04/07	Truebridge Associates Limited (jointly on behalf of	Partially Support	There should be no additional stormwater entering downstream catchments in any rain event. Stormwater should be runoff neutral, or positive, in terms of quantity and quality.	Stormwater be dealt with via onsite soakage. Council negotiate land purchase for emergency retention areas once the expressway is built and develop this in a way that enhances and screens the expressway and increases biodiversity and amenity	Accept in part	Infrastructure
FS04/22	FS04/22.17	04/09	Truebridge Associates Limited (jointly on behalf of	Partially Support	Remove low density area to maximise the residential land available, as it is difficult to revisit low density areas with infill in the future. With the loss of land that will occur with	Remove low density areas within Tara-Ika	Accept in part	Well Functioning Urban Environments

					the expressway, it is important to maximise the area available for residential development			
FS04/22	FS04/22.18	04/10	Truebridge Associates Limited (jointly on behalf of	Support	Remove low density land and greenbelt residential to maximise the residential land available, as it is difficult to revisit low density areas with infill in the future. With the loss of land that will occur with the expressway, it is important to maximise the area available for residential development	Remove low density and greenbelt residential land from Tara-Ika	Accept in part	Well Functioning Urban Environments
FS04/22	FS04/22.19	04/11	Truebridge Associates Limited (jointly on behalf of	Partially Support	Remove low density land and greenbelt residential to maximise the residential land available, as it is difficult to revisit low density areas with infill in the future. With the loss of land that will occur with the expressway, it is important to maximise the area available for residential development	Remove low density and greenbelt residential land from Tara-Ika	Accept in part	Well Functioning Urban Environments
FS04/22	FS04/22.20	04/13	Truebridge Associates Limited (jointly on behalf of	Partially Support	House water storage tanks to be mandatory as a second source of water to conserve and maximise available water resource	To require all new dwellings in Tara- lka to have a 10,000L water storage tank	Accept in part	Infrastructure

FS04/22	FS04/22.21	04/14	Truebridge Associates Limited (jointly on behalf of	Support	Remove low density land and greenbelt residential to maximise the residential land available, as it is difficult to revisit low density areas with infill in the future. With the loss of land that will occur with the expressway, it is important to maximise the area available for residential development	Remove low density and greenbelt residential land from Tara-Ika	Accept in part	Well Functioning Urban Environments
FS04/22	FS04/22.22	04/15	Truebridge Associates Limited (jointly on behalf of	Partially Support	Stormwater should be dealt with onsite via onsite soakage and retention. Subsurface soakage indicates this can be achieved. GHD has carried out surface soakage testing which provides a low soakage rate. Sub surface soakage should be utilised with appropriate treatment.	Stormwater be dealt with via onsite soakage. Council negotiate land purchase for emergency retention areas once the expressway is built and develop this in a way that enhances and screens the expressway and increases biodiversity and amenity	Accept in part	Infrastructure
FS04/22	FS04/22.23	04/18	Truebridge Associates Limited	Partially Support	Area between SH57 and the proposed bypass should have mixed zoning	Change zoning of this area to allow	Accept in part	Well Functioning

			(jointly on behalf of		to allow for commercial and services activities. The area is unlikely to have quality residential development on it due to proximity of road corridors	for commercial and service activities		Urban Environments
FS04/22	FS04/22.24	04/18	Truebridge Associates Limited (jointly on behalf of	Partially Support	The low density overlay for the south west corner of the development area should be removed to allow better utilisation of the residential zone	Remove low density zoning in the south west corner of the development area	Accept	Well Functioning Urban Environments
FS04/22	FS04/22.25	04/18	Truebridge Associates Limited (jointly on behalf of	Partially Oppose	Disagree with the original submitters comments regarding the proximity of the arterial road off Queen Street to the east of Redwood Grove. The space between the proposed road and the eastern side of Redwood Grove to place sections two deep which will provide the buffering needed for the effects of the arterial road.	Do not change the location of the arterial road servicing the development that is located to the east of Redwood Grove	Accept	Transport
FS04/22	FS04/22.26	04/18	Truebridge Associates Limited (jointly on behalf of	Partially Oppose	Disagree with the original submitter's comments about the location of green spaces and educational spaces as they have been centralised inline with good planning practice and urban design. However, if	That the interested parties resolve the matter between themselves and the plan change is altered to reflect the outcome.	Reject	Well Functioning Urban Environments

					the owner of the land within which these areas lay is happy to relocate them along with other interested parties I am not overly concerned.			
FS04/23	FS04/23.01	04/25.01	Horizons Regional Council	Partially Support	Support principle of increased density in growth areas, so long as adverse effects (e.g. reverse sensitivity, integration of land use and transport networks, and increases in stormwater) can be managed.	Accept submission so long as adverse effects are managed, including avoidance of conflict between land use and transport networks and the adverse effects associated with stormwater	Accept in part	Well Functioning Urban Environments
FS04/23	FS04/23.02	04/25.02	Horizons Regional Council	Partially Support	Support principle of increased density in growth areas, so long as adverse effects (e.g. reverse sensitivity, integration of land use and transport networks, and increases in stormwater) can be managed.	Accept submission so long as adverse effects are managed, including avoidance of conflict between land use and transport networks and the adverse effects associated with stormwater	Accept in part	Well Functioning Urban Environments
FS04/23	FS04/23.03	04/34.10	Horizons Regional Council	Support	Horizons is concerned that WKNZTA's submission on stormwater (paragraph 61) suggests that attenuation areas within the O2NL corridor cannot be	Accept WKNZTA submission to amend PPC4 to address the concerns raised in relation to	Accept in part	Infrastructure

					considered within HDCs stormwater management framework. It is Horizons Manager Investigations and Design opinion that this will significantly reduce the adequacy of the capacity available in the proposed open space/basins/wetlands to avoid increase in stormwater discharge to Lake Horowhenua and Koputaroa Stream catchments	management of effects generated by development, particularly stormwater.		
FS04/23	FS04/23.04	04/35.02	Horizons Regional Council	Support	Request to protect sites of cultural and historic significance is consistent with One Plan Objective 2- 1	Accept submission	Accept in part	Culture and Heritage
FS04/23	FS04/23.05	04/35.04	Horizons Regional Council	Support	Activities including discharges of stormwater and contaminants have impacts on downstream habitats and species. These can be cumulative and can extend beyond the immediate area of impact and across the wider environment. The relief sought in this submission is also consistent with One Plan Objective 2-1 (see	Accept submission	Accept in part	Natural Environment and Sustainability Matters

					submission 04/35.02 above).			
FS04/23	FS04/23.06	04.38.07	Horizons Regional Council	Partially Support	Horizons acknowledges the issues raised by the submitter in relation to the maintenance and management of constructed wetlands, including in relation to potential biosecurity (and biodiversity) risks.	Support request for clarification of how risk associated with constructed wetland/ stormwater detention will be managed.	Accept in part	Infrastructure
FS04/24	FS04/24.01	04/08		Oppose	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Accept in part	Well Functioning Urban Environments
FS04/24	FS04/24.02	04/09		Oppose	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Accept in part	Well Functioning Urban Environments
FS04/24	FS04/24.03	04/10		Oppose	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Accept in part	Well Functioning Urban Environments
FS04/24	FS04/24.04	04/11		Oppose	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Retain Greenbelt Residential Zoning adjoining Pohutukawa Drive	Accept in part	Well Functioning Urban Environments
FS04/25	FS04/25.01	04/38.01		Support	Heritage value could be threatened by both O2NL and Tara-Ika. PC 4 does not	Protection of the archaeological site, homestead and curtilage and give	Accept in part	Culture and Heritage

				provide sufficient protection	sufficient regard to the site		
FS04/25	FS04/25.02	04/38.02	Support	Proposed stormwater management (including wetlands) and roading network could impact on the heritage value of the Prouse property	Avoid adverse effects on the Prouse Property resulting from stormwater and roading infrastructure	Accept in part	Infrastructure
FS04/25	FS04/25.03	04/38.03	Support	Extent and nature of roading connections on Prouse property are uneconomic and, in some cases, not required. Will also impact on heritage value of homestead.	Remove road into Redwood Grove and downgrade collector road on Prouse property to a local road	Reject	Transport
FS04/25	FS04/25.04	04/38.04	Support	Allow the location of local roads to be flexible to allow for better utilisation of land	Allow flexible location for local roads	Accept in part	Transport
FS04/25	FS04/25.05	04/38.05	Support	Standard density residential on the Prouse property would make better use of land, be more consistent with nearby	Replace low density with standard residential	Accept	Well Functioning Urban Environments

				properties, and improve lot yield.			
FS04/25	FS04/25.06	04/38.06	Support	Requiring developers to vest infrastructure is unfair in that developers may have to pay for more infrastructure than they need and/or may make staging the development unviable.	Address process for growth infrastructure and allow for subdivisions to be staged.	Reject	Infrastructure
FS04/25	FS04/25.07	04/38.07	Support	Wetland/attenuation areas could impact heritage site.	That stormwater impact on the Prouse property be avoided	Accept in part	Infrastructure
FS04/25	FS04/25.08	04/38.08	Support	O2NL and Tara-Ika are proceeding on different timeframes, increase chance of poor outcomes (e.g. stormwater management, how O2NL is displayed on the plan)	None clear	Accept in part	O2NL Impact, Interface, and Timing
FS04/25	FS04/25.09	04/38.09	Support	Oppose restriction to 5% of sections being rear sections as this is too restrictive	Allow for 2-3 lot subdivisions to not need to construct major roads and allow rear sections	Accept in part	Whole Plan Change and General Matters

FS04/25	FS04/25.10	04/38.10	Support	Allow land to be utilised during the transition period and recognise historic uses of the Prouse property.	Allow existing farming activities to continue.	Reject	Whole Plan Change and General Matters
FS04/25	FS04/25.11	04/38.11	Support	Changing zone to residential will make rates unaffordable and unfairly force subdivision	Make provision for rates relief on properties not being used for residential.	Reject	Non-RMA Matters
FS04/26	FS04/26.01	04/31	Partially Oppose	The private covenant limiting subdivision in Redwood Grove could be modified or removed through agreement of Redwood Grove residents, so the Plan Change should enable development in Redwood Grove. The further submitter does not believe the buffer zone requested by the original submitter is required as the low density zoning may be adequate. The further submitter outlines range of	Retain standard density, consider options for a Redwood Grove buffer	Accept in part	Well Functioning Urban Environments

				alternate lot sizes and dimensions for consideration regarding the buffer area. The submitter also partially opposes the 'no buffer' zone for property 31 Redwood Grove, stating that this would be appropriate if minimum lot size is set at 1000m2 and access to the rear of the property can be achieved off a collector or arterial road. If this is not achieved, a 6m buffer zone of native plants should be imposed with maintenance access			
FS04/26	FS04/26.02	04/31	Partially Support	The further submitter supports the original submitters position that there should be no new roads connecting in Redwood Grove, as maintaining Redwood Grove as a cul-de-sac is critical for amenity. The further submitter also supports the original submitter's comments that arterial/collector roads should be setback from Redwood Grove by at least	Remove roads connecting into Redwood Grove and set arterial/collector roads back 100m from Redwood Grove	Reject	Transport

					100m to protect lifestyle amenity values.			
FS04/27	FS04/27	04/34	Horowhenua District Council - Infrastructure Development Group	Neutral	Site investigations show that a communal stormwater management approach will be needed for Tara-Ika (e.g. wetlands). WKNZTA and HDC have been in discussions about a shared approach for Tara- Ika and O2NL. As identified in the original submitter's submission, this approach has not yet been confirmed due in part to PC4 and O2NL projects proceeding on different timeframes. It is not practical to proceed with the shared approach at the current point in time, as this could mean stormwater areas could conflict with O2NL construction and need to be moved. This means an alternative solution needs to be investigated to find an efficient and pragmatic stormwater sollution that fits with both Tara-Ika and O2NL. A solution is provided with the submission	Introduce a stormwater zone (or similar) in the areas shown on the attached plan	Accept in part	Infrastructure

FS04/28	FS04/28	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/29	FS04/29	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/30	FS04/30	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/31	FS04/31	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/32	FS04/32	04/09	Oppose	Changing the proposed zoning adjoining Pohutukawa Drive from the notified Greenbelt residential as requested by the original submitter would have a negative impact on character/amenity (e.g. traffic, noise, lights)	Keep notified Greenbelt Residential zoning	Accept in part	Well Functioning Urban Environments
FS04/33	FS04/33	04/09	Oppose	Changing the proposed zoning adjoining Pohutukawa Drive from the notified Greenbelt	Keep notified Greenbelt Residential zoning	Accept in part	Well Functioning

				residential as requested by the original submitter would have a negative impact on character/amenity (e.g. traffic, noise, lights) and will put pressure on to cut down established trees on boundary			Urban Environments
FS04/34	FS04/34.01	04/31.01	Oppose	Oppose the request for low density to be reintroduced as this would not make the best use of the land available. Standard density zoning makes development more economic viable and it is not reasonable to expect neighbouring properties to be constrained for development by private covenants on Redwood Grove	Disallow submission	Accept	Well Functioning Urban Environments
FS04/34	FS04/34.02	04/31.02	Oppose	Oppose the request to shift arterial and collector roads to be 100m from the boundary of Redwood Grove and this would put the road 1m from the Prouse Homestead which would impact the heritage, cultural, and archaeological value	Disallow submission	Accept	Well Functioning Urban Environments

FS04/34	FS04/34.03	04/31.07	Oppose	Oppose request for 6m wide planting the boundary for screening. Will be difficult/impossible to maintain and is solely for Redwood Grove benefit. There is space for Redwood Grove to do this on their properties.	Disallow submission	Accept	Urban Form, Character, and Amenity
FS04/35	FS04/35.01	04/34.01	Oppose	The further submitter states Tara-Ika was a growth area before O2NL and that we are experiencing a housing crises. Therefore, the further submitter does not support comments by the original submitter that development should be limited if it impact SH57 or O2NL. Existing safety issues on SH57 have existed for more than 20 years and are not related specifically to development on the eastern side of Levin.	None clear	Accept in part	O2NL Impact, Interface, and Timing
FS04/35	FS04/35.02	04/34.05	Partially Support	The further support partially supports comments about traffic amenity, including traffic calming, cycle lanes, place making, prioritisation of pedestrians at traffic lights, and improved co-	Consider/support amenity road improvements in particular changing connector road to local road	Reject	Transport

				ordination between water, transport, or landscape systems. This aligns with the further submitters own requests for a local road connection north to south as this is more in keeping with the heritage value of the Prouse site.			
FS04/35	FS04/35.03	04/34.02	Oppose	The further submitter strongly opposes the further submitters request that the 300m wide O2NL 'preferred corridor' and a 100m wide be either zoned low density or staged until after O2NL. O2NL has no legal status. This request is excessive as the planning for this area was already underway when O2NL came along. It is the impact of O2NL on the site on Tara-Ika, not the reverse that are equally in question here. The request goes beyond WKNZTA guidelines. WKNZTA cannot ask for restrictions of constraints that go beyond their own guidelines to the detriment of others. WKNZTA are negatively impacting on land value prior to public	Disallow submission	Accept in part	O2NL Impact, Interface, and Timing

				works designation, the legality of doing this could be subject to contesting.			
FS04/35	FS04/35.04	04/34.06	Oppose	In addition to opposing the original submitters request regarding zoning of the 300m corridor and a 100m buffer either site, the further submitter strongly opposes the original submitters request for other further provisions. The further submitter states the original submitter has not adequately assessed noise for the Tara-Ika development. HDC should ask WKNZTA to mitigate/reduce impact on the growth area. The route was chosen in full knowledge it was bordering a growth area. Reasonable expectation is that WKNZTA provide mitigation for the entire Tara-Ika zone on both sides with noise protection wall etc. The further submitter acknowledges that future house build in the noise effects zone will require sound proofing measures.	Disallow submission	Accept in part	O2NL Impact, Interface, and Timing
FS04/36	FS04/36	04/09	Oppose	Changing the proposed zoning adjoining Pohutukawa Drive from the notified Greenbelt residential as requested by the original submitter would impact on the lifestyle, native plans, and native bird life in Pohutukawa Drive	Reject whole submission and any other submissions that request only high density zoning	Accept in part	Well Functioning Urban Environments
---------	---------	-------	---------	---	---	----------------	--
FS04/37	FS04/37	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/38	FS04/38	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/39	FS04/39	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/40	FS04/40	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport

FS04/41	FS04/41	04/29	Suppor	t Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/42	FS04/42	04/29	Suppor	t Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/43	FS04/43	04/29	Suppor	t Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas and mean aged people will have to uproot and re-establish themselves at a vulnerable time in their life	Remove Liverpool Street extension	Reject	Transport
FS04/44	FS04/44	04/29	Suppor	t Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/45	FS04/45	04/29	Suppor	t Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/46	FS04/46	04/29	Suppor	t Impact of extending Liverpool Street through Fuller Close would have a	Remove Liverpool Street extension	Reject	Transport

				major impact on Rangeview Villas			
FS04/47	FS04/47	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/48	FS04/48	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/49	FS04/49	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/50	FS04/50	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/51	FS04/51	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/52	FS04/52	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a	Remove Liverpool Street extension	Reject	Transport

				major impact on Rangeview Villas			
FS04/53	FS04/53	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/54	FS04/54	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas and development west of Tararua Road would be a less disruptive option	Remove Liverpool Street extension	Reject	Transport
FS04/55	FS04/55	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/56	FS04/56	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/57	FS04/57	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport

FS04/58	FS04/58	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/59	FS04/59	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/60	FS04/60	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas and completely ruin it	Remove Liverpool Street extension	Reject	Transport
FS04/61	FS04/61	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/62	FS04/62	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/63	FS04/63	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport

FS04/64	FS04/64	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/65	FS04/65	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/66	FS04/66	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/67	FS04/67	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/68	FS04/68	04/29	Support	Impact of extending Liverpool Street through Fuller Close would have a major impact on Rangeview Villas	Remove Liverpool Street extension	Reject	Transport
FS04/69	FS04/69	None	-	As per original submission	Unclear	Reject	Further Submissions not already assessed
FS04/70	FS04/70	04/12	Support	Proposed route is too short to be effective and reliant	Move cycleways to perimeter of Tara- Ika north, east, and	Reject	Transport

				on a single landowner to develop	west boundaries to give access to Gladstone Road and cycle trails		
FS04/71	FS04/71	04/14	Support and Oppose	Agree with submissions 04/09, 04/10, 04/11, 04/18, 04/16, 04/20, 04/22, 04/23 regarding residential zoning. Disagree with Redwood Grove submission 04/31 that current use will not change, zoning should allow future flexibility. Disagree with submission 04/37 as denser housing does not create crime	Densify class 3 land to protect class 1 and 2	Accept in part	Well Functioning Urban Environments
FS04/72	FS04/72	04/15	Support	Support 04/34 that HDC should make use of basket style sump technology to improve technology. Support 04/38 as it is useless placing wetland at the end of the problem. Need to be slowed efficiently so all methods available need to be considered for holding water tanks, sumps and east/west seepage.	Allow the submission	Reject	Infrastructure
FS04/73	FS04/73	None	-	Three waters planning and transport planning insufficient	Unclear	Reject	Further Submissions

							not already assessed
FS04/74	FS04/74.01	04/24.01	Support	Support the submission to ensure the developer only has to pay for their own needed infrastructure so it is fair	We seek the submitters request be allowed to ensure the developer only has to pay for the infrastructure needed for their own development	Reject	Infrastructure
FS04/74	FS04/74.02	04/24.02	Support	Support submitters objective to recognise the protection of cultural sites so Prouse Homestead is protected	We seek the submitters request be allowed to ensure the three key sites identified by the submitter are protected from inappropriate impact	Accept in part	Culture and Heritage
FS04/75	FS04/75	04/31	Oppose	Strongly oppose request that Redwood Grove and adjoining properties be zoned low density and subject to a special buffer changing the minimum site area to 2000m2 as this places unreasonable limits on neighbouring properties	That the submitters request be disallowed	Accept	Well Functioning Urban Environments
FS04/76	FS04/76	04/32	Support	Agree a review of the medium density standard is needed	Review standards with a design led approach	Reject	Well Functioning Urban Environments

FS04/77	FS04/77	04/08	Support	Protect LUC 1 and 2 by utilising lower LUC land for development	Higher density zoning in Tara-Ika to protect land outside of Tara-Ika	Accept in part	Well Functioning Urban Environments
FS04/78	FS04/78.01	04/38	Support	Support comments about protecting cultural, heritage and ecological values.	None clear	Accept in part	Culture and Heritage
FS04/78	FS04/78.02	04/38	Support	Support comments about how growth funding is addressed to ensure costs are distributed equitably	None clear	Reject	Non-RMA Matters
FS04/78	FS04/78.03	04/38	Support	Support comments that there should be rates relief when zoning changes for rural to residential	Provide clarification on rates relief and how this could facilitate development	Reject	Non-RMA Matters
FS04/79	FS04/79	04/27	Support	Support comments from original submitter that both land owners and iwi should be involved in street naming to reflect history and diversity	Involve land owners and iwi in street naming	Accept in part	Culture and Heritage
FS04/80	FS04/80	04/24	Support	Support comments that approach proposed may have a burden on some landowners without compensation. A consistent developer/council funding model should be developed	Remove Rule 15A.6.1(a) and amend policy 6A.1.1	Reject	Infrastructure

FS04/81	FS04/81	04/23	Support	Support comments that low density land should be changed to standard density as this will make development for economically viable and better align with national policy outcomes	Up zone low density land to standard density	Accept in part	Well Functioning Urban Environments
FS04/82	FS04/82	04/20	Support	Effectively manage productive land by ensuring land is not wasted on low density and greenbelt residential zoning	None clear	Accept in part	Well Functioning Urban Environments
FS04/83	FS04/83	04/19	Oppose	While the points raised are valid, we have a housing shortage. If housing Is not planed in a controlled manner there will be a greater wastage of productive class 1 and 2	None clear	Accept in part	Whole Plan Change and General Matters
FS04/84	FS04/84.01	04/07	Support	Support no subdivision on class 1 and 2 soils	Allow the submission	Accept in part	Natural Environment and Sustainability Matters
FS04/84	FS04/84.02	04/07	Support	Support comments on stormwater	Allow the submission	Accept in part	Infrastructure
FS04/85	FS04/85	04/18	Oppose	Disagree that greenspaces and education provision should be used to buffer between Redwood Grove and disagree arterial road	None clear	Accept	Well Functioning Urban Environments

				should be moved because the intention for Tara-Ika is to serve the Horowhenua community growth now and for future generations.			
FS04/86	FS04/86	04/07	Support	Maximise the use LUC 1 and 2 to protect LUC 3. This can only be achieved by medium to high density housing	Review the stormwater systems and management currently in place to ensure it is properly managed	Accept in part	Well Functioning Urban Environments
FS04/87	FS04/87	04/08	Oppose	Supports original plan, opposes submissions requesting zoning that would make all sections smaller. Variety is needed, so people stay in the area.	Retain original zoning	Accept in part	Well Functioning Urban Environments
FS04/88	FS04/88	04/08	Oppose	Oppose submissions requesting smaller section sizes in greenbelt residential area. Land adjoining greenbelt residential should be no smaller than existing development to protect mental health and wellbeing of those already living in the area	Land adjoining Greenbelt Residential to have same section sizes as adjoining areas.	Accept in part	Well Functioning Urban Environments
FS04/89	FS04/89	04/22	Support	Oppose greenbelt/low density zoning on basis that this is not an efficient use of land. Seeks	Residential Zoning	Accept in part	Well Functioning Urban Environments

					residential zoning. Seeks protection of the Waiopehu Reserve. Rates impact			
FS04/90	FS04/90.10	04/25	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.01	04/33	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.02	04/09	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.03	04/10	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.04	04/11	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.05	04/15	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.06	04/18	Waka Kotahi	Oppose	Outcomes sought in submission would be	None clear	Accept in part	Further Submissions

					inconsistent with WKNZTA submission requests			not already assessed
FS04/90	FS04/90.07	04/20	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.08	04/22	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.09	04/23	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.11	04/27	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/90	FS04/90.12	04/24	Waka Kotahi	Oppose	Outcomes sought in submission would be inconsistent with WKNZTA submission requests	None clear	Accept in part	Further Submissions not already assessed
FS04/91	FS04/91.01	04/06		Support in part	Support in part the request from the submitter to conisder the effect of prohibiting access from collector roads	Remove rule 15A.6.1.1(a) and insert a policy under 6A.1.1 which encourages access from rear lanes	Reject	Transport
FS04/91	FS04/91.02	04/07		Support in part	Support in part the request to require rainwater harvesting	Allow submission	Accept in part	Infrastructure

FS04/91	FS04/91.03	04/13	Support in part	Support in part the request to require rainwater harvesting	Stormwater must be dealt with onsite. Each development should show stormwater will be hydrologically neutral	Accept in part	Infrastructure
FS04/91	FS04/91.04	04/15	Support in part	Support in part the request to require rainwater harvesting	Stormwater must be dealt with onsite. Each development should show stormwater will be hydrologically neutral	Discuss	Infrastructure
FS04/91	FS04/91.05	04/09	Support in part	Support in part requests to remove low density overlays from residential land	Remove low density overlays	Accept in part	Well Functioning Urban Environments
FS04/91	FS04/91.06	04/10	Support in part	Support in part requests to remove low density overlays from residential land	Remove low density overlays	Accept in part	Well Functioning Urban Environments
FS04/91	FS04/91.07	04/11	Support in part	Support in part requests to remove low density overlays from residential land	Remove low density overlays	Accept in part	Well Functioning Urban Environments
FS04/91	FS04/91.08	04/14	Support in part	Support in part requests to remove low density overlays from residential land	Remove low density overlays	Accept in part	Well Functioning Urban Environments

FS04/91	FS04/91.09	04/20	Support in part	Support in part requests to remove low density overlays from residential land	Remove low density overlays	Accept in part	Well Functioning Urban Environments
FS04/91	FS04/91.10	04/25	Support	Fully support request to modify rules as described	As described by submitter	Accept in part	Further Submissions not already assessed
FS04/91	FS04/91.11	04/33	Support	Fully support request to modify rules as described	As described by submitter	Reject	Transport
FS04/91	FS04/91.11	04/27	Support	Support in part requests to remove low density overlays from residential land	Remove low density overlays	Accept in part	Well Functioning Urban Environments
FS04/91	FS04/91.12	04/28	Support	support in part the request from the submitter to collaborate with the Council to underground powerlines as the opportunity arises	All parties work together in good faith to underground lines which run through Tara-Ika and formulate a rule to address this matter	Accept in part	Infrastructure
FS04/91	FS04/91.13	04/38	Support	Fully support request to modify rules as described	As described by submitter	Accept in part	Further Submissions not already assessed
FS04/91	FS04/91.14	04/32	Support	Fully support request to modify rules as described	As described by submitter	Accept in part	Further Submissions not already assessed

FS04/91	FS04/91.15	04/25	Support in part	Support in part requests to remove low density overlays from residential land	Remove low density overlays	Accept in part	Well Functioning Urban Environments
FS04/92	FS04/92	04/22	Support	Oppose greenbelt/low density zoning on basis that this is not an efficient use of land. Seeks residential zoning. Seeks protection of the Waiopehu Reserve. Rates impact	Residential Zoning	Accept in part	Well Functioning Urban Environments
FS04/93	FS04/93	04/35	Support	Support original submitters comments regarding stormwater and Lake Horowhenua	None clear	Accept in part	Infrastructure
FS04/94	FS04/94.01	04/25	Support	Support proposed zoning change	Accept submission	Accept in part	Well Functioning Urban Environments
FS04/94	FS04/94.02	04/30	Neutral	Outlines no history of flooding on property, which has been owned by family since 1963	None clear	Accept in part	Infrastructure
FS04/94	FS04/94.03	04/34	Oppose	Oppose requests to extent the corridor by extra 100m	Reject submission	Accept in part	O2NL Impact, Interface, and Timing
FS04/95	FS04/95.01	04/07	Support in part	Maximise the use LUC 3 to protect LUC 1 and LUC 3. This can only be achieved	Remove low density and replace with standard	Accept in part	Well Functioning Urban Environments

				by medium to high density housing			
FS04/95	FS05/95.02	04/07	Support in part	Review stormwater systems and management to deal with increase in runoff. Already impacted by stormwater runoff from Pohutukawa Drive	Address stormwater	Accept in part	Infrastructure



Appendix 2: Proposed Plan Chapters (Chapter 6A Objectives and Policies: Tara-Ika Multi-Zone Precinct and Chapter 15A Rules: Tara-Ika Multi-Zone Precinct), with recommended changes annotated

6A. TARAIKATARA-IKA MULTI ZONE PRECINCT

The following objectives and policies are to be read in conjunction with the objectives and policies contained within Chapters 1-14 of the Horowhenua District Plan. In the event there is conflict between the objectives and policies in this chapter and those contained within the remainder of the District Plan, the objectives and policies contained within this chapter (Chapter 6A – TaraikaTara-Ika) shall apply.

Taraika<u>Tara-Ika</u> is a large greenfield site located to the east of the existing urban area of Levin, with the Tararua Ranges forming an impressive backdrop to the area.

Muaūpoko have a very strong and enduring relationship with the Tara-Ika area, as it is an area where they have worked, cultivated, hunted and gathered resources for over 1000 years. Tara-Ika sits between areas of high cultural association to Muaūpoko, including Punahau (Lake Horowhenua) and the Tararua Ranges, and is therefore part of important physical, ecological, visual and spiritual pathways.

The <u>TaraikaTara-Ika</u> Development Area (<u>TaraikaTara-Ika</u>) totals 470ha and has been master planned to provide a range of housing options and other supportive non-residential activities such as commercial and education activities. The area is expected to accommodate approximately <u>3,500</u>2,500 residential dwellings and will be home to more than 5,000 people. Some of the surrounding environment has already been developed for rural lifestyle purposes.

The land has been identified as a growth area for the Horowhenua District since the Horowhenua Development Plan was prepared in 2008. The land was subsequently rezoned to Greenbelt Residential Deferred with an associated Structure Plan to guide development introduced to the District Plan. Since this time, growth projections for the District have changed significantly with the District's population now expected to grow rapidly. This prompted the decision to consider TaraikaTara-Ika for a greater density of development than what could occur under a Greenbelt Residential Zoning.

TaraikaTara-Ika was considered suitable for additional residential capacity due to a range of factors including:

- The site is very flat and relatively unconstrained in term of risk from natural hazards;
- The site is close to the existing urban area of Levin;
- The site has already been identified as a growth area and has had a level of rural lifestyle development occur under the existing zoning. As such, additional development in this area does not result in a significant loss of rural production land.

As such, the area has been master planned and the land consequently rezoned to enable a variety of different residential and non-residential activities to establish.

TaraikaTara-Ika is made up of the following zones:

- Commercial Zone (*Taraika<u>Tara-Ika</u> Precinct*)
- Open Space Zone (TaraikaTara-Ika Precinct)
- Residential Zone (*Taraika<u>Tara-Ika</u> Precinct*)
- Greenbelt Zone (*Taraika<u>Tara-Ika</u> Precinct*)

Each zone has individual objectives, policies, and rules to ensure development achieves the desired objectives and principles for the area. There are also objectives and policies that apply to all zones within <u>TaraikaTara-Ika</u>. In addition, the relevant objectives, policies and rules from the existing District Plan chapters and zones will apply. In the case where there are duplicate

provisions, the more specific provision (i.e. <u>TaraikaTara-Ika</u> specific provisions) will apply in place of the more general provisions.

Please note that the Horizons Regional Council One Plan also regulates a number of activities associated with subdivision and land development, including but not limited to earthworks, vegetation clearance, and activities near streams with food production value. Plan users are advised to refer to the One Plan for further information.

ISSUE 6A.1 OVERALL PRINCIPLES FOR DEVELOPMENT IN TARAIKA TARA-IKA

Through the Horowhenua Growth Strategy 2040, Council identified that the existing zoning and structure plan for the area previously known just as '<u>Gladstone Green</u>' was unlikely to accommodate the level of growth anticipated in the District, or deliver the outcomes desired for the area. Furthermore, the resource consent process was considered unlikely to provide sufficient opportunity to deliver an integrated and co-ordinated development at the scale anticipated. As a result, the <u>TaraikaTara-Ika</u> Master Plan was prepared in order to guide and enable residential and other development to ensure that this happens in an integrated and co-ordinated way. This master plan is the basis of the Structure Plan 013 and the following objectives and policies.

ISSUE DISCUSSION

Taraika<u>Tara-Ika</u> is anticipated to become high amenity residential development. However, there is also a risk development could adversely affect the environmental quality<u>and cultural</u> values of the area due to effects arising from increased built form, traffic, and demand for infrastructure and services<u>and pressure on eco-systems</u>.

State Highway 57 separates <u>TaraikaTara-Ika</u> from the rest of the urban area of Levin. The preferred corridor for the Otaki to North of Levin highway is also located in <u>TaraikaTara-Ika</u> (near to existing State Highway 57), creating a risk of severance between <u>TaraikaTara-Ika</u> and the rest of Levin.

Due to the alignment of future and existing state highways, there is a risk that <u>TaraikaTara-Ika</u> will develop in way that is disconnected from the urban area of Levin and associated services. Unless addressed, this will have a negative impact on the amenity of the resulting development and the well-being of residents.

As a large greenfield site, TaraikaTara-Ika represents a 'blank' canvas. This presents an opportunity to establish a unique character. However, this also means there is no existing pattern of urban development to follow (for example, lot design and layout, street trees and provision for open space). Without an established urban pattern from adjoining areas to replicate, there is a risk that an incoherent urban form and disconnected structure will follow. This could result inadequate dwelling interaction with the street, adhoc section sizes that affects character and amenity, or establishment of a commercial area in an inappropriate location. It is also possible that future development will not sufficiently consider or prioritise the amenity or functionality of the public realm, resulting in poor quality urban form, inadequate or inappropriate use of street trees and a lack of quality, functional reserve space. The master plan seeks to respond to these risks.

Master planned greenfield development at <u>TaraikaTara-Ika</u> therefore presents an opportunity to achieve the following:

- a connected and integrated future-proof development that represents good urban design and provides a high level of residential amenity;

- encourages a variety in housing choice, including higher density options;
- a development that utilises low impact, sustainable servicing solutions and encourages walking and cycling;
- a development which provides facilities and open space to meet the needs of the community;
- a development that maintains and enhances cultural, heritage, and ecological values of the area.

To achieve the above, it is important that subdivision, development, and land use activities are coordinated to occur in locations and at densities that enable sustainable and efficient use of land and delivery of infrastructure and contribute to a high amenity environment.

It is also important that development at <u>TaraikaTara-Ika</u> is resilient to the effects of climate change and natural hazards and minimises effects on the natural environment. Both of these considerations require careful stormwater design.

The following objectives and policies seek to respond to the above issue and opportunity.

Objectives & Policies

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, <u>social infrastructure</u>, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects Muaūpoko cultural values and local history and identity;
- Protection of culturally significant sites;
- -___Environmentally sensitive design;
- Encouraging subdivision and development design to enable energy efficiency and reduced energy consumption;
- Within the Arapaepae Road Special Treatment Overlay, development that is appropriate for the site in terms of scale, access, and compatibility with surrounding land uses.

Policy 6A.1.1

Subdivision, infrastructure and land development in <u>TaraikaTara-Ika</u> must be consistent with Structure Plan 013. Subdivision and land development that deviates from the current or future implementation of the Structure Plan will only be considered where an alternative is proposed that will achieve the following:

- The same or similar level of connectivity within TaraikaTara-Ika;
- The same or similar level of connectivity between the <u>TaraikaTara-Ika</u> and the existing urban area of Levin;

- Protection of opportunities for land adjacent to <u>TaraikaTara-Ika</u> to be connected to <u>TaraikaTara-Ika</u> in the future;
- Public recreation space of an equivalent functionality as that shown on the Structure Plan and that is within walking distance of a similar number of properties as shown on the Structure Plan;
- A streetscape that maintains an appropriate expression of street hierarchy and consistency of treatment along any arterial or collector street;

Policy 6A.1.2

Subdivision, and land development and open space reserves in TaraikaTara-Ika will acknowledge, protect, and celebrate cultural values, cultural historyMuaūpoko values and history and local identity in the following ways:

- Use of both <u>Māori Muaūpoko and non-Māori</u> names, <u>among others</u>, for streets and reserves;
- Protection of culturally significant sites;
- Prioritise use of locally sourced indigenous plants in street and reserve planting;
- <u>Muaūpoko Accidental Discovery and Tikanga Protocol</u> observed during site works.

Policy 6A.1.3

Require development to be designed in a manner that enables passive surveillance of public places (such as parks and roads) from private properties using techniques such as good site layout, restricting fence heights, and landscape treatments that will not obscure key sightlines.

Policy 6A.1.4

Provide for non-residential activities, such as community, recreational, educational and commercial activities, which support the day to day needs of the local community, while avoiding any such non-residential activities of a nature and scale that compete with the Levin Town Centre.

Policy 6A.1.5

Require subdivision layout to ensure street design enables the safe and efficient movement of people, and traffic and public transport, provides a high level of safety and amenity for pedestrians and cyclists, and contributes positively to the public realm.

Policy 6A.1.6

Encourage additional building height where this would contribute to a well-functioning urban environment (for example, increased housing variety), so long as reasonable privacy of neighbouring dwellings is maintained, culturally important views are maintained along Queen Street East and visual dominance and excessive shading beyond the subject site are avoided.

Policy 6A.1.7

Provide for a range of land uses within the Arapaepae Road Special Treatment Overlay to allow flexibility to deliver a context specific response that recognises both the unique attributes

of the site and the need to appropriately manage adverse effects, including safe and efficient access and avoiding or minimising reverse sensitivity effects.

Policy 6A.1.8

Require subdivision layout that will enable buildings to utilise energy efficiency and conservation measures.

Objective 6A.2

Efficient delivery of infrastructure within <u>TaraikaTara-Ika</u> will enable development while protecting environmental <u>and cultural</u> values and achieving a high level of residential amenity.

Policy 6A2.1

Make provision within the Taraika<u>Tara-Ika</u> for housing yield of <u>2,500-3,000at least 3,500</u> houses.

Policy 6A2.2

Require subdivision and development to be managed, designed and staged to align with the coordinated provision and upgrading of the infrastructure network (including roading network), public open space, streetscape and local service facilities within the <u>TaraikaTara-Ika</u>, as illustrated on Structure Plan 013.

Policy 6A2.3

Avoid subdivision and development that compromises the ability to provide efficient and effective infrastructure networks for the wider <u>TaraikaTara-Ika</u>.

Objective 6A.3

Stormwater management in <u>TaraikaTara-Ika</u> will be resilient, <u>culturally sensitive</u> and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- <u>Incorporating Water sSensitive designDesign;</u>
- Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems;
- Avoiding natural areas and ecosystems that are sensitive to modifications to changes in groundwater and surface water levels and flows.

Policy 6A.3.1

Require an integrated approach to managing stormwater from <u>TaraikaTara-Ika</u> to ensure the quality and quantity of runoff does not have an adverse effect on <u>Punahau</u> (Lake Horowhenua), the Koputaroa Stream, or other downstream environments.-

Policy 6A.3.2

Require stormwater to be retained and disposed of within the Tara-Ika Growth Area for up to a 1 in 100 year annual return interval rainfall event (with allowance for climate change), and treated and managed utilising the best practicable option to mitigate the effects of stormwater by including the following:

- (i) limiting the extent of impervious areas;
- (ii) incorporating on-site treatment and disposal of stormwater into subdivision and development design;
- (iii) provision of catchment-wide facilities like wetlands and basins that are efficient and effective from both a construction and maintenance perspective and avoid culturally significant sites.

Policy 6A.3.32

Recognise te mana o te wai and the significance to Muaūpoko Kaitiakitanga iwi of to the Taraika Tara-Ika environment and its connection to Punahau (Lake Horowhenua) by working with iwi-Muaūpoko to protect the mauri of freshwater through manage managing stormwater quality and quantity.

Policy 6A.3.43

Require rainwater collection tanks to be provided on all new residential allotments to capture and reuse runoff to mimic, as much as practicable, pre-developed hydrological conditions for the site <u>and promote sustainable use of freshwater resources</u>.

Explanation and Principal Reasons

Large scale greenfield development has the potential to lead to adverse environmental outcomes, particularly when the land is owned by multiple different parties. Without a strong framework to guide growth and development in this area, there is potential for individual subdivisions to progress in a fragmented and disconnected manner. Furthermore, there is a risk that no individual application will make provision for facilities such as open space, supportive commercial activities, or educational activities. Further, individual subdivision applications progressing in an adhoc manner are likely to result in inefficient delivery of infrastructure and limit opportunities for connectivity.

The Structure Plan for the <u>TaraikaTara-Ika</u> is based on the <u>TaraikaTara-Ika</u> Master Plan. It provides a comprehensive framework to manage growth and development in the <u>TaraikaTara-Ika</u>, including infrastructure, roads and open space. Subdivision and development is required to be undertaken in accordance with the Structure Plan to ensure efficient use of the land and physical resources. It is important the principles of this Structure Plan are adhered to in order to achieve the development outcomes anticipated for this area.

Ensuring subdivision and development is aligned with the Structure Plan will help to deliver a quality living environment that is supported by necessary non-residential activities, amenities, and services.

It is also important to recognise cultural history and identity in this area. One way to achieve this is to ensure that streets and reserve names include Māori names chosen by Tangata Whenua.

ISSUE 6A.2 RESIDENTIAL ZONES (TARAIKATARA-IKA PRECINCT)

The character of the Residential Zone of <u>TaraikaTara-Ika</u> is likely to be different to the wider Levin area due to the era of development, housing density expected, integrated master planning approach to development, and the detail of the design principles identified for this area.

It is important <u>TaraikaTara-Ika</u> complements and integrates with the existing residential areas of Levin while providing a different offering (for example, more housing variety).

ISSUE DISCUSSION

The <u>TaraikaTara-Ika</u> residential area needs to develop in a manner that reflects good urban design and form to achieve a high amenity living environment that contributes to the wellbeing of its residents.

At present, there is limited variation in residential housing types available within the District. The predominant housing type available is 'family sized' standalone dwellings on relatively large residential sections, ranging from 400m²-800m². However, this uniformity of housing type does not fully satisfy the diverse needs of the Horowhenua community. <u>TaraikaTara-Ika</u> offers an opportunity to respond to this by encouraging more variety and improving housing affordability and small lots suitable for smaller dwellings. The following objectives and policies seek to respond to this.

Objectives & Policies

Objective 6A.4

Achieve a high amenity, <u>connected</u>, walkable residential environment with a range of section sizes and housing types, including affordable housing options, in <u>TaraikaTara-Ika</u>.

Policy 6A.4.1

Optimise walkability and encourage choice and a variety of housing types, by providing for higher density residential development near to commercial and community facilities and lower density residential development at the outer edge of <u>TaraikaTara-Ika</u>.

Policy 6A.4.2

Enable and encourage a range of housing types and section sizes in <u>TaraikaTara-Ika</u> to meet the variety of needs and preferences in our community, while ensuring a high level of residential amenity<u>and connectivity</u>.

Policy 6A.4.3

Use both minimum and maximum density standards to encourage housing variety and to ensure development occurs at a scale and density consistent with the amenity expected for that particular area.

Explanation and Principal Reasons

Management of the residential environment generally focuses on providing for ongoing use and development in a way that maintains and enhances their character and amenity values. In the case of TaraikaTara-Ika, the early stages of development will not have an established residential character or amenity to be informed by. Both the TaraikaTara-Ika Master Plan and Structure Plan 013 outline some of the characteristics of urban form and design that will lead to the creation of a residential character and amenity that is considered appropriate within this particular context. The above objectives and policies, supported by District Plan rules, seek to achieve these outcomes to build and establish a high amenity residential character for

Taraika<u>Tara-Ika</u>.

ISSUE 6A.3 COMMERCIAL ZONE (TARAIKA TARA-IKA PRECINCT)

Given the anticipated population of <u>TaraikaTara-Ika</u> and the proximity of <u>TaraikaTara-Ika</u> to existing residential areas on the eastern side of Levin, the area will likely be supported by a commercial centre in the future. It is important that this is located in the appropriate location to maximise accessibility for the community served, support viability and consequently maximise the benefits this will offer the community. In addition, it is important that the nature and scale of this centre is controlled so as to ensure it offers a high amenity 'focal point' for the community, while not conflicting with the existing Levin town centre.

Issue Discussion

It is important that commercial development in <u>TaraikaTara-Ika</u> agglomerates in a highly accessible, central location. If commercial activities and community services establish in an adhoc or sprawling manner, the vibrancy and vitality of the neighbourhood centre will be reduced, limiting the opportunity for it to act as a central point for the community.

The commercial centre will provide an important service to the community, through meeting the daily or weekly needs of the local catchment. This can reduce the need to travel across town and improves the overall experience of living within an area that, due to the distance from the commercial area of Levin and the presence of a State Highway (State Highway 57 in the short term and the Otaki to North of Levin highway in the longer term), would otherwise be underserviced by convenience facilities.

The design and layout of commercial development is important to ensuring a vibrant and attractive centre that the community will want to spend time in. Important considerations include the design of building frontages and the location of carparks. An attractive commercial centre that demonstrates good urban design can also support other types of land uses. This is because quality commercial development can act as an 'attractor' for land uses such as medium density development. This is considered an important relationship to acknowledge and enhance in order to encourage housing variety, as well as to achieve an attractive commercial centre.

In addition to the above, it is important that the <u>TaraikaTara-Ika</u> commercial centre does not compete with the Levin town centre, particularly given the proximity of the <u>TaraikaTara-Ika</u> commercial centre to both existing and proposed State Highways. Therefore, it is important that the nature and scale of this centre is controlled in order to protect the primacy of the Levin town centre.

Objectives & Policies

Objective 6A.5

Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.

Policy 6A.5.1

Provide for supermarket and/or convenience retail facilities at a scale suitable for the area.

Policy 6A.5.2

Provide for service based commercial activities that support the daily or weekly needs of the local community, so long as nature and scale does not compete with the Levin Town Centre.

Policy 6A.5.3

Ensure of the design, nature, and scale of commercial activities contributes positively to the image and overall amenity of the commercial area of TaraikaTara-Ika.

Policy 6A.5.4

Ensure the development in the commercial zone contributes positively to the amenity of public places (including footpaths and roads) by:

- (a) avoiding blank walls facing the roads;
- (b) providing level access for pedestrians into shops;
- (c) ensuring fascia boards and associated signage are of a consistent size and height;
- (d) avoiding freestanding signs;
- (e) maximising outlook onto streets and public places;
- (f) providing weather protection for pedestrians along the road frontages;
- (g) providing service access, car parking and staff parking away from the frontages;

Policy 6A.5.5

Avoid establishing commercial activities that are of a nature and scale that would detract from the vibrancy and vitality of the Levin Town Centre. Examples of such activities include but are not limited to entertainment activities, hotel/motel accommodation, large format retail and other activities of a type and scale that will compete with the Levin Town Centre.

Explanation and Principal Reasons

Given the anticipated population of <u>TaraikaTara-Ika</u>, it is both likely and desirable for a range of small scale commercial activities to establish.

Commercial centres fulfil both a functional need for residents, thus reducing their need to travel into Levin or other surrounding areas to meet their daily and weekly convenience needs and provide a focal point for the community. This is important as it provides a place for people to meet and interact with both their neighbours and the wider community. This contributes to feelings of safety, social connectedness and wellbeing, which ultimately improves the overall quality and amenity of the surrounding residential environment. However, it is important that the commercial area of TaraikaTara-Ika does not compete with the vibrancy and vitality of the Levin Town Centre.

In order to achieve these outcomes, the above objectives and policies (and supporting rules in Chapter 15A of the District Plan) seek to control the design of signs and buildings and the nature and scale of residential activities in ensure a high amenity environment that encourages walking, cycling through quality of experience. Controls on the scale and nature of commercial activities allowed to establish within TaraikaTara-Ika will also avoid conflict with adjoining land uses and ensure that Levin's town centre remains the primary commercial centre in the

District.

ISSUE 6A.4 OPEN SPACE ZONE (TARAIKATARA-IKA PRECINCT)

ISSUE DISCUSSION

Given the size of TaraikaTara-Ika and the number of lots it will accommodate, the development will require open space provision. It is important that the reserve space is provided in the appropriate location and that it is of a functional size and shape.

Objectives & Policies

Objective 6A.6

To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.

Policy 6A.6.1

Ensure public parks or reserves are distributed through <u>TaraikaTara-Ika</u> to be easily accessible to all residential lots by requiring all subdivision and development to comply with Structure Plan 013.

Policy 6A.6.2

Ensure public parks and reserves are of a size, shape and type that enables a functional and, recreational uses by requiring all subdivision and development to comply with Structure Plan 013.

Policy 6A.6.2

Require public parks and reserves to recognise and celebrate Muaūpoko history and values through design, naming, and use of planting.

Policy 6A.6.43

Enable education facilities to establish at a scale that supports the needs of the local community, with limits on scale to protect the amenity of the surrounding environment.

Explanation and Principal Reasons

Open space that can be used for a range of recreational purposes is an important asset for both the wider community and the <u>TaraikaTara-Ika</u> community. Furthermore, recreation space contributes positively to residential amenity. In addition, recreation space provides opportunity to manage stormwater during heavy rain events and to contributes to the ecology of an area.

It is important that <u>TaraikaTara-Ika</u> is serviced by quality reserve space. As a large greenfield site, there is opportunity to secure land for recreation space early in the land development process, to ensure it is functional, accessible, and of high amenity. The above objectives and

policies (and supporting rules in Chapter 15A of the District Plan) seek to secure this outcome.

Methods for Issues and Objectives in TaraikaTara-Ika

District Plan

- A range of zones, supported by a 'TaraikaTara-Ika Precinct', will be identified on the planning maps.
- Taraika Tara-Ika precinct specific rules will be applied, in addition to general zoning rules, to specify how subdivision and development will be managed in order to achieve the above objectives and policies.
- A structure plan will guide subdivision and development in the <u>TaraikaTara-Ika</u> area in order to achieve the above objectives and policies.
- The resource consent process will provide opportunity for appropriate subdivision and development proposals that are not permitted, either because of non-compliance with environmental standards or because of the nature of the non-residential land uses.
- Conditions on resource consents will control the effects of subdivision and development.

Standards expressed as District Plan rules are considered to be the most appropriate and effective method of maintaining minimum standards for the matters over which the Council has jurisdiction. Rules provide certainty for resource users and for neighbours which is important for community understanding of what environmental quality is expected. The use of a Design Guide is effective in providing guidance on the matters and outcomes for achieving quality medium density developments.

Taraika<u>Tara-Ika</u> Master Plan

The <u>TaraikaTara-Ika</u> Master Plan formed the basis of the above objectives and policies and Structure Plan. The Master Plan provides further detail, assessment, and information that justify the outcomes sought for the <u>TaraikaTara-Ika</u> area.

Long Term Plan/Annual Plan

- Council will undertake amenity improvement work including street planting and traffic management schemes within residential areas. Council will co-ordinate the provision of appropriate infrastructure to support residential development.
- Council will continue to maintain the landscape of streets (berms and sealed surfaces) and areas of public open space throughout the settlements.
- Council will require developers to contribute to the costs of new infrastructure and upgrading, reserves provision, community and recreational facilities and amenity improvements in residential areas.
- Council will require developers to contribute to the costs of new infrastructure and upgrading, reserves provision, community and recreational facilities and amenity improvements through its Development Contributions Policy.

There are a range of non-District Plan methods available to promote a good standard of residential design and development, particularly through the use of Codes and Guidelines, and through Council funded initiatives for community and residential amenities. Development Contributions from residential development will be used in the upgrading and

expansion of the District's roads, reserves and other civic amenities and facilities.

Other

- The use of private developer agreements to facilitate infrastructure works
- Engagement with Muaūpoko
- Council will work with <u>iwiMuaūpoko</u>, particularly in regard to stormwater design, reserve design, planting, and street and reserve naming.
- Contractors will be briefed on the tikanga requirements.
- <u>Council and Muaūpoko will co-design an Open Space Design Guide which will</u> <u>include guidance on how to integrate and provide for Muaūpoko relationships and</u> <u>values within Tara-Ika.</u>

15A. TARAIKATARA-IKA MULTI-ZONE PRECINCT

A 'multi-zone precinct' is a tool set out in the National Planning Standards. The National Planning Standards define a 'precinct' as follows:

A precinct spatially identifies and manages an area where additional placebased provisions apply to modify or refine aspects of the policy approach or outcomes anticipated in the underlying zone(s).

Taraika<u>Tara-Ika</u> contains a number of different zones, including Residential, Greenbelt Residential, Open Space, and Commercial. The majority of the current rules and standards contained within these existing zone will apply within <u>TaraikaTara-Ika</u>. However, there are some instances where different rules and standards will be required within <u>TaraikaTara-Ika</u>. Therefore, the respective zone chapter provisions will apply within <u>TaraikaTara-Ika</u>, except as modified by the provisions contained within Chapter 15A. If there is conflict between chapters, the provisions of Chapter 15A will override.

15A.1 PERMITTED ACTIVITIES

The following activities are permitted activities provided activities comply with all relevant conditions in Rule 15A.6 and Chapters 21, 22, 23 and 24.

Note: The permitted activity conditions within the relevant zone chapter for the relevant activity type also apply. Where there is conflict between provisions, the more specific provision (i.e. the provisions of this chapter) apply.

15A.1.1 All Zones

15A.1.1.1 Activities permitted by the underlying zone chapters

- (a) Within the Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a permitted activity in Chapter 15 are a permitted activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Greenbelt Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a permitted activity in Chapter 18 are a permitted activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (c) Within the Open Space Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a permitted activity in Chapter 20 are a permitted activity, provided activities comply with all relevant conditions contained within Chapter 20.

15A.1.2 Commercial Zone

In the Commercial Zone, the only permitted activities are:

(a) Commercial (excluding entertainment activities) <u>occupying a floor area of up to 250m²</u>

- (b) Retail occupying a floor area of up to 250m²
- (c) Community activities
- (d) Recreation facilities
- (e) Public conveniences
- (f) Open space
- (g) Residential activities above ground floor (i.e. 1st floor or above), or at ground level only where the residential activity does not directly front onto the road boundary (i.e. they are located to the rear of a commercial activity).
- (h) The following types of signs
 - (i) Advertising signs, including public facility or information signs identifying a building, property or business.
 - (ii) Official signs.
 - (iii) Temporary signs.
 - (iv) Signs advertising sale or auction of land or premises.
 - (v) Health and safety signs.
- (i) The following network utilities and energy activities:
 - (i) The construction, operation, maintenance and upgrading of network utilities.
 - (ii) Domestic scale renewable energy devices.
- (j) Temporary activities

15A.2 CONTROLLED ACTIVITIES

The following activities are controlled activities provided activities comply with all relevant conditions in Rules 15A.6 and Chapters 21, 22, 23 and 24. In addition, refer to the relevant zone chapters for matters of control and conditions for controlled activities:

Note: The matters of control contained within the relevant zone chapter for the relevant activity type also apply.

15A.2.1 All Zones

- (a) Within the Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a controlled activity in Chapter 15 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Commercial Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a controlled activity in Chapter 17 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 17.

- (c) Within the Greenbelt Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a controlled activity in Chapter 18 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (d) Within the Open Space Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a controlled activity in Chapter 20 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 20.

15A.3 RESTRICTED DISCRETIONARY ACTIVITIES

The following activities are restricted discretionary activities provided activities comply with all relevant conditions in Rule 15A.7. Refer to Rules <u>15A.8.2</u><u>15A.8.1</u>, <u>15A.8.3</u><u>15A.8.2</u> and <u>15A.8.4</u><u>15A.8.3</u> for matters of discretion and conditions for restricted discretionary activities.

Note: The matters of discretion and conditions for restricted discretionary activities contained within the relevant zone chapter for the relevant activity type also apply.

Note: Refer to Chapter 25 for Assessment Criteria as a guide for preparing an assessment of environmental effects to accompany a resource consent application for any of the above activities.

15A.3.1 All Zones

- (a) The subdivision of land.
- (b) Within the Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a restricted discretionary activity in Chapter 15 are a restricted discretionary activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (c) Within the Commercial Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a restricted discretionary activity in Chapter 17 are a restricted discretionary activity, provided activities comply with all relevant conditions contained within Chapter 17.
- (d) Within the Greenbelt Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a restricted discretionary activity in Chapter 18 are a restricted discretionary, provided activities comply with all relevant conditions contained within Chapter 18.
- (e) Within the Open Space Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a restricted discretionary activity in Chapter 20 are a restricted discretionary, provided activities comply with all relevant conditions contained within Chapter 20.

15A.3.2 Residential Zone

(a) Any development within the Arapaepae Road Special Treatment Overlay noted on Structure Plan 013

15A.3.3 Commercial Zone

(a) Development of new buildings and additions or external alterations to building frontages. (Refer Rule <u>15A.8.3.1</u><u>15A.8.2.1</u>).

- (b) Supermarkets (Refer Rule <u>15A.8.3.2</u><u>15A.8.2.2</u>).
- (c) Drive-through restaurants. (Refer Rule <u>15A.8.3.3</u><u>15A.8.2.3</u>).

15A.4 DISCRETIONARY ACTIVITIES

The following activities are discretionary activities.

Note: Refer to Chapter 25 for Assessment Criteria as a guide for preparing an assessment of environmental effects to accompany a resource consent application for any of the above activities.

15A.4.1 All Zones

- (a) Within the Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a discretionary activity in Chapter 15 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Commercial Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a discretionary activity in Chapter 17 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 17.
- (c) Within the Greenbelt Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a discretionary activity in Chapter 18 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (d) Within the Open Space Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a discretionary activity in Chapter 20 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 20.
- (e) Any activity not otherwise specified.

15A.4.2 Residential Zones

(a) Any subdivision that does not comply with the restricted discretionary activity conditions (Refer Rule <u>15A.8.2.145A.8.1.1</u>), except where the subdivision is a non-complying activity in accordance with Rule 15A.5.1(a) and/or Rule 15A.5.1(f).

15A.4.3 Commercial Zone

- (a) Commercial activities that do not comply with <u>maximum</u> floor area limits.
- (b) Development of a new building, or additions and/or alterations to existing building frontages that do <u>not</u> comply with the conditions for Restricted Discretionary Activities in Rule <u>15A.8.3.115A.8.2.1</u>

15A.5 NON-COMPLYING ACTIVITIES

The following activities are non-complying activities.

Note: Refer to Chapter 25 for Assessment Criteria as a guide for preparing an assessment of environmental effects to accompany a resource consent application for any of the above activities.

15A.5.1 All Zones

- (a) Within the Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a noncomplying activity in Chapter 15 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Commercial Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a non-complying activity in Chapter 17 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 17.
- (c) Within the Greenbelt Residential Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a non-complying activity in Chapter 18 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (d) Within the Open Space Zone of the <u>TaraikaTara-Ika</u> Precinct, activities listed as a non-complying activity in Chapter 20 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 20.
- (e) Subdivision or land use activities that are not consistent with Structure Plan 013.
- (f) Subdivision that does not comply with Rule 15A.8.2.2(b)(ii) 15A.8.1.2(b)(ii), 15A.8.3.4(b)(ii) 15A.8.2.4(b)(ii), 15A.8.4.1(b)(ii) 15A.8.3.1(b)(ii), or 15A.8.5.1(b)(ii) 15A.8.4.1(b)(ii).
- (g) Any activity that does not comply with Rule 15A.6.1.1 Vehicle Access into Strategic Cycleways.
- (h) Industrial Activities.
- (i) Large Format Retailing.

15A.6 CONDITIONS FOR PERMITTED ACTIVITIES

Note: The permitted activity conditions within the relevant zone chapter for the relevant activity type also apply. Where there is conflict between provisions, the more specific provision (i.e. the provisions of this chapter) apply.

The following conditions shall apply to all permitted activities:

15A.6.1 All Zones

15A.6.1.1 Vehicle Access into Strategic Cycleways

(a) No vehicle crossings shall cross a strategic cycleway shown on Structure Plan 013 will be permitted. In such cases, vehicle access to the site shall be via <u>the side roads</u> or rear access lanes shown on Structure Plan 013

15A.6.2 Residential Zones

15A.6.2.1 Rainwater Tanks

- (a) All dwellings shall have a <u>rainwater</u> collection tank permanently connected to internal and external non-potable reuse including toilet flushing, laundry, and outdoor taps. Rainwater tanks must <u>be design and installed as follows</u>:
 - (i) Size of tank:
 - Roof area of 75m² or less <u>minimum</u> 2,000 litre capacity
 - Roof area of 75m² to 200m² <u>minimum</u> 3,000 litre capacity
 - Roof area of more than 200m² <u>minimum</u> 5,000 litre capacity
 - (ii) The roof area to be connected will be the total footprint of the building (excluding freestanding accessory buildings) and 90% of this must be able to freely drain to the tank without need for pumping. Only runoff from roof surfaces is to be collected into the rainwater tanks.
 - (iii) The rainwater tank, plumbing and pump system must be maintained in working condition <u>of over</u> the life of the dwelling.
 - (iv) The public potable water supply shall be adequately protected by installation of a non-return valve.
 - (v) Rainwater tanks are to overflow when full into an on-lot soakage device for stormwater disposal.

Note: Multi-unit dwellings may share an appropriate sized communal tank to be determined at land use or subdivision consent stage.

15A.6.2.2 Maximum Building Height

(a) In the medium density area the maximum height shall be 10 metres.

15A.6.2.3 Integral Garages

(a) Integral garages shall account for no more than 50% of the front façade of the dwelling unless the garage component is recessed back from the main pedestrian entrance to the dwelling by at least 1 metre

15A.6.2.4 Building Setback from Boundaries

Front/Road Boundary

(a) No building shall be located closer than 2 metres from any road boundary, except that a 5 metre long vehicle standing space shall be provided between the road boundary and any structure housing a vehicle where the vehicle takes direct access to the structure from the road.

15A.6.2.5 Daylight Access
(b) Where two dwellings are joined, there shall be no daylight access standard along the shared boundary.

15A.6.2.6 Fencing

- (a) Front Road Boundary
 - (i) Local Roads
 - The maximum height of a fence or wall sited on the boundary or within 2 metres of the boundary shall be no greater than 1.2 metre high.
 - (ii) Collector and Arterial Roads
 - The maximum height of a fence or wall sited on the boundary or within 2 metres from the boundary is 1.5m high
- (b) Boundaries adjoining a public reserve or cycle way
 - The maximum height of a closed style fence or wall sited on the boundary or within 1.2 metre from the boundary is 1m high

Or

- The maximum height of an open pool style or trellis fence or wall sited on the boundary or within 1 metre from the boundary is 1.8m high
- (c) Other Boundaries
 - The maximum height of a fence or wall sited on the boundary or within 1 metre from the boundary shall not exceed 2 metres.
 - Fences perpendicular to the road shall taper downwards towards the road boundary. The taper should commence at least 1.5m from the road boundary and the maximum height of the fence where it meets the road boundary shall be 1.2m high if the road is a local road, or 1.5m high if it is an arterial or collector road.

15A.6.3 Commercial

15A.6.3.1 Signs

(a) A maximum of 2 signs will be permitted per frontage in any 2 of the following preferred locations:

- Building façade;
- Verandah fascia;
- Under verandah;
- Side wall;
- Inside the display window.

(b) Signs in the <u>commercial zone</u> shall be limited to the following sizes Table 15A-1: Sign Dimensions

Sign Type	Maximum Dimensions
Building Façade	Maximum area 1.2m ² .
Verandah Fascia	Must not extend beyond the fascia.
Under Veranda	Must have a least 2.5m clearance above the ground.
Side Wall	Maximum 8m ² and set back at least 0.5m from corner.
Inside the Display Window	Depth of sign must be no greater than 0.3m and must be either above 2m high or below 0.8m high in relation to ground.

(c) There shall be no remote signage

15A.6.4 Greenbelt Residential

15A.6.4.1 Rainwater Tanks

- (a) All dwellings shall have a rainwater collection tank permanently connected to internal and external non-potable reuse including toilet flushing, laundry, and outdoor taps. Rainwater tanks must be design and installed as follows:
 - (i) Size of tank:
 - Roof area of 75m² or less minimum 2,000 litre capacity
 - Roof area of 75m² to 200m² minimum 3,000 litre capacity
 - Roof area of more than 200m² minimum 5,000 litre capacity
 - (ii) The roof area to be connected will be the total footprint of the building (excluding freestanding accessory buildings) and 90% of this must be able to freely drain to the tank without need for pumping. Only runoff from roof surfaces is to be collected into the rainwater tanks.

- (iii) The rainwater tank, plumbing and pump system must be maintained in working condition over the life of the dwelling.
- (iv) The public potable water supply shall be adequately protected by installation of a non-return valve.
- (v) Rainwater tanks to overflow when full into an on-lot soakage device for stormwater disposal.

Note: Multi-unit dwellings may share an appropriate sized communal tank to be determined at land use or subdivision consent stage.

15A.7 MATTERS OF CONTROL AND CONDITIONS FOR CONTROLLED ACTIVITIES

There are no <u>TaraikaTara-Ika</u> Precinct specific Matters of Control. The matters of control and conditions for controlled activities contained within the relevant zone chapter for the relevant activity type apply.

15A.8 MATTERS OF DISCRETION AND CONDITIONS FOR RESTRICTED DISCRETIONARY ACTIVITIES

Note: The matters of discretion and conditions for restricted discretionary activities contained within the relevant zone chapter for the relevant activity type also apply.

The matters over which Council has restricted its discretion for each restricted discretionary activity, and the conditions for each activity, are detailed below:

15A.8.1 All Zones

15A.8.1.1 Conditions for All Restricted Discretionary Activities

(i) Stormwater Management Plan

All applications for restricted discretionary activities must include a stormwater management plan which sets out how stormwater will be managed via both onsite and centralised treatment and soakage facilities (i.e. wetlands and soakage basins) in a manner that ensures stormwater is retained and disposed of within the Tara-Ika Growth Area for up to a 1 in 100 year average recurrence interval (ARI) rainfall event (with allowance for climate change). The Plan shall be consistent with the more stringent of the Horowhenua District Plan Subdivision and Development Principles and Requirements 2014 and NZS 4404:2010 (Land development and subdivision infrastructure) and shall include the following:

- The size, design, location and expected maintenance of stormwater management devices (e.g. rainwater tanks, on-lot soakage, wetlands and soakage basins), including those to be vested with Council.
 - Pre-soakage treatment is required for all runoff from all impervious surfaces excluding roofs and other on-lot impervious areas (patios, shed etc.) but including private driveways and parking areas. The primary method of treatment shall be through centralised end-ofpipe stormwater wetlands that are sized and located to efficiently

service the Tara-Ika Grwoth Area in an integrated manner. Wetlands shall include a high flow bypass into an adjoining/downstream soakage basin for disposal, sized to bypass flows greater than the Water Quality Flow.

The stormwater treatment devices (wetlands) shall be sized to accommodate the Water Quality Flow and Water Quality Volume of the contributing catchment, excluding the roof and on-lot impervious areas that are connected to appropriately sized on-lot soakage devices. The contributing catchment includes adjoining development blocks within Tara-Ika and must consider the future developed upstream catchment.

The stormwater soakage devices shall be sized to provide full retention and disposal of the 1 in 100 year ARI runoff volume (with allowance for climate change) with no overflows to the downstream environment.

- Overland flow paths for the 100-year ARI rainfall event (with allowance for climate change) and proposed mechanisms for managing these. The reduction of runoff volume and flow from on-lot soakage disposal cannot be considered in the sizing calculations for the 100-year ARI overland flow path, in order to ensure sufficient capacity is available during extreme events.
- Calculations undertaken to prepare the stormwater management plan. These should be carried out in the following manner:
 - The 12-hour nested design storm specified by Wellington Water in <u>"Reference Guide for Design Storm Hydrology" (2019) shall be</u> <u>applied to Tara-Ika stormwater design calculations.</u>
 - Design storms shall be developed with HIRDS v4 rainfall data for the development site using the RCP 8.5 (2081-2100) climate change scenario.
 - The soakage rate for on-lot soakage devices to receive roof runoff from roofs and other impervious areas (excluding driveways and parking areas) shall be determined by carrying out soakage testing in accordance with Horowhenua District Plan Subdivision and Design Requirements and Principles, with a safety factor of 1.5 applied to the testing results (i.e., divide soakage rate result by 1.5). Evidence of the site-specific soakage testing must be provided, including the suitability of soil layers at the location and depth of the proposed on-lot soakage. In the absence of soakage testing or for the purposes of initial design a soakage rate of 100mm per hour will be applied. Rainwater tank volume shall not be considered in the sizing of on-lot soakage.
 - The Water Quality Volume (WQV) and the Water Quality Flow (WQF) used to size treatment devices shall be calculated using the method specified in Wellington Water's "Water Sensitive Design for Stormwater: Treatment Device Design Guideline" (2019).

Acceptable design standards for treatment and soakage devices include Wellington Water's "Water Sensitive Design for Stormwater: Treatment Device

Design Guideline" (2019), or Auckland Council's "Stormwater Management Devices in the Auckland Region" (2017).

Advice Note: Pre-application meetings with Council are strongly encouraged.

15A.8.115A.8.2 Residential Zones

15A.8.1.1<u>15A.8.2.1</u> Development within the Arapaepae Road Special Treatment Overlay (Refer to Rule 15A.3.2(a))

- (a) Matters of Discretion
 - (i) Reverse sensitivity effects, including:
 - Noise
 - Vibration
 - Visual
 - Traffic
 - (ii) Compatibility with surrounding and anticipated land uses.
 - (iii) Safe and efficient access
- (b) Conditions
 - (i) New buildings or alterations to existing buildings containing noise sensitive activities must be design, constructed and maintained to achieve the indoor design noise levels from Arapaepae Road/State Highway 57 traffic set out in <u>Table 15A-2</u>Table 15A-2 below (excludes area not deemed to be habitable spaces as defined by Schedule 1 of the Building Regulations 1992:

Building Type	Occupancy/Activity	Maximum Indoor Design Noise Level L _{Aeq(24h)}
Residential	Living spaces, sleeping spaces (including visitor accommodation and retirement accommodation)	40dB
Education	Assembly halls	35dB
	Conference rooms, drama studios	40dB
	Lecture rooms and theatres, music studios	35dB
	Libraries	45dB

	Sleeping areas in educational facilities	40dB
	Teaching areas	40dB
Health	Overnight medical care, wards	40dB
	Clinics, consulting rooms, theatres, nurses' stations	45dB
Cultural Buildings	Places of worship, marae	35dB

Note: This table is informed by <u>NZTAs</u> <u>Waka Kotahi</u> guidance material on managing State Highway noise. The purpose of this table is simply to specify the noise level standards for different types of activities. It should not be taken as an indication of what types of activities will more broadly be considered acceptable in this location.

- (ii) If windows must be closed to achieve the design noise levels in (i), the building must be designed, constructed and maintained with a ventilation and cooling system. For habitable spaces a ventilation cooling system must achieve the following:
 - Ventilation must be provided to meet clause G4 of the New Zealand Building Code. Noise from the system must not exceed 30 dB LAeq(30s) when measured 1 m away from any grille or diffuser.
 - The occupant must be able to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour. Noise from the system must not exceed 30 dB LAeq(30s) when measured 1 m away from any grille or diffuser.
 - The system must provide cooling controllable by the occupant that can maintain the temperature at no greater than 25°C. Noise from the system must not exceed 30 dB LAeq(30s) when measured 1 m away from any grille or diffuser.
- (iii) A design report prepared by a suitably qualified and experienced acoustics specialist must be submitted with the building consent application for construction or alteration of any building containing a noise sensitive activity in or partly in the Arapaepae Road Special Treatment Overlay.
- (c) Non-Notification

- (i) Under section 77D of the RMA, an activity requiring resource consent under Rule 15.7.1 shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)

15A.8.1.215A.8.2.2 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.
 - (ii) For subdivisions within the medium density area, consistency with the Medium Density Residential Development Design Guide.
 - (iii) The design, and layout and variety of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision) energy efficiency and conservation, and access to solar energy...
 - (iv) Whether the subdivision contains a variety of lot sizes suitable for the area it is located within.
 - (v) Whether the subdivision and likely future development will represent good urban design and will result in the level of amenity anticipated for the area.
 - (vi)(iv) Provision of land for publically accessibley open space and recreation that is appropriately located and of a practicable size and shape for recreation and to support management of stormwater during heavy rain events, in accordance with Structure Plan 013.
 - (vii)(v) Whether the proposal includes The the provision of practicable street plantings.
 - (viii)(vi) The provision of access, any new roads, cycleways, and provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
 - (ix) The provision of access to sites, including passing bays, car parking and manoeuvring areas, and any necessary easements.
 - (x)(vii) The management of traffic generated and potential adverse effects on the safety and efficiency of the street network.

- (xi)(viii) Minimise use of cul-de-sacs, particularly cul-de-sacs that are long or have poor visibility to or from the street they connect to.
- (xii)(ix) Consideration of Crime Prevention through Environmental Design Principles.
- (xiii)(x) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, telecommunications, gas and electricity.
- (xiv)(xi) Effects on significant sites and features, including natural/ecological, cultural, archaeological and historical sites.
- (xv)(xii) Avoidance or mitigation of natural hazards.
- (xvi)(xiii) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may</u> require cut and fill plans and erosion and sediment control plans to be submitted with applications for subdivision.
- (xvii)(xiv) Whether tikanga and cultural protocols will be followeding during the construction phase, particularly when undertaking earthworks.
- (xviii)(xv) The staging of development and timing of works.
- (xix)(xvi) Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).
- (xvii) The potential effects of the development on the safe and efficient operation, upgrading, maintenance and replacement of existing lawfully established network utilities.

(xx)(xviii) Those matters described in Sections 108 and 220 of the RMA

- (b) Conditions
 - (i) Minimum Allotment Area and Shape

Each allotment shall comply with the following site area and shape factor standards for each settlement set out in <u>Table 15A-3Table 15A-3</u> below.

Table 15A-3: Standards Applying to Subdivision and Residential Dwelling Units

Residential M Zone N	Minimum Net Site Area	Maximum Net Site Area/Maximum Density	Minimum Shape Factor	Other Requirements	Road Frontage
-------------------------	--------------------------	--	----------------------------	-----------------------	--

Medium Density	Attached Units: 150m ²	450m ² -	7m	Maximum street block length: 200m Must include building siting plan.*	
	Detached Units: 225m ^{2*}	450m ^{2*}	10m	Maximum block length: 200m Must include building siting plan.*	All sites must have road frontage for at least 7m
Standard Residential	330m ²	-	13m	Maximum block length: 200m	
Low Density Residential	1000m ²	-	18m	N/A	

*The siting plan shall show the location, pedestrian entrances, and outdoor living areas for all future dwellings. Although the dwellings do not need to be built prior to s224 being issued, a condition will be imposed on the subdivision requiring the siting plan to be complied with at the time the site is developed. This outcome will be secured by consent notice.

- (ii) Structure Plan
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.
- (iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

- (c) Non-Notification
 - (i) Under section 77D of the RMA, an activity requiring resource consent under Rule 15A.8.2.2 shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section <u>95A(9); or</u>
 - The applicant requests public notification (pursuant to Section 95A(3)(a)

15A.8.1.315A.8.2.3 Non-Compliance with requirements for Rainwater Tank (Refer Rule 15A.6.2.1)

- (a) Matters of Discretion
 - (i) The potential for increased volume stormwater discharge from the site.
 - (ii) The proposed methods of managing the quality and quantity of storm water discharge from the site.

15A.8.1.415A.8.2.4 Non-Compliance with Integral Garages (Refer Rule 15A.6.2.3)

- (a) Matters of Discretion
 - (i) The extent to which the integral garage obscures the dwelling from view<u>and/or</u> detracts from the dwelling as the primary feature on the site.
 - (ii) The extent to which the integral garage reduces the opportunity for passive surveillance between the dwelling and the streetscape.
 - (iii) The extent to which the integral garage detracts from the dwelling as the primary feature on the site.
 - (iv)(iii) The effect of the integral garage's position on streetscape character and residential amenity.

15A.8.1.515A.8.2.5 Non-Compliance with Fencing (Refer to Rule 15A.6.2.6)

- (a) Matters of Discretion
 - (i) The extent to which the fence reduces the opportunity for passive surveillance and social interaction between public and private space.

15A.8.215A.8.3 -Commercial Zone

15A.8.2.115A.8.3.1 New Buildings and Additions/Alterations to Building Frontage (Refer Rule 15A.3.3(a))

(a) Matters of Discretion

- (i) Building design and façade treatment should create a high amenity commercial environment that contributes positively to the public realm and enhances pedestrian experience by providing opportunity for interaction between shops front and the street. This includes but is not limited to:
 - Locating main building façades to address the primary street frontage.
 - Providing an interesting and varied building frontage that is not dominated by either featureless facades or glazing.
 - Including horizontal and/or vertical articulation design elements to add visual interest.
 - Designing building frontages that complement any existing adjoining buildings.
 - Locating doorways and entrances to buildings so they are easily identifiable.
- (ii) The building and site design and layout should prioritise pedestrians over vehicles. This includes but is not limited to:
 - Pedestrian entrances to shops are built right up to the footpath.
 - Any onsite carparking, services areas, and storage areas should be located the rear of the building. They should not be located between the street and the pedestrian entrance to the building.
 - If carparks, services areas, and storage areas are visible from the street, they should be well screened from the street by landscaping or similar.
- (iii) The provision of verandah that:
 - Provide weather protection to pedestrians
 - Contribute to the overall appearance and pleasantness of the street
- (iv) The application of Crime Prevention through Environmental Design (CPTED) Principles, including:
 - Building design and layout.
 - Use of appropriate planting and landscaping.
- (v) Proposed methods of managing the quality and quantity of stormwater.
- (b) Conditions

- (i) All buildings in the Commercial Zone (Taraika<u>Tara-Ika</u> Precinct) must comply with the following:
 - No part of any building shall exceed a height of 15 metres.
 - All buildings shall be built to the front road boundary of the site.
 - All building shall be built up to the side boundaries (the boundary which is perpendicular to the primary road frontage).
 - All buildings shall have display windows along the ground floor road frontage. At least 50% of ground floor facade surface shall be display space or transparent window or doors. The minimum window area shall be kept clear and not be boarded up, painted or covered by signage.
 - No building shall have a continuous featureless façade/blank wall on the ground floor road frontage wider than 4 metres. A featureless façade or blank wall is a flat or curved wall surface without any openings, glazing or columns, recesses, niches or other architectural detailing
 - All buildings shall have a maximum ground floor road frontage width for individual tenancies of 15 metres.
 - All building frontages shall have a minimum height of 6 metres.
 - The above standards do not apply to service lane frontages.
- (ii) All buildings in the Commercial Zone (TaraikaTara-Ika Precinct) must contain a verandah and the verandah must comply with the following:
 - A minimum clearance of 2.5 metres directly above the footpath or formed ground surface.
 - A maximum clearance of 4 metres (measured at the base of the verandah fascia) directly above the footpath or from ground surface.
 - Extend for the full length of the building.
 - Extend outwards from the front of the building to the far side of the kerbing less than 450mm, or the verandah extends out 3 metres whichever is the lesser.
 - Provide continuous shelter with any adjoining verandah or pedestrian shelter.

15A.8.2.215A.8.3.2 Supermarkets (Refer to Rule 15A.3.3(b))

(a) Matters of Discretion

- (i) Whether parking areas, vehicle access and servicing arrangements are designed and located in a manner that protects the visual amenity of the streetscape and pedestrian safety, including the use of landscaping, planting and lighting.
- (ii) Whether the design and layout of the site and buildings protects the visual amenity of the streetscape and pedestrian safety. For example:
 - The extent of featureless facades.
 - The extent of glazing.
 - The extent of signage.
 - The extent of window displays that prevent visibility into the store from the street.
- (iii) Whether effects arising from operation (for example, hours, location of service areas, waste disposal) will be compatible with any nearby residential zones.
- (b) Conditions
 - (i) Car parking (as required by Chapter 21) (if chosen to be provided) must be provided to the rear of the building.
 - (ii) The main pedestrian entrance to the supermarket must front the street.

15A.8.2.315A.8.3.3 Drive-Through Restaurants (Refer to Rule15A.3.3(c))

- (a) Matters of Discretion
 - (i) Whether the design and layout of the site and buildings protects the visual amenity of the streetscape and pedestrian safety. For example:
 - The extent of featureless facades.
 - The extent of glazing.
 - The extent of signage.
 - The extent of window displays that prevent visibility into the store from the street.
 - Screening and/or landscaping of equipment, parking and service areas.
 - Whether the location of the drive-through detracts from pedestrian experience by creating a barrier between the building and the footpath.
 - (ii) Whether operating effects are compatible with surrounding land uses (particular residential areas). For example:

- Whether the activity, including parking areas and storage and servicing facilities, is adequately screened to protect the visual amenity of surrounding land uses.
- Whether the activity, including parking areas and storage and servicing facilities, are located, designed and managed to avoid nuisance effects such as noise and odour on surrounding land uses.
- The impact of adverse effects arising from the numbers of people and/or vehicles using the site.
- The effects of the activity's operation on the existing and expected future amenity values of the surrounding area and any mitigation measures proposed.
- (iii) Whether the site is located, designed and laid out in a manner that avoids adverse effects on the safe and effective operation of the roading network, including pedestrians. For example:
 - Whether the nature and scale of vehicle movements associated with the activity will have an adverse effect on road users.
 - Whether the drive through is positioned to provide sufficient off-road queuing space during peak times.
 - Whether the site is designed to allow a free flow of traffic from the road into the parking area.
 - Whether the activity is designed in such a manner that vehicles can manoeuvre on-site in a safe and efficient manner.
 - Whether sufficient vehicle (including service vehicles) and pedestrian access is provided to the site to minimise conflict between pedestrians and vehicles.
- (b) Conditions
 - (i) The main pedestrian entrance to the restaurant must front the street.
 - (ii) Car parking (as required by Chapter 21<u>if chosen to be provided</u>) must be provided to the rear of the building.

15A.8.2.415A.8.3.4 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.
 - (ii) The design and layout of the subdivision, including the size, shape and position of any lot, including the future land use and development of each lot. In addition, the location of building sites, separation distances, orientation of buildings, and screening/landscape treatment.

- (iii) The amalgamation of any proposed allotments or balance areas to existing titles of land.
- (iv) The provision of any access, any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (v) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, streetlighting, telecommunications and electricity and, where applicable gas.
- (vi) Provision of reserves, esplanade reserves, esplanade strips and access strips, including connections to existing and future reserves.
- (vii) Effects on significant sites and features, including natural, ecological, cultural, archaeological and historical sites.
- (viii) Site contamination remediation measures and works.
- (ix) Avoidance or mitigation of natural hazards.
- (x) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may</u> require cut and fill plans and erosion and sediment control plans to be submitted with applications for subdivision.
- (xi) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xii) Staging of the subdivision.
- (xiii) Compliance with the Councils Subdivision and Development Principles and Requirements (Version: July 2014).
- (xiv) Those matters described in Sections 108 and 220 of the RMA.
- (b) Conditions
 - (i) All lots shall demonstrate compliance with the relevant permitted activity conditions, except no minimum lot area requirement applies.
 - (ii) Structure Plan
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.

- A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.
- (iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

- (c) Non-Notification
 - Under section 77D of the RMA, an activity requiring resource consent under Rule <u>15A.8.3.415.7.1</u> shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)

15A.8.315A.8.4 Open Space Zone

15A.8.3.115A.8.4.1 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.
 - (ii) The design and layout of the subdivision, including the size, shape and position of any lot, including the future land use and development of each lot. In addition, the location of building sites, separation distances, orientation of buildings, and screening/landscape treatment.
 - (iii) The amalgamation of any proposed allotments or balance areas to existing titles of land.
 - (iv) The provision of <u>any access</u>, new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.

- (v) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, street lighting, telecommunications and electricity and, where applicable gas.
- (vi) Provision of reserves, esplanade reserves, esplanade strips and access strips, including connections to existing and future reserves.
- (vii) Effects on significant sites and features, including natural, ecological, cultural, archaeological and historical sites.
- (viii) Site contamination remediation measures and works.
- (ix) Avoidance or mitigation of natural hazards. (Note: Refer to the "Risks and Responsibilities: Report of the Manawatu-Wanganui Regional Lifelines Project" (No. 2005/EXT/622) prepared by the Manawatu-Wanganui CDEM Group for information about natural hazards that may be relevant to the subject site).
- (x) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may</u> <u>require cut and fill plans and erosion and sediment control plans to be submitted</u> <u>with applications for subdivision.</u>
- (xi) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xii) Staging of the subdivision.
- (xiii) Compliance with the Councils Subdivision and Development Principles and Requirements (Version: July 2014).
- (xiv) Those matters described in Sections 108 and 220 of the RMA.
- (b) Conditions
 - (i) All lots shall demonstrate compliance with the relevant permitted activity conditions, except no minimum lot area requirement applies.
 - (ii) Structure Plan
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.

(iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

- (c) Non-Notification
 - Under section 77D of the RMA, an activity requiring resource consent under Rule <u>15A.8.4.1</u><u>15.7.1</u> shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)

15A.8.415A.8.5 Greenbelt Residential

15A.8.4.115A.8.5.1 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.
 - (ii) The design and layout of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision) <u>energy efficiency and conservation, and access to solar energy</u>.
 - (iii) Whether the subdivision contains a variety of lot sizes suitable for the area it is located within.
 - (iv) Whether the subdivision and likely future development will represent good urban design and will result in the level of amenity anticipated for the area.
 - (v)(iii)Provision of land for publically accessibly open space and recreation that is appropriately located and of a practicable size and shape<u>to support</u> <u>management of stormwater during heavy rain events</u>, in accordance with <u>Structure Plan 013</u>-
 - (vi)(iv) Whether the proposal includes The the provision of practicable street plantings.

- (vii)(v) The provision of anyaccess, any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (viii) The provision of access to sites, including passing bays, car parking and manoeuvring areas, and any necessary easements.
- (ix)(vi) The management of traffic generated and potential adverse effects on the safety and efficiency of the street network.
- (x)(vii) Minimise use of cul-de-sacs, particularly cul-de-sacs that are long or have poor visibility.
- (xi)(viii) Consideration of Crime Prevention through Environmental Design Principles.
- (xii)(ix) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, telecommunications, gas and electricity.
- (xiii)(x) Effects on significant sites and features, including natural/<u>ecological</u>, cultural, archaeological and historical sites.
- (xiv)(xi) The protection and enhancement of any natural habitat of indigenous species within the subdivision
- (xv)(xii) Avoidance or mitigation of natural hazards.
- (xvi)(xiii) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may</u> require cut and fill plans and erosion and sediment control plans to be submitted with applications for subdivision.
- (xvii)(xiv) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xviii)(xv) The staging of development and timing of works
- (xix)(xvi) Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).
- (xvii) The potential effects of the development on the safe and efficient operation, upgrading, maintenance and replacement of existing lawfully established network utilities.

(xx)(xviii) Those matters described in Sections 108 and 220 of the RMA

(b) Conditions

(i) Minimum Allotment Area and Shape

 Each allotment shall comply with the following site area and shape factor standards in <u>Table 15A-4</u>Table 15A-4

Table 15A-4: Standards Applying to Subdivision and Residential Dwelling Units

Type of Allotment, or Subdivision	Minimum Area Per Allotment/Site	Minimum Shape Factor
Greenbelt Residential General Serviced	2000 square metres	20 metres diameter
Greenbelt Residential General Unserviced	5000 square metres	20 metres diameter

- (ii) Structure Plan
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.
- (iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

(c) Non-Notification

- Under section 77D of the RMA, an activity requiring resource consent under Rule <u>15A.8.5.1</u><u>15.7.1</u> shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)



Appendix 3: Structure Plan 013 and Zoning Maps showing recommended changes

Transport







LEGEND ZONES Residential Greenbelt Resid Deferred Industrial Commercial Def Qpen Space Residential Def Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Large Format Retail Area Coastal Natural Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
ZONES Residential Greenbelt Resid Commercial Commercial Commercial Deferred Industrial Commercial Def Open Space Residential Deferred Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Vaitarere Rise Greenbelt Residential Character Area Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Lave Format Retail Area Coastal Natural Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Wersatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Matural Character and Hazard Area Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Matural Character Area Area Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Casa Area National Grid Corridor (High Voltage Transmission Lin Casa Area Casa Area Ca	
Residential Greenbelt Residered Commercial Greenbelt Residered Industrial Commercial Deferred Open Space Residential Deferred Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Vaitarere Rise Greenbelt Residential Vaitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Mudunoa West Forest Park Muhunoa West Forest Park Mudunoa West Forest Park Mudunoa West Forest Park Medium Density Area Large Format Retail Area Coastal Natural Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Natable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Ling Designation Road Totage Building, Structure or Site Gage Park <td< th=""><th></th></td<>	
Commercial Commercial Commercial Commercial Deferred Industrial Commercial Def Rural CVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	dentia
Industrial Commercial Deferred Industrial Commercial Def Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Wersatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Road Mage Stransmission Pipeline	dentia
Open Space Residential Definition Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Area Low Density Area Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Motuba Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lint) Designation Road	ferred
Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Muhumoa West Forest Park Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Motuoa Floodway (1:50,000 Rural Maps Only) West Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	erred
OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Low Density Area Large Format Retail Area Coastal Natural Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	eneu
Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Mutional Grid Corridor (High Voltage Transmission Lin Designation Road	
Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Tom Tom Tom Tom Tom Tom Tom Tom	
Greenbelt Residential Valuatere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Wersatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Tom Tom Tom Tom Tom Tom Tom Tom	
Greenbelt Residential Foxion Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Characte Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soli) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Characte Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Formation Road Participation Road Participation Road Participation Road Participation Road Participation Road Participation Road Participation Road Participation Road Participation Road Participation Road Participation Road Participation Participation Road Participation Participation Road Participation Participation Road Participation Participa	
Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Characte Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Field Corridor (High Voltage Transmission Lin Designation Road Part Part Retail Area Second Structure of Site Second	
Muhunoa West Forest Park Coastal Natural Characte Hazard Area Low Density Area Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Low Density Area Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	er and
Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Togo Target Age to the second se	
Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Table Tree Road Designation Road Antiperiod Corridor (High Voltage Transmission Lin Designation Road Antiperiod Corridor (High Voltage Transmission Lin Designation Road	
Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Road Table Tree Road 0 0 0 0 0 0 0 0 0 0 0 0 0	
Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road National Grid Corridor (High Voltage Transmission Lin Designation Road 1 1 1 2 2 2 2 2 2 3 3 1 1 2 2 2 2 3 3 1 1 2 2 2 3 3 1 1 2 2 2 3 3 1 1 2 2 2 3 3 1 1 2 3 1 1 2 2 2 3 3 1 1 1 2 2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	
Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road Table Tree Road Table Tree National Grid Corridor (High Voltage Transmission Lin Designation Road 9	
FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road 10 10 10 10 10 10 10 10 10 10	
FEATURES Notable Tree ★ Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	
 Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road 	
Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Lin Designation Road	
National Grid Corridor (High Voltage Transmission Lin Designation Road	
Designation Road	ne)
Road	
	1
23 7 26 22 33 3 8 9	_
7 29 30 21 8 9	_
/ / 29 30 31 8 9	
32 33	
37	
510 JTL	

Date: November 2020 Version: 1



LEGEND ZONES Residential Greenbelt Residential Commercial Speenbelt Residential Industrial Commercial Deferred Open Space Residential Deferred Rural Commercial Deferred Corenbelt Residential Waltarere Rise Greenbelt Residential Waltarere Rise Greenbelt Residential Natural Character Area Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Greenbelt Residential Area Muhunoa West Forest Park Coastal Natural Character Area Foxton Tourism Area Coastal Natural Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Mutoa Floodway (1:50,000 Rural Maps Only) Wortable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voitage Transmission Line) Disignation Read Mational Grid Corridor (High Voitage Transmission Line) Greental Mational Grid Corridor (High Voitage Transmission Line) Greental Mational Grid Corridor (High Voitage			DISTRICT	COUNCIL
Residential Commercial Industrial Open Space Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Cow Density Area Hedium Density Area Large Format Retail Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Wersatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Mutua Total Gartar and Hazard Area Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Mutua Corridor (High Voltage Transmission Line) Mational Grid Corridor (High Voltage Transmission Line)	/	- 11	LEGEND	
Residential Commercial Greenbelt Residential Industrial Commercial Deferred Commercial Deferred Open Space Residential Deferred Residential Deferred Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waltarere Rise Greenbelt Residential Waltarere Rise Greenbelt Residential Poxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Woutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Image: Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Town Grid Corridor (High Voltage Transmission Line)			ZONES	Creenholt Desidential
Commercial Deferred Industrial Commercial Deferred Open Space Residential Deferred Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waltarere Rise Greenbelt Residential Waltarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Food Hazard Area (1:50,000 Rural Maps Only) Wortoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Residential		Greenbelt Residential
Industrial Commercial Deferred Open Space Residential Deferred Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waltarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Tom Tom Satara Sa		Commercial		Deferred
Open Space Residential Deferred Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Vaitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Pedestrian Area Food Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Wotable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline Natable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline Road Image: Prove Partial Pa		Industrial		Commercial Deferred
Rural OVERLAYS Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Muhunoa West Forest Park Coastal Natural Character and Hazard Area Medium Density Area Medium Density Area Hedium Density Area Coastal Natural Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Motuoa Floodway (1:50,000 Rural Maps Only) Motuoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Open Space		Residential Deferred
Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Rural		
Arapaepae Special Effects Overlay Greenbelt Residential Waitarere Rise Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soit) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road			OVERLAYS	
Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Arapaepae Special	Effects Overlay	
Greenbelt Residential Foxton Beach North Strathnaver Coastal Natural Character Area Strathnaver Coastal Natural Character Area Muhumoa West Forest Park Muhumoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Wersatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Tom Tarea Road Part Part Retail Area Formation Road Part Part Retail Area Structure of Site Road Ro		Greenbelt Resident	ial Waitarere Ris	e
Strathnaver Coastal Natural Character Area Strathnaver Coastal Hazard Area Muhumoa West Forest Park Muhumoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Toget 2		Greenbelt Resident	ial Foxton Beach	North
Strathnaver Coastal Hazard Area Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Table Tree Road Table Tree Automal Grid 2000 (High Voltage Transmission Line) Designation Road Table Tree Automal Grid 2000 (High Voltage Transmission Line) Designation Road		Strathnaver Coastal	Natural Charact	ter Area
Muhunoa West Forest Park Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Low Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Strathnaver Coastal	Hazard Area	
Muhunoa West Forest Park Coastal Natural Character and Hazard Area Low Density Area Lerge Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Muhunoa West For	est Park	
Image: Area Low Density Area Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road	777	Muhunoa West For	est Park Coastal	Natural Character and
Medium Density Area Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Low Density Area		
Large Format Retail Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road		Medium Density Are	ea	
Large Format Retain Area Town Centre Heritage/Character Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Image Retain Area	1223	Large Format Retail	Area	
Foxton Tourism Area Foxton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road For the structure of the	1111	Taun Contro Horito	Aled	
Poton Tourism Area Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road	200	Town Centre Hentag	ge/Character Are	a
Pedestrian Area Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Notable Tree 1000 Rural Maps Only) Personal Grid Corridor (High Voltage Transmission Line) Designation Road 9 1000 Rural Maps Only) Personal Grid Corridor (High Voltage Transmission Line) Designation Road 9 1000 Rural Maps Only) Personal Grid Corridor (High Voltage Transmission Line) 1000 Rural Grid Corridor (High Voltage Transmission	1111	Foxton Tourism Are	a	
Coastal Natural Character and Hazard Area Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Total Corridor (High Voltage Transmission Line) National Grid Corridor (High Voltage Transmission Line) Designation Road Total Corridor (High Voltage Transmission Line) Designation Road	//	Pedestrian Area		
Flood Hazard Area (1:50,000 Rural Maps Only) Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Total Corridor (High Voltage Transmission Line)		Coastal Natural Cha	aracter and Haza	ird Area
Moutoa Floodway (1:50,000 Rural Maps Only) Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Road Total Gas Transmission Line) Designation Road 0 0 0 0 0 0 0 0 0 0 0 0 0		Flood Hazard Area	(1:50,000 Rural	Maps Only)
Versatile Land (LUC Class I & II Soil) FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Total Gas Transmission Line) High Total Gas Transmission Line) Designation Road Total Gas Transmission Line) Road Total Gas Transmission Line) Road Roa		Moutoa Floodway (1	1:50,000 Rural M	laps Only)
FEATURES Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road Notable Tree National Grid Corridor (High Voltage Transmission Line) Designation Road 7 24 24 7 24 25 8 33 31 8 9		Versatile Land (LUC	Class I & II Soi	1)
 Notable Tree Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road 	%		FFATURES	
 Historic Heritage Building, Structure or Site Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road 	۰ 🔇	Notable Tree	LATOREO	
Gas Transmission Pipeline National Grid Corridor (High Voltage Transmission Line) Designation Road	₩ 🕹	Historic Heritage Bu	ildina Structure	or Site
National Grid Corridor (High Voltage Transmission Line) Designation Road	× _	Cas Transmission E		or one
Image: Transmission conduction Designation Road Image: Transmission conduction Image: Tr		National Crid Carrid	or (Lich Voltage	Transmission (inc)
Road Road 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	177	National Gld Collid	or (High voltage	Transmission Line)
		Designation		
		Roau		
		17.		
		1	2 - 20	3
7 22 24 25 22 24 25 22 24 25 22 24 25 22 33 31 8 9				16
		! -		
		14	5	6.
7 ²⁶ 2276 29 30 31 29 30 31 8 9	_	1920		/
7 ²⁶ 293031 293031 33 33 33 33		23 24 25	122	1
33		7 26 2 28 29 30 31	8	9
	1	33		



Residential Commercial Industrial	ZONES
Residential Commercial Industrial	
Commercial Industrial	Greenbelt Resident
Industrial	Greenbelt Resident
Open Space	Commercial Deferre
Open Space	Residential Deferred
Rural	
0	VERLAYS
Arapaepae Special E	ffects Overlay
Greenbelt Residentia	I Waitarere Rise
Greenbelt Residentia	I Foxton Beach North
Strathnaver Coastal N	Natural Character Area
Strathnaver Coastal H	lazard Area
Muhunoa West Fores	st Park
Muhunoa West Fores Hazard Area	st Park Coastal Natural Character an
Low Density Area	
Medium Density Area	1
Large Format Retail	Area
Town Centre Heritage	e/Character Area
Foxton Tourism Area	
Pedestrian Area	
Coastal Natural Char	acter and Hazard Area
Flood Hazard Area (1	:50,000 Rural Maps Only)
Moutoa Floodway (1:	50,000 Rural Maps Only)
Versatile Land (LUC	Class I & II Soil)
	EATURES
Notable Tree	EATURES
Historic Heritage Built	ding. Structure or Site
Gas Transmission Dir	neline
National Grid Corrido	r (High Voltage Transmission Line)
Designation	(age renered transmission cirle)
Road	
17.	
	22.4:1 3
	THE L
	- 20
11 8 11 20	5 6 /
23	22 /
7 26 21 28	. 1.
29 30 31 345 32 33	0 / 9
136	1

Date: November 2020 Version: 1



411				
141		1. S.	- C.	
4TH		OTOW	her	
1110			DISTRICT	
1 and			DISTRICT	COUNCIL
1///	10.00		ECEND	2
////	1.		EGEND	
			ZONES	
17580		Residential		Greenbelt Residential
11/		Commercial		Greenbelt Residential
H		Industrial	EXXI	Deterred
		Industrial		Commercial Deferred
UN.		Open Space		Residential Deferred
TH		Rural		
411	C	c	VERLAYS	
11H	1255	Arapaepae Special E	Effects Overlay	
HA	000	Creanbalt Desidenti	Naitorora Dia	
14		Greenbeit Residentia	ai vvalialele Ris	e.
A		Greenbelt Residentia	al Foxton Beach	n North
A	00	Strathnaver Coastal	Natural Charac	ter Area
		Strathnaver Coastal	Hazard Area	
	27	Muhunoa West Fore	st Park	
1H	777	Muhunoa West Fore	st Park Coasta	Natural Character and
1/4	44	Hazard Area		
9/1		Low Density Area		
1H		Medium Density Are	а	
18H		Large Format Retail	Area	
ELAS	100	Town Centre Heritag	e/Character Are	ea
D		Foxton Tourism Area	1	
72		Dedectries Area		
11		Feuestilan Area		a contraction of the second
SE		Coastal Natural Cha	racter and Haza	ard Area
AD/		Flood Hazard Area (1:50,000 Rural	Maps Only)
		Moutoa Floodway (1	:50,000 Rural M	Maps Only)
Dol.	772	Versatile Land (LUC	Class I & II So	il)
1899	race.			
EST.	1	F	EATURES	
	۲	Notable Tree		
	*	Historic Heritage Bui	lding, Structure	or Site
		Gas Transmission D	ineline	
V		Gas transmission P	ipeline	Second and and
		National Grid Corrido	or (High Voltage	e Transmission Line)
	1	Designation		
_		Road		
ERVE	Г		_	1
		17.		
		1	22.1	3
				1161
X		!	1	
1		1A_	5	à
		1920	æ	
N		[73]	22	1
1		24 25	201	1
		7 29 30 31	8	9
11		33 33		
			!	
		37		
		10	·~~ /	
-		510	Mr.	

Date: November 2020 Version: 1



-	
XIII	
XIII	
XIII	Horownenua 📯
X////	
X////	DISTRICT COUNCIL
XIII	
	LEGEND
XIII	ZONES
XIII	ZONES
14	Residential Greenbelt Residential
/	Commercial Greenbelt Residential
X	Deferred
	Industrial Commercial Deferred
	Open Space Residential Deferred
7/	Residential Deletted
11	Rural
M	OVERLAYS
	Arapaepae Special Effects Overlay
	Graanhalt Posidantial Waitarara Rica
	Greenbeit Residential Waitarere Rise
	Greenbelt Residential Foxton Beach North
	Strathpoyer Constal Matural Character Area
	Straumaver Coastal Natural Character Area
	Strathnaver Coastal Hazard Area
	Muhunoa West Forest Park
	Muhunoa West Forest Park Coastal Natural Character and
/	
	Low Density Area
	Medium Density Area
X	Large Format Retail Area
	Town Centre Heritage/Character Area
	Foxton Tourism Area
	Pedestrian Area
17	Coastal Natural Character and Hazard Area
11	Flood Hazard Area (1:50,000 Rural Maps Only)
11	Moutos Electivay (1:50 000 Rural Maps Oply)
1	Moutoa Ploodway (1.30,000 Rulai Maps Only)
	Versatile Land (LUC Class I & II Soil)
	FEATURES
	Notable Tree
	Historic Heritage Building, Structure or Site
	Gas Transmission Pineline
/	
	National Grid Corridor (High Voltage Transmission Line)
	Designation
X	
	Road
	1 N
	1: 2 3
	1
	163
	j: 33 33
	37
	c10 . 11

Date: November 2020 Version: 1



Appendix 4: Commercial Centres Assessment

URBACITY

August 20, 2021

Lauren Baddock Strategic Planner Horowhenua District Council

Dear Lauren,

Centres at Tara-ika

We wish to confirm the basis for the centre strategy, location and status for Tara-ika.

Determining the number and size of centres was iterative and interactive, reflecting urban design analysis, motorway location, role, and the centre's inspirational potential all played a part in establishing the strategy for Tara-ika.

There are a couple of "going-in" preferences before we started developing the centre rationale for the site.

- 1. The centre/s needed to be urban (street-based) as well as socially meaningful in the lives of those that will use it;
- 2. The centre is connected to the existing suburban fabric of Levin.

Retail and Services Role

On the practical side, we wanted to ensure that the centre/s in Tara-ika could be large enough to encourage high levels of community or social interaction. In other words, a dairy and another shop or two was not the basis under which we wanted centres to accumulate within Tara-ika. The desire was to generate centres that encouraged people to remain longer, with enough retail and services resources for future residents to be a daily or weekly trip destination.

On the physical side, we wanted the centre to be urban (street-based) and a physically attractive destination that reinforced walking as an essential dynamic in the centre's functioning. A response to walking means architecture with substantial vertical proportions, buildings directly addressing the street, reduced levels of glass, a series of conjoined but independent buildings common in conversation, parking behind etc.

Catchment

The Liverpool street extension option was the armature for the centre, extending it across Arapaepae Rd through Tara-ika to give a connected spine to existing suburbs east of SH1 and west of Tara-ika.

The motorway designation pushed the village centre to a relatively central location within Tara-ika. The determined structure gave it universally good access to all parts of the growth area and reasonable access to existing suburbs to the west.

Position Chosen and Effects

The resultant centre location and its dominant position central to Tara-ika meant that any additional centre within Tara-ika would live under the centre's shadow and struggle for relevance and viability.

Any other centre further east within the project would lose catchment density and become more and more counter-flow the further east its location. As the centre has an additional role of inspiring a more diverse and denser mix of housing, the justification for a more eastward (additional) centre began to fail.

Other locations were tested, such as somewhere along the south side of Queen Street, but such a centre would have only half a catchment and future growth on the north side of Queen Street is considered unlikely.

The other centre option is Tararua Road. Given that the city could grow on the southern side, there is a likelihood of a future centre locating on Tararua Road subject to land releases on its south side. This potential centre could serve some of Tara-ika and a new (but not yet approved) growth area.

Conclusions

The chosen centre site appropriately serves all of Tara-ika and some existing Levin suburbs east of SH1. Additional centres within Tara-ika cannot compete with or complement the proposed centre due to its size, role, location, and density distribution within the eastern parts of Tara-ika.

Yours sincerely,





Appendix 5: Statement of Evidence - Urban Design

BEFORE THE HEARINGS PANEL

In the Matter of: The Resource Management Act 1991 and Proposed Plan Change #4 Tara-Ika Application by: Horowhenua District Council

EVIDENCE OF GRAEME MCINDOE

URBAN DESIGN

On behalf of Horowhenua District Council 12 August 2021

INTRODUCTION

Qualifications and experience

- My name is **Generative My qualifications are MA Urban Design**; Dip. Urban Design (Dist.); BArch (Hons1); BBSc. I am also a registered architect and Fellow of the New Zealand Institute of Architects.
- 2. I have 39 years experience in architecture, urban design and academia. In 1992 I founded my specialist urban design consultancy, now McIndoe Urban Ltd, which undertakes urban design work for private and public clients across New Zealand.
- 3. I chair Wellington City Council's Technical Advisory Group for the Wellington waterfront and am a member of Eke Panuku Development Auckland's Technical Advisory Group that provides urban design review and advice on the Wynyard Quarter and all 'Transform' projects across greater Auckland.
- 4. I have had extensive experience in planning for growth and master-planning. Residential projects include Waitarere Beach urban growth area (for HDC); in Palmerston North the Hokowhitu Campus and Roxburgh Crescent masterplans and district plan changes; master-planning in Auckland's Wynyard Quarter, Devonport, Bayswater and Onehunga Wharf; and a 700 lot greenfield masterplan north of Auckland. In addition, my firm is currently leading two greenfield masterplanning projects in Palmerston North that will provide a total of around 8,000 lots at Kakatangiata and Aukoutere, both for PNCC.

- 5. I contributed to conceptual planning, options development and design guide peer review for Hobsonville Point's Hudson and Sunderland Precincts; am currently assisting Porirua City Council with growth planning; and I chair the Nelson/Tasman Urban Design Panel which recently reviewed and approved a number of Special Housing Area projects for Nelson City.
- 6. I contributed to People+Places+Spaces: A design guide for Urban New Zealand. (MfE, 2002); wrote Wellington City Council's residential, subdivision and centres design guides; and was principal co-author of the MfE's The Value of Urban Design. My Crime Prevention Through Environmental Design (CPTED) experience includes co-authoring Wellington City Council's Guidelines for Design Against Crime and in 2005/2006 being a member of the Ministry of Justice's Leaders Group on the National Taskforce for Community Violence Prevention.
- 7. I have provided expert evidence on multiple occasions for projects from roading infrastructure through to public open space and building developments. This includes presenting to Boards of Inquiry for Auckland Council and Eke Panuku on Auckland's East-West Link, and for Wellington City Council on the Basin Reserve project. In addition to multiple plan change and consent hearings, I have presented evidence to the Environment Court over 20 times, including on the Three Kings Housing development in Auckland (for the Minister for the Environment) and for Auckland Council at the hearings on the residential sections of the Auckland Unitary Plan.
- 8. I was part of the team led by Local Landscape Architecture Collective in collaboration with Morphum Environmental and Urbacity that produced the masterplan for Tara-Ika. My involvement includes urban design inputs through all phases of the master-planning that began in late 2018 including:
 - the analysis that underpins the masterplan;
 - development of principles and multi-criteria assessment of master-planning responses to indicative O2NL alignments;
 - stakeholder consultation meetings;
 - masterplan conception, development and refinement; and
 - masterplan and structure plan adjustment in response to submissions.

Code of Conduct

9. I have read the Code of Conduct for expert witnesses in the Environment Court Practice Note. I agree to comply with this Code. The evidence in my statement is within my area of expertise, except where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Scope of evidence

10. This evidence provides a brief overview of the master-planning approach from an urban design perspective before focusing on the urban design related issues raised by submitters. I do not repeat the analysis that informed the master-planning nor describe the masterplan itself as that document is part of the notified information. Where a submitter has raised a matter within my area of expertise that I have not addressed in this statement of evidence this is not to be taken as acceptance of the matters raised.

MASTERPLANNING APPROACH

Process

11. The master-planning for Tara-Ika (then known as Gladstone Green) was a multidisciplinary collaboration that began with a detailed site and context analysis

which covered the following areas:

- Transport Connections
- Urban Structure and Form
- Culture and Heritage
- Land Use
- Land Ownership
- Schools and Education
- Open Space and Recreation
- Vegetation and Ecology
- Geotech and Natural Hazards
- Services Infrastructure
- Stormwater
- Landform
- Views Structure
- 12. While Tara-Ika is a defined area to the east of SH57/Arapaepae Road, its context includes both the immediate surroundings of this site and the wider extent of Levin and its surrounds. This includes its social context, servicing infrastructure including roading that connects with and extends through the site, and the broad regional landscape setting.

- 13. The master-planning process was informed by multiple expert and stakeholder consultations. Workshop sessions were held with HDC Councillors and disciplinary specialists as well as various institutional stakeholders including Waka Kotahi NZTA and the Ministry of Education. There was consultation with major landowners in a stakeholder reference group. Design and planning principles were developed at this stage. I consider that this first stage of 'analysis and discovery' including related stakeholder consultation was suitably comprehensive and provided a robust base for the master-planning that followed.
- 14. Scenario planning was undertaken for growth planning and urban development in relation to the three O2NL alignment options to respond to the uncertainty about the location and width of the expressway's alignment where it crossed the Tara-Ika area. A fourth scenario, the baseline case of no O2NL and SH57 continuing in its current form, was completed for comparative purposes. Detailed investigations included planning detailed street and lot layouts for two O2NL alignments being the westernmost which was subsequently confirmed by Waka Kotahi, and also the easternmost alignment. Both of these detailed masterplanning investigations were carried out prior to the Waka Kotahi NZTA decision on alignment. Masterplan delivery then followed and was consistent with that alignment decision.

Masterplan description

- 15. The plan is intended to deliver a new urban neighbourhood that provides a range of housing types and residential options to address current and ongoing housing demand for Levin. It is required to do this in a way that can be developed incrementally by a number of different landowners over time. The project focussed on reconciling all relevant cultural, social, environmental and economic drivers to provide a coordinated, well-serviced and high amenity outcome that will contribute to the well-being of its residents and the wider community. In order to achieve this the masterplan is based on nine 'Key Moves':
 - Connectivity
 - Streets for people
 - Variety and choice of housing
 - A centre for community
 - Distinctive and memorable character
 - A network of parks and open space
 - Stormwater and ecology
 - Integrated services infrastructure
 - Planning for staged implementation
- 16. Principles are developed under each of these 'key moves' to direct the planning and design approach which is then described with a combination of text and diagrams, with all of these integrated into the masterplan and the subsequent structure plan.
- 17. I am confident that the notified masterplan provides for a well-serviced, high amenity outcome that is consistent with contemporary urban design best practice.

RESPONSE TO SUBMISSIONS

Location of roads relative to Redwood Grove

- Various submissions on the location and alignment of roads close to Redwood Grove are addressed in turn.
- 19. Submitter 04/18.01 oppose the location of the arterial road running from Queen Street East to the centre of Tara-Ika due to proximity to the existing Redwood Grove lifestyle development. In a related submission control on behalf of identified Redwood Grove property owners (04/31.02), opposes the current position of the collector roads east and west of Redwood Grove. He submits that they will have an adverse effect on the amenity of the existing properties and that they should be at least 100m from the property boundary of any Redwood Grove property.
- 20. I recommend that these submissions be rejected for the following reasons:
 - a. The arterial road extending from the centre of Tara-Ika is required to link the new neighbourhood centre to Queen Street East and from there back towards Levin town centre in a reasonably direct way. Directness for the most important roads in the hierarchy is important for convenience and efficiency of movement, and to support wayfinding.
 - b. On position of the collector roads, 50kmh collector roads are established components of any urban neighbourhood. They will not have unreasonable adverse effects on the lots that front them, let alone on development separated from them by a full lot. In addition, to necessitate a 100m street separation would lead to many rear lots down rights of way which would be a poor urban design outcome, Alternatively very large or long narrow lots

might be provided which would be inefficient use of land in this wellserviced location reasonably close to the Tara-Ika centre and directly accessible from Queen Street East. Furthermore, locating the collector that is on the west of Redwood Grove 100m from the boundary risks compromising the extent of the setting for the Prouse Homestead.

- 21. Submitter 04/38.03 seeks that:
 - a. the road connecting Redwood Grove to their property is removed given Redwood Grove is already established; and

b. the collector road running north-south through their property is changed to a local road to reduce impact on the heritage setting of the Prouse Homestead.
I recommend that this submission be rejected for the reasons below. In order of the points raised:

- a. The plan must provide for anticipated potential long-term development and the location of this potential connector is flexible. (See response to Redwood Grove below on this same point.)
- b. From a neighbourhood planning and urban design perspective intensive urban development of the Tara-Ika site necessitates a legible, and convenient direct connection through this land to Queen Street East. While the structure plan shows a 'fixed location', this is a high-level plan. As part of detailed engineering analysis, subdivision, streetscape and landscape design, the precise location, alignment and detailed design of this road would be confirmed in a way which both provides for residential subdivision and maintains the quality of the setting for the Prouse homestead. That design work would be undertaken by the landowner/subdivider and the road location assessed and confirmed by Council through the resource consent process.
- 22. Submitter 04/31.02 (on behalf of identified Redwood Grove property owners) opposes the local road which connect Redwood Grove into the rest of Tara-Ika on the basis that the Redwood Grove properties are subject to a private covenant which prevents this from happening. I recommend that this submission be rejected for the following reasons:
 - a. On local road connections, Redwood Grove has been overtaken by planned urban growth, and in the long term and subject to resolution of covenants, there may be further subdivision. Those local road connections describe the need to anticipate future connection should that further subdivision occur.

- b. If Redwood Grove were to be intensified it is desirable to provide convenient access to the residential areas around and on to the Tara-Ika centre.
- c. If streets were introduced to serve Redwood Grove residents developing their land, these would be minor local streets that can be expected to result in very low traffic volumes and speeds and have little impact on properties around. They may reduce some of any additional traffic that would otherwise be directed along Redwood Grove.

Redwood Grove screening

- 23. Submitter 04/31.07 (**Control of Control of Control**
 - a. Should any owners of large 4,000m² lots in Redwood Grove have a concern with new residential development over their back fence, they have the space and opportunity to establish a planted boundary treatment should that not already be in place. The aerial photograph shows considerable planting already in place along much of the west and south boundaries of Redwood Grove properties which suggests that much boundary screening is already established.
 - b. The back-to-back lot arrangement anticipated by the Structure Plan is an optimal way of achieving a transition between residential areas of different character and intensity for any resident concerned that such a transition is necessary.

Location of central open space and school site

24. Submitter 04/18.02 popose the location of the greenspace and education site and contend these would be better positioned to border with Redwood Grove to produce a green space buffer between the larger Redwood Grove lots and new lots. I recommend that this submission be rejected for the following reasons:

- a. Variation in lot size does not justify a buffer treatment between residential areas.
- b. The school and a significant public green open space need to be at or close to the neighbourhood centre. There, they strengthen the centre as a community and public destination and contribute to a memorable sense of

place for the centre. This is also an optimal location for serving the community around. Conversely placing these core community amenities at the periphery would compromise the centre and critically they would be distanced and relatively inaccessible from the southern parts of Tara-Ika.

Response to Maori culture and heritage

- 25. Submitter 04/35 (Muaūpoko Tribal Authority Inc.) are concerned that there is potential for urban development to impact on their spiritual pathways from their wāhi tapu in the Tararua Range to Taitoko [Levin], interrupting the connections and viewpath from the maunga to Punahau [Lake Horowhenua] and onwards to the moana. They seek assurances that the Plan Change will not result in built environment outcomes that disrupt important views, pathways and connections which are of significant importance to Muaūpoko.
- 26. The structure plan anticipates views eastward along the main east-west streets which are deliberately splayed to direct views towards the ranges, and connection is proposed to be supported by multiple bridges over the O2NL. These visual and physical connections are fundamental and are already integrated into the master-planning of Tara-Ika. The intent is described on page 6 of the Tara-Ika Design Rationale:

Primary roads are the widest and are primary movement routes. These are aligned to ensure easy physical connection, but also to frame views to the Tararua Ranges.

Figure 1 below describes these connections in plan, and figure 2 is an indicative perspective view from an elevated viewpoint along the central street.



Figure 1: Analytical diagram of connections and views HDC Plan Change 4 - Evidence of Graeme McIndoe - Urban Design 12 August 2021



Figure 2: Image showing a view towards the ranges extracted from the 'distinctive and memorable character' section of the masterplan (page 19)

27. The text in the masterplan is also explicit about recognising "the special landscape values derived from views of the Tararua Ranges" (page 18) and includes "distinctive streets orientated and positioned to take advantage of views of the Tararua ranges" (page 19).

Increasing extent of Residential zoning

28. Multiple submitters request increased intensity with up-zoning of land from lower intensity Residential zoning to 'General (standard) Residential' zoning. Changes have been requested by multiple submitters for reasons including more efficient use of land; urban development here to protect high class soils in other areas; and contributing to housing supply, thereby giving effect to the NPS Urban Development. I recommend that these submissions be accepted to the extent shown in the modified Structure Plan, for reasons identified but subject to qualification and conditions as below.

Reasons

29. In addition to responding to the weight of submissions and the arguments for those, taking standard 'Residential' zoning north along the full edge of Queen Street East and south along the full edge of Tararua Road future-proofs for any long term expansion of residential activity beyond those boundaries.

Qualification

30. The qualification to this extent of up-zoning is that the proposed 'Residential' zone extensions result in those portions outside the notified 'Residential' zone boundaries remaining largely vehicle dependant. This is, with reference to figure 3, and for reasons discussed below.



Figure 3: Distance to the neighbourhood centre. This records the distance from identified points at the edge of land zoned 'Residential' on the proposed Structure Plan, as revised to respond to submissions.

- 31. The notified structure plan calibrated zone boundaries for 'Medium Density Residential' to be around 400m and in some instances slightly more from the centre. 'Residential' zone boundaries were to be around 800m or in some instances slightly more. These dimensions follow generally accepted rules of thumb for walkability.
- 32. Interpreting pedestrian-shed (ped-shed) dimensions, how far a person is willing to walk can be considered to relate to the 'reward' at the destination including the nature of that destination and the time likely to be spent there. Therefore, a person might be willing to walk no further than 400m or 5 minutes to a small

local park but will travel further to a sports ground or to a school. A pedestrian may walk up to 800m for a 20 minute round trip to a local centre where there is a range of shops. However, many pedestrians are discouraged beyond that threshold, and are likely to instead travel by car or cycle. People who walk for exercise and/or to walk to work will be comfortable with walking much greater distances. As the local neighbourhood centre at Tara-Ika is unlikely to be a major workplace, and people who work there may or may not reside locally, the walkto-work distance is not a determining consideration here.

- 33. Figure 3 records the distances to the neighbourhood centre from areas proposed to be up-zoned as a response to multiple submissions. The distances noted are scaled off the Structure Plan and are the shortest route along streets and, where applicable, across the O2NL corridor via the most convenient bridge.
- 34. This analysis demonstrates that the furthest parts of Tara-Ika proposed to be upzoned to 'Residential' in response to submissions are located well beyond accepted ped-shed distances. Considering the distance to the centre from for example points C and H in figure 3, the distance to the outer edge of the extended Residential zone is increased by 700m (88%) beyond the commonly accepted 800m ped-shed dimension. Areas zoned 'Residential' at point I are a further 1,000m beyond the 800m ped-shed. This will lead to people living in these distant areas being increasingly reliant on vehicles, and for many this will be to the extent of vehicle dependence.
- 35. One implication of the increase in intensity and the number of dwellings possible here is whether this will be appropriately accessible to and serviced by the proposed neighbourhood centre and school. I consider that even with further intensification, the proposed centre remains in the correct location. Economic advice has also been received that the increased number of lots and population does not justify an additional centre or centres within Tara-Ika¹.
- 36. Should residential expansion occur beyond the Tara-Ika zone boundaries, that is on the northern side of Queen Street East and southern side of Tararua Road, additional local centres can and should (subject to commercial analysis on catchment and size) be provided in those new growth areas in the future. These future amenities would then both service and be supported by the population in

¹ Appendix 4 of the s42a report

HDC Plan Change 4 - Evidence of Graeme McIndoe - Urban Design 12 August 2021

the nearest parts of Tara-Ika; and would improve accessibility by active transport modes thereby reducing vehicle dependence for nearby residents.

37. The increasing reliance on vehicles for residents living beyond the 800m pedshed from the Tara-Ika centre will be in part mitigated by ensuring the full network of dedicated cycleways is provided, adding more local parks and reserves, and the potential for local centres in any future residential growth areas close to but beyond the Tara-Ika zone boundaries.

Conditions

- 38. In order to mitigate in part increased reliance on vehicle travel in these up-zoned 'Residential' areas I consider the following conditions must be met:
 - a. The full extent of the planned dedicated cycle lane access within Tara-Ika and to the neighbourhood centre is retained as described in the notified masterplan. To an extent the strategic cycleways can compensate for distance for those who are willing and able to cycle. As the cycleways become increasingly important as a means of giving people easy access to the neighbourhood centre without the need to drive, the importance of eliminating as far as possible vehicle crossings along frontages parallel to the cycle lane is emphasised, potentially but not necessarily with rear lanes.
 - b. Consequential amendments necessary to achieve a well-functioning environment are incorporated:
 - reconfiguring local streets in the masterplan to accommodate smaller lot sizes; and
 - adding local parks and reserves to provide for local recreation and stormwater management.

These amendments are described on the masterplan and Structure Plan as revised.

39. I discuss below the rationale for the extent of zone change with relation to the locations referenced on figure 4.



Figure 4: Location of recommended changes to zoning in response to submissions

40. Considering the identified areas in turn:

- a. R1 was notified as 'Low Density Residential'. Up-zoning to 'Residential' is justified by this being a pocket of lower intensity development reasonably close to the Tara-Ika neighbourhood centre (1,300m at its furthest point); on a part of the site closest to the Levin town centre; and in response to landowner as well as other more general submissions.
- b. R2 was notified as 'Low Density Residential' and in response to multiple submissions is now recommended to be up-zoned to 'Residential' for the reasons and with implications as outlined in the discussion above.
- c. R3 was notified as 'Low Density Residential'. In my opinion the only justification for this up-zoning to 'Residential' is continuity of zoning if the area to the north side of Arapaepae Road were to be zoned 'Residential' in the future. Otherwise, this area is compromised by its extended distance (up to 1,800m) from the Tara-Ika centre in combination with some potential amenity compromise due to its location of this area between SH57 and the O2NL.
- d. LDR1 was notified as 'Greenbelt Residential and is now recommended to be up-zoned to 'Low Density Residential' to respond in part to submissions. I

support that up-zoning to an intensity that will achieve a transition between adjacent 'Residential' and 'Greenbelt Residential' zones but consider this area, a pocket of land within an existing 'Greenbelt Residential' zone, is unsuitable for 'Residential' zoning. This is because:

- This area is both peripheral and distant from the Tara-Ika centre.
 Locations more or less at the middle of this pocket and at the easternmost edge are around 1,700m and 2,100m respectively from the Tara-Ika centre.
- A secondary factor is that the existing large lot development in the surrounding zone compromises potential to achieve the street network connectivity desirable for good quality 'Residential' development.

Increasing extent of Medium Density Residential zoning

- 41. Submitter 04/25.02 (Horowhenua District Council officers) requests that identified areas to the north of the Tara-Ika centre that was proposed to be standard Residential be up-zoned to Medium Density Residential. (This is in the area identified on figure 3 as MDR1). This request is for the reasons of proximity to the centre, public open space and to the strategic cycleway route that will provide good access into Levin town centre. I recommend that this submission be accepted for those and the following reasons:
 - The furthest Medium Density lot would be 650m from the identified centre, however being less than 400m from the edge of the area zoned 'Commercial' it remains in suitably close proximity.
 - b. The extension of the zone northward to the collector road allows higher intensities on part of the zone where rear lane access is provided along the cycle lane, maximising the benefit/efficiency of that lane provision.
- 42. Submission 04/24.05 requests zoning changes for lots either side of the street extending from Taraika Centre south to Tararua Road (MDR2 on figure 3). The submission is that Medium Density Residential should extend as far south as Tararua Road on both sides of the proposed northsouth arterial road here. I recommend accepting in part the submission to upzone to Medium Density Residential as far as Tararua Road by up-zoning on the eastern side of the road which is proposed in the masterplan to be served by a rear access lane. That:

- Justifies and allows efficient and optimal use of land served by a rear access lane, in turn allowing the planned cycle lane to be free of multiple vehicle crossings²; and
- b. Avoids extending Medium Density Residential on the west side of the identified street beyond the notified distance of 735m from the Tara-Ika centre, where this is not served by a rear access lane.
- 43. The maximum distance of this Medium Density Zone from the Tara-Ika neighbourhood centre is some 250m further than the 800m ped shed. However, this up-zoning is justified if it contributes to enhancing the amenity, efficiency and safety of cycle lane access along this street which leads directly to the centre.

Mixed housing density and crime

- 44. Submitter 04/37.01 opposes having "low density housing next to very high density housing", suggesting a link between high density housing and crime. I recommend that this submission be rejected for the following reasons:
 - a. Changes in residential density are common both at neighbourhood level and along streets in urban areas across New Zealand, and there is no evidence that variation in residential density leads to crime.
 - b. If the submitter's concern is based on a perception that the per-capita rate of crime for people in higher-density housing (such as the medium density housing which is being facilitated in parts of Tara-Ika) is higher than for people living in low density housing, I am not aware of any causal link between medium density housing per se and criminal activity. Considering a wide range of medium density housing developments and urban settings, neither have I experienced this as a matter of concern.
 - c. Assuming a theoretical proportion of the population might engage in criminal activities, all other things being equal, the presence of more people might be argued to commensurately increase the risk of criminal activity. Countering this, other CPTED experience suggests that the presence of more people providing informal community oversight over the public realm contributes to reducing crime.
 - d. A good quality environment, or in CPTED terms 'image and milieu' such as that intended, and neighbourhood features and amenities that facilitate

HDC Plan Change 4 - Evidence of Graeme McIndoe - Urban Design 12 August 2021

² Rule 15A.6.1 'Vehicle Access into Strategic Cycleways' requires that: "No vehicle crossings shall cross a strategic cycleway shown on Structure Plan 013 will be permitted. In such cases, vehicle access to the site shall be via the rear access lanes shown on Structure Plan 013"

growth of a sense of ownership and community will tend to influence positive behaviour.

45. A further consideration is the benefit of mixed density including medium density housing which includes contribution to housing choice and affordability, efficient use of land and infrastructure, and the presence of sufficient population to support local amenities such as shops and a school.

Building bulk and location

Front boundary setback

- 46. Submitter 04/04.03 **Control of States** states that a 2m yard setback is very likely to be at odds with the aim of good urban design and should be increased to not seem "impoverished". I recommend that this submission be rejected as the proposed 2m front yard setback offers the following benefits. It:
 - allows for a greater proportion of each site to be used as private open space at the side or rear of the dwelling, thereby enhancing private amenity outcomes;
 - b. recognises the presence of street landscaping including trees along many streets which contribute to amenity; and
 - c. is sufficient to maintain privacy considering the full street width and any intervening street landscaping.
- 47. The 5m setback required for garages at the frontage is an exception to the 2m front yard setback and that is already in the district plan. This contributes positively to active street frontages. At the same time as reducing the visual impact of garage doors at the street edge, garage door setbacks encourage the occupied parts of the dwelling to be more visually prominent. This combination of setbacks is an approach that is consistent with best urban design practice.

Setback of integral garages

48. Truebridge Associates (submission 04/33) state that the rule requiring integral garages to be either recessed back from the main pedestrian entrance by 1m or account for no more than 50% of the front façade of the dwelling is a design guide issue. The submitter seeks for the design guide to be reviewed before including such as provision.

49. The 5m setback for garages apply to all dwellings. This rule is to ensure dwellings engage with and overlook the street and to avoid the visual dominance of garages and consequent visual monotony at the street edge. It contributes to visual amenity and overlook for informal surveillance and consequently safety. Therefore in my opinion the rule should be retained.

Policy for exceeding maximum height limits

- 50. Submitter 04/25.02 (Horowhenua District Council Officers) seek to introduce a policy relating to building height to cover buildings that may rise above the proposed permitted heights of 10m and 15m in the Medium Density and Commercial zones of Tara-Ika. That policy mentions 'viewshafts'. I recommend that this submission is addressed by a policy that covers relevant matters such as avoiding potential visual dominance and shading of sensitive adjacent areas, and design to achieve skyline articulation and scale moderation, but not 'the need to maintain the significant viewshafts'.
- 51. The reasons for this recommendation are:
 - a. At Tara-Ika, views to the Tararua Ranges have already been explicitly provided for in the alignment of primary streets as described in figure 1 above. This is consistent with the use of viewshafts in district plans which are typically applied to significant views from public vantage points. These are often the view along the primary streets as with WCC's district plan viewshafts. (In Auckland's Unitary Plan, there are also 'volcanic viewshafts' which are the views to defined volcanic cones from identified vantage points.)
 - b. In my experience which includes analysing viewshafts for Wellington City Council's district plan, the term 'viewshaft' has a technical meaning, being views of defined scope in a defined direction from an identified station point towards an identified 'object' or objects. While the 'object' here may be the Tararua Ranges, none of the other components are present and no district plan viewshafts have been identified for Tara-Ika.
 - c. The alternative of open reference to 'viewshafts' without precise identification of these would mean considering views to any part of the ranges from any point within Tara-Ika. That would mean when a part of a building is above the permitted height and is visible in the foreground of any private view to the ranges from anywhere within the plan change area then it risks being inconsistent with the policy, even when there is no public benefit

in that particular private view. That would in my opinion be unduly onerous and also inconsistent with anticipating discretion to consider modest increases in building height in locations and in a way that does not compromise adjoining dwellings and/or public spaces.

d. The recommended relevant matters have assessable and in the case of shading, measurable, effects across the site boundary and a direct relationship to residential amenity. Furthermore, when a viewer is at ground and located within an urban block views of the ranges will typically be blocked by buildings that comply with the building height limits. Any additional height above 10m or 15m is unlikely to have any effect on distant views other than on views of the sky.

Level of design control in the Commercial Zone (Taraika Precinct)

- 52. Submitter 04/33.09 (Truebridge Associates) objects to a requirement for resource consent in addition to complying with permitted standards. This arises from Rule 15A.3.3 'Commercial Zone' which is that 'development of new buildings and additions or external alterations to building frontages' is a restricted discretionary activity.
- 53. The objectives and policies for the Tara-Ika Multi-Zone Precinct (Chapter 6A) identify appropriately high aspirations for the centre including offering "a high amenity 'focal point' for the community"; "ensuring a vibrant and attractive centre that the community will want to spend time in" and in policy 6A.5.3 ensuring "the design, nature, and scale of commercial activities contributes positively to the image and overall amenity of the commercial area of Taraika."
- 54. The standards for permitted activities in the Commercial Zone described in 15A.1.2 address activity type, signs and utilities, with signs further addressed in conditions for permitted activities 15A.6.3.1 Signs.³ Then further 'Conditions' are described under Rule 15A.8.2.1 for New Buildings and Additions/Alterations to Building Frontage. These are:

All buildings in the Commercial Zone (Taraika Precinct) must comply with the following:

- No part of any building shall exceed a height of 15 metres.
- All buildings shall be built to the front road boundary of the site.

³ The permitted activity conditions within chapter 17 Rules: Commercial Zone also apply however generally address the same limited range of activities as 15.A.1.2.

- All building shall be built up to the side boundaries (the boundary which is perpendicular to the primary road frontage).
- All buildings shall have display windows along the ground floor road frontage. At least 50% of ground floor facade surface shall be display space or transparent window or doors. The minimum window area shall be kept clear and not be boarded up, painted or covered by signage.
- No building shall have a continuous featureless façade/blank wall on the ground floor road frontage wider than 4 metres. A featureless façade or blank wall is a flat or curved wall surface without any openings, glazing or columns, recesses, niches or other architectural detailing.
- All buildings shall have a maximum ground floor road frontage width for individual tenancies of 15 metres.
- All building frontages shall have a minimum height of 6 metres.
- The above standards do not apply to service lane frontages.
- 55. These standards are sound as far as they go but are not sufficient by themselves to achieve a sound result. They have been formulated to complement matters of discretion applied through a resource consent process and in my opinion this proposed combination of standards and assessment criteria is necessary to facilitate the quality of outcome intended for the Precinct.
- 56. The matters of discretion applying are covered in Rule 15A.8.2.1 New Buildings and Additions/Alterations to Building Frontage. This identifies qualities critical to the success of the centre including: quality of façade composition, visual interest, entrance legibility, relation to existing adjoining buildings, site design and layout, the overall appearance and pleasantness of the street, and CPTED. Rule 15A.8.2.2 Supermarkets and Rule 15A.8.2.3 Drive-Through Restaurants identify additional matters of visual amenity and pedestrian safety which are appropriately targeted to apply to these specialised vehicle-oriented retail activities.
- 57. These matters of discretion complement the above quantifiable standards, by addressing matters of quality which must be addressed if the policy direction on quality and amenity is to be achieved and that cannot be quantified or addressed by standards alone.
- 58. Standards alone carry a dual risk of on one hand being relatively ineffective in addressing quality, and on the other being restrictive. To prescribe with a standard one solution as a means of achieving a particular quality when many HDC Plan Change 4 Evidence of Graeme McIndoe Urban Design 12 August 2021

equally acceptable or possibly enhanced solutions exist would be arbitrary. In contrast matters of discretion open up design options and flexibility in the way important qualities are achieved.

- 59. The Tara-Ika Commercial Zone has particular characteristics which reinforce the validity of this restricted discretionary approach:
 - a. This centre is intended to define the identity Tara-Ika, be an attractive setting for the community and to have a high-quality public realm. These intentions demand greater care with design than may be acceptable in small centres elsewhere.
 - b. As this is an open greenfield site, notwithstanding the siting-related standards, building design options are relatively open. These options include the potential prospect of poorly planned, designed and uncoordinated development that does not address the matters of visual and urban amenity to the degree intended. A building on a lot in a small local centres will respond to and to an extent be constrained by existing development adjacent. However the 'control' that arises from response to existing development won't apply to the initial development of this completely new neighbourhood centre.
 - c. The zone is intended to provide for a supermarket. As a conspicuously large building with extensive carparking this will require particular care with building planning and design to ensure visual amenity and pedestrian safety.
 - d. The extent of new public realm here and necessary rear service areas will demand careful consideration of public realm amenity and CPTED. These matters are and have been optimally addressed as matters of discretion.

CONCLUSIONS

- 60. The masterplan which underlies the plan change and structure plan is design led and principle-based, informed by a robust process of stakeholder consultation and is consistent with best-practice urban design.
- 61. There is no urban design justification for creating a low density residential environment around the edges of Redwood Grove, and the proposed collector roads are both optimally located and essential for a logical and legible interconnected network structure.

- 62. Extension of areas zoned 'Residential' close to the perimeter of the area in response to submissions contributes to urban growth potential and efficient use of land but is at a cost of increasing the number of lots that can be expected to be vehicle dependant.
- 63. Extension of 'Residential' zoning must be contingent on providing a more finegrained block structure to allow for the smaller lots; additional green open spaces for recreational purposes and to contribute to stormwater management; and retention of the cycleways that are essential to provide suitable and safe access to the neighbourhood centre and school.
- 64. Extension on Medium Density Housing zone southward to Tararua Road and in the central north-west part of the site is supported, as these extensions remain reasonably close and directly accessible to the centre, are on cycle routes and are supported by notified and/or proposed additional green open spaces.
- 65. Celebrating public view connections to the Tararua Ranges is integrated into the masterplan and the Structure Plan that follows from it, negating the need for identification of 'viewshafts' as a matter of discretion in considering building heights.

12 August 2021



Appendix 6: Statement of Evidence - Landscape

BEFORE THE HEARINGS PANEL

In the Matter of: The Resource Management Act 1991

and Proposed Plan Change #4 Tara-ika

Application by: Horowhenua District Council

EVIDENCE OF DANIEL MALES

LANDSCAPE ARCHITECTURE

On behalf of Horowhenua District Council 11 October 2021

INTRODUCTION

- My full name is Acceleration of the second se
- I have 20 years' experience in the field of Landscape Architecture and in particular, strategic planning and design of public spaces. I am a Director at Local Landscape Architecture Collective Ltd (Local) which was established in 2018. Previously, I was a Principal at Isthmus Group Ltd where I worked in the Wellington Studio since 2006.
- 3. I have provided Landscape advice and design input into a number of comparable projects over the past decade most recently including:
 - Kākātangiata Masterplan, Palmerston North (2020-present)
 - Whisky Creek Masterplan, Palmerston North (2020-present)
 - Cannons Creek South East Masterplan, Porirua (2020-present)
 - Waitārere Beach Masterplan, Horowhenua. (2019- present)
 - Porirua Northern Growth Area Plimmerton Farm, Porirua (2019-2020)
 - Wainuiomata Town Centre Framework and Streetscape Plan (2021)
 - Porirua City Centre Masterplan (2014- present)
 - Keneperu, Porirura (2015-2018)
 - Silverbrooke, Porirua (2018-present)
 - Site 10 / North Kumutoto Public Realm, Wellington Waterfront (2008-2017)

- 4. I was part of the team at Local that led the masterplaning process in close collaboration with McIndoe Urban, Morphum Environmental and Urbacity. My involvement includes landscape architecture inputs through all phases of the master-planning that began in late 2018 including:
 - the analysis that underpins the masterplan;
 - development of principles and multi-criteria assessment of master-planning responses to indicative O2NL alignments;
 - stakeholder consultation meetings;
 - masterplan conception, development and refinement; and
 - masterplan and structure plan adjustment in response to submissions.

CODE OF CONDUCT

5. I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts, that I am aware of, that might alter or detract from the opinions that I express and that this evidence is within my area of expertise.

SCOPE OF EVIDENCE

- 6. I have been asked to provide evidence in relation to the landscape design of the Tara-Ika Masterplan. My evidence is based on the work carried out by Local in collaboration with, McIndoe Urban, Urbacity, and Morphum Environmental, on behalf of Horowhenua District Council.
- 7. The master-planning for Tara-Ika was a multi-disciplinary collaboration. My involvement in the design team was providing both Landscape Architecture expertise in site and context analysis and considerable input into the scenario planning, Masterplan and Structure Plan.
- This evidence should be read in conjunction with the evidence of Graeme McIndoe who provides a good overview of the team's approach.
- 9. I am confident that the notified masterplan provides for a high amenity outcome that is informed by the site-specific landscape opportunities and constraints and the process and outcomes are consistent with landscape architecture best practice.

10. This evidence doesn't repeat the work that informed the master-planning, nor describe the masterplan itself, as that document is part of the notified information. Where a submitter has raised a matter within my area of expertise that I have not addressed in this statement of evidence, this is not to be taken as my acceptance of the matters raised.

RESPONSE TO SUBMISSIONS

STRATEGIC CYCLEWAYS

11. Location and design of strategic cycleways

Several submissions raise concerns regarding the location and design of strategic cycleways.

- a. Submitter 04/09 (**Mitting for an initial and initia**
- Submitter 04/11 support the use of strategic cycleways, but suggest relocating them to collector roads.
- c. Submitter 04/12 supports use of cycleways, but seeks that they are constructed in a timely manner and are not reliant on development occurring. Modifications to the route are suggested so that it follows fixed roads (North/South and East/West) and eliminate 'dog leg' near Waiopehu Reserve.
- d. Submitter 04/16 suggests roads and cycleways should follow ownership boundaries.
- e. Submitter 04/22 **Control of the states and does not provide sufficient connections into Levin.**

12. Comments:

Points a,b,c

I recommend that submission be rejected. The submission points relating to the buildability of the cycle network and fixed nature of the atrial and collector however it is also worth noting that that Structure Plan identifies and locates the cycle connection. It is my recommendation that the cycleway locations are not shifted as they are positioned to provide maximum connectivity. The revised structure plan does however show a (minor alteration) tweak to the Waiopehu Reserve that provides additional reserve land, softening the 'dog leg' in this area without disturbing the existing bush area.

Point d

I recommend that submission be rejected. Roads and cycleways have been carefully designed to provide long term benefits while being cognisant of existing land ownership. Development has been designed to provide minimal dependence on neighbours to provide access to future lots.

Point e

While the structure plan does not show existing cycleways these are shown within the masterplan (page 11). The existing network along Queen Street East and Arapaepae Road provide for wider connections throughout Levin. I also note the inclusion of 'Strategic cycleways' does not preclude cycling on other roads, with local roads designed to connect into the Strategic cycle network.

13. Rear Access Lane

Several submitters raised concerns about Rule 15A.6.1.1(a), which states that "No vehicle crossings shall cross a strategic cycleway shown on Structure Plan 013 will be permitted. In such cases, vehicle access to the site shall be via the rear access lanes shown on Structure Plan 013".

a. Submitter 04/32 (Monique Leith on behalf of Leith Consulting) - seeks further consideration of the rule requiring rear access.

"It may be possible to have vehicle access from these collector roads without impacting on the safe and efficient functioning of the strategic cycleway routes. Requiring vehicle access from a rear access lane as a Permitted Activity Standard will likely deter development within some of these areas. Alternatively, if the above effects are consistently demonstrated through resource consents being approved for access from collector roads, the cumulative consented developments will result in widespread departure from the Structure Plan which, in turn, adversely impacts on the integrity of the Plan".

4

- b. Submitter 04/06 supports the concept that vehicles should not cross strategic cycleways, but opposes use of rear access lanes due to CPTED concerns. They suggest these lanes may become dimly lit havens for criminal activity and seeks examples of acceptable designs.
- c. Submitter 04/24 suggest the removal of the rule requiring access via rear access lanes for properties fronting strategic cycleways and amend associated policy to allow more flexibility for creative design.
- d. Submitter 04/33 (Roger Truebridge on behalf of Truebridge Associates) opposes the non-complying activity status for vehicle crossings on Strategic Cycleways. The submitter states that there are a number of cycle and walkways with site access over them elsewhere in the district and that this activity status will slow or stop development in affected areas and suggests this should be allowed subject to a traffic assessment.

14. Comments:

Points a,b,c,d

I recommend that these submissions be rejected but that the wording of Rule 15A.6.1.1(a) be changed to:

"No vehicle crossings shall cross a strategic cycleway shown on Structure Plan 013 will be permitted. In such cases, vehicle access to the site shall be via **side roads or** the rear access lanes shown on Structure Plan 013".

The Strategic Cycleways have been designed as a best practice cycle route to accommodate both proficient and novice cyclists (including children to and from the future school). This rule was developed to ensure safety with a particular focus on integrating the commercial centre and education site (future school) with a network of safe cycleways. Separation from vehicle traffic is seen as key to ensure these routes are safe and attract as many users as possible. Conflict often arises where insufficient space is provided and driveways crossing these cycleways (particularly in areas of higher density housing where reversing manoeuvres are more likely) provide a safety concern.

Best practice health and safety advice is to eliminate hazards where possible. In a new master planned neighbourhood such as Tara-Ika this is entirely possible and HDC Plan Change 4 - Evidence of Daniel Males – Landscape Architecture 11 October 2021 5

feasible. This is a far better approach than introducing engineering control measures to minimise risk.

We have revised the structure plan to allow the southern most cycleway to function without a rear lane. Through the reorientation of adjacent blocks this still ensures there are no driveways crossing the cycleway.

Recent private developments such as Kenepuru Landings in Porirua (shown below) illustrate that this is entirely feasible and consistent with good urban design outcomes including CPTED principles.



Figure 1: Kenepuru Landings, cycleway and rear access lane : image Carrus Corporation Ltd

OPEN SPACES AND VIEWS TO TARARUA RANGE

15. Submitter 04/16 (**Construction of Construction** suggest that the design of open spaces should be considerate of existing property owners and not disturb existing views to the Tararua range.

16. Comments:

I recommend that this submission be rejected for the following reasons: The structure plan anticipates views eastward along the main east-west streets, which are deliberately splayed to direct views towards the ranges along roads. Open spaces are generally not positioned adjacent to existing dwellings and are positioned to provide visual, passive, and active amenity as well as stormwater and ecological opportunities. It is not envisioned that these will impede views any more than planting on private lots.

REDWOOD GROVE GREENSPACE BUFFER

17. Submitter 04/31 **Control of Control of Section** on behalf of Redwood Grove property owners) seeks provision for screening treatment between the existing Redwood Grove properties and any future development. The proposed treatment varies between a 6m wide planted buffer and a 2.1 timber paling fence

18. Comments:

I recommend that submission be rejected, existing properties in this area exceed 4000m2 and the provision of a buffer outside of these properties is unnecessary. Some planting already exists within the larger lots within this area, if separation from new development is required, such a buffer is easily accommodated within the larger lots.

LOCATION OF CENTRAL OPEN SPACE AND SCHOOL SITE

19. Submitter 04/18 suggests that the school site and associated primary open space should be located on the boundary with Redwood Grove to the north east of the site. The logic behind this suggestion is that the park and school site would provide a buffer to the existing large lot subdivision of Redwood Grove.

20. Comments:

I recommend that this submission be rejected for the following reasons: The school and central open space have been located to;

- Reinforce the sense of community by locating the school in the heart of the neighbourhood,
- Be located in a well-connected central location,
- Provide amenity for higher density housing.

The Redwood Grove location is neither centrally located or in an area that is likely to have higher density housing.

RECOGNITION OF CULTURAL VALUES AND SITES

21. Submitter 04/35, **The second** on behalf of the Muaūopoko Tribal Authority) notes the immense importance of the Tara-Ika area to Muaūopoko, in particular the pathway between the Tararua Range and Punahau (Lake Horowhenua) and the Waiopehu Reserve. They are concerned about the potential impact upon the whenua, wai, and physical and visual interruptions to the spiritual pathway from their wahi-tapu in the Tararua Range to Taitoko (Levin).

22. Comments:

I fully support the recognition and sensitivities of the land, water, ecosystems and areas of cultural significance within Tara-Ika. The masterplaning design process aimed to identify these drivers to provide high amenity outcome that will contribute to the well-being of its residents and the wider community. The treatment of water and integration with open space design was a key driver in the masterplaning process (page 22). In addition (page 23) that Tara-Ika "identify and protect the Maunu Wāhine refuge and Waihau waterhole" I support these elements being as accurately located as possible and positioned in new reserves. Appropriate recognition of cultural sites and values will significantly aid the creation of a distinctive and memorable neighbourhood and should be developed in partnership with Muaūopoko.

DEMAND ON EXISTING RESERVES

23. Submitter 04/22 also expresses concern about increased population putting pressure on the Waiopehu reserve as a recreational area.

24. Comments:

Tara-Ika has been designed with a network of new open spaces and reserves to service the needs of the new community. In addition to this, the structure plan has been amended to include a 30m buffer to the Waiopehu Reserve to minimise and adverse impacts of development. This buffer is intended to serve an amenity function, allowing the Wiaopehu Reserve to retain a predominantly ecological function.

FENCING

- 25. Submitter 04/33 (Roger Truebridge on behalf of Truebridge Associates) expresses concern about points b and c of rule 15A.6.3.6. These rules limit the heights of boundary fences in different situations and are as follows:
 - (b) Boundaries adjoining a public reserve or cycle way
 - The maximum height of a closed style fence or wall sited on the boundary or within 1.2 metre from the boundary is 1m high Or
 - The maximum height of an open pool style or trellis fence or wall sited on the boundary or within 1 metre from the boundary is 1.8m high
 - (c) Other Boundaries
 - The maximum height of a fence or wall sited on the boundary or within 1 metre from the boundary shall not exceed 2 metres.
 - Fences perpendicular to the road shall taper downwards towards the road boundary. The taper should commence at least 1.5m from the road boundary and the maximum height of the fence where it meets the road boundary shall be 1m high if the road is a local road, or 1.5m high if it is an arterial or collector road.

26. Comments:

It is assumed the submitter is referring to the maximum fence height of 1m. Low fences along the identified boundary conditions are important in ensuring natural surveillance and creating a positive relationship between housing and the surrounding streets and open spaces. This height is a maximum and it is assumed that a standard 900mm picket paling would provide a fence with a height of less than 1m.

CONCLUSIONS

It is my opinion that the landscape design approach as outlined in the masterplan (which underlies the plan change and structure plan) is design led and principlebased. This was informed by a robust process of stakeholder consultation and is consistent with best-practice landscape architecture and design. I understand the importance of this site to the Muaūopoko and believe that the recognition of the cultural values highlighted and sites identified are an asset to Tara-Ika and the region. I recommended these are incorporated into the Plan Change where appropriate.

To aid the buildability of the cycle network I recommend that the cycleway locations are not moved but all roadways associated with cycleways are identified as 'local roads -fixed location' to ensure connectivity.

The network of open spaces and cycleways provides significant benefit to the future of the neighbourhood and community. I do not support any reduction in the amenity of safety of these routes with the addition of driveway crossings.

Local Landscape Architecture Collective

23 September 2021



Appendix 7: Water and Waste Water Capacity Assessment



Horowhenua District Council

Tara-Ika Residential Growth Area: Enabling Infrastructure Water and Wastewater Plants Capacity Assessment

September 2021

Executive summary

Tara-Ika is a new development area located to the East of State Highway 57, which is also known as Arapaepae Road. It is located adjacent to the Eastern boundary of urban development for the township of Levin.

The purpose of this report is to:

- Evaluate if the current capacities of Levin Water Treatment Plant (WTP) and Wastewater Treatment Plant (WWTP) are sufficient to service the new development and additional infill growth in the town; and
- Identify feasible pathways forward to upgrade these plants if additional treatment capacity is required.

Current capacities and future demands are summarised in the following figures (WTP followed by WWTP):



*Based on consent annual limit

From our capacity assessment, it can be concluded:

- 1. It is feasible to service the proposed Tara-Ika growth area from the current WTP system in the short term, until around 2030. Feasible upgrades are available to enable the water plant to service growth in the long term, and the plant upgrading process should start at least 2 years in advance (approximately by July 2028 at the latest).
- 2. The water source take consent and capacity are sufficient to service growth in Levin in the short term, until around 2030. Applying for higher abstraction limits would be required in the long term to enable the water system to service the full Tara-Ika development and any additional growth.
- 3. The consent to discharge return water back to the Ohau River is sufficient to service the estimated growth in Levin in the short term, until around 2032. Applying for a higher discharge limit would be required in the long term.
- 4. HDC's 2021-51 Infrastructure Strategy has earmarked a long term study to identify supplementary water source and supply. This will be part of the Water Master Planning for Levin and surrounding settlements, such as Ohau.
- 5. The existing WWTP and treated effluent irrigation system do not have sufficient capacity to service the full extent of the proposed Tara-Ika growth area and additional infill growth within Levin's urban area. It is feasible to undertake capacity upgrade of the Levin WWTP and the effluent irrigation system, however, investigations are recommended to establish the plant capacity with more certainty, and identify potential options resulting in short term capacity increase.
- 6. HDC has planned a wastewater master plan during 2021/22 to 2024/25 identify a staged work programme to develop services in Levin in short and long term. It is envisaged this master plan will cover wastewater collection, treatment and treated effluent discharge infrastructure.
- 7. In parallel to the wastewater master plan which will develop a short and long term programme, as noted in 5 above, there is a need to commence immediate improvements at the Levin WWTP and the treated effluent irrigation system to enable servicing of the Tara-Ika growth area. In addition, a consent planning assessment is recommended to identify the consenting strategy on increasing the volume limit of treated effluent to "the Pot".

Table of contents

1.	Introduction1		
	1.1	Background	1
	1.2	Information & Assumptions	2
	1.3	Limitations	2
2.	Existing Supply Summary		3
	2.1	Water Supply	3
	2.2	Wastewater Treatment & Disposal	6
3.	Future Servicing10		
	3.1	Tara-Ika Growth Area1	0
	3.2	Levin Infill Growth1	0
4.	Upgra	Jpgrades Planned to Date11	
5.	WTP Ability to Service		2
	5.1	Current and Future Demand vs Plant Capacity1	2
	5.2	Backwash Water1	3
	5.3	Recommendations to Enable Servicing of Future Growth1	3
	5.4	Notional Timeframes1	4
6.	WWTP Ability to Service15		
	6.1	Current and Future Demand vs Plant Capacity1	5
	6.2	Treated Effluent Irrigation1	6
	6.3	Recommendations to Enable Servicing of Future Growth1	7
	6.4	Notional Timeframes1	8
7.	Conclusion		9

1. Introduction

1.1 Background

Tara-Ika is a residential growth area located to the East of State Highway 57, which is also known as Arapaepae Road. It is located adjacent to the Eastern boundary of urban development for the township of Levin.

The development of Tara-Ika aligns with Horowhenua District Council's Growth Strategy (Horowhenua Growth Strategy 2040) and the Wellington Regional Growth Framework (WRGF) which is adopted by all Councils in the Greater Wellington Region and Horowhenua District Council (HDC). Early discussions on the WRGF indicate the desire to house an additional 20,000 people in the Horowhenua District, and Tara-Ika is a key initiative to achieve this goal. The most likely scenario for Tara-Ika is to supply 2,500-3,500 lots which, assuming 2.6 occupants per section, will equate to 6,500-9,100 additional people in Levin.



Figure 1: Map indicating the position of Tara-Ika with respect to Levin

The strategy for servicing this development is outlined in the *3 Waters Infrastructure Plan* - *Taraika Master Plan* (July 2020). Broadly, it is proposed to connect Tara-Ika to the existing water and wastewater supplies of Levin. This report complements this previous study by:

- Evaluating if the current capacities of Levin Water Treatment Plant (WTP) and Wastewater Treatment Plant (WWTP) are sufficient to service the new development and additional infill growth in the town; and
- Identifying feasible pathways forward to upgrade these plants if additional treatment capacity is required.

1.2 Information & Assumptions

In undertaking this desktop capacity assessment, the following information and assumptions were utilised:

- A peak day water demand of 392 L/person/day for new residents in Levin. This is based on the current average water use in the Horowhenua District (300 L/person/day)¹ and the current peak factor (1.3) calculated from historical water consumption data.
- A peak day wastewater flow rate based on 447 L/person/day for lots. This is based on the ratio of measured average and 95th percentile flows to the Levin WWTP (1.8) applied to the design average flow of 250 L/person/day for new lots based on HDC's *Subdivision and Development Principles and Requirements*.
- One new dwelling per new lot, with an average occupancy of 2.6 people/dwelling.
- The ratio of treated effluent disposed of via infiltration remains constant (18% of the total treated effluent volume).
- Total growth in the number of dwellings in Levin of:
 - 213 new dwellings/year between 2021-2030; and
 - 337 new dwellings/year between 2031-2041.

This is based on the draft LTP 2021-2041 and includes the Tara-Ika development and infill growth. It has been assumed that the Tara-Ika development construction will be completed by 2041.

• No specific allowance has been made for additional non-residential connections (e.g. new industries) or other large-scale residential subdivisions, either zoned or unzoned in the current District Plan.

1.3 Limitations

This report has been prepared by GHD for Horowhenua District Council (HDC) and may only be used and relied on by Horowhenua District Council for the purpose agreed between GHD and the Horowhenua District Council as set out in Section 1 of this report.

GHD otherwise disclaims responsibility to any person other than Horowhenua District Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer to Section 1.2). GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Horowhenua District Council and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does

¹ Water New Zealand. (2019). *Residential Water Efficiency*. Available at

https://www.waternz.org.nz/Category?Action=View&Category_id=1010

not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2 **Existing Supply Summary**

2.1 Water Supply

Levin is serviced by a WTP located to the southeast of the town and next to its water source - the Ohau River (see Figure 2).



Figure 2: Levin WTP location at Gladstone Rd, adjacent to the Ohau River

The plant was last upgraded in 2017 and broadly utilises the following treatment process:

- Coagulation/Flocculation
- Clarification
- Pressure Filtration
- UV Disinfection
- Chlorination
- Advanced Oxidation
- pH Adjustment

A new reservoir (6,800 m³) was constructed at the WTP in 2017 to provide buffer during dry periods when the river flow is low and increase the level of resilience of this water supply.

HDC has indicated that the plant has a maximum capacity of 15 MLD (plant outflow). Process capacity checks of the WTP were therefore excluded from the scope following discussions with HDC.

HDC currently holds a consent to take up to 15 MLD from the Ohau River, which is reduced to 13 MLD when the river level is low (at or below 0.82 m³/s). The consent authorises an additional take of up to 0.75 MLD for backwashing the filters and other activities (excluding water supply),
and this water must be discharged back to the Ohau River. The water abstraction consent is due for renewal in July 2042.

Daily Ohau River flow data measured at Rongomatane provided by HDC indicates that river flows below 0.82 m³/s are rare. From January 2005 to January 2019, there was only one event across six days (24/03/2008 to 29/03/2008) when the river flow was equal to or below this quantity.

The current average and peak water demand for the system are around 9.8 MLD and 12.8 MLD respectively. This is based on outflow data received over the period February 2018 to January 2021.

Figure 3 below compares the current water demand, WTP capacity, and consent abstraction limits related to Levin water supply scheme.



Figure 3: Levin WTP: Current demand, plant capacity, and consent limits

Based on this figure, the existing WTP has an additional capacity of 2.2 MLD beyond the current Peak Day Demand. Additional capacity is constrained by both the inherent process capacity of the WTP and also the consent limit.

Note that during low river levels, the capacity of the plant is further constrained, broadly to current Peak Day Demand figures, noting reservoir storage on site can assist in supplementing flows in the short term.

2.1.1 Backwash Water

As mentioned in Section 2.1, HDC can take up to 0.75 MLD of water from the Ohau River under the consent for backwashing the filters and other activities (excluding water supply), and this water must be returned to the river. HDC also holds a separate consent (ATH-1995003230.01 or 107374) to discharge up to 1MLD or 1000 m³/day of water back to the river - GHD has not sighted this discharge consent as part of this assessment.

Data from February 2018 to February 2021 indicates that the average daily amount of water used for filters backwashing and other activities in the water treatment plant is around 1.1 MLD. Some of this water is consumed at the plant (e.g. service water, carry water, building facilities, and water losses), and the remaining amount is returned to the river. As seen in Figure 4, the discharge volume has been generally below the 1 MLD consented limit. It was assumed that the discharge flow data provided by HDC came from the flowmeter at the discharge line to the river, post the backwash water settlement ponds. During the period shown in Figure 4, discharge flows to the river were higher than the consent limit for only 4 days or 0.4% of the time.

Therefore, discharges have been mostly compliant during this period. There is no data available for water flows to the river between 24/07/20 and 04/09/20.



Figure 4: Backwash water returned to the Ohau River vs consent limit

Figure 5 below compares the historical total water take from February 2018 to February 2021 against the consent limits (valid from May 2017 to Jul 2042).



Figure 5: Total water intake in Levin WTP vs consent limits

During the period shown in Figure 5, the total daily water abstracted has been below the consent limit for when the Ohau River flow is normal.

The total water abstraction was above 13.75 MLD during summer 2018/19 and summer 2019/20. Ohau River flow data covering these periods was not available to determine if the lower consent limit was applicable; however it should be noted that the Ohau river flow seems to only rarely fall below 0.82 m³/s (see Section 2.1) based on the previous 14 years of data. Therefore, it is unlikely that the lower consent limit (13.75 MLD) was applicable during these peak water demand events.

2.2 Wastewater Treatment & Disposal

Levin is serviced by a WWTP located on the western edge of the town at Mako Mako Rd. Figure 6 shows an aerial view of the plant.



Figure 6: Levin WWTP: Aerial view of the equipment and site layout

The plant broadly utilises the following treatment process:

- Inlet screening and Grit Removal (Primary Treatment)
- Primary Clarification (Secondary Treatment)
- Biotrickling filters (Secondary Treatment)
- Secondary Clarification (Secondary Treatment)
- Aeration ponds (Tertiary)
- Treated effluent pump station to the "Pot"
- Sludge thickening tank (Solids Stream Treatment)
- Sludge digestion (Solids Stream Treatment)
- Sludge dewatering (Solids Stream Treatment)
- Diurnal and storm ponds for wet weather flow management

The wastewater catchment for the WWTP is primarily gravity flow. The treated wastewater is pumped to a storage pond, where a minority of the treated effluent infiltrates through the pond walls to the ground and the majority of the treated effluent is disposed of by spray irrigation on 40 ha of a 110 ha pine and native forest plantation known as 'the Pot'. The Pot is situated approximately 5.2 kilometres west of the WWTP. HDC is currently in the process of optimising irrigation of the 40 ha of land currently being used, and there are plans to expand the irrigation area in 'the Pot' to 60 ha in the next two years².

² These changes are being driven by the resource consents. Refer to the 'General Clauses' related to the resource consents **ATH-201820041.00** (store wastewater and the associated discharge of wastewater to land and water); **ATH-1998004064.01** (discharge treated wastewater to land and water); and **ATH-1998007461.01** (discharge aerosols and odour to air).

2.2.1 Wastewater Treatment Current Performance

The estimated capacity of the Levin WWTP is 7.5 MLD. Details supporting this can be found in Section 2.2.3.

HDC currently holds a resource consent to discharge treated wastewater to land in 'The Pot'. This consent expires in June 2045.

A comparison between the consent limits and the current effluent quality is shown in Table 1. Effluent sampling results indicate that, on the average of samples taken, the plant is able to produce effluent quality within current resource consent limits. The median *E. Coli* result was at the consent limit (50,000).

Table 1 Levin WWTP effluent results summary (Apr to Jun 2020)¹

Parameter	Consent Limits ²	Effluent Quality (Median)	Effluent Quality (90th Percentile)
рН	≥ 6.8	7.5	7.7
cBOD5 (g/m ³)	≤ 40	23	37
TSS (g/m ³)	≤ 40	26	37
TN (g/m ³)	≤ 45	43	47
E. Coli (cfu/100 mL)	≤ 50,000	50,000 ³	198,000

1. Limited data was used (7 data points from 23/04/20 to 04/06/20). The secondary clarifier was out of service between Jan and Apr 2020, resulting in atypical effluent data results which were excluded from this analysis.

2. Based on the median of 5 samples.

3. Samples collected from Jan 20 to Feb 21, a total of 13 samples.

In addition to effluent quality requirements, other key consent limits are an annual discharge volume of up to 2,237,569 m³/year and a nitrogen load of up to 1,440 kg N/ha/year.

On the basis that 18% of the treated effluent infiltrates through the storage pond walls in 'the Pot' and the remaining amount is irrigated to land, the current volume for irrigation is understood to be approximately 6.1 MLD. The average and 95th percentile peak day inflow to the WWTP are 7.0 MLD and 12.6 MLD respectively. This is based on inflow data over the period February 2018 to January 2021. Figure 7 below compares the current plant wastewater flows and WWTP capacity.



*Based on consent annual limit

Figure 7: Levin WWTP: Current average and peak wastewater flows vs plant capacity

Based on the above figure, the existing Levin WWTP is currently operating with an additional capacity of 7% on average day demand, with excess wet weather flows diverted to holding ponds for temporary storage.

2.2.2 Treated Effluent Disposal

Figure 8 and Figure 9 below show the current annual nitrogen load applied per hectare of irrigated land in 'The Pot' and the current annual volume of treated effluent discharged against the consent limits. It should be noted that the consent limits presented below will commence 18 months after the consent was granted in June 2020 (i.e. December 2021).



Figure 8: **Disposal of treated effluent in 'The Pot'**: Current nitrogen load per hectare vs consent limit





Figure 9: **Disposal of treated effluent in 'The Pot'**: Current annual irrigation flow vs consent limit

Based on the total annual effluent flow for the 2019/20 consent year (2,597,388 m³/year) and the average effluent total nitrogen concentration (43.4 mg/L), the annual nitrogen load applied to the irrigation area (40 ha) in 'the Pot' is currently higher than the consent limit (1,440 kg N/ha/yr). This assumes that 18% of the treated effluent is discharged by infiltration through the walls of the storage pond located in 'the Pot', as per the assumptions made in the

resource consent application. Furthermore, the current annual volume of treated effluent discharged in 'The Pot' is approaching the consented limit for annual treated effluent volume of 2,237,569 m³/year.

2.2.3 Capacity Checks

To verify the capacity of the WWTP, GHD has undertaken high-level process calculations around the major process units, summarised in Table 2.

	Table	2 Levir	WWTP:	Capacity	of key	/ equip	oment
--	-------	---------	-------	----------	--------	---------	-------

Treatment Process Type	Equipment	Capacity	Current Utilisation Based on Average Flow
Liquid Treatment	Primary clarifier ¹	Max Daily Flow: 75,400 m ³ /day ⁴ Average Flow: 27,000 m ³ /day (2 clarifiers) 13,500 m ³ /day (1 clarifier)	52% (1 Clarifier)
	Trickling filters ²	Average: 7,500 m³/day ⁵	94%
	Secondary clarifier ³	Max Daily Flow: 18,700 m³/day ⁴ Average Flow: 9400 m³/day	75%
Solid Treatment	Sludge digester ⁶	Volume: 1,570 m ³	68%
	Sludge press	900 kg/day (vendor)	73%

Notes:

1. Two Primary Clarifiers, 24 m diameter. Currently only one clarifier is in use.

2. Six Trickling Filters, 14 m diameter, 1.8 m media depth assumed.

3. One Secondary Clarifier in operation, 24.4 m diameter.

4. Based on permitted maximum daily clarifier rise rate and average daily clarifier rise rate of 80 and 30 m/day

respectively. It is noted that excess storm flows are temporarily diverted to holding ponds.

5. Based on permitted average organic loading rate of 0.8 kgBOD₅/m³.day, and current primary clarifier effluent BOD₅ of 178 mg/L.

6. Based on minimum digester retention time of 25 days on average.

Based on these calculations, the estimated plant capacity is around 7.5 MLD, which is broadly consistent with current average day inflows. The plant capacity is limited by the maximum BOD loading onto the trickling filters.

During extreme events, wastewater is temporarily diverted to holding ponds. It is understood that these ponds are used for storage in emergency situations only and are not designed or suited to regularly store raw wastewater. Holding ponds are therefore not considered in the plant capacity assessment but in practice will provide a buffering effect to plant inflows when used.

Additional investigations are recommended to identify process bottlenecks and improvement options.

3.

Future Servicing

3.1 Tara-Ika Growth Area

At full build-out, the Tara-Ika Growth Area is planned to have from 2,500 to 3,500 additional lots. The new properties would be serviced by the existing Levin water and wastewater plants and networks. Considering a house occupancy of 2.6 people/dwelling, this would result in an estimated additional demand of 6,500 to 9,100 population equivalent, or an increase in peak demand of:

- 2.5 3.6 MLD for water services; and
- 2.9 4.1 MLD for wastewater services

It is important to note that residences in the new development will include rainwater tanks to be plumbed into internal non-potable uses. These will reduce the annual water demand in terms of volume required by each property. However, rainwater tanks cannot be relied on to meet demand during peak summer periods – a combination of low rainfall and high water demand during summer can lead rainwater tanks to be empty. Therefore, properties with rainwater tanks still rely on water supplied by Council to meet their needs throughout the year. Taking this into account, the additional capacity of rainwater tanks was excluded for this study.

3.2 Levin Infill Growth

In parallel to the growth in the Tara-Ika Growth Area, HDC anticipates other developments to occur within the current Levin urban boundaries. Water and wastewater services will need to accommodate this growth in addition to the proposed Tara-Ika growth.

The current draft HDC Long Term Plan 2021-2041 predicts a total growth (including Tara-Ika) of:

- 213 new dwellings/year between 2021-2030; and
- 337 new dwellings/year between 2031-2041.

Considering that the Tara-Ika development construction (2,500-3,500 houses) will be completed by 2041, the infill growth is expected to be equivalent to around 2,000-3,000 new dwellings in the next 20 years. Applying a house occupancy of 2.6 people/dwelling, this will result in additional demand of 5,200 - 7,800 population equivalent, or an increase in peak demand of:

- 2.0 3.1 MLD for water services; and
- 2.3 3.5 MLD for wastewater services

No allowance has been made for additional non-residential connections (e.g. new industries) or other large-scale subdivisions (e.g. retirement villages) which have not been considered in the HDC Long Term Plan 2021-2041.

4. Upgrades Planned to Date

Currently, there is budget assigned for capacity and treatment upgrades of the Levin water and wastewater plants in HDC's draft LTP 2021-2041 and Infrastructure Strategy 2021-2051.

The main ongoing and future projects related to increasing the capacities of the Levin plants, improving treatment, and managing or reducing water demand are presented in the tables below.

Additional projects may be required to facilitate the implementation of the Tara-Ika development. Initial requirements for projects and studies have been indicated as a result of this study (please refer to Sections 5.3 and 6.3); additional work is required in all the instances to better define all projects that need to be undertaken to service the projected growth within the Levin urban borders.

Table 3 Future water projects in Levin

Project	Budget	Timeframe
Levin WTP Improvement Plan: Capacity Upgrades and Water Demand Initiatives		2021 – 2051
Greater Levin: New Water Source Options and Investigation Project (Future-proofing Levin's water management and infrastructure to provide for projected growth and development to 2041 and beyond)	\$18.3m	(To be better defined based on this study. Refer to Sections 5.4 and 6.4)
Consents Renewal		
New Water Reservoir (Buffer When Ohau River Flow is Low)	Unknown	Ongoing
Develop Master Plan for Levin Water Supply and Associated Implementation Programme	Unknown	2021-2022

Table 4 Future wastewater projects in Levin

Project	Budget	Timeframe
Develop Wastewater Master Plan for Greater Levin. This will include optionaring, staging of works, and any necessary consenting	\$400k	2021 – 2025 (If necessary work can be brought forward)
WWTP Renewals to Improve Level of Service	\$10.4m	2021 - 2041
WWTP Renewals to Increase Capacity	\$4.5m	2021 - 2041
WWTP Strategic Upgrade to Improve Level of Service	\$18.0m	2029 - 2035
WWTP Strategic Upgrade to Increase Capacity	\$26.9m	2029 - 2034
Treated Effluent Discharge System Upgrade to Improve Level of Service (The Pot)	\$18.1m	2021 - 2041
Treated Effluent Discharge System Expansion (The Pot)	\$12.2m	2021 - 2041

5.1 Current and Future Demand vs Plant Capacity

Figure 10 summarises the capacity of the current WTP to service the Tara-Ika growth and infill growth in Levin in the next 20 years.



Figure 10: WTP Capacity to service future growth in Levin

According to the estimates above, the current WTP does not have enough capacity to fully service the Tara-Ika development and additional infill growth as forecasted in the LTP. The estimated gap between treatment capacity and demand in 2041 reaches 3.4 MLD on peak days.

The estimated impact of growth on the water demand through the next 20 years is illustrated in Figure 11.



Figure 11: Estimated future water demand from 2021 - 2041 against water take consented volume and current WTP capacity

According to the preliminary forecast above, the WTP will be required to be upgraded by around 2030. The water demand is expected to reach the 15 MLD limit by the end of 2031.

5.2 Backwash Water

Figure 12 below shows the estimated average volume of water to be discharged to the Ohau River over the next 20 years. The volume of water to be discharged was considered to be proportional to the increase in the average water demand estimated for each year.



Figure 12: Estimated average volume of water to be discharged to the Ohau River vs consent limit

As shown in the above figure, the estimated discharge volume in 2041 could reach 1.2 MLD, which is above the current consent limit of 1 MLD. Increasing the permitted return water volume in the consent is likely to be required before 2033, when the average volume of water to be discharged is expected to reach 1 MLD. It has been assumed that peak backwash volumes can be buffered by the two existing backwash water settlement ponds.

It is understood that most of the water currently discharged to the river is backwash water. This means that HDC may also want to consider applying to increase their consented allowance for additional water take for backwashing (0.75 MLD). In order to do that, it is recommended that HDC undertakes further investigations to understand which amount of the additional water take is used for backwashing, and which amount of the water returned to the river is backwash water.

5.3 Recommendations to Enable Servicing of Future Growth

The following is recommended to enable the Levin water supply system to service future growth:

- HDC should consider undertaking additional assessments to confirm the WTP's capacity – note the capacity of this plant was not verified as part of this assessment.
- Upgrade the WTP to increase its capacity. A capacity gap of up to 3.4 MLD was identified, and a nominal upgrade of 5 MLD is recommended to cover this gap as a practicable upgrade quantum.
- Allow at least 2 years for the plant capacity upgrading process, including consultant engagement, scoping, tendering, design, and construction, and a 1-year buffer prior to predicted growth being reached.
- Apply for a higher water abstraction limit before the expected renewal date at the end of the consent period (July 2042). Based on the preliminary demand forecast in Figure 11, this is needed to be in place by 2030.

- If it is not possible to increase the amount of water abstracted from the river (currently 15 MLD), it will be necessary to find a supplementary water source, as indicated in HDC's 2021-51 Infrastructure Strategy.
- If it is not possible to increase the amount of water abstracted from the river when the river flow is low (currently 13 MLD), it might be necessary to increase the raw water storage or find a supplementary water source. A 6,800 m³ treated water reservoir was built in 2017 to provide buffer when the river flow is low and it is understood that the planning of an additional raw water storage pond is underway. Further studies are recommended to evaluate if this storage is sufficient to provide buffer in the future these should consider the expected increase in water demand and the level of service HDC requires during such events.
- The Ohau River flow seems to be rarely at or below 0.82 m³/s. From January 2005 to January 2019, there was just one six-day period (24/03/2008 to 29/03/2008) when this happened. Considering that the effects of climate change may increase the frequency and duration of droughts in New Zealand, having a water abstraction limit above the future peak demand is highly preferred.
- Apply for a higher limit for water discharge to the Ohau River by the end of 2032. Take into consideration that the water take consent, due for renewal in 2042, may introduce future requirements which will need to be accommodated with an upgrade at the time.

It is important to note that many of these recommended actions can use budget which has already been allocated in the HDC's draft LTP 2021-2041. Refer to Table 3.

5.4 Notional Timeframes

5.4.1 WTP Capacity

It is recommended that the WTP is upgraded to 20 MLD in the **2029/30 financial year**. It is estimated that the peak day demand could exceed the rated plant capacity by the end of 2031. In this case, it would be recommended to start the plant upgrading process by **July 2028** at the latest.

Budget to improve the water source (incl. looking for an additional source if necessary) and increase the WTP capacity have already been included in the draft LTP 2021-2041 and Infrastructure Strategy 2021-2051 (see Section 3). Part of the budget may have to be brought forward.

5.4.2 Abstraction Capacity

It is recommended to apply for an increased water abstraction limit on time to get it approved by the **end of 2030**, before water demand reaches 15 MLD in 2031 (see Figure 11). Applying for a higher allowance for additional water take for backwashing is also recommended. Further investigations are required to determine the exact amount of water currently being used for filter backwashing and other activities in the plant and future water requirements to inform this application.

5.4.3 Water Discharge

As shown in Figure 12, it is estimated that the volume of water to be discharged to the Ohau River will reach the consent limit in 2033. Therefore, it is recommended to apply for a higher discharge limit on time to get it approved by the **end of 2032**.

6. WWTP Ability to Service

6.1 Current and Future Demand vs Plant Capacity

Figure 13 summarises the capacity of the current WWTP to service the Tara-Ika growth and infill growth in Levin over the next 20 years.



Figure 13: WWTP Capacity to service future growth in Levin

According to this figure, the current WWTP is currently at capacity and cannot service the Tara-Ika development and additional infill growth in Levin without capacity and treatment upgrades. A treatment capacity vs demand gap of up to 3.1 MLD has been estimated for 2041 (based on the average future wastewater flow). It should be noticed that wet weather flow management will require further improvements in the future; for example, Infiltration and Inflow (I&I) reduction initiatives can help to reduce the future peak wastewater flow.

The estimated impact of growth on the wastewater flows over the next 20 years is illustrated in Figure 14.



Figure 14: Estimated future average wastewater flows from 2021 - 2041 against current WWTP capacity

This graph shows that the average daily wastewater flow is expected to exceed the current estimated WWTP capacity (7.5 MLD) by 2024/25, and could reach 10.6 MLD in 2041. Figure 14 has assumed a two stage capacity upgrade of the treatment plant to account for uncertainty in the population growth forecast.

6.2 Treated Effluent Irrigation

In addition to treatment capacity to serve future growth, it is also necessary to consider how growth impacts the treated effluent irrigation system.

Taking into account the estimated future average wastewater flow, the irrigation area would have to be increased to 100 ha in the next 20 years to accommodate growth based on the current consented nitrogen loading rate (see Figure 15).

The required 100 ha irrigation area is estimated based on current plant performance - this can be reduced if the wastewater treatment process is improved to increase nitrogen removal. If the effluent average nitrogen concentration is reduced from 43 currently to 25 mg/L, the irrigation area would be reduced to 60 ha to be within the consented loading rate of 1400 kgN/ha/year. This would require only 20 ha of additional land, rather than 60 ha. Note the suitability of the hydraulic loading rate needs to be confirmed.



Figure 15: Current and future nitrogen loads to land vs consent limit

Figure 16 shows the estimated annual volume of treated effluent to be discharged to land from 2021 to 2041.

According to this figure, the consent limit for the annual volume of treated effluent discharged would have to increase from 2,237,559 m³/year to approximately 3,200,000 m³/year, or by 43%. Further investigation will be required to accurately quantify the percentage disposed of via infiltration.



Figure 16: Estimated annual volume of treated effluent to be discharged in **'the Pot' from 2021 to 2041**

It should be noted that any increase in the volume of treated effluent being irrigated in 'the Pot', annual nitrogen loads to land, or irrigation area will likely require applying for a new discharge consent or a variation to the current consent. We would recommend planning assessments are undertaken to confirm any planning and consenting requirements for this.

6.3 Recommendations to Enable Servicing of Future Growth

The following is recommended to enable the Levin wastewater system to service future growth:

- Further investigations are undertaken to establish the Levin WWTP capacity with greater certainty. A detailed plant capacity study could yield opportunities for short term capacity increase through minor plant additions. Nonetheless, the Levin WWTP is already operating close to its capacity of 7.5MLD and a capacity increase is needed around 2024. An upgrade of this magnitude would typically be in the order of 2 years or longer including consultant engagement, scoping, tendering, design, and construction. This should therefore be commenced shortly, and this project should be undertaken in parallel to the Levin wastewater master plan.
- Undertake further detailed assessment of various options to increase the WWTP capacity and the effluent quality. This should be included as part of the Levin wastewater master plan, already scheduled in HDC's 2021-2051 Infrastructure Strategy.
- The annual volume limit to the irrigation field is estimated to be exceeded in 2024, on the assumption that 18% of treated effluent volume is disposed via infiltration. This volume needs to be confirmed. The current consent for "the Pot" expires in 2045, however additional consenting is likely required in the short term to assist with the needed increase of discharge volume.
- The consented nitrogen loading rate at "the Pot" will need to be kept within the consented loading rate of 1400 kgN/year per ha from December 2021 onwards. We understand this is being addressed by a separate investigation.
- Monitor and review the capacity of the irrigation field and compliance with annual nitrogen loading rates. If confirmed that further land is required, assess and confirm area requirements to match projected discharge quality and volumes. We understand the long term infrastructure requirement for treated effluent disposal will be addressed in the Levin wastewater master plan.

• There is a direct interplay between irrigation system disposal capacity and treatment quality – it may be possible to reduce disposal requirements by adopting a higher quality treatment process. We recommend that this be examined as part of the wastewater master plan.

It should be noted that upgrade of the Levin WWTP and the effluent land-based discharge system would be required with or without the Tara-Ika development.

It is important to note that many of these recommended actions can use budget which has already been allocated in the HDC's draft LTP 2021-2041. Refer to Table 4.

6.4 Notional Timeframes

6.4.1 WWTP Capacity

It is recommended that HDC initiate the work for a small capacity upgrade at the WWTP in **2022** at the latest so that construction can be **completed around 2024**. HDC already has budget allocated to upgrade and expand the WWTP in the draft LTP 2021-2041 (see Section 4) – some of the budget may have to be brought forward.

It is understood that the Levin wastewater master plan will identify a staged work programme to address short and long term treatment and treated effluent disposal issues.

6.4.2 Disposal Capacity

As shown in Figure 16, the annual volume of treated effluent to be discharged could reach the current consent limit around 2024. A consent planning assessment is recommended in the **next 12 months** to identify the consenting strategy on increasing the volume limit of treated effluent to "the Pot".

Similar to the above, the long term treated effluent disposal strategy will be addressed in the upcoming wastewater master plan.

7. Conclusion

From our high level capacity assessment, it can be concluded:

- 1. It is feasible to service the proposed Tara-Ika growth area from the current WTP system in the short term, until around 2030. Feasible upgrades are available to enable the water plant to service growth in the long term, and the plant upgrading process should start at least 2 years in advance (approximately **by July 2028 at the latest**).
- 2. The water source take consent and capacity are sufficient to service growth in Levin in the short term, until around 2031. Applying for higher abstraction limits would be required in the long term to enable the water system to service the Tara-Ika development and any additional growth. Application for an increased water abstraction limit should be completed and **approved before the end of 2030**.
- 3. The consent to discharge return water back to the Ohau River is sufficient to service the estimated growth in Levin in the short term, until around 2033. Applying for a higher discharge limit would be required in the long term (**approved by the end of 2032**).
- HDC's 2021-51 Infrastructure Strategy has earmarked a long term study to identify supplementary water source and supply, with part of the budget needing to be brought forward. This will be part of the Water Master Planning for Levin and surrounding settlements, such as Ohau.
- 5. The existing WWTP and treated effluent irrigation system do not have sufficient capacity to service the full extent of the proposed Tara-Ika growth area and additional infill growth within Levin's urban area. It is feasible to undertake capacity upgrade of the Levin WWTP and the effluent irrigation system, however, investigations are recommended to establish the plant capacity with more certainty, and identify potential options to facilitate short term capacity increase.
- 6. HDC has planned a wastewater master plan during 2021/22 to 2024/25 to identify a staged work programme to develop services in Levin in short and long term. It is envisaged this master plan will cover wastewater collection, treatment and treated effluent discharge infrastructure. In addition to this, it is recommended that the master plan specifically include assessment of options to improve the effluent quality, land identification for additional irrigation areas, and consenting for increasing the volume limit of treated effluent to "the Pot".
- 7. In parallel to the wastewater master plan which will develop a short and long term programme, as noted in 5 above, there is a need to **commence immediate improvements** at the Levin WWTP and the treated effluent irrigation system to enable servicing of the Tara-Ika growth area in the short term.

GHD

52 The Square Palmerston North T: 64 6 353 1800 F: 64 6 353 1801 E: Level 2

© GHD 2021

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

https://projectsportal.ghd.com/sites/sp01_01/residentialgrowthare/ProjectDocs/12536997-REP_Tara-Ika Residential Growth Area Enabling Works Water and Wastewater Capacity Assessment.docx

Document Status

Revision	Author	Reviewer		Approved f	or Issue	
	1.110	Name	Signature	Name	Signature	Date
Draft A						19/03/2021
Final						28/04/2021
						16/07/2021

www.ghd.com





Appendix 8: Statement of Evidence - Water and Waste Water

IN THE MATTER of the Resource Management Act 1991 (RMA)

AND

IN THE MATTER of a hearing by the Horowhenua District Council on Proposed Plan Change 4: Taraika Growth Area to the Horowhenua District Plan.

EVIDENCE OF PETER FREE ON BEHALF OF HOROWHENUA DISTRICT COUNCIL Water Treatment Specialist 21 September 2021

1. QUALIFICATIONS AND EXPERIENCE

- 1. My full name is **Example**. I have a NZ Certificate in Civil Engineering from the Central Institute of Technology; a NZ Certificate in Science in Water Technology from the Central Institute of Technology, and a Post Graduate Diploma in Business Studies in Management from Massey University. I have over 37 years' of experience in Water and Wastewater Projects, including 10 years at GHD.
- 2. I have been involved in a number of Drinking Water Treatment Plant (WTP) and Wastewater Treatment Plant (WWTP) projects in New Zealand and internationally.
- I have been engaged by Horowhenua District Council (HDC) since September 2020. For this project, I was involved in supporting the Tara-Ika Residential Growth Area: Enabling Infrastructure Water and Wastewater Plants Capacity Assessment work for GHD.
- 4. I advise that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and have complied with it in preparing this evidence. I confirm that the issues addressed in this evidence are within my area of expertise and I have not omitted material facts known to me that might alter or detract from my evidence.

2. SCOPE OF EVIDENCE

I have been asked to provide evidence in relation to the Levin Water and Wastewater Treatment
 Plants capacity to support this development. I supported the preparation of the Tara-Ika
 Residential Growth Area: Enabling Infrastructure Water and Wastewater Plants Capacity

Assessment, July 2021 (the Water and Wastewater Capacity Assessment, see Appendix A), in which an assessment was undertaken to evaluate if the current capacities of Levin WTP and WWTP are sufficient to service the new development and additional infill growth in Levin; and to identify feasible pathways forward to upgrade these plants when additional treatment capacity is required. These elements are discussed further in my evidence below. I have read the submissions received on the Application and the Report prepared in accordance with s 42A of the RMA (the Council Report).

- 6. My evidence will cover the following matters:
 - a) Current and Future WTP and WWTP capacity;
 - b) Expected future servicing requirements with Levin and Tara-Ika;
 - c) Comments on submissions; and
 - d) Conclusions.

3. SUMMARY OF EVIDENCE

- 7. GHD have been engaged by HDC to evaluate if the current capacities of Levin WTP and WWTP are sufficient to service the new development and additional infill growth in Levin; and to identify feasible pathways forward to upgrade these plants when additional treatment capacity is required. I supported the GHD team in completing this work. This work follows on from other work by GHD supporting this plan change application.
- In my opinion, it is feasible to service the proposed Tara-Ika growth area from a WTP and WWTP perspective, though in both instances upgrades are likely to be required in order to support this development.

4. RELEVANT FACTS AND CONTEXT

9. In this statement of evidence, I do not repeat the Project description and refer to the summary of the Application in the evidence of Lauren Baddock on behalf of Horowhenua District Council.

5. PURPOSE OF THE WTP AND WWTP PLANTS CAPACITY ASSESSMENT

10. The purpose of GHD's work is described in Section 1 of Water and Wastewater Capacity Assessment. This Water and Wastewater Capacity Assessment also documents the process undertaken in establishing the plant capacities and predicted future demand.

6. EXISTING WTP AND WWTP CAPACITIES

11. The Water and Wastewater Capacity Assessment outlines the relative current capacities of the Levin WTP and WWTP. In both instances in my opinion it is clear there is currently available capacity at these plants (with some limitations in terms of the WWTP) to assist with the implementation of the initial stages of the Tara-Ika development, however this capacity is likely to be exhausted by the size and scope of the new development, and therefore additional upgrades will be required to support the full extent of proposed development.

7. EXPECTED FUTURE SERVICING

- 12. The Water and Wastewater Capacity Assessment outlines the growth rates both within the existing Levin area and the proposed Tara-Ika development. Predictions have been made when the required upgrades may need to be implemented. In my opinion more work is required to better establish expected growth rates, staging and predicted build out, however this exercise provides a useful order-of-magnitude guide for upgrade requirements.
- 13. In my opinion, the expected timeframes for upgrades are reasonable in the context of infrastructure upgrades of this scale, with time available to plan, design and then implement any required upgrades. I note the most immediate needs are around the WWTP and WW disposal system, but timing will depend on realised growth rates and would be assisted by a more detailed review of the WWTP and the WW irrigation system.
- 14. I acknowledge HDC's current and future infrastructure plans (as presented in the Three Waters Infrastructure Plan and the LTP) that are intended to promote additional Water and Wastewater capacities in Levin.

8. COMMENTS ON SUBMISSIONS

15. In reviewing submissions, my team and I have identified key recurring themes relating to the work completed by GHD for this Project. To aid in the brevity of this evidence, I respond to the key themes identified below.

Infrastructure Planning

- 16. Some submitters have identified issues relating to infrastructure planning, and whether this is sufficient to cater for the proposed demand.
- 17. I refer to earlier parts of this evidence to outline why it is my opinion that there is current capacity to support some growth, however additional infrastructure will be required with a stage approach, to support the ultimate development's growth in addition to growth within the existing Levin limits.

- 18. It is typical when servicing a greenfields site that servicing will be staged to optimise capital spend and to avoid providing over capacity as that can often bring operational difficulties.
- 19. I refer to the evidence of Lauren Baddock that outlines the future planning that will be undertaken to support this growth.

Future Environmental Impact

- 20. Some submitters have identified issues relating to potential future environmental impacts associated with this additional development.
- 21. Refer to earlier parts of this evidence to outline why it is my opinion that additional upgrades are required to existing infrastructure to support this development this includes in some instances improvements to infrastructure to improve quality rather than simply capacity alone for example upgrades to improve the effluent discharge quality from the WWTP.
- 22. My team has also identified areas that require modification to existing Resource Consents currently held at the WTP or WWTP. Naturally changes to consents would need to be consistent with the One Plan and that alternatives would need to be assessed to determine the appropriateness of the proposed solution, and measures implemented to manage the environmental impacts.

Density of Development

23. Multiple submissions have indicated a strong desire to increase the density of proposed residential development in the Plan Change, removing much of the low-density residential areas in favour of standard or medium density areas. This increases the projected additional houses to 3,500 at a minimum. This range was accommodated in the technical analysis include in the Water and Wastewater Capacity Assessment (Appendix A), and if exceeded serves only to accelerate the timeline for implementing the report recommendations. The overall conclusions and recommendations of the report and this evidence are unchanged.

Cost

24. Multiple submissions have identified cost implications to support the infrastructure required for this plan change. However, we understand this is outside the matters that are relevant for consideration of this Plan Change and the Council's LTP process details the budget issues for infrastructure costs.

9. CONCLUSION

25. My team and I were commissioned by HDC to evaluate if the current capacities of the Levin WTP and WWTP are sufficient to service the new development and additional infill growth in Levin, and to identify feasible pathways forward to upgrade these plants if additional treatment capacity is required. In my opinion, there is currently sufficient capacity to support some of the proposed growth, and feasible upgrades exist at both the WTP and WWTP in order to cater for the proposed future demand from the Tara-Ika Development.





Appendix 9: Stormwater Technical Memorandum



Technical Memorandum

09 August 2021

То	Daniel Haigh, HDC	Tel	
Copy to		Email	
From		Ref. No.	12536997
Subject	Tara-Ika Growth Area: Summa	ary of Stormwater Manage	ement Analysis and Strategy

1. Introduction

Horowhenua District Council (HDC) is currently undertaking the Plan Change process for the Tara-Ika Growth Area in Levin. GHD has provided ongoing 3 waters technical support to Council for the Tara-Ika area in support of the Plan Change and enabling infrastructure implementation, and through this work has identified future risks associated with discharge of stormwater runoff from the development area, particularly with the available overland flow routes to the receiving environment (i.e., Koputaroa Stream or Lake Horowhenua) and with the need to identify stormwater management servicing requirements for the Plan Change area. GHD has also provided 3 waters technical support in HDC's ongoing liaison with Waka Kotahi around the Ōtaki to North of Levin (Ō2NL) Expressway which is planned to run through the western portion of the Growth Area.

1.1 Purpose of this Memo

This memo summarises the stormwater analysis that has been completed to date by GHD and others, and presents recommended stormwater management strategies and design criteria for consideration in the Plan Change that have evolved from the existing body of work.

1.2 Limitations

This report: has been prepared by GHD for Horowhenua District Council and may only be used and relied on by Horowhenua District Council for the purpose agreed between GHD and Horowhenua District Council as set out in section 1 of this report.

GHD otherwise disclaims responsibility to any person other than Horowhenua District Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

If the GHD document containing the disclaimer is to be included in another document, the entirety of GHD's report must be used (including the disclaimers contained herein), as opposed to reproductions or inclusions solely of sections of GHD's report.

GHD has prepared this report on the basis of information provided by Horowhenua District Council and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2. The Evolution of Stormwater Management in Tara-Ika

2.1 Subdivision and Development Principles and Requirements

The primary source at present for stormwater design guidance for the Tara-Ika growth area are the Council's *Subdivision and Development Principles and Requirements* (SDPR), which in turn is based largely on NZS 4404:2010, Stormwater. The SDPR provides relatively comprehensive but high-level guidance on the design of stormwater servicing for subdivision sites, including several key criteria for sites that intend to use soakage features. A selection of key criteria from the SDRP that will be important for Tara-Ika include (summarised):

- Design storm Annual Recurrence Intervals (ARIs) for reticulation (10 year) and overland flow (100 year), including accounting for climate change by applying a 16% increase to rainfall, and using a critical storm duration analysis.
- Requirement for hydraulic neutrality for all design storms between the 2 year and 100-year events.
- Overland flow paths must be in public land where possible.
- Requirement for overland flow paths and discharge even if soak pits are intended to dispose of all runoff.
- Residences must have freeboard above the 200-year flood level.
- Design must consider groundwater levels and mounding, as well as quality.
- Water quality ponds/wetlands will be constructed where practical, and include pre-treatment to remove floatables and other debris.

2.2 Taraika Master Plan (Local/McIndoe Urban, Draft 2020)

The *Taraika Master Plan* included high-level guidance and direction for stormwater management in the Tara-Ika growth area (Figure 1), to provide an overarching philosophy upon which to base more detailed technical analysis and design.



Figure 1 Overview of Stormwater Management Approach from <u>Taraika Master Plan</u>

Relevant guidance from the Master Plan (summarised from the version lodged with the Plan Change) with respect to stormwater management is summarised below:

- Design must implement principles of water sensitive design with an integrated approach to protect downstream environments and enhance amenity.
- All infiltrated flows will receive water quality treatment prior to discharge or be solely from low contaminant surfaces such as roofs.
- Open space is to be located in coordination with stormwater management.
- Development must explore the use of rainwater collection tanks to contribute to both stormwater management and water demand reduction.
- Development must retain and treat stormwater on site where possible.
- Landscape buffers alongside the expressway shall be used to manage and treat stormwater.

2.3 Draft Plan Change Provisions (2020)

Relevant objectives and policies from the proposed Tara-Ika Plan Change submission, based on the draft provisions available at the time of this memo, include the following:

- Objective 6A.3: Stormwater management in Tara-Ika will be resilient and environmentally sustainable, including:
 - Resilient to natural hazards and the likely effects of climate change;
 - Water sensitive design;

- Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems.
- Policies 6A.3.1 to 6A.3.3:
 - Require an integrated approach to managing stormwater from Tara-Ika to ensure the quality and quantity of runoff does not have an adverse effect on Lake Horowhenua.
 - Recognise the significance to iwi of the Tara-Ika environment and its connection to Lake Horowhenua by working with iwi to manage stormwater quality and quantity.
 - Require rainwater collection tanks to be provided on all new residential allotments to capture and reuse runoff to mimic, as much as practicable, pre-developed hydrological conditions for the site.

Relevant Rules from the proposed Tara-Ika Plan Change:

- 15A.6.2.1 Rainwater Tanks: all dwellings will have a stormwater collection tank of various size depending on roof area, connected to internal and external non-potable reuse.
- 15A.8.1.2 Subdivision (and similar for other landuses): provision of servicing, including stormwater management and disposal, is a matter of discretion for Council.
- 15A.8.1.3 Non-compliance with requirements for Rainwater Tank (and similar for other land uses): matters of discretion include the potential for increased volume of stormwater discharge from the site, and proposed methods of managing quality and quantity of stormwater discharge from the site.

2.4 Stormwater Management Plan (GHD, 2020)

GHD was commissioned by HDC to develop a Stormwater Management Plan for Tara-Ika, building off of the high-level stormwater objectives and philosophy described in the Tara-Ika Master Plan (see Section 2.2). The purpose of the Stormwater Management Plan was to support the Plan Change process through demonstrating the practical feasibility of the proposed management approach in mitigating effects of the development on the downstream receiving environment.

The core servicing strategy of the Stormwater Management Plan included the following components:

- Capture of runoff from roofs for reuse in dedicated greywater systems.
- Soakage of runoff from roofs (in excess to that needed for reuse) up to the 10-year ARI storm in on-lot soakage devices.
- Conveyance and treatment of runoff from all non-roof impervious surfaces in stormwater treatment wetlands, to be located primarily along the Ō2NL corridor.
- Attenuation of runoff up to the 100-year ARI flow in detention ponds co-located with the treatment wetlands.
- Discharge of attenuated runoff along the O2NL corridor or along existing overland flow routes.

Outputs from the Stormwater Management Plan included items such as the identification of overland flow path outlets (Figure 2, top), preliminary sizing of trunk stormwater reticulation based on the Master Plan development layout (Figure 2, bottom), and preliminary sizing of treatment wetlands and attenuation basins. The level of service criteria employed in the Stormwater Management Plan included attenuation of all post-development peak flows up to the 100-year ARI peak flow (including the effects of climate change) to pre-development levels, thereby providing flood risk protection to downstream areas; stormwater volumes were not specifically controlled under this plan. The initial preferred outlet for stormwater runoff was the proposed \bar{O} 2NL corridor, which ultimately discharges to the Koputaroa Stream. In the absence of \bar{O} 2NL, the runoff would follow existing flow paths along SH57 and Queen Street; however, no detailed assessment was undertaken on the viability or environmental effects of these overland flow paths.



Figure 2 Excerpt figures from Stormwater Management Plan showing post-development drainage catchments (top) and overall trunk reticulation servicing layout (bottom)

2.5 3 Waters Master Plan (HDC, 2020)

Following completion of the Stormwater Management Plan (see Section 2.4), HDC finalised the overall 3 Waters Master Plan to service the Tara-Ika development, including servicing strategies for drinking water, wastewater and stormwater. This plan was included with the package of documents lodged by HDC with the Tara-Ika Plan Change. With particular regard for stormwater management, the 3 Waters Master Plan states the following:

Development of Taraika will result in increased stormwater volume and peak flows and result in water quality impacts to downstream areas. Since Taraika is at the top of the drainage catchment, an increase in runoff could have significant impact on the receiving stormwater systems, whether they are the piped networks, open drains, Lake Horowhenua, or the Koputaroa Stream. Water

sensitive urban design (WSUD) will be required within the development area to mitigate the effect of development. Examples of WSUD devices which can be incorporated within the development to mitigate the stormwater quantity and quality impacts include rainwater tanks, soakage, permeable pavements and biofiltration. In addition to these, attenuation is to be provided throughout the development area to reduce the peak flow leaving the development area.

The 3 Waters Master Plan further reinforced the direction adopted in the Taraika Master Plan and Stormwater Management Plan, and provides the foundation for the recommended stormwater design criteria included in this memo (refer Section 3.3).

2.6 Consideration of Overland Flow Routes

After completion of the Stormwater Management Plan and 3 Waters Master Plan, HDC initiated a more robust risk identification and mitigation exercise on the proposed servicing strategies for Tara-Ika. Of particular concern for the stormwater servicing strategy was the feasibility of the overland flow routes for discharge of runoff from the development area. The two primary outlet options identified in the Stormwater Management Plan, based on existing flow patterns and topography, are listed below and shown in Figure 3:

- Northwest to Lake Horowhenua via Queen Street.
- Northeast to Koputaroa Stream via SH57 and existing watercourses.

However, upon closer review both discharge options have significant implications for consenting and environmental effects:

- Discharge of stormwater surface runoff to Lake Horowhenua is a non-complying activity under Rule 13-9 pf the Horizons Regional Council *One Plan*, presenting a challenging consenting pathway. The Lake is currently affected by long-term water quality issues and significant efforts are underway to protect and restore the lake.
- Discharge of stormwater runoff to the Koputaroa Stream, which is currently being pursued by HDC for the Northeast Levin development area, presents several challenges due to existing wide scale flooding issues in the capacity-limited system. Horizons Regional Council has indicated high resistance to receiving more runoff, particularly from outside of the existing catchment area (as Tara-Ika is located within the Lake Horowhenua catchment).



Figure 3 Stormwater Overland Flow Outlets from Tara-Ika

Another risk that was identified as relevant to the stormwater management strategy was the potential for the \bar{O} 2NL expressway to be cancelled or otherwise not constructed, which has significant implications for the feasibility of discharging stormwater runoff to the Koputaroa Stream. Section 2.7 below describes this risk along with the analysis undertaken by GHD and HDC to develop mitigation solutions.

2.7 Consideration of the **Ō**2NL Expressway (GHD, 2020)

The location of the Tara-Ika Growth Area overlaps with that of the proposed $\bar{O}2NL$ corridor, with the current highway alignment traversing the site parallel to and offset from the existing SH57. As currently configured the highway would separate a strip of Tara-Ika from the majority of the residential area, would bisect the current overland flow routes for stormwater drainage, and would also partially overlap the logical locations for stormwater attenuation and treatment devices for the development. In addition, the current design proposal for $\bar{O}2NL$ involves a significant vertical cut along the highway alignment, which would further disrupt the overland flow paths and stormwater servicing options for Tara-Ika.

In consideration of the future eventuality of Ō2NL, Council requested in December 2020 that GHD provide high-level alternatives for stormwater servicing both with and without the presence of the highway. The assessments completed at that time are summarised in the sections below.

2.7.1 Stormwater Servicing with Ō2NL

The stormwater servicing study that has been undertaken to date has assumed that the Ō2NL corridor would be constructed, and some preliminary work has been completed around the staging of stormwater servicing to facilitate development. However, uncertainty as to the likely construction timeline of the Ō2NL corridor results in a corresponding uncertainty in the stormwater servicing staging and configuration for Tara-Ika.

The Tara-Ika team have developed a servicing and staging approach assuming that the Ō2NL is constructed with the deep vertical cut, which includes the elements listed below. Note this takes into consideration staged construction of Ō2NL as well.

- Install distributed soakage disposal for roof runoff throughout the development.
- Discharge runoff from the eastern ~75ha of development to the Koputaroa Stream (see "Koputaroa Catchment" on Figure 6 on page 10) following wetland treatment, attenuation and soakage in a facility adjacent to Queen Street and the existing treed reserve area.
- Construct wetland treatment facilities along the eastern boundary of the Ō2NL corridor cut slope, with an appropriate setback (15-30m) from the top of slope.
- Construct soakage disposal facilities downstream of the wetland treatment areas that overlap with the Ō2NL corridor (partially or fully), sized appropriately for the evolving extent of upstream development, to service the development prior to the construction of the highway.
- During construction of the highway, which is expected to require several years through the Tara-Ika area, Waka Kotahi and Council will work collaboratively to stage construction in a manner that facilitates stormwater disposal prior to decommissioning of the temporary at-grade soakage devices. This is yet to be confirmed with Waka Kotahi.
- Following completion of the highway construction, treated stormwater from the wetlands will be discharged down the cut slope to the highway corridor, and will then be soaked, treated, attenuated and/or conveyed off-site along the highway corridor to the Koputaroa Stream.

2.7.2 Stormwater Servicing without Ō2NL

Servicing Tara-Ika if the Ō2NL corridor is not constructed would involve several modifications to the approach described above, to best take advantage of the site features and topography. These modifications include:

Install distributed soakage disposal for roof runoff throughout the development (as in the above scenario).

- Diversion of runoff from the eastern ~75ha development area (see "Koputaroa Catchment" on Figure 6 on page 10) may not be necessary or desired in this case, as greater soakage disposal could be realised within the Tara-Ika site, reducing potential strain on the Koputaroa Stream system.
- Locate the primary wetlands and soakage disposal facilities closer to SH57, within or west of the proposed Ō2NL alignment.
- Discharge major overland flows (i.e., greater than the 100-year ARI flow) along current flow paths and/or along SH57 to the Koputaroa Stream to the north.

2.8 Geotechnical Investigations for Soakage (GHD, ongoing)

The risk-based assessment of stormwater servicing options considering the available overland flow routes from Tara-Ika (described in Section 2.6) and the Õ2NL expressway corridor (described in Section 2.7) highlighted the importance of soakage to manage stormwater runoff from the development area and a need to understand both the feasibility and implications of this strategy. In response, HDC immediately initiated a geotechnical and hydrogeological investigation to assess potential soakage rates across the development area, as well as to install monitoring wells to observe groundwater levels and better understand the potential effects that large-scale stormwater soakage may have on areas located down-gradient of Tara-Ika.

GHD was commissioned to undertake this investigation work, which includes seven boreholes and monitoring wells fitted with water level loggers, and completion of Double Ring Infiltrometer (DRI) tests at five locations in Tara-Ika to assess soakage rates (sample DRI test shown in Figure 4, soakage test locations shown in Figure 5). This work was completed between December 2020 and January 2021, with groundwater monitoring wells still in place.

The initial round of soakage testing identified "raw" soakage rates of between 60 and 240 mm/hr; safety factors of between 1/5 and 10 (based on industry guidance from CIRIA – *The Sustainable Drainage Systems (SuDS) Manual*) are then applied to account for uncertainty in soil conditions across the footprint of a soakage device, long-term degradation of soakage capacity, and the overall risk associated with failure of the soakage facility (i.e., flooding of downstream areas). Suitable safety factors for Tara-Ika are expected to be between 3 and 5, based on the risks related to overflows/failures of the soakage systems.

Further testing was undertaken in May 2021 near the anticipated initial development area off Queen Street East, as part of ongoing collaborative efforts with landowners to facilitate development. These localised tests identified raw soakage rates of 360 to 1440 mm/hr, and was found to be highly dependent on the specific soil layer that was assessed.

Based on the collected results of both rounds of testing, soakage throughout the Growth Area is highly variable. A preliminary allowable soakage value of 100 mm/hr was deemed to be suitable for development planning and preliminary design; however, this needs to be confirmed through specific, localised soakage testing as part of detailed design for engineering plan review. Utilising this lower number is considered to be appropriate for preliminary planning and design stages as the required soakage areas will likely decrease once testing has been undertaken.

The soakage testing report completed by GHD is included as Attachment 1.





Double Ring Infiltrometer setup used for soakage testing



Figure 5

2.9 Zero-Discharge Approach

The culmination of the stormwater planning, analyses and investigations described in Sections 2.1 to 2.8 led HDC to adopt the current preferred strategy, referred to as the "Zero-Discharge Approach". Under this approach, all stormwater runoff up to the 100-year ARI event including the effects of climate change are retained within the development area and ultimately soaked into the ground. The key components of this approach are similar to those described in the Stormwater Management Plan, and include the following:

- Capture of runoff from roofs for reuse in dedicated greywater systems.
- Soakage of runoff from roofs (in excess to that needed for reuse) up to the 10-year ARI storm in on-lot soakage devices.

Summary of soakage testing locations and results for first round (top) and second round (bottom)

- Conveyance and treatment of runoff from all non-roof impervious surfaces in stormwater treatment wetlands, to be located primarily along the O
 2NL corridor – these locations are consistent regardless if the O
 2NL proceeds or not.
- Retention and soakage of runoff up to the 100-year ARI flow (including climate change effects) in soakage basins. Ideally these basins are co-located with the treatment wetlands; however, the expected footprint requirements of the basins will require flexibility in siting.
- Discharge of runoff in excess of the 100-year ARI event along the Ō2NL corridor or along existing overland flow routes.

This approach provides HDC and landowners with greater certainty and confidence in the feasibility of stormwater servicing in Tara-Ika in terms of resource consenting, and a clear way forward to enable development to proceed.

As part of the initial development of the Zero-Discharge Approach, GHD undertook a high-level stormwater runoff analysis to determine conceptual wetland and soakage basin footprints using relatively conservative assumptions around development density and soakage capacity. This analysis was completed in March 2021. The resulting conceptual footprints are illustrated in Figure 6, showing an interim version of proposed zoning that differs slightly from the most recent Structure Plan. It should be noted that this assessment is considered to be conservative and does not reflect the likely actual footprints that will be implemented. The purpose of this figure is to provide an indicative layout of the proposed stormwater mitigation for planning purposes to identify overall feasibility. For this reason, it is not recommended that stormwater facilities be spatially identified on the Structure Plan or Planning Maps.

Further details of proposed design criteria under this approach are described in Section 3.3.





Indicative Stormwater Wetland and Soakage Basin Footprints for "Zero-Discharge" (March, 2021)

3. Stormwater Design Approach and Criteria

3.1 Gaps in Existing Standards and Knowledge

The existing SDPR and proposed Plan Change policies, objectives and rules provide comprehensive highlevel direction for the design of stormwater infrastructure in Tara-Ika; however, to respond to submissions regarding the importance of good stormwater management and to facilitate the speed and ease of subdivision consent applications and engineering plan reviews more specific design criteria is desired. To inform these specific criteria the gaps in the existing guidance need to be identified, exposing areas where ambiguity exists which may result in low quality design outcomes. Areas where existing standards may lead to ambiguity in Tara-Ika designs include:

- Design storms. The SDRP does not specify a design storm duration or hyetograph shape but requires that the designer evaluate the critical storm duration for their application. However, traditional "time of concentration" (i.e., the time it takes for runoff from the entire catchment to reach the outlet) approaches to identifying the critical storm duration are likely inadequate for Tara-Ika, which includes several water sensitive design elements and may be more sensitive to longer-duration design storms that produce higher runoff volumes. As well, designs may be sensitive to different hyetograph shapes that can result in more/less intense rainfall periods or more/less runoff volume. Specific criteria should be established to ensure a more robust critical storm duration analysis is carried out, and to ensure that an appropriate hyetograph shape is applied.
- Climate change. The SDRP guidance on climate change involves a flat percentage increase to rainfall which is in line with previous versions of NIWA's High Intensity Rainfall Design System (HIRDS) data; an updated approach would specify a specific climate change scenario, such as RCP 8.5 (recommended). The RCP 8.5 scenario is recommended over the RCP 6.0 scenario as an analogue for a time horizon roughly equivalent to 2120-2139, or about 100 years from present day. A 100-year design life is considered appropriate for a development of this magnitude.
- Rainwater tank sizing. Although the SDRP recommends that rainwater tanks be considered, it does not provide guidance on the sizing of rain tanks nor does it make them mandatory (although the District Plan provision would fulfill this need). The Tara-Ika Plan Change provisions would require rain tanks to be installed and plumbed into internal/external plumbing. Minimum tank sizes based on each lot's roof area are recommended to be specified for Tara-Ika for the purpose of rainwater reuse and incidental stormwater attenuation¹; preliminary guidance has been established in the Tara-Ika Integrated Water Management Concept Report (Morphum, Draft 2020):
 - Roof area of 75m² or less 2,000 litre capacity
 - Roof area of 75m² to 200m² 3,000 litre capacity
 - Roof area of more than 200m² 5,000 litre capacity
- Soakage sizing. In conjunction with the requirement for rainwater tanks, the design criteria should include a requirement for a minimum soakage capacity on each lot to dispose of, at minimum, the 10year ARI runoff volume from roofs, assuming that the attached rainwater tank is full. These soakage rates should be based on actual on-site testing using appropriate/approved methodologies.
- Stormwater servicing scales. Soakage from non-roof impervious areas will be required to have pretreatment prior to soakage; however, Council should consider the practicality and cost-effectiveness of distributed treatment and soakage devices across the entire development area (which will eventually vest into Council's ownership), versus centralised treatment and soakage in fewer dedicated facilities-this is further discussed in Section 3.3.
- WSD guidelines. Water quality treatment design guidance in the SDRP refers to the NZWERF "On-Site Stormwater Management Guidelines" which were published in 2004; more modern guidance should be specified for use in Tara-Ika designs.

¹ It is important to note that tanks are not to be considered when designing primary attenuation devices as it would require the tanks to be empty in order to provide any attenuation. Given that the tanks will be privately owned and maintained, stormwater mitigation should not include any allowance for the rainwater tanks.


- Water quality volumes. The SDRP does not require a specific runoff volume or ARI event to be treated for quality prior to bypassing along overland flow routes; this should be specified.
- Acceptable treatment devices. The SDRP and proposed Plan Change provisions do not specify types of stormwater treatment or attenuation devices that will be acceptable to Council, although this is not typically specified to a high level of detail in comparable documents for other Councils. However, considering the scale of the Tara-Ika development and magnitude of stormwater infrastructure that will vest to Council in the future, a "toolbox" of acceptable stormwater solutions could be developed for use by the developers.

3.2 Alternatives for the Scale of Stormwater Servicing

Adopting the Zero-Discharge Approach throughout the Tara-Ika development area can be done at different scales. Of interest to this assessment is the difference between the landowner-scale and development-scale of implementation, as described below:

- Landowner-scale (decentralised): stormwater treatment and attenuation are designed and constructed to service the development within each individual landowner's property.
- Development-scale (centralised): stormwater treatment and attenuation are designed and constructed to service the Tara-Ika development area as a whole, independent of current property boundaries and ownership.

The centralised and decentralised approaches are associated with different benefits and drawbacks when considering performance outcomes, long-term maintenance, financial equity to landowners, efficient use of development area, design burden on landowners, and the pace at which development in Tara-Ika can be enabled. A high-level comparison of benefits and drawbacks is provided in Table 1.

Servicing Alternative	Benefits	Drawbacks
Landowner-scale (decentralised)	 Each landowner has the ability to proceed with development at their own pace, regardless of if downstream stormwater measures have been put in place. No financial compensation measures are required for those landowners whose properties may be disproportionately occupied by stormwater facilities. 	 Less efficient use of space overall in Tara-lka: a larger number of smaller facilities will occupy more footprint than fewer, larger facilities. Less protection for Tara-lka residents downstream of stormwater facilities in extreme high flow events (in excess of 100-year ARI) when facilities will overflow. Less opportunity to leverage future Ō2NL corridor for stormwater discharge. Increased operations and maintenance burden on HDC with a larger number of smaller facilities, with potential for some facilities to remain in private ownership leading to poor long-term outcomes. Risk of inconsistent design (can be managed through HDC guidelines and engineering reviews).
Development-scale (centralised)	 More efficient long-term operations and maintenance for HDC with fewer but larger facilities, leading to better outcomes. Ability to leverage CIP funding to design and construct facilities to service the entire development area, placing less up-front design and construction burden on landowners. Enhanced ability to sustain the stormwater wetlands due to larger 	 Landowners need to collaborate with neighbours to integrate infrastructure designs (can be facilitated through HDC). Financial compensation measures required to ensure fairness in servicing costs and development potential for landowners serviced by the facilities (can be facilitated through HDC). Requires enabling infrastructure to be in place (by HDC) for some areas of

Comparison of centralised and decentralised stormwater servicing approaches

Table 1



Servicing Alternative	Benefits	Drawbacks
	 catchment area (i.e., more base flow to sustain vegetation/biota), leading to better environmental outcomes. More efficient use of developable area. 	development to proceed (mitigated through CIP enabling funds).

After evaluation of the different servicing approaches, it is recommended that HDC pursue a centralised/development-scale approach. The more efficient use of development area, better environmental outcomes, and lower operations and maintenance burden associated with the centralised servicing approach are considered to outweigh the benefits of the decentralised approach; drawbacks of the centralised approach can be readily mitigated through action by HDC.

3.3 Recommended Stormwater Design Criteria

Based on the review of existing standards, proposed Plan Change provisions, the servicing approach outlined in the Tara-Ika Master Plan, and recent soakage testing and stormwater analysis, key stormwater design criteria can be recommended for application in development design, including the following:

- 1. The 12-hour nested design storm specified by Wellington Water in "Reference Guide for Design Storm Hydrology" (2019) shall be applied to Tara-Ika stormwater design calculations.
- 2. Design storms shall be developed with HIRDS v4 rainfall data for the development site using the RCP 8.5 (2081-2100) climate change scenario.
- Acceptable design standards for individual stormwater treatment and/or attenuation devices include Wellington Water's "Water Sensitive Design for Stormwater: Treatment Device Design Guideline" (2019 - preferred), or Auckland Council's "Stormwater Management Devices in the Auckland Region" (2017 - secondary).
- 4. Determination of the Water Quality Volume (WQV) and the Water Quality Flow (WQF) shall be as specified in Wellington Water's "Water Sensitive Design for Stormwater: Treatment Device Design Guideline" (2019).
- 5. Rainwater tanks that are plumbed for internal and external non-potable uses shall be incorporated into each lot design at volumes listed below; however, tank volume shall not be accounted for in stormwater runoff peak flow or volume calculations.
 - a. Roof area of 75 m² or less 2,000 litre capacity
 - b. Roof area of 75 m² to 200 m² 3,000 litre capacity
 - c. Roof area of more than $200 \text{ m}^2 5,000$ litre capacity
- 6. All roof runoff shall be directed to on-lot soakage designed to accommodate the 10-year ARI roof runoff volume (minimum).
- 7. Overland flow paths must be provided for the 100-year ARI rainfall event, regardless of whether or not soakage is being utilised for the primary network, and soakage must not be considered in the sizing calculations for the 100-year ARI overland flow path (as specified in SDRP).
- 8. The allowable soakage rate for stormwater design varies across the development site, based on recent soakage and geotechnical testing. For the purpose of initial design of centralised soakage basins, a soakage rate of 100 mm/hr may be applied. The developer may, and would be recommended to, carry out additional soakage tests on residential lots to inform the sizing and design of on-lot soakage devices, as per Council and industry guidelines. Evidence of the site-specific soakage testing must be provided with the engineer plans.
- 9. Pre-treatment is required for all runoff from non-roof impervious surfaces prior to soakage. The primary method of treatment shall be through end-of-pipe stormwater wetlands sized to accommodate the Water Quality Volume of the contributing catchment, excluding the roof areas that are connected to appropriately sized rainwater tanks and on-lot soakage. The contributing catchment shall consider adjoining development blocks within Tara-Ika as needed or as directed by Council to provide an efficient and streamlined stormwater system; that is, sizing of the treatment devices must consider the future developed upstream catchment as directed by Council. The wetland shall include a high flow



bypass into an adjoining/downstream soakage and attenuation basin, sized to bypass flows greater than the Water Quality Flow.

- 10. The stormwater system shall be developed with centralised treatment and soakage facilities (i.e., wetlands and soakage basins). Alternative acceptable solutions must be cost-effective and easy to maintain and should minimise the number of discrete assets that will vest into Council ownership.
- 11. A high-flow overland flow route out of the Tara-Ika development is considered infeasible at this time due to environmental, consenting and cost concerns. In lieu of overland flow outlets, overflow storage and soakage basins will be provided at the downstream end of all overland flow routes (in line with a centralised stormwater servicing approach), which will contain and dispose of all runoff originating from the development area up to the 100-year ARI, including climate change.

These recommended criteria can be incorporated into the Plan Change as additional Rules, Performance Standards, Assessment Criteria or "Note to Plan Users" in Chapter 15A, or as a Tara-Ika specific addendum to the SDRP with reference to such in the Plan Change Rules.

4. Summary

This memo summarises the stormwater analysis that has been completed to date by GHD and others, and presents recommended stormwater management strategies and design criteria for consideration in the Plan Change that have evolved from this body of work. It presents the evolution of strategic thinking in the stormwater servicing space, how HDC has adapted to external constraints and opportunities (i.e., consenting challenges, Õ2NL, CIP funding), and details a feasible, efficient and effective solution to enable development in Tara-Ika.

The preferred approach is to:

- adopt a centralised stormwater infrastructure system consisting of treatment wetlands and soakage basins; and
- incorporate on-lot mitigation through rainwater reuse and soakage of roof runoff.

Recommended design criteria to enable the desired stormwater outcomes are detailed in this report. These recommendations are further reinforced in the stormwater management evidence report submitted on behalf of HDC for the Plan Change, and this memo serves primarily to support this evidence through the Plan Change process.

Regards Senior Water Engineer

The Power of Commitment

Attachments

Attachment 1

Soakage Testing Report (GHD, 2021)



Horowhenua District Council

Tara-Ika Growth Area: Enabling Infrastructure Soakage Testing Report

March 2021

document.

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Table of contents

Intro	luction	1
1.1	Project Background	1
1.2	Structure Plan	1
1.3	Scope of Works	2
1.4	Scope and limitations	3
1.5	Assumptions	3
Envir	onmental Site Setting	4
2.1	Regional Geology	4
2.2	Regional Hydrogeology and Groundwater Flow	4
2.3	Groundwater Levels	5
Site I	nvestigation	8
3.1	Groundwater Level Monitoring	9
3.2	Double Ring Infiltrometer	9
Site I	nvestigation Results	11
4.1	Local Geology	11
4.2	Groundwater Level Observations	12
4.3	Double Ring Infiltrometer Test Results	12
Feas	ibility of Soakage	14
5.1	Shallow Infiltration	14
5.2	Environmental Impacts	15
Conc	lusions and Recommendations	16
Refe	rences	17
	Introd 1.1 1.2 1.3 1.4 1.5 Envir 2.1 2.2 2.3 Site I 3.1 3.2 Site I 3.2 Site I 4.1 4.2 4.3 Feas 5.1 5.2 Conc Refer	Introduction 1.1 Project Background 1.2 Structure Plan 1.3 Scope of Works 1.4 Scope and limitations 1.5 Assumptions Environmental Site Setting 2.1 Regional Geology 2.2 Regional Geology 2.3 Groundwater Levels Site Investigation

Table index

Table 1 Summary of HRC Groundwater Monitoring Bores	6
Table 2 Taraika Piezometer Details	8
Table 3 Summary of Encountered Geology	11
Table 4 Groundwater Level Measurements	12
Table 5 Summary of DRI Test Results	13
Table 6 Infiltration Rates with FoS	15

Figure index

Figure 1 Site location (extract from GHD, 2020)1

This document is in draft form. The contents, including any opinions, conclusions or recommendations contained in, or which may be implied from, this draft document must not be relied upon. GHD reserves the right, at any time, without notice, to modify or retract any part or all of the draft document. To the maximum extent permitted by law, GHD disclaims any responsibility or liability arising from or in connection with this draft document. GHD | Report for Horowhenua District Council - Tara-Ika Growth Area: Enabling Infrastructure, 125/36997/ | i

Figure 2 Proposed Development attenuation devices (extract from GHD, 2020)	2
Figure 3 Geology of the Greater Levin Area (from Begg and Johnston, 2000)	4
Figure 4 Location map of Horizons RC shallow groundwater monitoring wells	5
Figure 5 Groundwater Level Data from Horizons RC Monitoring Bores	6
Figure 6 Site Investigation Locations for O2NL (extract from Stantec, 2020)	7
Figure 7 Piezometer Location Plan	8
Figure 8 DRI Test Set Up	10
Figure 9 Map of DRI Raw Test Results	13
Figure 10 Recommended factors of safety (source: CIRIA, 2015)	14

Appendices

Appendix A – Infiltration Test Results

1. Introduction

1.1 Project Background

Horowhenua District Council (HDC) are undertaking feasibility studies to support the Tara-Ika Master Plan for residential growth in the Tara-Ika Growth Area located east of State Highway 57 in Levin. This Master Plan will help ensure that new development is well designed, flexible, co-ordinated and connected to the rest of Taitoko / Levin.

GHD have been engaged by HDC to prepare a stormwater management strategy (GHD, 2020) to support master planning. As part of the stormwater management strategy, GHD has undertaken a geotechnical / soakage investigation to assess the feasibility of soakage for stormwater disposal purposes.

1.2 Structure Plan

The Draft Tara-Ika Master Plan (Local Landscape Architecture Collective, 2020) is proposed to provide for a change in land use associated with the overlay of residential, commercial and transport type activities within the identified catchment. The Tara-Ika Residential Growth Area is a new development area located to the east of State Highway 57, also known as Arapaepae Road, adjacent to the eastern boundary of urban development for the township of Levin (Figure 1).



Figure 1 Site location (extract from GHD, 2020)

This site is largely agricultural currently, with several small blocks of lifestyle-type residential developments, and is proposed to be developed to a residential and mixed-use development providing approximately 2,500 to 3,500 residential lots, commercial areas, a new school, and shared space.

1.2.1 Centralised attenuation

The draft stormwater management plan for the Tara-Ika Master Plan (GHD, 2020) has identified several permanent attenuation basins within the development and adjacent to the proposed Waka Kotahi road corridor which can provide attenuation volume as the catchment is developed to mitigate flow (Figure 2). The stormwater approach includes soakage disposal at these basin locations, which has correspondingly directed the location of soakage testing in this program.



Figure 2 Proposed Development attenuation devices (extract from GHD, 2020)

1.3 Scope of Works

The works were undertaken concurrently with the ground investigation and field testing undertaken for the Geotechnical Factual Report (GHD, 2021). Groundwater level monitoring and infiltration testing (comprising five double ring infiltrometer tests) have been undertaken to increase the hydrogeological understanding of the area as well as stormwater soakage feasibility.

This report presents the results and interpretation of the infiltration testing and groundwater level monitoring undertaken to date. This report also assesses the viability for shallow infiltration soakage to be used at the site and makes recommendations for additional monitoring and testing.

1.4 Limitations

This report has been prepared by GHD for Horowhenua District Council and may only be used and relied on by Horowhenua District Council for the purpose agreed between GHD and the Horowhenua District Council as set out in section 1.1 and 1.3 of this report. GHD otherwise disclaims responsibility to any person other than Horowhenua District Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report. The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Horowhenua District Council and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

Site conditions (including the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change.

1.5 Assumptions

This is a factual report of hydrogeological investigations with recommendations on the feasibility of stormwater soakage. The field investigations and testing used as a basis for this assessment have been undertaken at discrete locations. No inferences about the nature and continuity of ground conditions away from the investigation locations are made. Due to the heterogenous nature of soils and rock and limited number of sample locations undertaken, ground conditions are anticipated to vary across the site.

Due to the limited timeframe and resources available, a two-hour pre-soakage period was undertaken at each location prior to each infiltration test. The pre-soakage was only applied to the infiltrometer apparatus and not the surrounding test pit.

2.1 Regional Geology

The Geology of the greater Levin area consists of a variable sequence of sand and gravel deposits of Holocene and Quaternary age overlying greywacke bed rock of the Rakaia Terrane which forms the Tararua Ranges to the east. Figure 3 shows these geological units as compiled in the 1:250,000 geological map of the Wellington area (Begg and Johnston, 2000). The geological units are described below.



Figure 3 Geology of the Greater Levin Area (from Begg and Johnston, 2000)

These units (from youngest to oldest) consist of:

- **Q1:** Holocene sand and peat deposits overlying the older glacial gravels and marine sands generally west of the Levin Fault. Q1d consists of beach and dune deposits while Q1a consists of fine-grained swamp deposits.
- **Q2a and Q3a:** Poorly sorted gravels, sands and silts of the last glacial (Q2a) and postglacial (Q3a) periods.
- **Q5b:** Interglacial Otaki Formation shallow marine sand and silt deposits in the Levin area forming the upper surface of the Tokomaru Marine Surface.
- **Q6:** Older glacial and interglacial Levin Gravels (at depth and not exposed at the surface). This unit forms a productive aquifer at depths of 60 m to 80 m.
- **Tt:** Jurassic greywacke bedrock of the Rakaia Terrane.

The Levin Fault (shown on Figure 3) forms a "prominent major structural and hydrogeological feature which has caused the uplift of basement greywacke rock to near the present-day land surface on its western side" (Phreatos, 2005). Geological units important for water supply and groundwater flow are significantly deeper east of the fault where a relatively large thickness of sediments has accumulated in the down-dropped basin.

2.2 Regional Hydrogeology and Groundwater Flow

Groundwater in the greater Levin area flows primarily through the glacial and interglacial sand and gravel deposits, generally from the east toward the west (coast). Groundwater originates as infiltrated precipitation and as local leakage from rivers and streams. Contributions from

greywacke underlying the area as basement bedrock or exposed to the east in the Tararua Range, are expected to be minor.

Groundwater beneath Levin flows through a sequence of sand and gravels up to 500 m thick at some locations with the majority of flow within the upper 150 m. Groundwater below about 150 m in the Levin area is reportedly slow moving and of lower quality as it is trapped in part by the Levin fault which has raised greywacke to within 20 m of ground surface at some locations (Phreatos, 2005). The low-permeability greywacke raised by the Levin fault pushes groundwater upward where it discharges into local streams, rivers and Lake Horowhenua. To the west of the fault, the alluvial sequence is thinner (estimated to be some 200 m thick) with much recharge derived locally.

The geology and hydro-stratigraphy of the location of the Tara-Ika Development is expected to consist of the sequence of gravels, sands and silts described above (Q2a and Q3a: Poorly sorted gravels, sands and silts of the last glacial (Q2a) and postglacial (Q3a) periods).

2.3 Groundwater Levels

Publicly available bore and water level data was reviewed to get an understanding of groundwater levels in the vicinity of the site. Data was available on Horizon Regional Council's (HRC) Environmental Data portal (https://www.horizons.govt.nz/environment-data). There were numerous shallow wells (<15 m below ground level (m bgl)) in the vicinity of the site but none were utilised as long-term monitoring wells by HRC.

Long term groundwater level data were available for four wells (363251, 362033, 362521, 362661) screened between 22 and 50 m bgl. The well locations are shown on Figure 4 and their construction details are presented in Table 1. Review of the graphs indicates that groundwater levels in the area have been stable since 1991 (Figure 5) and sit generally between 5.5 and 22 m bgl (20 – 45 m above sea level).



Figure 4 Location map of HRC shallow groundwater monitoring wells

Table 1	Summary	of HRC	Groundwater	Monitoring	Bores
---------	---------	--------	-------------	------------	-------

Bore ID	Owner	Depth (m)	Screen (m bgl)	Standing Water level (average) (m bgl)
363251	Levin Hall Trust	30	28 - 30	21.5
362033	Tararua Yarns	22.2	-	5.7
362521	A Heskett (Ex Yule)	32	27 - 29	6.7
362661	G Sue	49.3	46.3 - 49.3	18.8



Figure 5 Groundwater Level Data from HRC Monitoring Bores

Data obtained from ground investigation for the Ōtaki to North Levin (Ō2NL) Waka Kotahi project (Stantec, 2020) was also reviewed. The location of the boreholes advanced for this project are displayed on Figure 6. In the vicinity of the proposed Tara-Ika development only one piezometer has been installed in BH118 (screened from 17-21 m bgl) with groundwater levels ranging from 17.2 to 19.5 m bgl.



Figure 6 Site Investigation Locations for 02NL (extract from Stantec, 2020)

3. **Site Investigation**

The geotechnical ground investigation undertaken for this project is summarised in the Geotechnical Factual Report (GHD, 2021). Seven piezometers were installed during the ground investigation undertaken between 9 December and 17 December 2020. The location of the installed piezometers are shown in Figure 7.



Figure 7 Piezometer Location Plan

Piezometer details are listed below in Table 2 and a brief summary of encountered geology is included in Section 4.1. These piezometer / locations were used for further infiltration testing or groundwater level monitoring.

Borehole ID	Depth (m bgl)	Elevation* (m RL)	Screen (m bgl)
BH01	15.00	63	9.50 – 12.50
BH02	10.00	64	2.50 - 5.50
BH03	10.00	64	2.00 - 6.00
BH04	10.00	65	7.50 – 9.50
BH04a	5.00	65	2.50 - 4.50
BH05	10.00	65	6.50 - 9.50
BH06	10.00	66	6.00 - 9.00

Table 2 Tara-Ika Piezometer Details

Elevations are in terms of NZVD2016 and were collected with a handheld GPS

3.1 Groundwater Level Monitoring

The standpipe piezometers were developed by Griffiths Drilling Limited on 14th of January 2021. Following well development, GHD suspended Solinst Leveloggers in each piezometer, set to record groundwater levels and temperature every 15 minutes. Manual groundwater measurements have been collected during site visits and a barologger has been installed in the headspace of BH03 to allow barometric compensation of water levels.

The loggers remain in place to provide a continuous record of water levels for HDC, and the first week of logging (22 to 29 January 2021) has been presented in this report. BH04 and BH04a were inaccessible on the 22nd of January, but loggers have since been installed during a subsequent site visit.

3.2 Double Ring Infiltrometer

3.2.1 Test Description

Double ring infiltrometer (DRI) testing is a procedure which allows field measurements of the rate of water infiltration into soils. This method consists of driving two open cylinders, one inside the other, into the ground, partially filling the rings with water and maintaining a constant level for a certain number of timed intervals. The volume infiltrated during each interval is converted to an incremental infiltration velocity. The steady state or minimum incremental infiltration velocity is typically equivalent to the infiltration rate.

Tests must be undertaken above the water table. The testing was undertaken in accordance with ASTM International Standards, D 3385-03, *Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer*.

3.2.2 DRI Test Summary

Five test pits were excavated by JCM Excavation Ltd with a 12-tonne excavator on 13 and 14 January 2021 to facilitate infiltration testing with a DRI. The excavator prepped each site by removing topsoil to target the sandy gravel layer encountered between 0.25 and 1.5 m bgl. The DRIs were then embedded into the ground to form a good seal. These tests were each undertaken close to the installed piezometers (BH01 - BH04). Test pit 05 however was set 70 m NW of BH05 at the request of the property owner at the time of testing. An example test site set up of the DRI is shown in Figure 8.

Infiltration testing was undertaken on the 14th of January 2021 using a 0.15 m inner and 0.3 m outer diameter DRI and the test was conducted in three stages:

Seal testing. The outer ring was initially filled with water to verify the seal integrity. If a poor seal was observed, the rings were hammered further into the ground.

Pre-soakage. Both the outer and inner rings were filled with an equal water depth of approximately 7 cm above ground level. Water was maintained in the rings for approximately 2 hours for each test.

Falling head test. The outer and inner rings were filled with approximately 7 cm of water above the base of the pit. Water level measurements in the inner ring were taken at a prescribed interval while water was allowed to drain. The outer ring was kept topped up to the same level as the inner ring during the test. Tests continued until the water level drained completely. Each falling head test lasted between 7 and 33 minutes.



Figure 8 DRI Test Set Up

4. Site Investigation Results

4.1 Local Geology

The major soil types encountered in the borehole investigation are described in Table 3. In summary, each position generally encountered a topsoil overlying a sandy/silty fine to coarse gravel. Some positions (BH02, BH03, and BH04) encountered a 0.7 to 1.0 m thick silt layer at around 6 to 6.5 m bgl. The extent of these silt layers is not confirmed.

Table 3 Summary of Encountered Geology

Bore ID	Depth (m bgl)	Geology
BH01	15.0	0.0 – 1.5 SILT 1.5 – 13.95 Sandy / silty fine to coarse GRAVEL 13.95 – 15 Fine to medium SAND
BH02	10.0	0.0 – 0.4 SILT / Gravelly SILT 0.4 – 6.5 Sandy / silty fine to coarse GRAVEL 6.5 – 7.4 SILT, minor gravel 7.4 – 9.0 Silty fine to coarse GRAVEL 9.0 – 10.0 SILT
BH03	10.0	0.0 – 0.25 SILT 0.25 – 6.0 Sandy / silty fine to coarse GRAVEL 6.0 – 6.7 SILT, minor gravel 6.7 – 8.8 Sandy fine to coarse GRAVEL 8.8 – 9.0 SILT 9.0 – 10.0 Silty fine to coarse GRAVEL
BH04	10.0	0.0 – 0.3 SILT / Gravelly SILT 0.3 – 6.45 Sandy / silty fine to coarse GRAVEL 6.45 – 7.5 SILT, some clay 7.5 – 10.0 Silty fine to coarse GRAVEL
BH05	10.0	0.0 – 0.65 SILT / Gravelly SILT 0.65 – 1.0 Sandy fine to coarse GRAVEL 1.0 – 1.5 Core loss 1.5 – 10.0 Silty / sandy fine to coarse GRAVEL
BH06	10.0	0.0 – 1.5 No recovery (Hydrovac) 1.5 – 10.0 Sandy / silty fine to coarse GRAVEL

4.2 Groundwater Level Observations

Groundwater measurements collected on the 22nd of January and 9th of February 2021 (post piezometer development) are summarised in Table 4.

Bore ID	Depth (m bgl)	Screen (m bgl)	Water Level (m bgl) 22/01/2021	Water Level (m bgl) 09/02/2021
BH01	15.0	9.5 – 12.5	12.3	Dry
BH02	10.0	2.5 – 5.5	Dry	Dry
BH03	10.0	2.0 - 6.0	Dry	Dry
BH04	10.0	7.5 – 9.5	Inaccessible	9.0
BH04a	5.0	2.5 – 4.5	Inaccessible	4.4
BH05	10.0	6.5 – 9.5	9.0	9.1
BH06	10.0	6.0 - 9.0	8.9	8.8

Table 4 Groundwater Level Measurements

There were no significant rainfall events during this logging period and no large fluctuations in water levels recorded. The water level plots from BH01 and BH06 are shown in Figure 9. The other leveloggers were either unable to be suspended below the short water column or were dry at the time of levelogger deployment. In summary, water levels showed minimal fluctuation (<0.02 m) or no recovery in dry / low water level wells. Long-term monitoring is anticipated to show seasonal fluctuations as well as fluctuations to climatic events. The water level observations made to date indicate that the groundwater table at the site is ~ 9 m bgl. A perched groundwater table was encountered at the BH04a location where groundwater level was measured at 4.36 m bgl.





4.3 Double Ring Infiltrometer Test Results

The DRI test results and the observed geology of the tested materials are summarised in Table 5 and Figure 10. The logs are incorporated into the Geotechnical Factual Report (GHD, 2021) and full infiltration test results are presented in Appendix A. Groundwater was not encountered in any test pits and was measured in the nearby borehole at depths generally greater than 9 m

bgl with the exception of BH04A where a shallower perched groundwater table was encountered.

The **raw** shallow infiltration rates range from between 60 and 240 mm/hr. A steady-state infiltration rate was not reached by the end of the test. Therefore, the minimum infiltration rate from each test is used as the representative infiltration rate at that location (as recommended in CIRIA, 2015).

Test ID	Ground Level (mRL)	Test Depth (m)	Geology	Raw infiltration rate (mm/hr)	Raw infiltration rate (m/s)
TP01	63	1.3	Sandy fine to coarse GRAVEL some silt, trace cobbles	240	7 x 10 ⁻⁵
TP02	64	0.8	Sandy fine to coarse GRAVEL	60	2 x 10 ⁻⁵
TP03	64	0.5	Sandy fine to coarse GRAVEL	120	3 x 10 ⁻⁵
TP04	65	0.8	Sandy fine to coarse GRAVEL	120	3 x 10 ⁻⁵
TP05	65	0.7	Sandy fine to coarse GRAVEL, some silt	60	2 x 10 ⁻⁵

Table 5 Summary of DRI Test Results

The test results indicate that there is no clear spatial pattern or correlation between fines content and infiltration rate. BH02, BH03 and BH04 did not show any indication of a decreased infiltration rate with the presence of the silt layers at depth, however the influence of these confining layers may be evident during soakage testing with larger water volumes for a longer period of time.



Figure 10 Map of DRI Raw Test Results

5.1 Shallow Infiltration

For soils to be suitable for infiltration designs, it should be permeable, unsaturated, and of sufficient thickness and extent to disperse the water effectively.

The geotechnical ground investigation identified 0.25 to 1.5 m of silt / gravelly silt overlying sandy to silty gravels. Three positions encountered 0.7 to 1.0 m thick silt interbedded within this gravel unit at approximately 6 to 6.5 m depth. The spatial extent and variability of these semi-confining layers has not been confirmed but was observed in a SW / NE trending line intersecting BH02, BH03 and BH04.

CIRIA (2015) notes that for infiltration tests to reflect realistic conditions, it is recommended that the tests be repeated three times. Repeating the test may reduce the measured infiltration rate by half an order of magnitude each time the test is repeated. Due to programme constraints this was not possible during the geotechnical investigation though some limited pre-soak was undertaken. A factor of safety (FoS) is recommended to be applied to the results from Table 5 to account for the shortened pre-soak and potential long-term reductions in the infiltration rate(s).

CIRIA (2015) provides a wider range of FoS recommendations depending on the size of the area to be drained and the consequences of failure (Figure 11). The selected FoS is also dependent on the final stormwater design (i.e. use of secondary flow paths, number of centralised devices controlling flow from wider area).

s of safety, F, for u 996). Note: not rele	se in hydraulic design of infiltrati evant for BRE method)	on systems (designed			
	Consequences of failure				
No damage or inconvenience	Minor damage to external areas or inconvenience (eg surface water on car parking)	Damage to buildings or structures, or major inconvenience (eg flooding of roads)			
1.5	2	10			
1.5	3	10			
1.5	5	10			
	ns of safety, F, for u 1996). Note: not rele No damage or inconvenience 1.5 1.5 1.5	rs of safety, F, for use in hydraulic design of infiltration (2006). Note: not relevant for BRE method) Consequences of failure No damage or inconvenience (eg areas or inconvenience (eg surface water on car parking) 1.5 1.5 1.5 3 1.5 5			

Figure 11 Recommended factors of safety (source: CIRIA, 2015)

Assuming the design incorporates secondary (overland) flow paths such that roads will not flood, finished floor levels of buildings that are sufficiently high enough to be above any resultant flood levels and there are no basements proposed, then a FoS of 5 would be applicable. The FoS may be able to be further reduced (to 3 or 1.5) if the area to be drained can be reduced by using multiple, distributed devices and overland flow paths. Table 6 presents the infiltration rates with the CIRIA factors of safety applied; cells highlighted grey reflect the recommended FoS of 3 to 5.

Soils with a high volume of fine-grained particles such as silt and clay, as encountered on site at the surface or as a minor fraction of the gravel, are generally considered poor infiltration media. However, CIRIA recommends that infiltration viability should be given full consideration where rates of 3.4 mm/hr or greater exist. The factored (10 to 1.5) long-term infiltration rate estimates outlined in Table 6 indicate rates between 6 and 160 mm/hr, suggesting that the site, in general, is likely suitable for soakage (based on infiltration rate alone, see further commentary below on groundwater level).

		Long Term Infiltration Rate mm/hr (L/min/m ²)				
Test ID	Raw infiltration rate (mm/hr)	FoS=1.5	FoS = 3	FoS = 5	FoS = 10	Informed CM/
		No damage or inconvenience is anticipated due to overland flow	Design includes overland flow paths, drained area < 1000 m ²	Design includes overland flow paths, drained area > 1000 m ²	No overland flow paths	Depth (m bgl)
TP01	240	160	80	48	24	deep (>9 m)
TP02	60	40	20	12	6	deep (>9 m)
TP03	120	80	40	24	12	deep (>9 m)
TP04	120	80	40	24	12	moderate >4 m
TP05	60	40	20	12	6	deep (9 m)

Table 6 Infiltration Rates with FoS

Another factor for soakage viability in this assessment is depth of the groundwater level compared to the depth of the infiltration device. Soakage guidelines recommend that the base of the soakage device / soakage basins should be at least 1 m above the maximum anticipated groundwater levels. Groundwater levels have been observed to be relatively deep (>9 m) in most bores, with the exception of the shallow BH04a which has been observed to be dry or occasionally reporting water levels between 4 - 4.5 m bgl. These groundwater levels are considered deep enough to account for likely seasonal variation during the winter seasons and or following heavy rainfall events, but long-term monitoring is recommended to confirm the water level fluctuations. The groundwater levels in surrounding 20-50 m deep bores indicate water levels are fairly stable, fluctuating within 3-5 m each season. Long term groundwater monitoring data from leveloggers currently suspended in the on-site piezometers will provide further information about the groundwater fluctuations.

5.2 Environmental Impacts

The assessment above has considered only the site-specific results with regards to likely infiltration / soakage rate and groundwater level. However, where wide-scale disposal of stormwater is utilised it is also important to consider the potential for adverse environmental effects such as:

- Localised mounding (rise of groundwater level) that could result in flooding of basements and / or buoyancy of services
- Localised mounding (rise of groundwater level) that could result in an increase to the volume of groundwater being discharged to the wider drainage system
- Increase in groundwater flows downgradient of the site which could increase groundwater discharge nearby streams or to Lake Horowhenua
- Increase in groundwater levels downgradient of the site that could reduce soakage capacity in areas already utilising soakage.

This investigation report does not include an assessment of the above, as it would require an analysis of longer-term groundwater level data that demonstrates level response to changing seasons and precipitation events. However, it is recommended this analysis be completed to support a regional consent for stormwater discharge as data becomes available.

6. Conclusions and Recommendations

Horowhenua District Council are undertaking feasibility studies to support the Tara-Ika Master Plan for residential growth in Tara-Ika Growth Area located east of State Highway 57 in Levin. Groundwater monitoring and soakage testing was undertaken to provide a preliminary assessment of whether soakage can be used to provide hydrological mitigation to stormwater events.

A ground investigation has been undertaken to understand the shallow geology, groundwater system, and shallow infiltration rates. Ground investigations have identified surficial silts and gravelly silts to a depth of 0.25 to 1.5 m bgl overlying silty/sandy gravels. Three exploratory positions encountered a 0.7 to 1.0 m thick silt lens around 6 to 6.5 m bgl.

Data loggers have been installed within six piezometers across the site to record future water levels to provide an indication of seasonal and climatic groundwater level variation. Groundwater levels are generally >9 m bgl with shallow groundwater occasionally present in BH04a (screened to 4.5 m bgl).

Preliminary infiltration testing has been undertaken in the form of five double ring infiltrometer (DRI) tests. The **raw** infiltration rates range between 60 to 240 mm/hr with no clear spatial pattern or correlation between fines content and infiltration rate. When a factor of safety is applied to these results to estimate long term infiltration capacity, the rates range from 20 to 80 mm/hr assuming the lot size (drained area) is less than 1000 m² and the consequence of failure is minor.

The results of the soil infiltration investigations (when considered as factored infiltration rates to account for uncertainties in design and long-term performance) indicate that soakage is likely feasible across the site. However site-specific infiltration testing at any location intended for shallow soakage is recommended in order to size the individual soakage devises appropriately.

There is still uncertainty around the seasonal fluctuation of the water levels around the site, potential mounding effects with corresponding down-gradient impacts, as well as the extent and variation in the confining silt layer observed in BH02, BH03, and BH04 and the degree to which this may limit the volume and rate of water which can easily infiltrate the subsurface. Therefore, we recommend the download of the loggers and review of groundwater level monitoring data every 3 -4 months to assess groundwater level variation and response to climatic events.

7. **References**

ASTM International Designation: D 3385-03 (2003). *Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer*.

Begg J. and Johnston, M.R. (2000). *Geology of the Wellington Area. Institute of Geological and Nuclear Sciences 1:250,000 Geological Map.*

CIRIA C753 (2015) The Sustainable drainage systems (SuDS) manual. London, UK.

GHD (2020). *Taraika Residential Growth Area - Draft Stormwater Management Plan.* Prepared for Horowhenua District Council. Draft report Nov 2020.

GHD (2021). *Taraika Growth Area: Enabling Infrastructure. Factual Geotechnical Report.* Prepared for Horowhenua District Council.

Horizons Regional Council. (2021) *Horizons Regional Council Environmental Data*. Accessed from https://www.horizons.govt.nz/environment-data.

Local Landscape Architecture Collective (2020). *Draft Taraika / Gladstone Green Master Plan*. Draft 8 April 2020. Prepared for Horowhenua District Council.

Phreatos (2005). *Horowhenua Lakes: Assessment of Groundwater Surface Interaction*. Prepared for Horizons Regional Council.

Stantec (2020). *Geotechnical Factual Report – SH1 Otaki to North Levin Draft*. Prepared for Waka Kotahi New Zealand Transport Agency.





Appendix A – Infiltration Test Results

Double Ring Infiltrometer Test				
Job Name	Tara-Ika Growth Area			
Client	Horowhenua District Council			
Job Number	12536997	Tested by	GHD	
Test ID	TP01	Start Date & Time	14/01/2021 11:00	
Location	Tara-Ika - East of Levin			
Groundwater level	11.4 m bgl (pit dry, GWL measured in adjacent borehole BH01)			
Pre-soak?	Yes Maintained full for 2 hours			
Pre-soak commenced	9:00 AM	Width of test pit (m)	1.0 x 1.0	
Pre-soak completed	11:00 AM	Base of test (m bgl)	1.30	
Rings used	0.15 m inner, 0.3 m outer			

	Water level (abo	Rate	
Time (sec)	(m)	(mm)	(mm/hr)
0	0.075	75	
30	0.07	70	600
60	0.064	64	720
90	0.06	60	480
120	0.054	54	720
150	0.049	49	600
180	0.045	45	480
210	0.039	39	720
240	0.034	34	600
270	0.03	30	480
300	0.025	25	600
330	0.023	23	240
360	0.018	18	600
390	0.012	12	720
420	0.005	5	840

Double Ring Infiltrometer Test				
Job Name	Tara-Ika Growth Area			
Client	Horowhenua District Council			
Job Number	12536997	Tested by	GHD	
Test ID	TP02	Start Date & Time	14/01/2021 11:00	
Location	Tara-Ika - East of Levin			
Groundwater level	DRY - assume below 9 m bgl (pit dry, GWL measured in adjacent borehole BH02)			
Pre-soak?	Yes Maintained full for 2 hours			
Pre-soak commenced	9:00 AM	Width of test pit (m)	0.95 x 1.5	
Pre-soak completed	11:00 AM	Base of test (m bgl)	0.80	
Rings used	0.6 m inner, 0.9 m outer			

	Water level (abo	Rate	
Time (Sec)	(m)	(mm)	(mm/hr)
0	0.08	80	
30	0.079	79	120
60	0.075	75	480
120	0.074	74	60
180	0.07	70	240
240	0.065	65	300
300	0.064	64	60
360	0.063	63	60
420	0.06	60	180
480	0.058	58	120
540	0.056	56	120
600	0.055	55	60
660	0.052	52	180
720	0.05	50	120
780	0.049	49	60
840	0.048	48	60
900	0.046	46	120
960	0.045	45	60
1020	0.044	44	60
1080	0.043	43	60
1140	0.04	40	180
1200	0.039	39	60
1260	0.038	38	60
1320	0.035	35	180
1380	0.033	33	120
1440	0.031	31	120
1500	0.028	28	180
1560	0.025	25	180
1620	0.023	23	120
1680	0.02	20	180
1740	0.015	15	300

1800	0.012	12	180
1860	0.01	10	120
1920	0.005	5	300
1980	0	0	300

Double Ring Infiltrometer Test				
Job Name	Tara-Ika Growth Area			
Client	Horowhenua District Council			
Job Number	12536997	Tested by	GHD	
Test ID	TP03	Start Date & Time	14/01/2021 11:55	
Location	Tara-Ika - East of Levin			
Groundwater level	>6 m bgl (inferred from BH03 levels)			
Pre-soak?	Yes Ran out of water after 1.75 hours			
Pre-soak commenced	9:45 AM	Width of test pit (m)	1.0 x 1.7	
Pre-soak completed	11:45 AM	Base of test (m bgl)	0.50	
Rings used	0.15 m inner, 0.3 m outer			

Time (acc)	Water level (above	Rate	
Time (sec)	(m)	(mm)	(mm/hr)
60	0.07	70	
120	0.068	68	120
180	0.064	64	240
240	0.06	60	240
300	0.058	58	120
360	0.056	56	120
420	0.052	52	240
480	0.049	49	180
540	0.046	46	180
600	0.043	43	180
660	0.04	40	180
720	0.038	38	120
780	0.036	36	120
840	0.034	34	120
900	0.032	32	120
960	0.03	30	120
1020	0.028	28	120
1080	0.025	25	180
1140	0.02	20	300
1200	0.017	17	180
1260	0.015	15	120
1320	0.01	10	300
1380	0.005	5	300

Double Ring Infiltrometer Test				
Job Name	Tara-Ika Growth Area			
Client	Horowhenua District Council			
Job Number	12536997	Tested by	GHD	
Test ID	TP04	Start Date & Time	14/01/2021 11:55	
Location	Tara-Ika - East of Levin			
Groundwater level	>4.3 m bgl (inferred from previous BH04 levels)			
Pre-soak?	Yes Maintained full for 1.75 horus			
Pre-soak commenced	1:15 PM	Width of test pit (m)	0.65 x 0.92	
Pre-soak completed	3:00 PM	Base of test (m bgl)	1.60	
Rings used	0.15 m inner, 0.3 m outer			

	Water level (above	Rate	
Time (Sec)	(m)	(mm)	(mm/hr)
0	0.079	79	
60	0.075	75	240
120	0.069	69	360
180	0.064	64	300
240	0.06	60	240
300	0.058	58	120
360	0.055	55	180
420	0.05	50	300
480	0.046	46	240
540	0.044	44	120
600	0.04	40	240
660	0.038	38	120
720	0.035	35	180
780	0.03	30	300
840	0.025	25	300
900	0.02	20	300
960	0.015	15	300
1020	0.01	10	300
1080	0.005	5	300

Double Ring Infiltrometer Test					
Job Name	Tara-Ika Growth Area				
Client	Horowhenua District Council				
Job Number	12536997	Tested by	GHD		
Test ID	TP05	Start Date & Time	14/01/2021 11:55		
Location	Tara-Ika - East of Levin				
Groundwater level	>9 m bgl (inferred from piezo)				
Pre-soak?	Yes Maintained full for 2.75 hours				
Pre-soak commenced	5:40 AM	Width of test pit (m)	1.0 x 1.6		
Pre-soak completed	8:20 AM	Base of test (m bgl)	0.70		
Rings used	0.15 m inner, 0.3 m outer				
Notes	Test undertaken 70 m NW of piezo (BH05)				

Time (sec)	Water level (above	Rate	
	(m)	(mm)	(mm/hr)
0	0.07	70	
60	0.065	65	300
120	0.063	63	120
180	0.06	60	180
240	0.058	58	120
300	0.055	55	180
360	0.053	53	120
420	0.05	50	180
480	0.049	49	60
540	0.048	48	60
600	0.047	47	60
660	0.046	46	60
720	0.045	45	60
780	0.043	43	120
840	0.042	42	60
900	0.038	38	240
960	0.036	36	120
1020	0.034	34	120
1080	0.033	33	60
1140	0.032	32	60
1200	0.031	31	60
1260	0.03	30	60
1320	0.029	29	60
1380	0.028	28	60
1440	0.027	27	60
1500	0.026	26	60
1560	0.025	25	60
1620	0.024	24	60
1680	0.023	23	60
1740	0.022	22	60

GHD

Level 3 138 Victoria Street T: 64 3 378 0900 F: E: chcmail@ghd.com

© GHD 2021

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

\\ghdnet\ghd\NZ\Palmerston North\Projects\51\12536997\Tech\Hydrogeology\Soakage\Analysis & reporting\12536997_SoakageTestingReport.docx

Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0						

www.ghd.com





Appendix 10: Statement of Evidence – Stormwater
IN THE MATTER of the Resource Management Act 1991 (**RMA**)

AND

IN THE MATTER of a hearing by the Horowhenua District Council on Proposed Plan Change 4: Taraika Growth Area to the Horowhenua District Plan.

EVIDENCE OF DAVID ARSENEAU ON BEHALF OF HOROWHENUA DISTRICT COUNCIL Stormwater Management Specialist 10 October 2021

1. QUALIFICATIONS AND EXPERIENCE

- 1. My full name is **example of the University of Waterloo (Canada)**, obtained in 2008, and a Master of Engineering in Public Policy degree from McMaster University (Canada), obtained in 2011. I am a licensed Professional Engineer (P.Eng.) in the Canadian province of Ontario (since 2011) and a Chartered Member of Engineering New Zealand (CMEngNZ).
- 2. I am a Senior Water Engineer, with 13 years of experience in stormwater management, flood assessment and mitigation, erosion and sediment control, and the restoration of natural streams.
- 3. I have been a practicing water resources engineer since 2008 and have been working in New Zealand since August 2019. I have experience in the analysis, design and construction of a variety of water resources infrastructure in Canada, including stormwater management systems/facilities, drainage improvements, flood risk assessments and river engineering works. In New Zealand I have undertaken development of stormwater management plans for large residential developments in New Zealand beyond Tara-Ika, such as the Aokautere and Kākātangiata growth areas in Palmerston North (approximately 250 ha and 690 ha in size, respectively), and have worked with local Councils on numerous smaller subdivision reviews and stormwater management plans. I have also undertaken design of stormwater attenuation facilities for local Councils, fish passage assessments in urban streams, and stopbank upgrades for flood protection. I have been engaged by Horowhenua District Council (HDC) since September 2020

to assist with the planning, design and implementation of enabling infrastructure for Tara-Ika, with a particular focus on stormwater management.

4. I advise that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and have complied with it in preparing this evidence. I confirm that the issues addressed in this evidence are within my area of expertise and I have not omitted material facts known to me that might alter or detract from my evidence.

2. SCOPE OF EVIDENCE

- 5. I have been asked to provide evidence in relation to the stormwater management approach to support this development. I authored the *Tara-Ika Growth Area: Summary of Stormwater Management Analysis and Strategy, dated 16 July 2021* (the **Stormwater Assessment**), as well as several of the supporting technical documents described in the Stormwater Assessment, in which the recommended stormwater servicing approach for Tara-Ika is described. These elements are discussed further in my evidence below. I have read the submissions received on the Application and the Report prepared in accordance with s42a of the RMA (the **Council Report**).
- 6. My evidence will cover the following matters:
 - a. Stormwater analysis completed to date and expected future servicing requirements for the Tara-Ika Growth Area;
 - b. Comments on submissions; and
 - c. Conclusions.

3. RELEVANT FACTS AND CONTEXT

7. In this statement of evidence, I do not repeat the Project description and refer to the summary of the Application in the evidence of Lauren Baddock on behalf of Horowhenua District Council.

4. PURPOSE OF THE STORMWATER ASSESSMENT

8. The purpose of GHD's work on stormwater matters for the Tara-Ika Plan Change is to assist Horowhenua District Council (**Council**) with development of a stormwater servicing strategy and design criteria for Tara-Ika. Further details are included in the attached Stormwater Assessment.

5. STORMWATER ANALYSIS COMPLETED TO DATE

- 9. The stormwater work completed to date by GHD and others is described in the attached Stormwater Assessment.
- 10. Key points of the Stormwater Assessment that are of interest to submitters, and are therefore highlighted specifically in this evidence report, include the following:
 - a. Evaluation of stormwater discharge options (i.e., where to direct stormwater runoff) has prompted Council to adopt a "Zero-Discharge" stormwater servicing approach, wherein runoff up to the 100-year average recurrence interval (ARI) rainfall event, including the effects of climate change, is contained and infiltrated entirely within the Tara-Ika development area, with no runoff directed to Lake Horowhenua or Koputaroa Stream. To this end, Council has carried out soakage testing of soils in Tara-Ika and are monitoring groundwater levels in several locations to confirm design parameters for this approach.
 - b. Council has been working in close collaboration with Waka Kotahi to develop an integrated stormwater management solution for Tara-Ika and the proposed Ōtaki to North of Levin (Ō2NL) Expressway, which is currently aligned through the western portion of Tara-Ika. The "Zero-Discharge" approach is one method to minimise conflict between the two projects and promote effective stormwater management solutions. This collaboration also provides a viable stormwater servicing strategy for Tara-Ika should soakage no longer be feasible in the future.
 - c. The stormwater system has been conceptually designed as a centralised system to service the entire Tara-Ika development, independent of property boundaries, in an effort to enable development in an expedited and cost-effective manner. Council has also initiated measures to ensure financial equity for affected landowners, although these measures are outside the scope of this evidence report and the Plan Change provisions.
 - d. Council, with the assistance of GHD, has developed draft stormwater design criteria to provide clarity to landowners and developers, addressing gaps in existing plans and standards that do not achieve the desired stormwater performance outcomes for Tara-Ika. These are summarised in Section 3.3 of the attached Stormwater Assessment.

6. EXPECTED FUTURE STORMWATER SERVICING

11. The proposed stormwater servicing approach for Tara-Ika is described in the attached Stormwater Assessment, and includes the following components:

- a. Detention, reuse and disposal of runoff from roofs, up to the 10-year ARI rainfall event, using a combination of rainwater tanks, internal greywater plumbing systems and on-lot soakage devices for each residence. Roof runoff is reused and soaked directly due to the typically low amount of contaminants in runoff from these sources.
- b. Conveyance of runoff through piped reticulation (up to 10-year ARI) and road-based overland flow routes (up to 100-year ARI) to centralised stormwater treatment wetlands and soakage basins. Treatment wetlands are sized to treat first-flush runoff from all impervious surfaces excluding roofs; soakage basins are sized to retain and soak the 100-year ARI storm event flow and volume with no overflow discharges to downstream environments.
- c. Proposed stormwater design criteria to achieve the desired stormwater outcomes are summarised in Section 3.3 of the attached Stormwater Assessment; these criteria are recommended to be included as provisions in the Plan Change.
- 12. GHD in collaboration with Council has recommended adoption of a servicing strategy that uses centralised treatment wetlands and soakage basins that service multiple upstream landowners. This approach was assessed in the context of a number of benefits and drawbacks, including:
 - a. Benefits in future operations and maintenance requirements, due to having fewer overall stormwater devices to monitor and maintain.
 - b. More efficient use of development area through elimination of redundant setbacks, maintenance areas, batters, etc., associated with multiple smaller stormwater facilities, leading to higher lot yields and simplifying servicing requirements for landowners.
 - c. Improved risk mitigation for downstream environments (Lake Horowhenua and Koputaroa Stream) and urban areas (flooding in urban Levin) through Council-led centralised stormwater controls.
 - d. Improved risk mitigation within Tara-Ika, as many properties currently discharge stormwater through other properties in the development area; this condition necessitates an integrated stormwater solution between adjoining landowners regardless of Council's servicing approach, and centralised Council-led solutions simplifies this process for landowners and improves overall outcomes.
 - e. Potential challenges with staging of development areas on multiple properties that are dependent on downstream conveyance infrastructure through the properties of other landowners.

- f. Financial equity for landowners on whose properties the proposed stormwater devices will be located to service the wider development.
- 13. Conceptual footprints for treatment wetlands and soakage basins are illustrated in Section 2.9 of the attached Stormwater Assessment, in a figure dated March 2021. These locations are indicative only and will depend on the development layout of affected properties. It is intended that the Plan Change provisions include requirements for treatment wetland and soakage basin volume and footprint on a development-area basis, or detailed stormwater design criteria to enable calculation of such, to be incorporated into development designs at the subdivision stage. This approach provides flexibility in development design while achieving desired outcomes. In order to enable development and provide a clear way forward for landowners, Council intends to identify stormwater device locations in collaboration with affected landowners immediately following the Plan Change process and will work to design and construct key facilities.
- 14. Stormwater servicing has been developed in consideration of the Ō2NL expressway through minimising the risk of overflows that could impact the corridor (by detaining the 100-year ARI flow), minimising the need for siphons or pumps to convey runoff under the corridor (by soaking the 100-year ARI volume), and by providing additional buffer between the corridor and adjacent development (through locating stormwater facilities along the corridor). As well, consideration of the Ō2NL expressway in the stormwater servicing strategy, and collaboration with Waka Kotahi on the development of an integrated approach, provides a potential servicing solution in the event that soakage cannot be achieved.

7. COMMENTS ON SUBMISSIONS

15. In reviewing submissions, I have identified key recurring themes relating to the work completed by GHD for this Project. To aid in the brevity of this evidence, I respond to the key themes identified below with accompanying tailored responses to specific submissions where appropriate.

Theme #1 – impacts of centralised stormwater infrastructure to landowners

16. Some submitters have identified issues related to the provision of stormwater management infrastructure over and above what is required to service development on the individual landowner's properties, which is recommended in Council's Structure Plan as part of a centralised servicing strategy. Concerns raised by submitters relate primarily to the additional costs that are inferred to be required by individual developers to service development on other properties. Refer submissions 04/24 Haddon Preston, 04/33 Truebridge Associates and 04/38 Prouse Trust Partnership in particular.

17. Locations of proposed wetlands and soakage facilities shown in the Stormwater Assessment and supporting Plan Change documents are indicative at this stage and will be based in part on the subdivision scheme plans developed by individual landowners. GHD recommends implementation of centralised facilities to service the growth area as a whole, as this is more effective and efficient at achieving stormwater quality and quantity objectives, requiring less overall land and improving both better lot yield and better stormwater outcomes. Council has initiated measures to ensure financial equity for affected landowners, such as direct land purchase, private developer agreements and development charge arrangements; although these measures are outside the scope of this evidence report and the Plan Change provisions, it is my opinion that Council is being appropriately proactive in enabling stormwater services for Tara-Ika.

Theme #2 – impacts to Lake Horowhenua and Koputaroa Stream, and capacity of the existing and proposed systems to accommodate Tara-Ika

- 18. Some submitters have identified a range of concerns related to potential stormwater impacts on Lake Horowhenua and/or Koputaroa Stream, as well as the capacity of the existing environment or proposed stormwater system to accommodate the Tara-Ika development. Refer submissions 04/01 Sue-Ann Russell, 04/07 Geoff Kane, 04/15 Gwyneth Schibli, 04/19 Michael Harland, 04/21 Fire and Emergency New Zealand, 04/26 Horowhenua District Residents and Ratepayers Association, 04/30 Horizons Regional Council and 04/39 Charles Rudd in particular.
- 19. This evidence report and attached Stormwater Assessment demonstrate Council's strategy for a "Zero-Discharge" stormwater servicing approach with a combination of treatment wetlands and soakage/attenuation basins, with no runoff directed to Lake Horowhenua or Koputaroa Stream up to the 100-year ARI flow, including the effects of climate change. No additional water quantity or quality strain is expected to be placed on either receiving environment for flows less than the 100year ARI flow. As well, due to the complete containment of the 100-year ARI flow, it is expected that incremental flows above the 100-year ARI level would be significantly mitigated in comparison to pre-development conditions, although this has not been specifically quantified at this time.
- 20. The design of the proposed stormwater system incorporates the projected effects of climate change, employing the HIRDS v4 RCP 8.5 scenario to the 2081-2100 time horizon.
- 21. In response to the submission from Fire and Emergency New Zealand (**04/21**), the stormwater system will not be specifically designed to accommodate firefighting flows, in terms of the profile of potential contaminants that may be included in runoff from firefighting events. However, the volume of water produced during a firefighting event is relatively small compared to the rain storms for which the proposed wetlands are sized, which will help to dilute firefighting runoff for treatment.

22. In response to the submission from Horizons Regional Council (**04/30**), I agree that the Plan Change should include provision for private carparks and commercial roofs over 500 m² to provide specific water quality treatment in addition to the proposed treatment wetlands, which reflects the servicing strategy described in Council's Three Waters Infrastructure Plan.

Theme #3 - rainwater tanks

- 23. Some submitters have identified concerns with draft provisions around the manner in which rainwater tanks are accommodated in the Plan Change. These concerns include the activity status of properties that do not incorporate a rainwater tank, requirement of rainwater tanks for joined dwellings, flexibility on the minimum size and configuration of the tanks, and one submitter who disputes that detailed requirements for rainwater tanks should be excluded from the Plan Change and instead placed in Council's Engineering Standards. Refer submissions 04/06 Elisabeth Leighfield, 04/25 Horowhenua District Council, 04/30 Horizons Regional Council, 04/32 Leith Consulting and 04/33 Truebridge Associates in particular.
- 24. I agree with the majority of submissions in that clearer provisions around rainwater tanks are recommended for the Plan Change, including an elevated status (i.e., more restrictive than a permitted activity status) for properties without rainwater tanks, flexibility on shape and size of the rainwater tanks in that no maximum size should be specified, and clearer requirements for multiple joined dwellings. A restricted discretionary status is expected to be suitable for a property to be excluded from rainwater tank requirements.
- 25. I disagree with the submission (04/33) requesting that detailed requirements for rainwater tanks should not be included in the Plan Change provisions and instead should be incorporated into Council's Engineering Standards. Currently, rainwater tanks are not required for new developments across the entire District, only for Tara-Ika, which makes the Tara-Ika chapter of the District Plan the most appropriate location for these requirements and standards. As well, this provides certainty for Tara-Ika developers in what solutions will be acceptable as they prepare their development plans. In the event that wider adoption of rainwater tanks occurs in the District, Engineering Standards can be updated with appropriate criteria which may be different than those established for Tara-Ika; in this situation the District Plan requirement could be crafted to have precedence over the Engineering Standards, again providing consistency and assurance for Tara-Ika developers in the event that standards shift in the future.

Theme #4 - integration with and impacts of O2NL

26. Some submitters have expressed concern with the level of demonstrated integration with Waka Kotahi and the proposed Ō2NL corridor through the western edge of the Tara-Ika Plan Change area. Refer submissions 04/22 **Corridor through** and 04/34 WKNZTA in particular.

- 27. This evidence report and attached Stormwater Assessment describe the evolution of stormwater management approach for Tara-Ika, much of which has been in the context of establishing an effective and efficient collaborative solution with Waka Kotahi. The Council and Waka Kotahi design teams engage in regular correspondence and data sharing to drive a mutually beneficial shared solution forward.
- 28. It is noted that the O2NL corridor is still in the pre-notification planning phase and many details of how the expressway will be serviced for stormwater remain highly conceptual, which has resulted in few concrete details on how the stormwater systems for Tara-Ika and O2NL will be integrated. Council is committed to continuing to work closely with Waka Kotahi on a shared stormwater solution; however, the stormwater servicing solutions presented in this evidence report and attached Stormwater Assessment are not dependent on O2NL to be feasible.

Theme #5 – alignment with Horizons Regional Council One Plan

- 29. Horizons Regional Council has identified several components of the Tara-Ika Plan Change that are expected to require alignment with the provisions of the One Plan, including natural hazards (flooding), existing waterways and the quality and quantity of stormwater discharge. Refer submission **04/30 Horizons Regional Council**.
- 30. Council is committed to obtaining required resource consents under the One Plan as applicable to enabling core infrastructure that forms part of Council's programme of works. In particular, it is Council's preference, as discussed in this evidence report, to pursue a centralised stormwater management strategy and obtain global consents around stormwater for the Tara-Ika development area, as needed. It is my opinion that this approach will lead to the best outcomes for Council, Horizons Regional Council, Tara-Ika landowners and developers, through expediting development review processes for stormwater infrastructure and ensuring high-quality stormwater mitigation is implemented.

8. CONCLUSION

- 31. I was commissioned by Council to assist with the development of a stormwater management servicing strategy for the Tara-Ika Growth Area in support of the Plan Change process. The strategy presented in this report and attached Stormwater Assessment provides a solution to mitigate risks to downstream sensitive environments, namely Lake Horowhenua and Koputaroa Stream, to integrate with the proposed O2NL expressway, and to expedite the enabling of development for landowners through Council-led stormwater management facilities.
- 32. In response to concerns raised by submitters, the following changes are recommended to be incorporated into the Plan Change where appropriate:

- a. Provision for private carparks and commercial roofs over 500 m² to provide specific water quality treatment in addition to the proposed treatment wetlands.
- b. Clearer requirements around rainwater tanks, including restricted discretionay status for properties without rainwater tanks, flexibility on shape and size of the rainwater tanks in that no maximum size should be specified (only a minimum size), and clearer requirements for multiple joined dwellings.
- c. Clear direction around the preferred centralised stormwater approach through treatment wetlands and soakage basins that service the entire growth area.



10 October 2021



Appendix 11: Integrated Traffic Assessment Report



1	BA	BACKGROUND & SCOPE				
	1.1	BACKGROUND	1			
	1.2	Scope	1			
2	EX	ISTING TRANSPORTATION ENVIRONMENT	2			
	2.1	Location	2			
	2.2	ROAD ENVIRONMENT	2			
	2.3	Traffic Volumes & Rates of Growth	4			
	2.4	Crash History	5			
	2.5	Walking, Cycling and Public Transport	6			
3	DO	D-MINIMUM TRANSPORTATION ENVIRONMENT	7			
	3.1	Land-Use	7			
	3.2	Roading Upgrades	8			
4	PROPOSED PLAN CHANGE					
	4.1	Masterplan Principles	11			
	4.2	TARA-IKA MULTI-ZONE PRECINCT (RELEVANT ISSUES, OBJECTIVES, POLICIES AND RULES)	12			
5	MA	ASTERPLAN & STRUCTURE PLAN	16			
	5.1	Structure Plan	16			
	5.2	Roading Connectivity	16			
	5.3	Walking & Cycling connectivity				
	5.4	Public Transport				
6	AS	SESSMENT OF EFFECTS	19			
	6.1	POTENTIAL EFFECTS	19			
	6.2	Метнодоlogy	19			
	6.3	DEVELOPMENT	20			
	6.4	Traffic Demand and Network Scenarios	20			
	6.5	Forecast Traffic Effects of PPC4	21			
	6.6	Pedestrian / Cycle Connectivity	30			
	6.7	Public Transport	31			
7	RE	SPONSE TO SUBMISSIONS				
8	CO	INCLUSIONS & RECOMMENDATIONS	37			
	8.1	Conclusions	37			
	8.2	Recommendations	38			

1 Background & Scope

1.1 Background

The Horowhenua District Council (**HDC**) proposes to rezone an area of land to the east of Levin to facilitate higher density residential development.

Proposed Plan Change 4 (**PPC4**) applies to the Tara-Ika Development Area, a 420 Ha area of land bounded by State Highway (**SH57**), Queen Street, Gladstone Road and Tararua Road. The land is currently zoned Greenbelt Residential (deferred) by the Horowhenua District Plan (**HDP**). PPC4 seeks to rezone this as residential / urban, with an expectation that this would provide for at least 2,500 dwellings in addition to commercial activities and a primary school. A Masterplan has been developed as an indicative framework for the development.

PPC4 was notified in November 2020, with submissions and further submissions made in February / March 2021. A hearing is currently scheduled for late 2021.

PPC4 is being promoted in liaison with the Waka Kotahi - NZ Transport Agency (**WK-NZTA**), which is currently developing plans for the Ōtaki to North of Levin (**O2NL**) state highway upgrade project. This project is likely to involve an off-line upgrade of SH57 to the east of its current alignment through the Tara-Ika area, although this remains subject to the process required to secure the necessary designation.

Development on the scale proposed by PPC4 will generate a significant level of transportation demand, mostly in the form of vehicular traffic but also cycle / pedestrian activity and potential demand for public transport services.

1.2 Scope

The purpose of this Integrated Transportation Assessment (**ITA**) is to assess the PPC4 proposals in the context of potential effects upon both the existing and future transportation network in this area. As the hearing and decisions process for PPC4 precedes the designation process for the \bar{O} 2NL project, consideration is required of scenarios in which PPC4 becomes operative both without and with the \bar{O} 2NL upgrade in place.

Section 2 of this document describes the existing transportation environment and Section 3 describes how this is expected to change irrespective of PPC4. Section 4 summarises the relevant provisions of PPC4. Section 5 describes and comments upon the relevant aspects of the associated Masterplan and Structure Plan. Section 6 identifies the potential effects of PPC4 in terms of transportation demand, traffic generation / distribution and the operation of the area network for scenarios with and without the Ō2NL project in place. Section 7 responds to transportation issues raised in submissions made in relation to the PPC4 application. Finally Section 8 gives the conclusions and recommendations of this assessment.

2 Existing Transportation Environment

This section describes the existing transportation environment within the geographic area expected to be affected by PPC4.

2.1 Location

The location of the Tara-Ika Development Area is shown by **Figure 2.1.** This is located approximately 2.5kms to the east of the Levin commercial centre.

2.2 Road Environment

State Highway 57

SH57 (Arapaepae Road) is an important strategic route which connects State Highway 1 (SH1) to the south with Shannon, Tokomaru and the southern side of Palmerston North. This forms the western boundary of the PPC4 area.

Within a road reserve of 20m, SH57 provides two traffic lanes with sealed shoulders and mostly grassed verges. The alignment is both straight and level, providing for excellent sightlines in both directions. A number of well-spaced crossings provide access to adjacent rural properties. Power cables run on poles along the eastern side of the road. The applicable speed limit is 100km/hr (this is currently subject to review, as described in **Section 3**).

The intersection with Tararua Road is priority-controlled with the side road movements subject to 'stop' controls. The Tararua Road approaches are slight offset with median islands to deter through movements at speed. No ancillary lane is provided for right turn movements from SH57 into either of the side roads.

An intersection with Meadowvale Drive is located 1.6kms to the north of Tararua Road. This is priority-controlled, with the side road movements subject to a 'stop' control. Ancillary lanes provide for the right-turn entry movement from the north and to enable right-turn exit movements to merge with the southbound traffic stream.

The Queen Street East intersection has recently been reconstructed as a roundabout (this was previously a priority intersection).

Street lighting is provided at each of the intersections described above. As a rural area, there are no footpaths or cycle lanes along this section of SH57.

Tararua Road

Tararua Road connects the southern end of the Levin urban area with a rural catchment at the base of the Tararua hills.



Figure 2.1: Location Plan (Source: Tumonz)

The section of Tararua Road to the north-west of SH57 services primarily rural properties at its eastern end and has a speed limit of 80km/hr. Further to the north-west, frontage activities become more commercial in nature and the speed limit drops to 50km/hr. Tararua Road connects to SH1 by means of Cambridge Street and a crossing of the railway. With the exception of a sharp bend connecting to Cambridge Street, the road alignment is straight and level with two traffic lanes having a seal width of 6 - 6.5m and no shoulders.

To the south-east of SH57, Tararua Road continues to the same standard within a 20m road reserve. Edge lines delineate the carriageway and an 80km/hr speed limit applies.

The intersection with Gladstone Road is priority-controlled with movements from Tararua Road required to give-way.

Queen Street East

Queen Street East is the most direct route between central Levin and SH57. To the northwest of SH57 this is urban in character, providing two wide traffic lanes, footpaths, kerbside parking and grassed verges within a 28m road reserve. The applicable speed limit is 50km/hr.

To the south-east of SH57, the road is rural in character with two traffic lanes. A shared foot/cycle path runs along the northern side of the road. The applicable speed limit is 80km/hr.

Gladstone Road

Gladstone Road is rural in character and provides access to rural lifestyle properties. This provides a single carriageway 5.5-6m wide with grassed verges but no footpaths.

Other Roads

Meadowvale Road provides access to an urban residential area with footpaths to both sides and a 50km/hr speed limit.

Redwood Lane, Pohutakawa Drive, Pukematawai Lane and Arete Lane provide access to areas of rural residential development within the PPC4 area from Queen Street East, Gladstone Road and Tararua Road.

Liverpool Street connects urban residential areas on the south-east side of Levin with the town centre.

2.3 Traffic Volumes & Rates of Growth

Pood Soction	ADT		Peak		Sourco
Road Section	veh/day	%HV	veh/hr	% HV	Source
SH57 (Kimberley Road)	5 100 (2010)	18%			WK-NZTA,
	3,130 (2013)				observed
Queen Street E (W of SH57)	5,450 (2016)	5%	440-540	2-3%	Counts for model
Queen Street F (F of SH57)	950 (2012)	0%	160-180		validation (2018) &
					HDC RAMM Counts
SH57 (N of Queen St E)			680-850		
SH57 (S of Queen St E)			470-580		Counts for model
SH1 Oxford St (Queen-		820-1100			validation (2018)
Bath)			820-1100		
SH1 Oxford St (Stanley –	13,100	۵%			WK-NZTA,
Exeter)	(2020)	570			observed
Tararua Road (W of SH57)	1,370 (2021)	23%			
Tararua Road (E of SH57)	400 (2016)	46%			
Gladstone Road (Tararua	280 (2016)	00/			HDC RAMM Counts
Rd – Queen St)	200 (2010)	070			
Meadowvale Drive	1,020 (2016)	0%			

Table 2.1 summarises traffic volumes for the key roads in this area.

TABLE 2.1: SUMMARY TRAFFIC COUNTS

The strategic importance of SH57 is evident both in the total volume of traffic carried and also the proportion of heavy vehicles.

Figure 2.2 summarises the growth in traffic volumes on SH57 in the period 2000 – 2019. While the trend growth has been 1% per annum over this period, growth in the period since 2012 has been more significant, at around 2.7% per annum.



Figure 2.2: SH57 Volumes 2000 – 2019 (Source: WK-NZTA)

AADT = Annual Average Daily Traffic

2.4 Crash History

The crash history for the area in the vicinity of the Plan Change for the period since January 2016 has been obtained from the database maintained by WK-NZTA and is summarised by **Figure 2.3**.

This shows that a total of 23¹ incidents have occurred within the immediate SH57 corridor. Of these:

- 14 have occurred in the vicinity of the Queen Street East intersection (with three serious and 24 minor casualties), primarily due to a failure to give-way (this crash history does not reflect the recent upgrade of this intersection to a roundabout);
- five have occurred in the vicinity of the Meadowvale Drive intersection (with two minor casualties) – two incidents involved a failure to give-way with the remainder being a result of a loss of control and/or excessive speed; and
- four have occurred in the vicinity of the Tararua Road intersection (with one fatality and two minor casualties) – only one involved a turning / crossing manoeuvre at the intersection with the others being head-on or rear-end collisions.

WK-NZTA is implementing a package of measures to improve safety in the SH57 corridor. This is described in **Section 3.2**.

A further seven incidents have occurred in the rural area to the east of SH57. These have occurred for a variety of reasons with two serious and three minor casualties.

5

¹ Figure 2.2 incorrectly shows an incident on SH57 to the north of the Tararua Road intersection which actually occurred on Perth Street.



Figure 2.3: Recorded Crashes (from 2016) (Source: WK-NZTA)

2.5 Walking, Cycling and Public Transport

With exception of the shared foot/cycle path along the northern side of Queen Street East, there are no pedestrian or cycling facilities in the area to the east of SH57. Likewise, Tararua Road to the west of SH57 provides no such facilities.

In contrast, Queen Street East (west of SH57), Meadowvale Drive and Liverpool Street all provide footpaths to both sides (which connect to central Levin). While specific cycle lanes are not provided, the wide carriageways enable cycle movements to be accommodated.

No bus services operate in the vicinity of the PPC4 area, or within the Levin urban area. Longer distances services operate between Levin and Palmerston North, Levin and Waikanae and between Auckland and Wellington along SH1.

3 Do-Minimum Transportation Environment

This section describes the future transportation environment assuming that PPC4 was not to become operative. This provides a 'Do-Minimum' scenario against which the effects of the changes to patterns and volumes of transportation demand arising from PPC4 can then be assessed.

3.1 Land-Use

Tara-Ika Area

Without PPC4, the existing district plan controls upon development within the Tara-Ika area would be applicable.

The area is zoned as 'Greenbelt Residential Deferred', enabling residential development with a minimum lot size of 2,000m² (where reticulated sewerage is available) or 5,000m² where on-site sewage treatment is required. The deferred status was applied as the required infrastructure was not in place. The trigger for uplifting the deferral is the passing of a Council resolution to the effect that adequate capacity is available within the reticulated infrastructure to service the area.

It is understood that the necessary infrastructure is currently being installed with a likelihood that, subject to a Council resolution, the deferred status will be able to be lifted shortly.

While development would be subject to a range of factors, it has been assumed that without PPC4, the Tara-Ika area would provide for up to 1,240 dwellings (with the construction of \overline{O} 2NL) or 1,480 dwellings (without \overline{O} 2NL, as more land would be available).

A traffic model has been developed by consultants Stantec on behalf of WK-NZTA, primarily for the purpose of assessing the effects of the \overline{O} 2NL project. This model has also been used to assess the effects of traffic activity associated with the Tara-Ika area.

Traffic modelling has adopted low, medium and high growth scenarios² in order to address uncertainty in rates of district-wide growth. These scenarios represent 25th, 75th and 95th percentile positions on the overall district population projections, as prepared by Sense Partners. **Table 3.1** summarises the extent of development assumed within the Tara-Ika area under each of these growth scenarios, without PPC4 in place.

Growth Sconaria	Assessment Year				
Growth Scenario	2029	2039	2049		
Low (25 th percentile)	16% (194-231)	22% (272–324)	24% (298-356)		
Medium (75 th percentile)	50% (620–740)	100% (1,240-1,480)	100% (1,240-1,480)		
High (95 th percentile)	50% (620-740)	100% (1,240-1,480)	100% (1,240-1,480)		

TABLE 3.1: DEVELOPMENT GROWTH RATES

(% of full development complete by year, number of dwellings)

² Horowhenua Socio-Economic Projections: Summary and Methods: Projections Update Report. Sense Partners, May 2020 (reproduced as Appendix 10 to the s32 report).

Anticipated Development Under Existing Zoning

For the purposes of traffic modelling, it has been assumed that development will take place generally in accordance with the existing zone provisions. This includes industrial / commercial development on the northern side of Tararua Road to the north-west of the SH57 intersection.

'Aspirational' Development

An area on the southern side of Tararua Road is currently zoned 'Rural' but has been identified as a growth area in the Horowhenua Growth Strategy 2040. It is likely that this will be the subject of a future plan change to facilitate further residential development in the future. The traffic modelling has assumed development in this area in later years, based upon an expectation that the necessary plan change would be secured. The uncertainty in this process has been taken into account in the interpretation of the model forecasts and assessed effects reported in **Section 5**.

3.2 Roading Upgrades

SH57 Safety Improvements

WK-NZTA has undertaken a review of the safety of SH57 between the SH1 intersection and Heatherlea East Road (3.5kms to the north-east of the Queen Street East intersection). The following package of safety improvements is proposed:

- construction of a roundabout at the SH57 / Queen Street intersection (now complete);
- installation of edge barriers;
- widening of centrelines;
- widening of road carriageway; and
- review of speed limits.

A contract for the works has been awarded and it is anticipated that the works will be substantially complete by the end of 2021.

An upgrade of the SH57 / Tararua Road intersection to a roundabout is not an identified component of the SH57 safety improvement package. Nonetheless, this is currently being advanced with detailed design work and support from WK-NZTA to purchase the necessary land and procure construction. Accordingly, this upgrade has been assumed to form part of the Do-Minimum environment.

Speed Limit Review

WK-NZTA has recently (30 August 2021) initiated consultation on a proposal to lower the speed limit along the section of SH57 between the SH1 intersection and Shannon to 80km/hr. The submission period closes on 27 September 2021.

Ōtaki to North of Levin (**Ō2NL**) Expressway

WK-NZTA is proposing to construct a new highway for regional and through traffic to replace the existing SH1 between Taylors Road (north of Ōtaki) and a point to the north of Levin.

This 24km route will run to the east of the existing SH1, bypassing the existing Levin commercial centre.

The preferred alignment was announced in March 2021 following technical assessments and a consultation process.

The preferred alignment is shown by **Figure 3.1**. In the vicinity of the PPC4 area, this runs to the east of SH57 through the PPC4 area and will involve a grade-separated 'diamond' interchange (with north and south facing ramps) at Tararua Road. No intersection will be provided at Queen Street (East), which will pass over the expressway on an overbridge. The \overline{O} 2NL project includes an upgrade of the SH1 / Tararua Road intersection and railway crossing.

WK-NZTA expects to lodge a Notice of Requirement (**NoR**) to secure the necessary designation for the expressway in late 2022, with the project expected to be open to traffic in 2029. As this remains subject to the designation process and funding approvals, the associated uncertainty has been acknowledged with the PPC4 effects being considered for scenarios both without and with the \bar{O} 2NL project in place.



Forecasts for the $\overline{O}2NL$ project³ indicate that this would carry 1,360 – 1,900 vehicles/hour in the 2039 peak periods in the vicinity of Tara-Ika. The parallel section of SH57 would experience reductions of around 80% (650 – 900 vehs/hr) to the south of Tararua Road, 50-60% (570 – 750 vehs/hr) between the Tararua Road and Queen Street East intersections, and 63% (750 – 870 vehs/hr) to the north of Queen Street East.

Queen Street East would experience traffic reductions of up to 12% (0 – 110 vehs/hr) and 15% (80 – 110 vehs/hr) to the west and east of SH57 respectively. Volumes using Tararua Road would increase significantly, by 55-78% (440 – 490 vehs/hr) to the west of SH57 and 65-96% (600 - 710 vehs/hr) to the east.

For SH1 through central Levin, traffic volumes would reduce by between 18 and 37% (320 – 580 vehs/hr).

³ Based upon model forecasts supplied for the 2039 medium growth scenario.

4 Proposed Plan Change

This section describes the relevant provisions of PPC4 insofar as these affect the potential quantum and pattern of future transportation demand.

4.1 Masterplan Principles

The Tara-Ika Masterplan is described as a comprehensive blueprint for residential growth in Tara-Ika, which defines the location of key roads and pedestrian/cycle connections.

The Masterplan provides the context for the district plan rules and a Structure Plan which are proposed for this area. Key transportation-related objectives, the associated design principles and actions are summarised below (a more detailed critique of the details of the Masterplan is presented in **Section 5**).

Connectivity

Objective: ensuring a high level of internal and external connectivity for good local access and multi-modal movement.

For internal connections, the design principles and actions are:

- A logical and coherent interconnected network of streets and movements links, to be achieved by:
 - short street blocks;
 - a deformed grid layout; and
 - minimal use of cul-de-sacs.

For external connections, the design principles and actions are:

- Roading connections to all areas in Tara-Ika, Levin, and to future urban growth areas
 - high quality roads, walking and cycle routes that connect to the existing Levin urban area and routes;
 - accessible links to existing open space networks;
 - connections to existing paths and cycle lanes;
 - intersections designed for the safety of vehicles, pedestrians and cyclists; and
 - connections to existing rural-residential streets where possible.
- Integration with O
 2NL alignment
 - multiple connections across the expressway
- Integration with Arapaepae Road (SH57)
 - safety improvements at the Queen Street / SH57 intersection;
 - key connections across SH57; and
 - intersections that provide for safety of vehicles, pedestrians and cyclists.
- Plan for public transport in the future

• a hierarchical system of interconnected streets with sufficient width to allow for an efficient local public transport network.

Streets for people

Objective: ensuring a high level of internal and external connectivity for good local access and multi-modal movement.

The associated design principles and actions are:

- An environment that encourages the community's health and wellbeing, making walking and cycling safe, easy and fun.
 - cycleways along major transport routes;
 - connections to the existing and planned town-wide cycleway network;
 - quality, attractive, well-lit streetscape; and
 - street trees and planting.
- Public accessibility and Safety
 - minimal intersections and driveways on cycleways use of rear lane access wherever appropriate; and
 - streets configured to ensure that dwellings front the street.
- Co-ordinate with the requirements for Arapaepae Road (SH57)
 - Arapaepae Road to be an urban arterial following expressway construction;
 - positive street frontage and quality streetscape along Arapaepae Road; and
 - building frontages and a streetscape treatment along Arapaepae Road to give appearance of entering a residential environment.

4.2 Tara-Ika Multi-Zone Precinct (relevant issues, objectives, policies and rules)

Proposed Zones

PPC4 would divide the Tara-Ika area into four zones:

- Commercial Zone;
- Open Space Zone;
- Residential Zone; and
- Greenbelt Zone.

For each of these zones, existing objectives, policies and rules in the district plan would be applicable (unless overridden by those for the Tara-Ika multi-zone precinct).

Issues

PPC4 recognises the following risks:

• that additional traffic could compromise the intended achievement of high amenity values within the development area;

- that the preferred corridor for the O
 [¯]2NL project could sever Tara-Ika from the existing Levin urban area; and
- that development could occur in a way which is disconnected from the urban area of Levin and associated services.

The development of the Masterplan seeks to address these risks.

PPC4 Objectives & Policies (as notified)

Objective 6A.1: to achieve an integrated and connected development that is supported by a well connected roading network that supports a range of transport modes to include safe and efficient walking and cycling options and a well connected, safe and efficient roading network.

Policy 6A.1.1: subdivision, infrastructure and land development in Tara-Ika must be consistent with Structure Plan 013.

Policy 6A.1.5: require subdivision layout to ensure street design enables the safe and efficient movement of people and traffic, provides a high level of safety and amenity for pedestrians and cyclists, and contributes positively to the public realm.

Objective 6A.2: efficient delivery of infrastructure within Tara-Ika will enable development while protecting environmental values and achieving a high level of residential amenity.

Policy 6A.2.1: make provision within Tara-Ika for a housing yield of 2,500 – 3,000 houses.

Policy 6A.2.2: require subdivision and development to be managed, designed and staged to align with the co-ordinated provision and upgrading of the infrastructure network (including road network)

Policy 6A.2.3: avoid subdivision and development that compromises the ability to provide efficient and effective infrastructure for the wider Tara-Ika area.

Objective 6A.4: achieve a high amenity, walkable residential environment with a range of section sizes and housing types, including affordable housing options, in Tara-Ika.

Policy 6A.4.1: optimise walkability by providing for higher density residential development near to commercial and community facilities and lower density residential development at the outer edges of Tara-Ika.

Rules

Proposed Rule 15A.1 states that permitted activities are as per Chapter 15 (residential zone), Chapter 18 (Greenbelt Residential zone) and Chapter 20 (Open Space zone). Rule 15A.1.2 defines the permitted activities for the Commercial Zone.

Permitted activities are subject to the following condition:

15A.6.1.1 (for all zones) Vehicle Access onto Strategic Cycleways (a) No vehicle crossings shall cross a strategic cycleway shown on Structure Plan 013 - vehicle access is to be via the rear access lanes shown on Structure Plan 013.

Proposed Rule 15A.3 states that restricted discretionary activities are as per the definitions in the 'parent' chapters of the HDP, but with a number of exceptions, including 15A.3.1(a) relating to the subdivision of land within all zones.

Rule 15A.8.1.2(a) defines the matters of discretion applicable to subdivision in the Residential Zone and includes the following relevant transportation-related matters:

(i) Consistency with Structure Plan 013;

(ii) Design and layout, including connectivity and linkages (both within and beyond the subdivision);

(viii)&(ix) The provision of any new roads, cycleways, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas and any necessary easements;

(x) The management of traffic generated and potential adverse effects on the safety and efficiency of the street network;

(xi) Minimise use of cul-de-sacs, particularly cul-de-sacs that are long or have poor visibility to or from the street they connect to; and

(xix) Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).

Proposed Rule 15A.4 states that discretionary activities are as per the definitions in the 'parent' chapters of the HDP, but with a number of exceptions (none of which relate directly to transportation matters).

Proposed Rule 15A.5 states that non-complying activities are as per the definitions in the 'parent' chapters of the HDP, but additionally including:

15A.5.1(e) Subdivision or land use activities that are not consistent with Structure Plan 013; and

15A.5.1(g) Any activity that does not comply with Rule 15A.6.1.1 – Vehicle Access into Strategic Cycleways.

Chapter 15 states that residential activities are Permitted, subject to compliance with relevant conditions in Rule 15.6 and Chapters 21, 22, 23 and 24.

Rule 15.6 defines conditions for permitted activities, including such matters as the number of residential units per site, building heights, setbacks etc. The only transportation-related conditions require compliance with the permitted activity conditions in Chapter 21.

Chapter 21 defines standards, conditions and requirements for vehicle access, parking, loading and roading.

Chapters 22 and 23 define standards for utilities & energy and hazardous substances respectively.

Chapter 24: Subdivision & Development – requires compliance with NZS4404:2010, provision of vehicular access.

Overview

Together, the rules above ensure that subdivision and development must consider the potential effects of additional traffic movements on the road network. The design of transportation infrastructure is required to be consistent with the Structure Plan and compliant with the relevant district-wide standards, NZS4404:2010 and Council's Subdivision and Development Principles and Requirements.

5 Masterplan & Structure Plan

This section reviews the more specific details of the Masterplan and Structure Plan 013. The Masterplan has provided the underlying vision and design principles from which Structure Plan 013 has been developed. Structure Plan 013 forms part of PPC4 and would be the relevant statutory framework for the development.

5.1 Structure Plan

The Structure Plan is shown by Figure 5.1.

5.2 Roading Connectivity

Structure Plan 013 identifies a hierarchy of roading connections.

Hierarchy

Two arterial roads are proposed, with the primary function of traffic movement rather than access provision. One will connect Arapaepae Road (SH57) with Gladstone Road, running broadly NW/SE through the centre of the Tara-Ika area, with a bridge over the expressway alignment. The other will run broadly at right-angles, connecting the Queen Street East and Tararua Road frontages.

The arterial roads will be supplemented by collector roads, which will form an approximate square within the development area but including linkages to two points on each of the Queen Street East and Tararua Road frontages. The primary function of collector roads is the 'collection' of traffic movements from the minor street network.

Below the collector roads, a network of local roads and laneways will prioritise property access over through movement.

Connectivity to Arapaepae Road

Both the Masterplan and the Structure Plan indicate the possible provision of direct connectivity between a number of minor roads within the development area and Arapaepae Road. Without or prior to the opening of the $\bar{O}2NL$ project, the high through traffic volumes would preclude the provision of such frequent intersections. Even with the lower traffic volumes associated with the operation of $\bar{O}2NL$, the form and frequency of these intersections would need to be considered carefully in the context of the wider management of safety along Arapaepae Road. This issue should be addressed as part of the assessments required to secure consent, when better information is likely to be available regarding the progression / timing of the $\bar{O}2NL$ project and the proposed treatment of the Arapaepae Road corridor.

Road Standards

The Masterplan identifies the intended cross-sectional standard for each road type, as shown by **Figure 5.2**.

Tara-Ika Proposed Plan Change 4: Integrated Transportation Assessment





Figure 5.1: Draft Structure Plan

Tara-Ika Proposed Plan Change 4: Integrated Transportation Assessment

		Cycleway (shown) o/ footpath	Parking / vegetation zone	Carriageway	Packing / vegetation zone	Footpath	
Arterial Road	11		A				1.1
Weth 19.5m - 21m	55m	4m Cycleway /	7.2m	8m	2.20	7,507	390
Collector Road	11	2.3mmungdun	1 1		1		1-1
Width 18.5m 20m	.5am	4m Cycleway / 2.5m feotpath	7.2m	មិ៣	1.2m	2.5m	5510
Local Road	11		1 1		-		11
Width 16m	Bm	1.5m footpath	12m	700	11m	1.Bm	Beit
Note Laneways to be sharin spucet, with a carriageway of om							

Figure 5.2: Proposed Road Cross-Sections (Source: Masterplan)

The proposed arterial and collector roads would provide for a 4m shared cycleway / footpath to one side (where a strategic cycleway is provided, otherwise a 2.5m wide footpath) with a 2.5m footpath on the other side, with two 2.2m wide parking or vegetation zones.

The proposed local roads would provide for a 1.5m footpath and 2.2m parking or vegetation zone on each side.

Comment: The proposed carriageway widths (7m, 8m and 9m respectively for arterial, collector and local roads) appear wide for roads of these types and inconsistent with the principles of NZS4404:2010. This could result in the intended speed environments not being achieved, unless accompanied with a package of traffic management measures. Carriageways could be narrowed with increased space allocated to the active modes.

Comment: the roading hierarchy should logically adopt the terminology and definitions used by the One Network Road Classification (ONRC).

5.3 Walking & Cycling connectivity

Strategic cycleways will run alongside the full length of the NW/SE arterial and the southern section of the NE/SW arterial. A cycleway will also run between the Waiopehu Reserve and Meadowvale Drive, utilising a collector route and a bridge over the expressway. Another will connect the NE/SW arterial with another bridge over the expressway. The expressway overbridge concepts and funding have yet to be agreed with WK-NZTA.

All routes will also provide for walking connectivity.

5.4 Public Transport

The road network design does not preclude the possibility of servicing by public transport in the longer-term.

18

6 Assessment of Effects

This section describes the potential effects associated with PPC4 in terms of the change to the pattern of development this would enable, the related changes in transportation demands, and impacts upon the operating efficiency and safety of the road network.

6.1 **Potential Effects**

PPC4 would not itself generate effects as specific development will remain subject to consent processes which in turn will require consideration of transportation issues.

Nonetheless, it is appropriate to consider the potential effects which could be associated with the general scale and pattern of development envisaged by PPC4. These potential effects can be categorised as those which are external or internal to the development area.

External Effects

- SH57 intersections (Queen Street East, Tararua Road, Meadowvale Drive, central spine road) operating efficiency and safety (with or without $\overline{O}2NL$ upgrade);
- new intersections (on Queen Street East, Gladstone Road and Tararua Road) operating efficiency and safety;
- urban road network to the west of SH57 operating efficiency and safety (excluding any specific connection to Liverpool Street);
- the existing SH1 corridor through central Levin; and
- pedestrian, cycle and public transport connectivity between the development and urban Levin – extent to which good connectivity will enable positive effects of reduced private car dependency to be realised.

Internal Effects

- pedestrian / cycle / public transport connectivity extent to which the Masterplan promotes connectivity to enable the positive effects of reduced private car usage to be realised; and
- road network and cross sections extent to which the proposed internal road network is likely to operate efficiently and safely.

6.2 Methodology

Most of the potential effects identified above will be primarily associated with the changes in traffic activity on the road network in the vicinity of the PPC4 area.

As described in **Section 3.1**, a traffic model has been developed by WK-NZTA for the purposes of evaluating the \overline{O} 2NL project and this has been extended to quantify the traffic-related effects of development associated with PPC4. This uses the SATURN⁴ modelling software package and has been subject to an independent peer review process.

⁴ Simulation and Assignment of Traffic to Urban Road Networks.

The $\overline{O}2NL$ design and designation processes are being advanced in parallel to those associated with securing PPC4. As a designation will not be confirmed prior to consideration of PPC4, it is possible that development enabled by PPC4 proceeds with or without/prior to the $\overline{O}2NL$ upgrade, and that $\overline{O}2NL$ proceeds with or without PPC4-related development. Accordingly, a range of scenarios has been assessed to enable those effects which are associated with the $\overline{O}2NL$ project to be differentiated from those arising from PPC4.

Logically, more 'weight' should be given to the scenarios with the $\bar{O}2NL$ project in place, since this is the more likely outcome (at this stage, there do not appear to be any significant impediments to securing the designation and eventual funding). However, from a planning perspective, the $\bar{O}2NL$ project cannot be considered to be a part of the 'consented baseline' against which the effects of Tara-Ika are then assessed. For these reasons, scenarios both with and without the $\bar{O}2NL$ project have been considered to have equal relevance.

The traffic model has been run for 2029, 2039 and 2049 forecast years, with low, medium and high growth scenarios. The light and heavy vehicle types are modelled separately.

6.3 Development

The level of potential development without PPC4 is described in Section 3.1.

With PPC4, HDC considers that a development of 2,500 dwellings is realistic for this area, but at higher densities the number of dwellings could be at most 3,700.

As described in **Section 3.1**, modelling for 2049 has assumed that some development will also occur in an area known as 'LS7' on the southern side of Tararua Road. The zoning of this area does not currently support such development and a separate plan change would need to be secured. For this reason, this development may be regarded as 'aspirational' rather than committed. Again this may be considered to be a 'worst-case' for traffic assessment purposes.

At a wider level, the traffic modelling is based upon a premise that if development occurs within Tara-Ika as enabled by PPC4, then this would replace, rather than be in addition to, development elsewhere in the district. As a consequence, when considering the transportation-related effects of PPC4, a positive effect may be associated with reductions in traffic activity in other areas (which may not be as well connected to the strategic road network).

6.4 Traffic Demand and Network Scenarios

A range of traffic demand and network scenarios have been assessed using the traffic model. These combine the forecast years and general growth scenarios above with options for the Tara-Ika development and the \bar{O} 2NL project.

Table 6.1 summarises the extent of development assumed within these scenarios, applied to both the pattern of development with PPC4. HDC has confirmed that these growth rates are realistic.

Growth Sconaria	Assessment Year			
Growth Scenario	2029	2039	2049	
Low (25 th percentile)	16% (579)	22% (811)	24% (889)	
Medium (75 th percentile)	50% (1,850)	100% (3,700)	100% (3,700)	
High (95 th percentile)	50% (1,850)	100% (3,700)	100% (3,700)	

TABLE 6.1: DEVELOPMENT GROWTH RATES

(% of full development complete by year, number of dwellings)

6.5 Forecast Traffic Effects of PPC4

The traffic model has been used to prepare forecasts for a wide range of scenarios encompassing the different forecast horizons and growth outlooks. This assessment has focussed on results for the 2039 medium growth scenario, as this represents a reasonable outlook period which still accounts for the full development of the Tara-Ika area.

The results and analysis reported below include consideration of the effects of a connection to Liverpool Street. This has been included for information only as the formation of such a connection is not a part of the PPC4 proposal (as described below).

Traffic Volumes – Without Ō2NL

Figures 6.1 and **6.2** summarise the forecast traffic volume changes attributable to PPC4 without the \overline{O} 2NL project, for scenarios without and with a connection to Liverpool Street to the west of SH57 respectively. Figures are presented as Passenger Car Units⁵ (**PCUs**) per hour for each of the modelled AM, Inter and PM peak periods.

PPC4 would result in up to an additional 1,360 east-west movements to the immediate east of SH57. The majority of these additional movements would utilise the central spine road connection to SH57, but with significant increases on Queen Street East. Volumes on Tararua Road would drop, principally because development under PPC4 would channel traffic movements along the central spine road (compared to a lower density pattern of development without PPC4 which would be more reliant on the use of Tararua Road).

The effects on SH57 would be mixed, with reductions in some areas and modest increases elsewhere. Without any connection to Liverpool Street, most of the additional traffic using the central spine road would utilise Meadowvale Drive, resulting in increases along this route and along the short distance of SH57 between the Meadowvale Drive and central spine road intersections. In contrast, the provision of a connection to Liverpool Street would provide a direct route to/from the Levin central area, with volume reductions on Meadowvale Drive and SH57.

Traffic Volumes – With Ō2NL

Figures 6.3 and 6.4 summarise the corresponding forecast traffic volume changes with the $\bar{O}2NL$ project assumed to be in place.

⁵ A car or light vehicle is equal to one PCU, and a truck is equal to 2 PCUs.

The direction and scale of the volumes is similar to those described above, but with the base volumes using SH57 being considerably reduced as a result of the diversion of traffic to the \overline{O} 2NL project.

SH57 Intersection Performance - Effects

Changes in the forecast delays at the intersections within the SH57 corridor are generally small (and in some cases negative), indicating that the assumed single lane approach standards would be able to accommodate the changes in traffic activity associated with PPC4. The assumed roundabout with the central spine road would provide sufficient capacity, but with the introduction of additional delays of 15-20 seconds for the through movements along SH57.

Safety / Amenity - Effects

Safety and amenity effects cannot be forecast and quantified in the same manner as the traffic volumes reported above.

As described above, without any direct connection to Liverpool Street, Meadowvale Drive and a short section of SH57 could experience large increases in traffic activity. This could be detrimental to safety, especially for the increased right turn exit movement from Meadowvale Drive to SH57 (this would be less of an issue with the \bar{O} 2NL project as the background traffic volumes using SH57 would be significantly reduced).

As Meadowvale Drive does not provide a direct connection to the Levin central area, the additional traffic could lead to potential amenity and safety impacts on the local residential network including Meadowvale Drive and Bartholomew Road.

These effects would be largely removed by the provision of a more direct link using Liverpool Street. Alternatively, a package of traffic management measures could be implemented to manage speed and safety within the residential street network. Such measures would also be likely to reduce the use of these routes by extraneous traffic movements.

Levin Urban Network

The forecast volume increases on the Levin urban road network to the west of SH57 are well within the capacity of the network and would not give rise to any specific capacity issues. As noted above, the distribution of the additional traffic movements would be improved with the provision of a connection to Liverpool Street, as this road is of a high standard and provides a direct connection to the town centre.

SH1 Corridor - Effects

Figure 6.5 summarises the volume changes for three sections of SH1 through the Levin urban area:

- north (between Kawiu Road and Paisley Street);
- central (between Bath Street and Queen Street West); and
- south (between Hokio Beach Road and Cambridge Street).

This indicates that the effect of PPC4 is to reduce volumes using SH1 for all locations and at all time periods. With the $\bar{O}2NL$ project in place, the base volumes using SH1 are lower (as a result of the diversion of through traffic to the expressway), but the effect of PPC4 is nonetheless to further reduce the volumes along SH1.

These reductions are due to the assumed redistribution of growth to the Tara-Ika area and the expressway corridor instead of other areas which would be more conveniently serviced by the existing SH1.

For context, the chart for the Bath Street – Queen Street section of SH1 includes existing (2018) volumetric information (this is the only section for which reliable count information is available). This shows that without the $\bar{O}2NL$ project, volumes will be increased irrespective of the pattern of development. With the $\bar{O}2NL$ project, volumes will be reduced. Some caution is required in any comparison of 2018 existing volumes with those forecast for 2039 as differences will be due to the effects of both general background growth and also the specific growth forecast for the area.

In summary, the pattern of development enabled by PPC4 will be beneficial for the efficiency of the SH1 corridor through central Levin, irrespective of the construction of the $\bar{O}2NL$ project.





Figure 6.1: FORECAST TRAFFIC VOLUME CHANGES DUE TO PPC4, NO O2NL

2039, Medium Growth No Connection to Liverpool Street (West of SH57) Tim Kelly Transportation Planning Ltd




Figure 6.2: FORECAST TRAFFIC VOLUME CHANGES DUE TO PPC4, NO O2NL

2039, Medium Growth With Connection to Liverpool Street (West of SH57)




Figure 6.3: FORECAST TRAFFIC VOLUME CHANGES DUE TO PPC4, WITH O2NL

2039, Medium Growth No Connection to Liverpool Street (West of SH57) REF: Do-Min = TD_39_xx_01d_M2 xx = AM, IP, PM PPC4 = TD_39_xx_01d_M1





Figure 6.4: FORECAST TRAFFIC VOLUME CHANGES DUE TO PPC4, WITH O2NL

2039, Medium Growth With Connection to Liverpool Street (West of SH57)






Figure 6.5: Forecast Effects Upon SH1 Traffic Volumes, Central Levin

(figures are pcus/hour, 2039)

Tara-Ika Connections to Adjacent Road Network

The provision of multiple access points to the existing road network means that intersections with Queen Street East, Tararua Road and Gladstone Road would operate well within capacity limits with negligible levels of delay.

There appear to be no impediments to the design of these intersections in a way which would ensure the achievement of safe sight lines to enable all turning movements to be made safely.

Liverpool Street & Central Spine Road

As described above, a connection between the central spine road of the development area, Arapaepae Road and the SE end of Liverpool Street could provide benefits in terms of the distribution of vehicle movements, safety and amenity.

While investigations are assessing the feasibility of such a connection, this does not form part of the PPC4 proposal (and the associated benefits have not been attributed to PPC4).

With the formation of such a connection being uncertain, it is appropriate to consider how the development area central spine road might connect to Arapaepae Road in this area, and how such connectivity might influence the wider effects associated with PPC4.

Any form of grade-separated connection would be precluded by cost considerations, and control by traffic signals is unlikely to be appropriate for a rural environment (and inconsistent with roundabout control at the Queen Street East and Tararua Road intersections). This leaves four principal options (shown in diagrammatic form by **Figure 6.6**):

- Option 1 (no connection): without (or prior to) the construction of the O2NL project, the volumes of through traffic on SH57 / Arapaepae Road would be much higher. Not forming a connection would maximise and safety and efficiency of the SH57 route by eliminating the associated turning movements to/from the central spine road and Meadowvale Drive and avoiding a need for through movements to negotiate an intersection. A consequence would be higher volumes of traffic using other routes, especially Queen Street East.
- Option 2 (3-arm roundabout): this would allow turning movements to/from the central spine road to be safely accommodated, but with a small efficiency penalty to SH57 through movements. For safety to be assured, it is likely that this would need to be part of a package of measures which included improvements to the SH57 / Meadowvale Drive intersection and possibly also a further lowering of the speed limit in this immediate area.
- Option 3 (priority intersection): this option would be precluded by the unacceptable safety risks associated with turning movements within a higher speed environment.
- Option 4 (left-in / left-out movements only): this option would be only offer a partial solution, as movements exiting Tara-Ika would be unable to access Meadowvale Drive. A safety concern would be associated with the possibility of U-turning manoeuvres made by some drivers.

The preferred option is a roundabout at this location, as this would allow full connectivity to be provided while also offering flexibility to connect to a possible extension of Liverpool Street (subject to the necessary approvals). As noted above, such a solution would, without an extension of Liverpool Street, increase the right turn exit movement from Meadowvale Drive and would need to be considered as part of a wider package of measures to ensure the safety and efficiency of Arapaepae Road.

As described in **Section 4**, any residential development at Tara-Ika would be subject to a requirement to demonstrate that the associated traffic movements can be safely and efficiently accommodated by the road network. This 'backstop' means that the possibility of any potential safety and/or capacity issues would be precluded by the assessments required as a condition of consent. Specifically, the form of any connection between the central spine road and SH57 / Arapaepae Road would need to be demonstrably safe and efficient. Alternatively, if the formation of an acceptable intersection form was not possible, it would need to be demonstrated that without any connection at this location, other parts of the road network would be able to accommodate the higher traffic volumes which would eventuate.

6.6 Pedestrian / Cycle Connectivity

Internal

A high level of internal connectivity is proposed by a network of cycleways and footpaths, including an 'ecological corridor' connecting to the Waiopehu Reserve.

The proposed rule (15A.6.1.1) prohibiting the formation of vehicle crossings over strategic cycleways is supported, on the basis that this demonstrates a more serious commitment to the promotion of cycling as a mode of transportation. The potential for conflicts at vehicle crossings represents both an actual and a perceived risk for cyclists which would deter some from using this mode of transport.

Virtually all of the cycle connections are provided within road corridors, with a consequence that walking and cycling will take place adjacent to traffic activity. Although the additional benefits may be marginal, consideration could be given to the provision of off-road connections if these are reasonably feasible within the wider development area.

External

The Masterplan shows proposed walking and cycling connections as far as the boundaries of the Tara-Ika area. In order to encourage the uptake of pedestrian and cycle activity between Tara-Ika and the existing Levin urban area, the routes within the site should form part of a wider and contiguous network (but it is recognised that the provision of facilities beyond Tara-Ika would be outside of the scope of PPC4).

This means that details of how the SH57 corridor is to be crossed should be provided, together with proposals for the enhancement of facilities to the west of this point. This will be more relevant with the higher SH57 traffic volumes if the \bar{O} 2NL project was not to proceed (or occurred significantly later than development at Tara-Ika).



FIGURE 6.6: CENTRAL SPINE ROAD CONNECTIVITY OPTIONS

6.7 Public Transport

The usage of public transport (bus) services is currently negligible in this area. Nonetheless, this could change in the future, partly as a result of the additional demand created by the Tara-Ika development and its distance from the Levin central area. The design of the Tara-Ika development does not preclude servicing by bus services, with plenty of room available within the road cross-sections and a network which avoids lengthy cul-de-sacs.

7 Response to Submissions

PPC4 was publicly notified in November 2020 and submissions closed in February 2021. Further submissions opened on 26 February 2021 and closed on 15 March 2021.

Table 7.1 responds to the transportation-related issues raised by the submissions.

33

TABLE 7.1: RESPONSE TO TRANSPORTATION ISSUES RAISED BY SUBMISSIONS					
Issue	Raised By	R	Response (relevance to ITA)		
Oppose local road / laneway adjacent		•	detailed engineering issue		
to 180 Gladstone Rd					
Development will result in Levin		•	the proposal provides for good connectivity across the Ō2NL expressway,		
being bisected by the O2NL			enabling E-W movement through the combined urban area		
expressway					
Need to consider effects of $\bar{O}2NL$ in		•	transportation assessments have considered a comprehensive range of		
consideration of PPC4			scenarios both with and without the O2NL expressway		
Oppose any connection to Gladstone		•	Gladstone Road will not see any significant volume increases as development-		
Rd on basis of its rural nature & use			related traffic movements will be primarily to/from the NW		
		•	linkages to Gladstone Road would be beneficial for residents along this road by		
			the provision of more direct access to facilities within the development area and		
			Levin itself (by means of the central spine road and its linkage to Arapaepae		
			Road, and Liverpool St if this connection is eventually formed)		
Oppose concept of rear access lanes		•	the use of rear access lanes is necessary to avoid frequent crossings of the		
			strategic cycleways (which the submitter supports)		
		•	the submitter opposes rear access lanes largely on the basis of their perceived		
			physical form and the possibility of criminal activity – in this regard the detailed		
			design including the application of CPTED principles will be critical		
Strategic cycleway should align with		•	the northern cycleway does follow a Collector Road (between Waiopehu Reserve		
Collector road			and the O 2NL designation) – this would connect to Queen Street E		
Cycleways should be provided as part		•	agree that a contiguous cycleway network should be a high priority at the outset		
of the fixed roads to ensure they are			of development		
provided in a timely manner					
Cycleways – are short, without a		•	cycle movements are likely to be primary between parts of the development and		
circular route and not connected into			its central facilities, and to/from the existing Levin urban centre / schools. These		
the Levin cycleways			movements will be reasonably well serviced by the network proposed (and		
			noting that the use of roads by cyclists is not precluded)		

Issue Ra	aised By	Response (relevance to ITA)		
		 agree there is a need to co-ordinate with initiatives to ensure that contiguous facilities are provided within the existing urban area, but this is beyond the scope of PPC4 		
Street/road terminology used is inconsistent		 agree – terminology used should align between documents 		
Intersection of SH57 and extension of Liverpool Street – does a proposal exist for a roundabout at this location? Liverpool Street – oppose extension to provide access to Tara-Ika	HDRRA (#26) /Rangeview Villas	 while an extension of Liverpool Street would offer benefits, this is not essential and is not a part of the PPC4 proposal the form of connection to be provided between the Tara-Ika spine road and SH57 is currently being considered in liaison with WK-NZTA 		
Suggest changes to working of objectives and policies to better ensure provision for connectivity and public transport services	Horizons (#30)	agree with all of the proposed wording amendments		
Redwood Grove – roads shown on MP which extend over 42A, 42B, 43 and 43A Redwood Grove should be removed(#Oppose rule (15A.6.1.1) which prohibits access across strategic cyclewaysLe	/Redwood Grove #31) eith (#32) ruebridge (#33)	 it is understood that the reasoning for these roads was in case of further subdivision within the Redwood Grove area and to future-proof connectivity between Redwood Grove and Tara-Ika as noted on the Structure Plan, there is flexibility in the location of local roads (refer responses above) 		
Growth Projections – the adopted projections are significantly higher than those prepared by Stats NZ and based on premise that Wellington Northern Corridor completed including Q2NL	/WK-NZTA (#34)	 HDC is confident that the growth projections are soundly based, and that growth will be realised irrespective of the O2NL expressway 		

35

TABLE 7.1: RESPONSE TO TRANSPORTATION ISSUES RAISED BY SUBMISSIONS					
Issue	Raised By	Response (relevance to ITA)			
Connectivity across SH57 / Ō2NL – lack of detail provided, potential impacts on N-S movements. Reliance on Liverpool St needs to be explored further	. 	 while an extension of Liverpool Street would offer benefits, this is not essential and is not a part of the PPC4 proposal the form of connection to be provided between the Tara-Ika spine road and SH57 is currently being considered in liaison with WK-NZTA 			
Need for staged development with thresholds linked to infrastructure upgrades, to be reflected in discretion applied to subdivision	/WK-NZTA (#34)	• the matters of discretion applicable to subdivision in the residential zone will ensure that development cannot proceed ahead of the provision of the necessary infrastructure to support the associated demand			
Road hierarchy – request consistency with One Network Road Classification System	′WK-NZTA (#34)	• agree			
ITA – normally included with s32 assessment, to enable understanding of potential transportation impacts	/WK-NZTA (#34)	• this document provides the required ITA and assessment of potential transportation impacts			
Liverpool Street - support use for connecting development to existing township and encourage HDC to prioritise its development	/WK-NZTA (#34)	• as noted above, while the benefits of such a linkage are recognised, this does not form a part of PPC4			
Pohutakawa Drive – should include ped/cycle connections to Tara-Ika		• agree			
Concern with potential roundabout design		• any new or upgraded intersections are required to meet current design criteria and are subject to a rigorous safety audit process, ensuring their safety of use			
Standard & location of NW Collector road		 submitter considers that this road should be of a 'local' road standard, partly because of anticipated lower levels of traffic activity. but volumes using this road will be primarily a function of its alignment in providing a convenient route – the road standard will not significantly influence volumes. The 'Collector' road status would instead provide for a higher standard 			

36

TABLE 7.1: RESPONSE TO TRANSPORTATION ISSUES RAISED BY SUBMISSIONS

Issue	Raised By	Response (relevance to ITA)		
		of adjacent pedestrian and cycle facilities, which will be important for this connection to/from Queen Street East.		
		 Small changes to the positioning of this road would not materially affect its functionality or likely traffic volumes. 		

8 Conclusions & Recommendations

8.1 Conclusions

This assessment has reviewed the transportation aspects of PPC4 which would enable a higher density of residential development within the Tara-Ika area to the east of Levin.

The conclusions of this assessment are:

- the progression of the O
 2NL project is not an essential pre-requisite for development at Tara-Ika;
- even under an optimistic scenario, the O2NL project is unlikely to be open to traffic for several years following the commencement of development at Tara-Ika – accordingly, scenarios without the O2NL project in place are relevant to any consideration of the effects associated with PPC4;
- the traffic modelling which has formed the basis of the PPC4 traffic assessments appears to be robust and has been the subject of a separate peer review process;
- the additional traffic activity which would be associated with the higher density of development can be accommodated by the area road network without capacity problems at the intersections in the vicinity of Tara-Ika;
- the inclusion in the traffic model of development in areas which will be subject to separate and future plan change requests while not strictly correct, results in an overall 'worst case' assessment of capacity performance;
- similarly, the traffic modelling has assumed the upper level of potential residential development within Tara-Ika;
- the pattern of development enabled by PPC4 will be beneficial for the efficiency of the SH1 corridor through central Levin, irrespective of the construction of the O2NL project;
- the provision of a connection between the central spine road within Tara-Ika and Liverpool Street would offer significant transportation benefits but does not form part of the PPC4 proposal;
- the most likely form of a connection between the central spine road and SH57 / Arapaepae Road would be a roundabout, as this would provide for full connectivity (including a connection to Liverpool Street if this is eventually enabled), while being able to safely and efficiently accommodate expected traffic volumes;
- any such intersection would need to be part of a package of measures along this section of SH57 / Arapaepae Road to ensure the safety of all turning movements;

- the growth and future levels of traffic demand are subject to uncertainty associated with the general economic conditions, the timing of the O
 [¯]2NL project, the rate at which development proceeds and the formation of any connection to Liverpool Street; and
- in the context of such uncertainty, the requirement for all residential development to secure consent subject to demonstrating that the safety and/or efficiency of the transportation network would not be comprised represents an important safeguard.

Overall, it is considered that the modelling work undertaken together with the proposed PPC4 rules will avoid the possibility of adverse effects upon the operation of the transportation network associated with development enabled by PPC4.

8.2 Recommendations

A number of recommendations arise from this assessment:

- the potential benefits associated with a connection to Liverpool Street means that work should be undertaken (outside of PPC4) to determine the feasibility and issues associated with the formation of such a link;
- a package of measures associated with the formation of a roundabout at the spine road / Arapaepae Road intersection should be developed and agreed with WK-NZTA;
- consideration should be given to the inclusion of off-road cycle connections within the Tara-Ika area;
- cycling and pedestrian facilities within the eastern part of Levin and across Arapaepae Road / SH57 should be reviewed to ensure the provision of high-standard and contiguous routes between Tara-Ika and the town centre;
- the proposed road carriageway widths within Tara-Ika should be reviewed and the hierarchy adopted should be consistent with the One Network Road Classification System; and
- frequent intersections between local roads within the development and Arapaepae Road should be avoided in preference to access at fewer locations where safety can be controlled.



Appendix 12: Statement of Evidence – Traffic

BEFORE THE HOROWHENUA DISTRICT COUNCIL

In the Matter Of:	the Resource Management Act 1991	
And		
In the Matter Of:	Proposed Plan Change 4 – Tara-Ika Growth Area	

STATEMENT OF EVIDENCE

Evidence of:	TIM KELLY, Director Tim Kelly Transportation Planning Ltd
Subject Area:	Transportation Issues
On Behalf of:	Applicant (Horowhenua District Council)
Date:	November 2021

INTRODUCTION

- 1 My name is Tim Kelly. I am a director of my own traffic engineering and transportation planning practice.
- 2 I have worked in the traffic engineering and transportation planning field since 1983. I hold a Bachelor of Arts degree in Geography, and a Master of Science degree in Traffic Engineering and Transportation Planning, both from the University of Sheffield in the United Kingdom.
- 3 I am a full Member of the Chartered Institute of Logistics and Transport, and the IPENZ Transportation Group (a Technical Interest Group of IPENZ).
- 4 My career to date has been spent in the consultancy sector of transportation, in both the United Kingdom and New Zealand. During my career, I have provided policy advice regarding traffic and transportation matters, and I have undertaken assessments for a wide variety of development proposals across New Zealand.
- 5 This experience includes work on a variety of projects in the southern part of the North Island.

CODE OF CONDUCT STATEMENT

6 While this is not an Environment Court hearing, I nonetheless confirm that I have read the Code of Conduct for Expert Witnesses issued as part of the Environment Court Practice Notes. I agree to comply with the Code and am satisfied that the matters which I address in my evidence are within my field of expertise. I am not aware of any material facts that I have omitted which might alter or detract from the opinions I express in my evidence. I understand that I have an overriding duty to assist the hearing in an impartial manner and that I am not an advocate for the party which has engaged me.

INVOLVEMENT

- 7 I was approached by the Horowhenua District Council (HDC) in March 2021 to initially review the transportation issues associated with the development that would be enabled by Proposed Plan Change 4 (PPC4) and then subsequently to prepare an Integrated Transportation Assessment (ITA), dated September 2021 This was commissioned after the plan change was notified and so did not form part of the PPC4 application material. This document is reproduced as Attachment 1 to this evidence.
- 8 My engagement with HDC has involved:
 - a review of the relevant background material (proposed plan change, traffic model documentation, traffic counts, submissions, etc);
 - a (physical) meeting with HDC officers to discuss and review the relevant issues;
 - site visits to observe and record conditions directly;
 - numerous (on-line) meetings with HDC officers, Waka Kotahi (WK) personnel and others; and
 - the preparation of the ITA document.
- 9 Since this time, I have reviewed the s42A report prepared by the planning officer for HDC.Finally, I have prepared this statement of evidence.

KEY TRANSPORTATION ISSUES

10 I do not intend to repeat the content of my September 2021 report. The overall conclusion of the ITA is that the proposed controls which form part of PPC4 will avoid the possibility of adverse effects upon the operation of the transportation network associated

with the pattern of development which is anticipated to occur. However, the ITA identified and addressed a number of relevant issues, which I summarise below.

Liverpool Street Extension

- 11 The Masterplan and Structure Plan identify a central spine road within the development running NW-SE and connecting to State Highway 57 (**SH57**) / Arapaepae Road.
- 12 The Liverpool Street Extension (**LSE**), if constructed, would connect the existing Liverpool Street to the west with SH57/Arapaepae Road and the central spine road.
- 13 The LSE is not currently proposed and does not form a part of the PPC4 / Tara-Ika proposal.
- 14 Nonetheless, the LSE would, by providing a more direct connection between the development area and the existing Levin urban area, offer significant transportation benefits.
- 15 While the LSE would be beneficial, development of the Tara-Ika area is not dependent upon this connectivity. The consequence of not providing the LSE would be less direct travel with greater use of Queen Street East and Tararua Road – but there is no indication that these corridors or intersections would be unable to accommodate this demand.
- In my view, the central spine road / Arapaepae Road connection should be in the form of a roundabout, as this would allow full connectivity to be provided while also offering flexibility to connect to a possible future LSE (subject to the necessary approvals). Such a solution would, without an extension of Liverpool Street, need to be considered as part of a wider package of measures to ensure the safety and efficiency of Arapaepae Road. These issues should be addressed as part of the assessments required to secure consent, when better information is likely to be available regarding the progression / timing of the Ōtaki to North of Levin (**Ō2NL**) project and the proposed treatment of the Arapaepae Road corridor.

Growth & Effects on the SH1 Corridor

17 The needs for PPC4 and development in the Tara-Ika area arises from significant growth pressure across the district. HDC considers that this growth will occur, irrespective of the specific Tara-Ika proposal. This means that if PPC4 was not to become operative, higher

rates of growth would occur at other locations within the district.

- 18 These other locations would be better served by the existing State Highway 1 (SH1) corridor. Consequently, development enabled by PPC4 would have the beneficial effect of reducing future traffic demands along the existing SH1 corridor through central Levin, relative to a scenario in which the development occurred closer to this corridor. This is described at Section 6.5 and Figure 6.5 of the ITA.
- 19 WK considers that a realisation of the growth projections is reliant upon the improvements in accessibility attributable to the $\bar{O}2NL$ project and other expressway projects to the north of Wellington. HDC is confident that the growth projections will be realised irrespective of the $\bar{O}2NL$ project but that (as I have just described) the distribution of the growth would be likely to be different. I address this matter further in response to the issues raised by submissions.

Reliance upon the O2NL project

- 20 The Ō2NL project provides immediate accessibility to the strategic road network for the development. With the PPC4 process proceeding ahead of the designation process for O2NL, it is likely that some development will proceed in advance of O2NL. Although the current indications from Government are that the O2NL project is to be advanced, the programme for the project inevitably remains subject to future funding and political decisions.
- 21 For these reasons, assessments have addressed the possibility of the development enabled by PPC4 proceeding without Ō2NL in place. These indicate that, even for this 'worst case' scenario, the road network would be able to accommodate the increased traffic activity.

Need for Development Thresholds

- 22 It is important that development does not precede the ability of the adjoining transportation infrastructure to accommodate the associated increases in demand.
- 23 All residential development enabled by PPC4 will have restricted discretionary activity status. The associated matters of discretion require a consideration of the transportation impacts of the development, ensuring that any potential safety or capacity issues are addressed. With development expected to occur in blocks, this 'backstop' will ensure that

the extent of cumulative development does not precede the availability of appropriate infrastructure. For this reason, no specific thresholds are required to be identified.

Cycling and Walking Connectivity

- 24 The promotion of alternative modes of transportation to the private car is an integral part of the development proposals. In particular, the distance to/from the established urban centre of Levin means that cycling is a viable alternative to the private car (especially with the increasing uptake of e-bikes). In my view, any new development area should maximise the promotion of walking and cycling and the PPC4 proposals achieve this with a high level of connectivity both within the development and beyond.
- 25 The perceived safety environment for cycling is a significant factor in cycling uptake. In this respect, I support the proposed rule which would prevent the formation of driveways across strategic cycleways.

RESPONSE TO SUBMISSIONS

- 26 I have reviewed all of the submissions made in response to PPC4. In doing so, I am aware that these submissions were made without the benefit of the ITA document.
- 27 I have addressed issues raised by the submissions at Section 7 of the ITA.
- 28 I have provided some further explanation below with regard to my response to the issues raised by the WK submission.

Growth & Dependence upon 02NL

- 29 WK observes that the Council's adopted growth projections are significantly higher than those prepared by Statistics New Zealand (**SNZ**) and are based on a premise that the Wellington Northern Corridor will be completed, including the O
 2NL project.
- 30 There is no doubt that major roading projects result in significant improvements in accessibility which, in turn, translates into additional development pressure and transportation demand.
- 31 The growth projections which underlie the transportation modelling were prepared by Sense Partners (**SP**) for HDC (documented in a report dated June 2020 forming Appendix 10 to the s32 report). The SP analysis recognises that improved roading contributes to the recent and forecast growth. It also notes that, while fertility / mortality assumptions are

similar to those adopted by SNZ, the main factors behind the higher growth forecasts relate to international migration and rates of domestic migration into Horowhenua.

- 32 Given this, it appears that growth is primarily driven by these factors and the roading projects to the south which are already complete or due to open in the near future. In this context, the more specific impacts of the $\overline{O}2NL$ project are likely to relate to the distribution, rather than the overall quantum of growth across the district.
- 33 In my view, this issue is rather academic, since there is now a reasonably high level of certainty that the $\bar{O}2NL$ project will proceed and the analysis has indicated that the traffic activity associated with development at Tara-Ika can be accommodated by the road network even without the $\bar{O}2NL$ project.

Reliance on Liverpool Street and Support Use of Liverpool Street

- 34 I have discussed issues associated with the LSE above.
- 35 WK has encouraged HDC to prioritise the development of the LSE. While this is being done, it is emphasised that the LSE does not form a part of the PPC4 proposals, and PPC4 is not reliant upon the LSE to avoid adverse effects upon the transportation network.

Need for Staged Development with Development Thresholds

- 36 As I have described above, it is agreed that development needs to be integrated with infrastructure provision.
- 37 In my view, the provisions of PPC4 which are proposed provide sufficient safeguards to ensure that the effects of each stage of development are taken into account during the consent process.

Need for an ITA to Understand Potential Transportation Impacts

- 38 It is unfortunate that an ITA was not available as part of the PPC4 application documentation.
- 39 The process of preparing the September 2021 ITA has involved extensive liaison with WK officers, ensuring that its concerns have been acknowledged and addressed.

REPORT OF THE PLANNING OFFICER

40 I have reviewed the report of the HDC planning officer, Lauren Baddock, dated October

2021.

- 41 The overall recommendation of this report is that the plan change be accepted, subject to a number of amendments.
- 42 I agree with the analysis of the planning officer, the responses to issues raised in submissions and the suggested amendments.

CLOSURE

- In my view, the extensive modelling work which has been undertaken demonstrates that the development enabled by PPC4 can be accommodated by the transportation network, even for an unlikely scenario in which the O2NL project was significantly delayed or did not proceed at all.
- 44 Provided that the central spine road is only connected to SH57 / Arapaepae Road in the form of a roundabout and with consideration of the wider safety environment within this corridor, there is no reason why the safety of the SH57 / Arapaepae Road route would be compromised by the effects of development.
- 45 Liaison with WK has ensured that the concerns identified in its submission have been addressed and that the development can take place without adverse effects upon the operation of the state highway or local road networks which are any more than minor.
- 46 On the basis of the transportation issues which I have addressed, I recommend that PPC4 be approved.

Tim Kelly November 2021

ATTACHMENT 1

Horowhenua District Plan, Proposed Plan Change 4, Tara-Ika: Integrated Transportation Assessment.

Tim Kelly Transportation Planning Ltd., September 2021.



Appendix 13: Cultural Impact Assessment

Muaūpoko Cultural Impact Assessment-Proposed plan change 4 Tara-Ika Growth Area

FOR MUAŪPOKO TRIBAL AUTHORITY OCTOBER 2021



www.kahuenvironmental.co.nz Martinborough | Taupō | Christchurch

Contents

1 INTRODUCTION	3
2 PROJECT DESCRIPTION	3
<u>3</u> METHODOLOGY	3
3.1 DETERMINING THE BASELINE	4
3.2 CULTURAL VALUES	4
3.3 MAGNITUDE OF EFFECTS	5
3.4 LEVEL OF EFFECTS	6
3.5 STATUTORY CONSIDERATIONS	7
3.5.1 RESOURCE MANAGEMENT ACT 1991	/
3.5.2 NATIONAL POLICY STATEMENT FOR FRESHWATER MANAGEMEN	VI ZUZU 8
3.5.7 HODIZONS ONE PLAN: TE $\Delta \cap M$ AND DEVELOPMENT 202	.0 9
3.5.5 HORIZONS ONE PLAN: BIODIVERSITY	10
3.5.6 HOROWHENUA DISTRICT PLAN	12
4 STATE OF THE CULTURAL ENVIRONMENT	13
4.1 ΤΑΝGΑΤΑ ΨΗΕΝΙΙΑ: ΜΙΙΑŪΡΟΚΟ	13
4.2 PUNAHAU LAKE HOROWHENUA	15
4.3 PARTNERSHIP	13
4.4 WĀHI TAPU AND TARA-ĪKA	17
4.4.1 ARAPAEPAE	17
4.4.2 WAIOPEHU RESERVE	18
4.4.3 TE AWA A TE TAU	18
4.4.4 MAUNU WAHINE	19
4.4.5 WAI MAIRE	19
4.4.6 WAI HAU, PUKE TAWAI, OTAHINGA	20
4.4.7 KAI WA KIEKIE	21
4.4.8 IAONGA	21
5 MUAŪPOKO VALUES	22
6 EFFECTS ASSESSMENT	25
	~ =
6.2 OPERATIONAL EFFECTS	25 28
7 CONCLUSIONS AND RECOMMENDATIONS	31

1 Introduction

This report has been prepared by Kāhu Environmental for Muaūpoko Tribal Authority Incorporated (MTA). Kāhu Environmental is a team of planning, environmental and kaupapa taiao specialists. MTA is recognised as the mandated iwi organisation for Muaūpoko. The purpose of the report is to advise Horowhenua District Council (HDC) of the impacts the proposed Plan Change 4: Tara-Ika Growth Area (the growth area) will have on Muaūpoko values detailed in the Tara Ika Cultural Values Assessment and Muaūpoko Tribal Authority submission, and make recommendations to avoid and minimise effects on cultural values. The report should be considered as a point in time, based on available information. Muaūpoko will need to work closely with council and consent applicants throughout development and in an on-going manner to ensure their values are protected in line with Muaūpoko tikanga.

2 Project Description

Horowhenua District Council (HDC) has identified an area of approximately 470 hectares east of Levin (Taitoko) as an urban growth area (Figure 1). The proposed Plan Change 4: Tara-Ika Growth Area (proposed Plan Change) provides for over 3500 new dwellings and is an important component of council strategy to meet the demands of the rapidly growing population within the Horowhenua over the next 10 years and beyond.

The area is called Tara-Ika. Muaūpoko have a very strong cultural and spiritual connection to Tara Ika and gifted the proposed Plan Change its name.

The locations of key roads, pedestrian and cycleway connections, public reserves and open space, and a new village centre have been designated by a Master Plan. In addition to this, the objectives and policies sets out guidance on housing typology, property sizes, stormwater management approaches, street and commercial design. A key outcome of the proposed Plan Change process is to ensure new development is well designed and connected, develops in a coordinated manner, provides appropriate infrastructure services, and protects local amenity and the natural and cultural environment from adverse effects.

3 Methodology

Effects assessments are step-wise processes that provide robust and transparent reccomendations on how development should avoid, mitigate and manage adverse effects on various aspects of the environment, including the cultural environment.

MTA have compiled an expert team of cultural advisors to oversee the development of this comprehensive Cultural Impact Assessment (CIA). They have contributed to the following discussion:

- a. The identification of the baseline state of the environment, cultural values and their relative importance
- b. The cultural and spiritual impacts of the proposed Plan Change including the magnitude and overall level of effects
- c. The development of recommendations on how to manage any adverse effects on cultural values to an acceptable level, and
- d. How the development of the area should occur to meet the values and aspirations of Muaūpoko for urban development.

The assessment is limited to the effects of the proposed Plan Change on Muaūpoko values contained within the Muaūpoko Cultural Values Assessment¹ and MTA Submission 35. Further information is drawn from a range of sources that describe and reference the state of the cultural environment. It is assumed that the Master Plan and associated plans accurately depict the project intent and scale. The assessment does not cover the effects related to individual lot development on Muaūpoko values, which will require further assessment during subsequent consent phases.

3.1 Determining the Baseline

The existing state of the cultural environment is important in order to gauge the effects of the proposed Plan Change. Muaūpoko connection to their lands, waterways, sites and taonga has not diminished with the passing of time or succession of generations. Muaūpoko values often still exist, even when deforestation, drainage and stopbanks have removed all physical trace of what was once there. The existing state of the cultural environment has been determined by the following:

- a. A literature study (sources identifed in footnotes);
- b. Communications with the MTA cultural advisory team; and
- c. A series of site visits to Waiopehu Reserve, bush remnants adjacent to Arapaepae Road and Queen Street, and along all key outer roads.

3.2 Cultural Values

The key cultural values to assess against the proposed Plan Change have been drawn from the Muaūpoko Cultural Values Assessment and MTA Submission 35. A Cultural Values Assessment Framework (the Framework) and set of attributes were developed to rank the relative importance of each of the values described. The Framework assigns a five-scale classification to each criteria: Very High, High, Moderate, Low and Negligible.

¹ Muaūpoko Tribal Authority (2020). Muaūpoko Cultural Values Assessment: Gladstone Green area.

Framework Values	Attributes				
Muaūpoko	1. Connection to atua and the wider environment				
worldview	2. Muaūpoko whakapapa				
	3. Relationships with Muaūpoko mātauranga				
Kaitiakitanga	4. The mauri of the area				
	5. Relationships with taonga species and habitats. Consideration of lifecycles, daily				
	or seasonal availability of habitat and utilisation				
	6. Ngā wai ora				
	7. Manaakitanga: Muaūpoko priorities for protection				
Rangatiratanga	8. Relationship with traditional lands, sites and villages				
	9. Relationship with significant rivers, streams, springs, wetlands and lakes				
	10. Importance of site history and key events				
	11. Relationship with culture, customs and behaviours				
Whare Tapa Wha	12. Taha Tinana (physical health): access to Muaūpoko turangawaewae and				
	traditional resources				
	13. Taha Wairua (spiritual health): connection with the spiritual relam and wairua				
	14. Taha Whānau (family health): Housing affordability and diversity for whānau				
	15. Taha Hinengaro (mental health): importance to Muaūpoko identity				

Table 1: Cultural Values Assessment Framework.

3.3 Magnitude Of Effects

The next step is to determine the magnitude of cultural effects of activities (including construction and on-going operation) resulting from the proposed Plan Change, both in:

- The absence of any effects management actions, and
- After any effects management actions have been applied.

The assessment applies a 6-scale classification (in Table 2) to the magnitude of effects on Muaūpoko values associated with the proposed Plan Change area.

Magnitude is a measure of change/alteration from the existing baseline state. Assessing the magnitude of effects takes into account:

- a. The level of confidence that effects will occur in the way anticipated
- b. The spatial scale/extent of the effect
- c. The duration of the effect (temporary versus permanence described)
- d. Whether the potential effect is reversible, and
- e. The timing of the effect in relation to environmental cycles and patterns.

Table 2: Magnitude classification system description.

Magnitude	Description
Very high	Total loss of, or very major alteration to, key elements/features/ of the existing baseline conditions,
	such that the post-development character, composition and/or attributes will be fundamentally
	changed and may be lost from the site altogether; AND/OR

	Loss of a very high proportion of the known value or range of the element/feature.
High	Major loss or major alteration to key elements/features of the existing baseline conditions such that the post-development character, composition and/or attributes will be fundamentally changed; AND/OR Loss of a high proportion of the known values or range of the element/feature.
Moderate	Loss or alteration to one or more key elements/features of the existing baseline conditions, such that the post-development character, composition and/or attributes will be partially changed; AND/OR Loss of a moderate proportion of the known values or range of the element/feature
Low	Minor shift away from existing baseline conditions. Change arising from the loss/alteration will be discernible, but underlying character, composition and/or attributes of the existing baseline condition will be similar to pre-development circumstances or patterns; AND/OR Having a minor effect on the known value or range of the element/feature
Negligible	Very slight change from the existing baseline condition. Change barely distinguishable, approximating to the 'no change' situation; AND/OR Having negligible effect on the known value or range of the element/feature.
Positive	Enhancement above baseline condition. Change is beneficial to values and attributes AND/OR promoting the value or range of the element/feature.

3.4 Level of Effects

To determine the overall level of effects based on the cultural value and magnitude of effects, a matrix approach shown in Table 3 is applied. This matrix describes the overall level of effects on a 6-point scale, including Net Gain, Very Low, Low, Moderate, High, and Very High. Where the effects cannot be reduced to an acceptable level, further avoidance, remedying, or mitigation maybe required on site. If that is not possible or practical, offsetting or compensation can be applied elsewhere.

The level of effects are then applied in a Resource Management Act 1991 (RMA) context:

- a. Net Gain: Positive effects.
- b. **Very Low:** Adverse effects that are discernible day-to-day effects, but too small to adversely affect other persons.
- c. Low: Adverse effects that are noticeable but will not cause any significant adverse impacts.
- d. **Moderate:** Adverse effects that are noticeable that may cause an adverse impact but could be potentially mitigated or remedied.
- e. **High:** An effect that is noticeable and will have a serious adverse impact on the environment but could potentially be mitigated or remedied.
- f. Very High: Extensive adverse effects that cannot be avoided, remedied or mitigated.

		Cultural Value					
		Very high	High	Moderate	Low	Negligible	
Magnitude	Very high	Very high	Very high	High	Moderate	Low	
	High	Very high	Very high	Moderate	Low	Very low	
	Moderate	High	High	Moderate	Low	Very low	
	Low	Moderate	Low	Low	Very low	Very low	
	Negligible	Low	Very low	Very low	Very low	Very low	
	Positive	Net gain	Net gain	Net gain	Net gain	Net gain	

Table 3: Level of Effects Matrix.

3.5 Statutory Considerations

3.5.1 Resource Management Act 1991

Section 6 Matters of national importance

In achieving the purpose of the Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (c) the protectoin of areas of significant indigenous vegetation and significant habitats of indigenous fauna
- (e) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga.

Section 7 Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to:

- (a) kaitiakitanga
- (d) the intrinsic values of ecosystems.
- (f) maintenance and enhancement of the quality of the environment

Kaitiakitanga is defined in section 2 means "the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship.

Section 8 Treaty of Waitangi

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Tiriti o Waitangi principles include the principles of partnership, participation and protection. These underpin the relationship between the Crown and Māori and are derived from the underlying Treaty tenets. Of particular relevance is Article 2 of the Te Tiriti o Waitangi, which states:

"Her Majesty the Queen of England confirms and guarantees to the Chiefs and Tribes of New Zealand and to the respective families and individuals thereof the full exclusive and <u>undisturbed possession of their Lands and Estates</u>, Forests, Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession; but the Chiefs of the United Tribes and the individual Chiefs yield to Her Majesty the exclusive right of Pre-emption over such lands as the proprietors thereof may be disposed to alienate at such prices as may be agreed upon between the respective Proprietors and persons appointed by Her Majesty to treat with them in that behalf".

3.5.2 National Policy Statement for Freshwater Management 2020

The National Policy for Freshwater Management 2020 (NPSFM 2020) requires a completely different approach for freshwater management. Te Mana o te Wai is now the fundamental concept for all freshwater decision-making, and councils **must give effect** to it. Councils must also **actively involve** tangata whenua in all freshwater management, including decision-making.²

Te Mana o te Wai encompasses 6 key principles relating to the role of tangata whenua that include:

- (a) Mana Whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater
- (b) Kaitiakitanga: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations
- (c) Manaakitanga: the process by which tangata whenua show respect, generosity, and care for freshwater and for others
- (d) Governance: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future
- (e) Stewardship: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations, and
- (f) Care and respect: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

Te Mana o te Wai also has a hierarchy of obligations that prioritises:

- (a) First, the health and well-being of water bodies and freshwater ecosystems
- (b) Second, the health needs of people (such as drinking water)
- (c) Third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Other significant provisions are set out below:

² See Policy 2.

Policy 2 states that tangata whenua must be actively involved in freshwater management (including decision-making processes), and Māori freshwater values must be identified and provided for.

Policy 3 states that freshwater must be managed in an **integrated way** that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Clause 3.4 of the NPSFM states that every local authority must actively involve tangata whenua (to the extent they wish to be involved) in freshwater management (including decision-making processes), including in all the following:

- (a) identifying the local approach to giving to Te Mana o te Wai
- (b) making or changing regional policy statements and regional and district plans so far as they relate to freshwater
- (c) implementing the NOF
- (d) developing and implementing matauranga Maori and other monitoring.

Clause 3.5 addresses integrated management which requires adopting an integrated approach, ki uta ki tai, as required by Te Mana o te Wai, which requires that local authorities must:

- (a) recognise the interconnectedness of the whole environment, from the mountains and lakes, down the rivers to hāpua (lagoons), wahapū (estuaries) and to the sea, and
- (b) recognise interactions between freshwater, land, water bodies, ecosystems, and receiving environments, and
- (c) manage freshwater, and land use and development, in catchments in an integrated and sustainable way to avoid, remedy, or mitigate adverse effects, including cumulative effects, on the health and well-being of water bodies, freshwater ecosystems, and receiving environments, and
- (d) encourage co-ordination and sequencing of regional or urban growth.

3.5.3 National Policy Statement for Urban Development 2020

Objective 5 of the National Policy Statement on Urban Development 2020 (NPS-UD) states that planning decisions relating to urban environments, must take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Policy 9 of the NPS-UD says that local authorities, in taking account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) in relation to urban environments must:

(a) involve hapū and iwi in the preparation of RMA planning documents and any FDSs by undertaking effective consultation that is early, meaningful and, as far as practicable, in accordance with tikanga Māori, and

- (b) when preparing RMA planning documents and FDSs, take into account the values and aspirations of hapū and iwi for urban development, and
- (c) provide opportunities in appropriate circumstances for Māori involvement in decisionmaking on resource consents, designations, heritage orders, and water conservation orders, including in relation to sites of significance to Māori and issues of cultural significance, and
- (d) operate in a way that is consistent with iwi participation legislation.

3.5.4 Horizons One Plan: Te Ao Māori

Horizons Regional Council have yet to undertake Plan Change 3 to give effects to the NPSFM 2020.

Of note is Objective 2-1 of the Horizons One Plan, which states that for Te Ao Māori to be in place councils must:

- (a) have regard to the mauri of natural and physical resources to enable hapū and iwi to provide for their social, economic and cultural well-being,
- (b) kaitiakitanga must be given particular regard and the relationship of hapū and iwi with their ancestral lands, water, sites, wāhi tapu and other taonga (including wāhi tupuna) must be recognised and provided through resource management processes.

Policy 2-1 of the One Plan states that:

- (a) there will be involvement of hapū and iwi in resource consent, decision-making and planning processes in agreed ways.
- (b) the regional council will advise and encourage resource consent applicants to consult directly with hapū and iwi where it is necessary to identify:
 - a. the relationship of Māori and their cultural and traditional and their ancestral lands, water, sites, wāhi tappu, and other taonga (including wāhi tupuna), and
 - b. the actual and potential adverse effects of proposed activities on these relationships.

Policy 2-2 states that wāhi tapu, wāhi tupuna and other sites of significance to Māori are identified in the Regional Coastal Plan and <u>District Plans, and</u>

- (a) must be protected from inappropriate subdivision, use or development that would cause adverse effects on the qualities and features which contribute to the values of these sites, and
- (b) that the regional council must ensure that resource users and contractors have clear procedures in the event that wāhi tapu and wāhi tupuna are discovered.

3.5.5 Horizons One Plan: Biodiversity

Objective 6-1 of the Horizons One Plan for Indigenous Biological Diversity is to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna and maintain indigenous biological diversity, including enhancement where appropriate.

Policy 6-1 describes Responsibilities for maintaining indigenous biological diversity. In accordance with s62(1)(i) RMA, local authority responsibilities for controlling land use activities for the purpose of managing indigenous biological diversity in the Region are appointed as follows:

- (a) The Regional Council must be responsible for:
 - i. developing objectives, policies and methods for the purpose of establishing a Region-wide approach for maintaining indigenous biological diversity, including enhancement where appropriate
 - ii. developing rules controlling the use of land to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna and to maintain indigenous biological diversity, including enhancement where appropriate.
- (b) <u>Territorial Authorities must be responsible for:</u> retaining schedules of notable trees and amenity trees in their district plans or such other measures as they see fit for the purpose of recognising amenity, intrinsic and <u>cultural values</u> associated with indigenous biological diversity, but not for the purpose of protecting significant indigenous vegetation and significant habitats of indigenous fauna as described in (a)(ii) above.
- (c) Both the Regional Council and Territorial Authorities must be responsible for: recognising and providing for matters of national importance (s6c) and having particular regard to other matters identified in s7d when exercising functions and powers under the RMA, outside the specific responsibilities allocated above, including when making decisions on resource consent applications.

Policy 6-2 states that:

- (a) rare and threatened habitats under Schedule F must be recognised as significant indigenous vegetation or significant habitats of indigenous fauna, and
- (b) at-risk habitats that are assessed as significant under Policy 13-5 must be recognised as significant indigenous vegetation or significant habitats or indigenous fauna,

(c) the regional council must protect these habitats by the regulation of activities and through decisions on resource consents.

Policy 13-5 provides criteria for assessing the significance of habitats, including rare, threatened, or at-risk habitats defined in Schedule F of the One Plan, and provides additional criteria that may also trigger a habitat being assessed as significant, including:

- (a) representativeness
- (b) the presence of threatened species, or species at their distributional limits
- (c) ecological connectivity and/or buffering
- (d) ecological sequences.

Habitat types in the Manawatū-Wanganui Region are identified and then assigned the following status categories developed by Mayseyk (2007):

- (a) Rare: habitat types that were originally (pre-human) uncommon in the landscape and remain so.
- (b) Threatened: habitat types that have been reduced to 20% or less of former extent.
- (c) At risk: habitat types that have been reduced to 50% or less of former extent.
- (d) No threat category: habitat where 50% or greater of former extent remains.
- (e) Schedule F of the Horizons One Plan details indigenous biological diversity types subject to protection within the Plan.

Schedule F1 of the Horizons One Plan also identifies habitat types that are classified as rare or threatened.

Table F2 provides a list of further criteria (for example, size thresholds) that must be met before an area of any habitat type described in Table F1 qualifies as a rare, threatened or at-risk habitat for the purposes of the Plan.

3.5.6 Horowhenua District Plan

Indigenous Biological Diversity

Objective 3.2.1: To protect the areas of significant indigenous vegetation and significant habitats of indigenous fauna.

Policy 3.2.2: Manage the effects of subdivision, use and development to avoid, remedy or mitigate the adverse effects on areas of significant indigenous vegetation and significant habitats of indigenous fauna and the intrinsic values of ecosystems.

Policy 3.2.3 Encourage subdivision, land use and development that maintains and enhances indigenous biological diversity through the protection and enhancement of areas of significant indigenous vegetation and significant habitats of indigenous fauna.

12

Rivers, Lakes and other waterbodies

Policy 3.3.3: Manage the design, location and scale of subdivision and/or land development and use adjoining lakes, rivers, wetlands and <u>other water bodies so they retain their special values</u> and natural character.

Policy 3.3.4 Ensure subdivision, use and development protects the natural character of lakes, rivers, wetlands and other water bodies and maintain and enhance their special values by having regard to the following matters in assessing proposals:

Policy 3.3.8 Promote a strategic approach to the management of lakes, rivers, wetlands and other water bodies and their margins and catchments, particularly by using management plans for areas with significant environmental issues that require a collaborative approach with other groups or organisations.

Methods for Issue 3.3 and Objective 3.3.1

The use of collaboration, management plans or other approaches for achieving a strategic and coordinated approach to resolving significant environmental issues.

4 State of the Cultural Environment

4.1 Tangata Whenua: Muaūpoko

Muaūpoko rohe (tribal area) once stretched from the northern South Island to the Rangitikei River, however most of the people are now concentrated within the Horowhenua region. The area between Punahau, Lake Horowhenua and the Tararua Ranges, within which Tara-Ika is located, has never been occupied by any tribe other than Muaūpoko and the ancient people who preceded them.

The 52,000-acre Horowhenua block that includes Punahau, Lake Horowhenua would later become the Taitoko township through Native Land Court processes in 1873. This block was and still is today, Muaūpoko heartland. The proposed growth area is located on what became the 11,130-acre Horowhenua No. 3 block.

The Horowhenua No. 3 block was subdivided in 1890. The Māori owners attempted to protect the land from alienation through the Native Land Court, but the restrictions put in place were removed and (according to the Waitangi Tribunal) proved to be 'a worthless form of protection'. By 1900 only 4,246 acres remained in Muaūpoko ownership, and this balance was further eroded over the next few decades. Irrespective of legal ownership, Muaūpoko have maintained strong cultural, traditional and spiritual associations with all of their Horowhenua lands.

The concept of tangata whenua is key to understanding the environmental management philosophies of Māori. Tangata whenua as defined by the RMA is the customary authority exercised by an iwi or hapū in an identified area. It is the authority to control and manage a traditional area or resource in relation to prescribed customary, cultural and spiritual practices.
The authority is obtained through the relationship of the people and their ancestral connection to the land. Muaūpoko have maintained their position as tangata whenua within the Horowhenua block for over 1000 years and within the No. 3 block there are no overlapping interests from any other iwi or hapū.³⁴



Figure 1: Subdivision of the Horowhenua Block in 1873

³ Louis Chase (2015). *Muaūpoko Oral Evidnece and Traditional History Report.* WAI 2200 Porirua ki Manawatū District Inquiry. Commissioned by the Waitangi Tribunal: New Zealand.

⁴ D.A., Armstrong (2021). *Muaūpoko Origins, Rohe, Customary Interests and Sites of Significance*. History Works: New Zealand.

4.2 Punahau, Lake Horowhenua

Lake Horowhenua was traditionally known to Muaūpoko as Punahau (or Waipunahau), loosely translated as 'the spring of vitality". The name highlights the abundant life supporting capacity of the lake. Punahau was shrouded with dense forest of pukatea, kahikatea, and rata on the lake margin; huge wetland areas with a plentiful supply of kākahi (freshwater mussels), īnanga (whitebait), pātiki (flounder) and tuna (eels). Native birds such as the kererū were found in their thousands⁵. These species were the main staple diet for Muaūpoko. From the lake inland to the Tararua Range stood rangatira of nikau, tōtara, karaka, mātai, and rimu which provided food, shelter and other necessities for survival.

Drawing on historical records and interviewees' living memories, Forbes describes the past 150 years of changes to the lake and wider environment as 'rapid and overwhelming'. Those of the latter recounted vibrant stories of teeming fish stocks and stunning natural scenery now tinged with pain, sadness and loss because of these rapid changes. Many of those Muaūpoko spoke of their roles as kaitiaki of the land, rivers and streams, lakes and the coastline⁶. Adkin provided some useful commentaries, much of which is recounted from McDonald, noting how the heavily forested hinterland was replaced by railway and roads, as was the forested inner plain and foothills with farms. The destruction of the forest cover altered river courses and wetland functions, which were once able to control heavy rainfall discharges from the mountains. Floodwaters became swift and destructive, eroding the rich alluvial flatlands.⁷

Horowhenua means landslide in te reo Māori and is now the name used for Punahau. "Horowhenua" traditionally being used by Māori to describe the gravel fan that starts in the Tararua Ranges and culminates at the lake. Muaūpoko understand through their mātauranga that Horowhenua linked the Tararua ranges with Punahau, that the gravels contain the headwaters of Punahau, and the land upon which Tara-Ika sits is interconnected with the lake.

The gravel fan is referred to as Q2a gravels and is depicted in Figure 3. The gravels are highly porous and absorb the majority of rainwater within the landscape. It is only in particularly heavy rainfall events that surface-runoff channels form. As a result, groundwater levels are highly dynamic across the landscape and freshwater springs, known as puna, are common. There is only one permanent stream within the Tara-Ika landscape which is located in the northeast portion and is a tributary of the Koputaroa Stream.

⁵ O'Donnell, E, with McDonald J, Te Hekenga, p.25.

⁶ Forbes, S. (1996). Te Waipunahau – Archaeological Survey, (Prepared for the Horowhenua Lake Trustees).

⁷ Adkin, Horowhenua, pp.5-6.



Horowhenua 3D Geologic Model (GNS 2010)

*Figure 2: depicts the groundwater aquifer inland from the lake are fed from the Tararua Ranges and support Horowhenua Lake*⁸

Although direct sewage discharge to Punahau ceased in 1987, today large amounts of nutrients, sediment and urban stormwater contamination from the Taitoko township continues, giving it a monitored ranking of 7/112 of the worst lakes in New Zealand⁹. The lake in the summer period is regularly closed due to the presence of cyanobacteria, caused by introduced nutrients and sediment adding to accumulated discharge elements already present.

Pollution and destruction of forest cover has not only affected the landscape and wai (water) but also the people. When reminiscing about traditional mahinga kai from the land, lakes and streams, Muaūpoko are clear that the current degradation is due to the township development, forest clearance and agricultural and primary industry land use. Many Muaūpoko speak about how their spiritual connection and their ability to sustain themselves physically from the whenua, lakes and streams has suffered immensely since European colonisation. As with anything rare or threatened it is even more highly valued as a result.

⁸ Lake Horowhenua and Hokio Stream Catchment Management Strategy, Manawatu-Wanganui Regional Council, 1998.p.9.

⁹ He Hokioi Rerenga Tahi, The Lake Horowhenua Accord Action Plan 2014-2016,' (An accord between Lake Horowhenua Trust; Horowhenua Lake Domain Board; Horowhenua District Council; Horizons Regional Council; and, Department of Conservation).

4.3 Partnership

One of the reasons for the Horowhenua block subdivision was the desire by Muaūpoko to establish a European-style township on the eastern shores of the lake. The township was to be built on a proposed railway route and would, in Muaūpoko estimation, provide a range of significant economic and social benefits, including a market for their agricultural and horticultural produce, and a substantial increase in the value of their surrounding lands. The township would also provide sought-after educational opportunities for Muaūpoko children and youth. An agreement was drawn up to provide for these aspirations which the Crown subsequently failed to honour¹⁰.

The township was not only set to secure Muaūpoko economic well-being, but also reflected the tribe's vision of a prosperous bicultural Horowhenua community, based on partnership and reciprocity. This desire endures to this day despite past events that have alienated iwi from their turangawaewae (land) and freshwater taonga.

It is anticipated that the Tara-Ika subdivision will deliver housing and educational opportunities for Māori, as well as partnered management of parks and reserves. Muaūpoko must be considered partners in all aspects of the development.

4.4 Wāhi tapu and Tara-Ika

The site of the proposed growth area and its environments were not cultivated or occupied permanently, nevertheless, the area was a part of a larger integrated complex of seasonal food gathering areas involving both the forest and waterways. It was traversed by trails, contained clearings for temporary camping and was an area of refuge in time of war. Fortunately, a number of Muaūpoko sites in or near the proposed development have been described in reasonable detail by G. Adkin in his 1948 publication. It is highly likely there are a range of archaeological sites within the landscape that have not been recorded. The earthworks monitoring and accidental discovery process will be critical to ensure Muaūpoko relationship with their ancestral lands is provided for. Adkin's descriptions of these sites, augmented by other available evidence, are summarised in a following section.

4.4.1 Arapaepae

Ara-paepae (which means "the track across") was a trail that crisscrossed the the Ara-paepae ridge and was located southeast of the proposed development. This trail, leading from Lake Horowhenua to the Tararua Range, was used by Muaupoko bird-snaring parties and those gathering hinau berries, hinau bark for manufacturing dye, and aruhe (edible fern root). This trail

¹⁰ D.A., Armstrong (2021). *Muaūpoko Origins, Rohe, Customary Interests and Sites of Significance*. History Works: New Zealand.

is said to have been first marked out by the ancestor Haere-Tu-Te-Rangi.¹¹ It is a highly valued spiritual pathway, a pathway that Muaūpoko spirits traverse to depart into the afterlife.

4.4.2 Waiopehu Reserve

The Waiopehu Reserve is the only piece of forest remnant left from a landscape full of rangatira. It is located in the northeast section of Tara-Ika. Of particular significance are the large emergent and canopy species: pukatea rākau *Laurelia novae-zelandiae*, matai *Prumnopitys taxifolia*, totara *podocarpus totara*, rewarewa *knightia excelsa*, and tawa *Beilschmiedia tawa*. These kaumatua protect the understory and ferns layer, they anchor the epiphytes, and provide shelter and key foods for manu, moko and ngata, allowing forest creatures to thrive. The ngata *powelliphanta traversii traversii* lives within this remnant. It is a nationally endangered species, an absolute taonga and tohu (landscape marker) for Muaūpoko. The bush reserve contains a remnant population that relies entirely upon the reserve for all parts of their lifecycle.

The bush reserve has moderate issues with tradescantia weed, but of most concern is the lack of any decent predator control in an area that has critically endangered taonga. Two cats were observed roaming through the bush reserve during a site visit and only three poorly maintained bait stations were observed.

4.4.3 Te Awa a Te Tau

The main stem of the Koputaroa Stream rises from the southern tip of the Ara-paepae foothills, a little north of the proposed Plan Change area, and follows a northerly course to its junction with the Manawatū River. In former times the course of the river from its source to the confluence of its tributary, was known as Te Awa a Te Tau ('the stream of Te Tau').¹²

Te Awa a Te Tau was an important source of tuna (eel), koura (freshwater crayfish) and kākahi (freshwater mussels). These species were still being caught in the stream by Muaūpoko during the 1920s. There are numerous remains of umu (ovens) and kākahi middens located along the length of the stream and its tributaries, and within its immediate vicinity¹³.

A tributary of Te Awa a Te Tau runs through the Waiopehu Bush reserve. A week of rain preceded the recent site visit and the water was cloudy as a result of sedimentation. Overall though, the stream maintains a meandering character with cobbles and gravels clearly visible. There are also

¹¹ G. Adkin. *Horowhenua: its Maori Place-names and their Topographic and Historical Background*. 1948. 139: J. Proctor. *Summary to Accompany Sites of Significance Map Book*. November, 2015. Wai 2200 #A183a.

¹² G. Adkin. Horowhenua: its Maori Place-names and their Topographic and Historical Background. 1948. 144.

¹³ G. Adkin. Horowhenua: its Maori Place-names and their Topographic and Historical Background. 1948. 144.

giant pukatea trees overhanging the stream banks which provide excellent habitat for freshwater taonga, and all culverts observed within the wider vicinity had good fish passage.

4.4.4 Maunu Wahine

Before European settlers modified the Horowhenua landscape, most of the land surrounding Lake Horowhenua was heavily forested. Maunu Wahine ('the women's place of refuge') was a natural open glade in the forest surrounding the base of a large-forked rimu tree. This refuge was located near the Waiophe Reserve and Te Awa a Te Tau tributary, and they provided wai Māori (drinking water) tuna (eels) and shellfish for consumption. This was known to be an early established place of refuge along one of the ancient pathways traversing the Tararua Range from East to West. It was a place where people could rest and also a place where the study of Rongoa took place. Adkin suggests that this was possibly the remotest of several refuge sites east of the lake. Richard Johnson, a pioneer sawmiller, came across this site in 1891 and saw the remains of umu.¹⁴ Maunu Wahine (and other sites discussed in this report) is marked on Adkins' map (Figure 4). The site is within the proposed growth area.

Maunu Wahine is visited by Muaūpoko women to this day where they feel a spiritual peace and sense of place and connection while on the site, including g the collection of Rongoa in the nearby Waiopehu Reserve.

4.4.5 Wai Maire

An intermittent stream known to Muaūpoko as Wai Marie ('the water of peace') was connected to Maunu Wahine and flowed along what is now Queen Street East.¹⁵ Lidar information however does not reveal any contemporary evidence of a possible waterway. The waterway was possibly destroyed at the time Queen Street was built. Alternatively, Wai Marie could have flowed intermittently along the existing pathway linking Waipunahau to Maunu Wahine in times of heavy rain only (pathway described in the following section).

¹⁴ G. Adkin. Horowhenua: its Maori Place-names and their Topographic and Historical Background. 1948. 238.

¹⁵ G. Adkin. Horowhenua: its Maori Place-names and their Topographic and Historical Background. 1948. 395.



Figure 3: From G. Adkin. Horowhenua: Its Maori Place-names and Their Topographic and Historical Background. Map VII.

4.4.6 Wai hau, Puke tawai, Otahinga

Wai hau, a natural depression, was a renowned source of freshwater within an otherwise waterless area. It was located a little south of Maunu Wahine. Wai hau was originally surrounded by dense mātai forests. It was subject to widespread forest clearance and the conversion of surrounding land to pasture, although Adkins notes it was still filling and emptying in 1948¹⁶. It is unknown where precisely Wai hau is within the growth area, it may or may not have been completely destroyed in resulting years by agriculture.

A reference to Wai hau was made by the Muaūpoko/Ngati Apa chief Kawana Hunia Te Hakeke during the Horowhenua Block title adjudication in 1873. He told the Native Land Court that Wai Hau and Otahinga were places "where we obtained hinau berries and caught birds - we lived at these places when employed thus up to the present generation".¹⁷ Otahinga is near Wai hau.¹⁸ Puke-tawhai, which can be translated as the hill of the tawhai (*beech sp.*) lies on elevated ground just south of the Wai-hau waterhole. It was a lookout, rendezvous and camping place.

¹⁶ G. Adkin. Horowhenua: its Maori Place-names and their Topographic and Historical Background. 1948. 283.

¹⁷ Otaki MB #2. 9.

¹⁸ ML Plan 4903.

A trail ran from Lake Horowhenua through the bush via Maunu Wahine, Wai Hau waterhole to Otahinga and Puke tawhai. Kereru were caught by those crossing this trail.¹⁹ The trail cannot now be located with any certainty but it is within the Tara-Ika landscape and is considered an archaeological and wāhi tapu site by Muaūpoko.

4.4.7 Kai Wa Kiekie

Kai wha kiekie is located to the north of Manu Wahine, outside of the growth area. This was a place where kiekie was gathered. Kiekie (*freycinetia banksii*) had many uses and traditionally both the flower flower (tawhara) and fruit (tirori) were eaten. The roots were used in the manufacture of canoe lashings, sails, fish and eel traps, and as whare (house) wall coverings.²⁰ Kiekie can be found within Waiopehu and Muaūpoko believe these individuals have close whakapapa links to the individuals that once existed with Kai wha kiekie.

4.4.8 Taonga

Two further bush blocks exist within the growth area, they are home to the Ornate Skink (*ligosoma ornatum*, At Risk – Declining). Mokomoko (lizards) are seen by Muaūpoko as an omen, guardians or kaitiaki associated with Muaūpoko spiritual pathway. Their habitat will be impacted as part of the development of the growth area through the introduction of predators such as house cats in much higher abundance within the landscape, as well as increased recreational use of the parks and reserves surrounding Tara- Ika.

The bush blocks also contain taonga to Muaūpoko such as kawakawa (Piper excelsum), tītoki (*Alectryon excelsus*) and karaka (*corynocarpus laevigatus*). These notable taonga and taonga habitat are not necessarily protected by the Horizons One Plan as most areas do not meet the schedule F habitats of significance criteria.



Figure 4: Queen Street East bush blocks.

¹⁹ G. Adkin. Horowhenua: its Maori Place-names and their Topographic and Historical Background. 1948. 319-320.

²⁰ G. Adkin. Horowhenua: its Maori Place-names and their Topographic and Historical Background. 1948. 172.

5 Muaūpoko Values

The Muaūpoko Tribal Authority Cultural Values Assessment²¹ and MTA Submission 35²² have formed the core basis of this report. The texts are quoted extensively in the Table 4 discussion of Muaūpoko values below to build a robust narrative and support the assignment of a value classification that is: Very High, High, Moderate, Low and Negligible. The assignment of values and their class has also been reviewed by MTA technical advisory team.

Muaūpoko have focused on communicating iwi kaupapa (topics) of high importance through these early documents, leading to many values being rated as High or Very High. These values are critically important to iwi and include:

- wai (freshwater)
- taonga species (ornate skink and native endemic snails)
- mahinga kai, raranga and rongoa,
- wāhi tapu (Maunu Wahine, spiritual pathways and bush reserves).

Table 4: Cultural Values Assessment.

Values	Assessment Criteria	Discussion	Value
			Class
Muaūpoko	Connection to atua (ancestors	The proposed growth area is connected to Punahau and the	Very
worldview	with supernatural qualities related to the environment) and	moana by the movement of wai through the landscape.	High
	the wider environment	"Punahau is a taonga of inestimable importance to Muaūpoko."(p3)	
		"Our whenua has been dramatically changed and damagedThese effects are cumulative and have built to the point where Punahau is now one of the most polluted lakes in Aotearoa. There are concerns our waterways may be near, or at, tipping point beyond which recovery will be possible."(p5)	
		"Tararua is representated in the Muaūpoko pepeha, 'ko Tararua te pae maunga'. The range provides protection, connections.	Moderate
		spiritual and practical sustenance"(p3).	
		"The Range also provided connection to kin in other parts of the country."(p3)	
		"We are concerned that there is potential for urban developmentinterupting the connections and view path from the maunga to Punahau and onwards to the moana."(p9)	
	Muaūpoko whakapapa (genealogical connections to Muaūpoko ancestors and the environment)	"The Muaūpoko name bestowed on the project is Tara-Ika. Tara was a Muaūpoko tupuna of great vision and reverence, a leader."(v3)	High
		The name recognises the proposed development sits at the feet of the Tarara Ranges and that it of great importance to Muaūpoko people who gifted the name to signify this deep attachment and intention of kaitiakitanga over the life of Tara-Ika	

²¹ Muaūpoko Tribal Authority (2020). Cultural Values Report: For the Proposed Gladstone Green Development.

²² Di Rump on behalf of Muaūpoko Tribal Authority (2021). Proposed Plan Chnage 4: *Tara Ika Growth Area, Submission* 35. Retrieved from https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/ppc4/proposed-plan-change-4taraika-growth-area-full-copy-of-submissions-pages-190-to-226.pdf

		planning, development and ongoing monitoring and meintenance. "Our customary rights and interests (through whakapapa)intersect with Ngāti Apa. Rangitāne and hapū of	
		Ngāti Kahungunu, with the lands in the Horowhenua district becoming Muaūpoko heartland including private ownership of Lake Horowhenua."(p2)	
		area.	
		"The proposed growth area is located within an area which our people have worked, cultivated, hunted and gathered resources from over 1000 years. It is quite likely that construction will uncover artefacts, sites of archaeological signficance or possible Tangata Koiwi (human remains)."(p6)	
Kaitiakitanga	The mauri (lifeforce) of the area	"Muaūpoko have occupied Horowhenua and exercised kaitiakitanga and rangatiratanga over the land, lake and associated natural resources without interruption since the time of our ancestors to the present."(p3)	High
		"Muaūpoko has an obligation to care for, protect and enhance the mauri of natural resources in our rohe, for the benefit of ourselves, others living in the region, and for future generations."(p5)	
		"However, our ability to give effect to this obligation has been constrained by the actions and omissions of the Crown and other parties."(p5)	
	Ngā wai ora (clean/healthy fresh water)	"The relationship with waterways lies at the heart of mana whenua physical, spiritual and cultural wellbeing."(c15)	Very High-
		"Protection of our waterways and lakes (and species they support) from further harm is of utmost importance to us."	High
		Te Awa a Te Tau and the Horowhenua groundwater is a significant waterway associated with the growth area.	
	Taonga species and habitats. Consideration of lifecycles, daily	Waiopehu Bush Reserve is a threatened habitat forest type and contains the Nationally Endangered ngata (powellinhanta	Very
	or seasonal availability of habitat and utilisation	<i>traversi traversi)</i> ²³ . The Queen Street East bush blocks contain the Ornate Skink (<i>ligosoma ornatum- declining at risk</i>). These taonga populations are wholly reliant on the health of these single isolated forest patches.	High
		"We are concerned that the growth area will disturb the habitat of rare and endangered species of native snails that are endemic to the Horowhenua. Disturbance will threaten these taonga from the region." (p6)	
		"The entire area of the foothills to Punahau was lush with flora and fauna and known for its abundant and vigorous birdsongCustomary use of the Tara-Ika area included fishing, birding, gathering hua rākau (plant material), harvesting harakeke and kiekie for raranga (weaving)(and other species) for rongoa."(p3)	Moderate
		The Queen Street East bush blocks contain taonga to Muaūpoko such as kawakawa (Piper excelsum), tītoki (<i>Alectryon excelsus</i>) and karaka (<i>corynocarpus laevigatus</i>).	

²³ Horizons Regional Council One Plan Schedule F: Indigenous Biological Diversity.

	Manaakitanga: Muaūpoko priorities for protection	 Stormwater discharge quality and quantity Discharge of water from construction activities Avoidance and disturbance to groundwater flows and artesian springs as a result of urban development" (p6) Protection of ngata within Waiopehu Bush Reserve 	Very High
Rangatiratanga	Traditional lands, sites and villages	"The Waiopehu Reserveis located near the site of Maunu Wahine refuge, a clearing where Muaūpoko people could rest on their journeys to the ranges and to east and back. The trails followed from one coast to the other and over the Tararua Ranges included this (growth) area and were part of the spiritual pathways that extended to the ocean."(p4) Evidence presented in section 4.4.6 also describes a trail within the growth area connecting Punahau, Maunu Wahine, Wai Hau and Otahinga. Although the lands to the east of Punahau (the growth area) were not permanently occupied, they formed a vital part of the Muaūpoko economy and were part of an integrated complex	Very High
		system involving both coastal and inland resources."(p4) Muaūpoko control over their lands throughout our rohe was progressively erodedThe Waitangi Tribunal found multiple Treat breaches in its inquiry into the Horowhenua, and other Tribunal proceedings are on-going."(p4)	
	Significant waterbodies including groundwater, rivers, streams, springs, wetlands and lakes	"Numerous puna (springs) means that the (growth) area was plentiful in aquifers and underground rivers, corresponding to rich sources of wai and kai." (p4) "The most important of the dune lakes is PunahauIt is, as David Armstrong described, 'a taonga of inestimable importance to Muaūpoko' that is central to our identity and mauri. The lake sustained Muaūpoko for centuries, providing food and a vast array of resources."(p3) "Te Awa a Te Tau was an important source of tuna (eel), koura (freshwater crayfish) and kākahi (freshwater mussels) and was linked with Maunu Wahine".	Very High
	Importance of site history and key events	been drained, interrupting the passage of fish and water life and interfering with the natural clearing and cleaning functions, such as sediment trapping, filtering out nutrients, removing contaminants and maintaining water tables."(p5) The dense ngāhere (firest) within Tara-Ika was used as a defense system and for its rich resources. Maunu wahine was a	Very
		 place of spiritual sanctuary and healing particulariy for wahine (women). "alongside the Ōtaki to Northern Levin Expressway Projectthese are the most significant developments to occur in the region since the railway that arrived in the 1870s". "we seek further assurances that Muaūpoko stories, ancestors, and association with the whenua of Tara-Ika will be intentionally and consciously recognised through the development stages and processes such as design, and the naming of public parks and streets."(p7) 	High
	Relationship with culture, customs and behaviours	"Muaūpoko people residing on the shores of the lake visited the eastern areas (the growth area) seasonally for spiritual and cultural practices and to gather resources or to cultivate cleared areas."(p4)	High

Te Whare Tapa Whā	Taha Tinana (Physical health): access to Muaūpoko turangawaewae and traditional resources	"Muaūpoko peopleThey accessed the entire region including this plan area which was essential to our way of life"(p4) We are concerned that destruction of these sites (wāhi tapu, lands and waterways within the growth area) will occur as a result of developmentdestroying our ability to record and recover findings and links to our whakapapa. Earthworks and other construction must be subject to robust cultural monitoring protocols and accidental discovery processes agreed with Muaūpoko".	High
	Taha Wairua (Spiritual Health): connection with the spiritual relam and wairua	 "Muaūpoko whānau would visit this area (the growth area) for reflection, respite and spiritual practices."(p4) "Maunu Wahine was a place of particular spiritutal sanctuary and a place of healing for Muaūpoko wāhine."(p4) "We are concerned that there is potential for urban development within the proposed growth area to impact on our spiritual 	High
		pathways from our wāhi tapu in the Tararua Range to Taitoko."(p3)	
	Taha Whānau (Family Health): Housing affordability and diversity for whānau	"We recognise that the Tara-Ika growth area is in response to rising rental and ownership costs by increasing both supply and diversity of housing available in Taitoko.	Moderate
		There are, for example, no policies that seek to ensure that there is sufficient provision of housing for people on low- moderate incomes (as occurs in the Auckland Unitary Plan), provision of community affordable housing (as in Queenstown- Lakes District Plan,) or other opportunities to progress into home ownership and security for our people."(p7)	
		Muaūpoko see the best way to protect these outcomes is through full participation, including expression of their cultural values and connections to the historic, contemporary and future use(s) of the land.	
	Taha Hinengaro (Mental Health): importance to Muaūpoko identity	"This is the heartland of our rohe and has immense spiritual and physical significance to us. Our identify and wellbeing are inextricably linked with the whenua, the maunga and the lakes and waterways in this (growth) area"(p3).	High
		"Customary uses (and activities) were important to the physical and spiritual identity of Muaūpoko".	

6 Effects Assessment

6.1 Construction phase effects

For the Tara Ika growth area, the MTA technical advisory team have identified the following potential and actual adverse effects during the construction phase:

- Release and deposition of fine sediments the <u>potential</u> adverse effect of construction zone runoff transporting fine sediments to adjacent waterways, where they may reduce water clarity and increase deposited fine sediment concentrations having negative impacts on the relationship of Muaūpoko and their taonga species, the mauri of wai and the wellbeing of Muaūpoko.
- The destruction of traditional sites and their values the <u>potential</u> adverse effects from construction activities on known and unknown archaeological sites, spiritual and cultural places, pathways, the relationship of Muaūpoko and their taonga species.

- Incursion by other iwi in Muaūpoko heartland the <u>potential</u> for other iwi to claim they have traditional rights within Tara Ika growth area and assert their presence, impacting Muaūpoko identity and their cultural and traditional rights as mana whenua through their whakapapa.
- 4. Disturbance and destruction of overland flow pathways and soakage areas the unavoidable, <u>actual</u> adverse effect of disturbance to existing surface water overland flow pathways as a result of earthworks in construction zones, disrupting natural processes such as groundwater recharge, cleansing of wai, the recharging of the mauri and spiritual lifeforce of wai and whenua.
- 5. Destruction of traditional lands the unavoidable, <u>actual</u> adverse effect of earthworks and the spiritual impact on the wairua within the landscape.

The magnitude of adverse effects during both construction phase (Table 5) and opperation phase (Table 6) are described. The assessment compares the magnitude of effect both with and without effects management actions.

Activity//Effect	Magnitude WITHOUT effects manage- ment	Reasoning	Effects Management Actions relevant to Tara Ika Plan Change	Magnitude WITH effects manage- ment
Construction Effects				
Release and deposition of fine sediments Level of confidence: High Spatial scale: Potential to effect Waipunahau, Te Awa a Te Tau and the Ohau River. Duration: Construction Phase Reversibility: Yes in stream environments. No in Waipunahau Timing: Potential to impact fish migration and spawning; Muaūpoko access to freshwater resources; reverse efforts to reduce sediment discharges to Waipunahau.	High-low	Large scale earthworks are unavoidable in growth areas of this scale and all earthworks have an inherent risk of creating sediment laden runoff that may enter adjacent waterways. The Tara-Ika growth area will build approximately 3500+ new lots, downstream environments include Te Awa a Te Tau Stream and Punahau. The deposition of sediment on the bed of aquatic habitats (at rates and with quantities of smaller particles greater than the natural state) is a major stressor on waterway ecosystems through altering physical habitat (clogging interstitial spaces in the stream bed used as refugia by fish and invertebrates), altering food resources (e.g., smothering algae), and degrading sites used for egg laying by many aquatic species. Sedimentation can also reduce the aesthetic and recreational values associated with wai. The mauri of the environment and the wellbeing of mana whenua is connected to all of these processes. The magnitude of effect differs among sites depending on the type of receiving environment and existing bed substrate composition, and extent of earthworks within the catchment.	Significant waterbodies are mapped including: - Punahau; - Te Awa a Te Tau; - Overland flow pathways within the Horowhenua gravels. Any earthworks over 250m ² should trigger a District Council consent application within Tara-Ika and the opportunity for Muaūpoko to become an affected party if they have concerns about the impact of construction on their significant waterbodies. Discretion should be provided to Muaūpoko to consider the impact on the values associated with each of these sites including the effect the activity may have on Muaūpoko values and their attributes. Including means to avoid, remedy, mitigate or compensate for any potential or actual effects. Enabling kaitiakitanga is an effective way to minimise impacts on the cultural environment and mana whenua.	Moderate to negligible

Table 5; Magnitude of Construction Phase Effects

Destruction of traditional sites and their values Level of confidence: Low- High Spatial scale: highest number of traditional sites where location is known are in the north of the development, adjacent to Queen St East. High likelihood of uncovering sites adjacent to traditional pathways and clearings/waterholes that traversed Tara Ika (unknown locations). Duration: Topsoil stripping. Reversibility: No. Timing: Earthworks season often Spring- autumn.	Very High- High	Traditional knowledge, supported by early settler records, confirms the presence of significant sites within the landscape. Some of these sites are zoned as open space for their recreation values (Waiopehu Reserve and Maunu Wahine), others such as Muaūpoko spiritual pathway and Queen Street East bush remnants are zoned residential. Based on mana whenua and the authors experience in other projects, middens and ovens are the most likely types of archaeological sites to be accidentally uncovered, they can occur at a high frequency in cultural landscapes and could be found anywhere throughout the Tara-Ika growth area.	Sites are mapped to identify known sites of significance to Muaūpoko including: - Maunu Wahine - Wai Maire spiritual pathway - Waiopehu Reserve - The two Queen Street East bush remnants. When any project takes place within, adjacent to or may affect the sites contained within the planning map, Muaūpoko are provided with the consent application and have the ability to become an affected party. Stormwater and earthworks treatment devices should not be located within significant sites. Any subdivision, commercial development or infrastructure project within the growth area should be required to adhere to Muaūpoko Accidental Discovery Protocol as a condition of consent to be supplied in supplementary information. Discretion should be provided to Muaūpoko to consider the impact on their values associated with each of these sites including: - the effect the proposed activity may have on taonga species and their habitat; - the defiect me activity may have on Muaūpoko values and values attributes; - the design, layout, connectivity, and provision of land for open space; - the effects on archaeology and historic sites. Including means to avoid, remedy, mitigate or compensate for any potential or actual effects.	low
Incursion by other iwi in Muaūpoko heartland Level of confidence: High Spatial scale: Across discrete projects within Tara Ika. Duration: Construction phase and on-going Reversibility: Yes Timing: At any stage	High	Muaŭpoko have been subject to a flawed and inaccurate narrative that they were conquered, and do not have rights to their traditional lands, sites and waterways. Other larger iwi are consistently trying to encroach on Muaŭpoko heartland through resource management processes.	Muaupoko should be referenced directly in the Plan Change objectives and policies rather than 'iwi or hapū', 'cultural', 'Māori' or 'mana whenua'. Muaupoko identity should be protected and enhanced by the use of Muaupoko names in reserves and roads, through the incorporation of local history and signage within reserves and shared use pathways. Muaupoko wish to create a culture where the Tara-Ika community appreciates and learns about their values.	Positive
Disturbance and destruction of overland flow pathways and soakage areas Level of confidence: High Spatial scale: Relevant to the entire growth area Duration: Construction phase	Very High	The Tara Ika growth area is largely devoid of any permanent waterways, except Te Awa a Te Tau (within Waiopehu Reserve) in the north- eastern corner, set aside as open space. The Horowhenua gravels are highly porous, the upper 0-5 meters is often more saturated, while the lower 5-10meters drains quickly to deep groundwater (in a matter of hours- days) and the lake (months to years).	Erosion and sediment control, stormwater soakage pits and wetlands should be co-located where possible, replicating the process of recharging groundwater to protect the cultural values associated with their natural functioning. They should be designed to minimise disruption to natural surface water- groundwater interactions.	Moderate

December 1976 - No	r			
Reversibility: No		Construction will disturb this upper	Activities snoould be designed	
		layer of saturated soils and the	considering effects to quantity and	
Timing: During		overland flow pathways that form in	quality of the downstream environemnt.	
construction phase		heavy rainfall events. These pathways		
		are connected to soakage areas and		
		surface waterbodies including		
		Punahau.		
		Disturbance or destruction of overland		
		flow pathways and soakage areas will		
		affect the natural processes and		
		cvcles of wai within the Tara-Ika		
		landscape, their potential for cultural		
		revival and enhancement will be		
		irrevocably lost Muaūpoko will feel a		
		spiritual loss related to the		
		diminishment of the wairua (spiritual		
		realm) in the landscape		
Destruction of	Very High	The Horowhenua Block is Muainoko	Muaūpoko must be enabled to	Moderate
traditional lands	veryrngn	heartland connected to their spiritual	participate in the design of subdivision	modorato
		health and identity. The transformation	and open space and oversee	
Level of confidence:		of the landscape to agriculture has had	construction to ensure their traditional	
High/unavoidable		a immeasurable impact on the health	lands are treated in a manner aligned	
Tign/dilavoidable		and wellbeing of the jwi this further	with Muaūpoko values and their tikanga	
Spatial scale: Polovant to		transformation will create unboaval in	with widaupoko values and their tikanga.	
the entire growth area		the relationship Musūpeke hold with	Muaūneke are supported to develop a	
the entire growth area		the lenderane		
Duration: Construction		the lanuscape.	quide	
			guide.	
phase			Musinalia Assidantal Disasuamu	
			Muaupoko Accidental Discovery	
Reversability: No			Protocol is a condition of consent.	
Tining Design				
i iming: During				
construction				
1	1			

6.2 Operational Effects

For the Tara Ika growth area, , the MTA technical advisory team have identified the following potential and actual adverse effects during the operational phase:

- Stormwater discharges the <u>potential</u> adverse effects of stormwater runoff from the growth area to alter water quality and water quantity in receiving environments, effects on significant waterbodies, the relationship with Muaūpoko traditional resources, culture, customs and behaviours.
- 2. Increasing predation on taonga species the <u>potential</u> for taonga species such as the ngata (*powelliphanta traversi traversi*, Nationally Endangered) and the Ornate Skink (*ligosoma ornatum*, At Risk Declining) to suffer higher predation levels and threats to their persistence through the introduction of human companions such as cats and dogs to the landscape. Muaūpoko identity and spiritual health are intertwined with the health of these taonga.
- Increasing weed invasions within taonga habitat the <u>potential</u> for garden escapees to invade areas valued for the cultural and ecological characteristics, resulting in impacts on Muaūpoko relationship with their taonga species and Muaūpoko priorities for protection.

- Muaūpoko are not able to participate in the Tara-Ika development the <u>potential</u> for Muaūpoko to be excluded from implementing their values in the design and implementation of Tara-Ika.
- 5. Light pollution the <u>actual</u>, unavoidable adverse effect of introducing artificial light to the landscape for both safety reasons and residential uses. Effects on ecological areas such as Waiopehu Reserve and the two bush along Queen Street East include disruption of night creatures can confuse and alter the natural behaviours of various taonga including insects, birds, fish, reptiles, and amphibians. Effects on areas of spiritual significance such as Maunu Wahine and the pathway from Waipunahau to te pae maunga Tararua alter the natural light characteristics of the areas. Muaūpoko priorities for protection are related to these interactions.
- Increase in use and access of cultural sites the <u>actual</u> unavoidable effects from urban development and the increase in amount of people that will access Muaūpoko wāhi tapū.

Activity//Effect	Magnitude WITHOUT effects manage- ment	Reasoning	Effects Management Actions relevant to Tara Ika Plan Change	Magnitude WITH effects manage- ment
Operational Effects		·		
Stormwater Discharges (quality and quantity) Level of confidence: High Spatial scale: Potential to effect downstream habitats Duration: Permanent Reversibility: No Timing: On-going	Very High- moderate	Stormwater from roads and urban environments generally contain numerous contaminants such as metals (e.g., Cu, Zn), hydrocarbons, fine sediments and microplastics. Such contaminants can have adverse effects on biota, especially in streams that have a high proportion of pollution sensitive species or in environments that are on the edge of irrevocable change. Perturbation of flow regime through urban development and increases in hard stand surfaces has the potential to enhance instream erosion and scouring and impact aquatic animals. Punahau receives untreated stormwater from a large area of Levin which causes adverse effects on the health of the lake.	The stormwater design philosophy is to use a treatment train approach to treat and detain stormwater using soak pits and large constructed ponds and wetlands. For smaller rain events, soak pit infiltration will be the main disposal method, while larger events, including roadway water will be captured and treated in centralised systems. The design approach must incorporate Muaūpoko values. Stormwater management systems should be designed, constructed and operated to avoid adverse hydrological effects on significant waterbodies and their values Stormwater management systems are designed, constructed and operated to avoid adverse effects of sedimentation, heavy metals, hydrocarbons and microplastic contamination on significant waterbodies and their values	Low- negligible
Increase in predation of taonga species Level of confidence: High Spatial scale: Limited to 3 remaining bush remnants Duration: Permanent	Very High	Cats and dogs occur in urban environments in much higher densities than rural environments. Cat predation in particular has a relatively higher impact in new subdivisions near ecological and cultural areas that have not been subject to these threats previously.	Implement a pest species management program to reduce overall predation levels, this will compensate for some higher levels of predation by urban predation effects Where new lots are created, ensure a 500 meter buffer around Waiopehu Bush remnant and Queen Street East remnants where cats are not permitted by new home owners ²⁴ .	Moderate- low

Table 6: Operational Effects

²⁴ Metsers, Seddon & van Heezik (2009). Cat exclusion zones in rural and urban fringe landscapes: how large would they have to be? *Wildlife Research* 37(1) 47-56

Reversibility: No Timing: Development		Cats display avoidance of open areas with little cover, preferring the cover of trees and buildings. Queen Street East bush and Waiopehu Reserve will therefore be vulnerable. Despite subsidised feeding by owners, urban areas likely have a higher level of offtake of susceptible prey species.		
Increasing weed invasions within taonga habitat Level of confidence: High Spatial scale: Limited to 3 remaining bush remnants Duration: Permanent Reversibility: Yes Timing: Development	Moderate- low	A range of common environmental weeds were once garden escapees, increasing urbanisation in rural areas around ecological sites increases risk ornamental plants will naturalise in the wild. Muaūpoko values are associated with the ecological health and presence of taonga within Waiopehu and Queen Street East Bush Remnants.	Queen Street Bush remnants are protected by: Installing a 30m perimeter buffer planting with locally sourced indigenous tree species Infill planting is undertaken with locally sourced indigenous tree species	Negligible- Positive
Muaūpoko are not able to participate in the Tara-Ika development Level of confidence: High Spatial scale: Subdivision wide Duration: Temporary-long term Reversibility: Yes Timing: Development	Very High	Developments are undertaken for many years after a plan change is undertaken. If adequate engagement with tangata whenua and provisions that protect their rights to participate are not provided for at this stage then they can become largely locked out of future processes and activities.	Muaūpoko are enabled to participate in the design of subdivision, infrastructure and land development to ensure significant sites, waterbodies, features, and their cultural values and attributes, are protected. Muaūpoko have the ability to become an affected party if council and developers do not appropriately manage cultural effects.	Positive
Light Pollution Level of confidence: High – unavoidable effect of urban development. Spatial scale: The entire Tara Ika area Duration: Permanent Reversibility: No Timing:	Moderate	Artificial lighting is required to support urban activities. Light emitted from indoor and outdoor sources can cause adverse effects on the brightness and clarity of the night sky and can confuse and alter the natural behaviour of various biota including insects, birds, fish, reptiles, and amphibians. The effect differs among sites depending on habitat availability and proximity to proposed areas with artificial lighting.	The light colour temperature, shielding and hours of operation of outdoor artificial lighting should be managed to mitigate skyglow to protect the clarity and brightness of the night sky. Promote the use of streetlighting with a colour temperature of 3000 Kelvin or lower, shields and other devices to direct light downwards.	Low
Increase in use and access of cultural sites and traditional lands	High-low	Muaūpoko lands and significant sites will be accessed by whole communities into the future and and could be designed and used in a way that is not in line with Muaūpoko values and tikanga.	Muaūpoko are supported to develop a comprehensive open space design guide. The Masterplan should be amended to provide a larger reserve area for the preservation of Maunu Wahine, the 30m area traversed by the Shared Use Path is not large enough for Muaūpoko values to	negligible- Positive

be expressed to a sufficient degree, furthermore a larger area should be set aside to ensure the exact historic location of Maunu Wahine is captured in the new reserve.	
Views towards the Tararua Ranges are maintained along Queen Street East through the use of setbacks, low fencing and vegetation management.	

7 Conclusions and recommendations

The growth area will create a cultural environment significantly different to the current baseline. It is expected that such large scale changes within the landscape will have adverse effects on Cultural Values, however this report has demonstrated there are a range of means available to ensure effects on cultural values are avoided, minimised and in some cases a net gain in value can be achieved (see Overall Level of Effects in Table 7). Muaūpoko have a strong desire to find solutions which protect cultural values while supporting the needs of their community. This was the intent of the gifted name Tara-Ika, Muaūpoko look forward to walking alongside council as Treaty Partners as we move through to the development and implementation of the Plan Change.

Activity/Effect	Cultural Value	Magnitude WITH effects	Overall Level of Effect
Release and deposition of fine sediments	Very High- High	Low-negligible	Moderate-very low
Destruction of traditional sites and their values	Very High- High	Low	Moderate-low
Incursion by other iwi in Muaūpoko heartland	High	Positive	Net gain
Disturbance and destruction of overland flow pathways and soakage areas	High	Moderate	High
Destruction of traditional lands	High	Moderate	High
Stormwater Discharges (quality and quantity)	Very High-High	Low-negligible	Moderate-very low
Increase in predation of taonga species	Very High	Low	Moderate
Increasing weed invasions within taonga habitat	Very High	Negligible-positive	Low-net gain
Muaūpoko are not able to participate in the Tara-Ika development	Very High	Positive	Net gain

Table 7: Overall level of effects

Light Pollution	Very High	Low	Moderate
Increase in use and access of cultural sites and traditional lands	Very High- moderate	Negligible-positive	Low-net gain

Recommended actions include:

- Ammend Plan Change 4 Objectives and Policies to ensure Cultural Effects Management Actions are undertaken during subdivision and development;
- Ammend Plan Change 4 Rules to ensure matters of significance to Muaūpoko can be considered as 'Matters of Discretion' and Muaūpoko have the opportunity to be considered an affected party;
- Ammend the Masterplan to reflect Muaūpoko Open Space requirements for Maunu Wahine;
- HDC support the development of a Memorandum of Understanding between the council and MTA that details the way in which the two entities will work together for the life of PC4;
- 5) HDC support the development of a Open Space Design Guide in partnership with MTA.

Disclaimer

We have used various sources of information to write this report. Where possible, we tried to make sure that all third-party information was accurate. However, it's not possible to audit all external reports, websites, people, or organisations. If the information we used turns out to be wrong, we can't accept any responsibility or liability for that. If we find there was information available when we wrote our report that would have altered its conclusions, we may update our report. However, we are not required to do so.

©Kāhu Environmental, 2021 Prepared by:

BSc (Honours) Ecology Kaupapa Taiao Specialist

VERSION	DATE	AUTHOR	REVIEWER	COMMENTS
1	1 October 2021			Peer review and recommended changes to report.
2	4 October 2021			Full review and recommended changes to report
3				
4				



Horowhenua District Plan Change

Section 42A Report

Proposed Plan Change 4

Tara-Ika Growth Area

October 2021



Table of Contents

1	Exe	cutiv	ve Summary	. 5
	1.1	Glos	sary of Terms	. 5
2	Intro	oduo	ction	. 6
	2.1	Purp	oose of Report	. 6
	2.2	Qua	lification and Experience	. 6
	2.3	Rep	ort Format	. 6
3	Bac	kgro	ound and Context	. 8
	3.1	Purp	oose of Plan Change	. 8
	3.1.1	L	Population Growth	.8
	3.1.2	2	Ōtaki to North of Levin (O2NL)	.9
	3.1.3	3	History of Tara-Ika as a Growth Area	.9
	3.2	Plan	Change Area	10
	3.3	Outl	ine of Proposed Changes (as notified)	11
	3.4	Ove	rview of Process	12
	3.4.2	L	Pre-Notification	12
	3.4.2	2	Notification	12
	3.4.3	3	Post-Notification	13
	3.5	Proc	edural Matters	13
4	Stat	tutor	y Requirements and Strategic Level Documents	14
	4.1	Reso	ource Management Act 1991	14
	4.2	Nati	onal Policy Statements/National Environmental Standards	15
	4.3	New	Zealand Coastal Policy Statement	18
	4.4	Hori	zons Regional Council One Plan	19
	4.5	Ope	rative Horowhenua District Plan	19
	4.6	Wel	lington Regional Growth Framework	20
5	Dise	cuss	ion and Analysis of Submissions	20
	5.1	Who	ole Plan Change and General Matters	20
	5.1.1	L	Plan Change Process	20
	5.1.2	2	Whole Plan Change	22
	5.1.3	3	Social Impacts	24
	5.1.4	1	Subdivision Activity Status and Assessment Matters	25
	5.1.5	5	Existing Land Uses	36
	5.2	Wel	I-Functioning Urban Environments	37
	5.2.1	L	Structure Plan	37



5.2	2.2	Zoning	43
5.2	2.3	Medium Density Housing	57
5.2	2.4	Community Activities (Retirement Homes, Education, and Open Space)	61
5.2	2.5	Commercial Activities	64
5.2	2.6	Arapaepae Road Special Treatment Overlay	65
5.3	Urb	an Form, Character and Amenity	66
5.3	3.1	Bulk and Location	66
5.3	3.2	Fencing	68
5.3	3.3	Integral Garages	70
5.3	3.4	Signage (Non-State Highway Facing)	71
5.3	3.5	Redwood Grove Screening	72
5.3	3.6	Other Urban Design Matters	73
5.4	Infr	astructure	74
5.4	4.1	One Plan Matters Relevant to Infrastructure	74
5.4	4.2	Network Capacity (Water, Waste Water and Landfill)	76
5.4	4.3	Stormwater Management	79
5.4	4.4	Rainwater Tanks	87
5.4	4.5	Infrastructure Requirements for Subdivision and Development	90
5.4	4.6	Impact of Infrastructure of Amenity Values	93
5.4	4.7	Electricity Transmission Lines	94
5.5	021	NL Matters	95
5.	5.1	Corridor Protection and Staging/Timing Matters	95
5.	5.2	Potential Severance and Interface Effects	98
5.6	Tra	nsport Matters	102
5.0	6.1	Rear Access Lanes	
5.0	6.2	Cycleways	104
5.0	6.3	Vehicle Network Functioning and Connectivity	106
5.7	Mā	ori, Culture, and Heritage Values	113
5.	7.1	Māori, Culture, and Heritage	113
5.8	Nat	ural Environment and Sustainability Matters	125
5.8	8.1	Natural Environment and Sustainability	125
5.9	Mir	or Drafting Edits	130
5.9	9.1	Minor Drafting Edits	130
5.10	Nor	n-RMA Matters	134
5.	10.1	Miscellaneous Matters	134
5.11	Fur	ther Submissions not already assessed	



6 Section 32AA Assessment			140
	6.1.1	Section 32AA Assessment Table	152
7	Conclus	sion	164



1 Executive Summary

- Since 2013, the Horowhenua District has been experiencing rapid population growth. This population growth is expected to continue. In response to this, the Horowhenua District Council (HDC or the Council) prepared a growth strategy, titled Horowhenua Growth Strategy 2040. This identified the District's projected housing and business land requirements out to the year 2040. This strategy identified growth area Levin South 6 (LS6), the area now known as 'Tara-Ika', and the subject of this Plan Change.
- 2. The Tara-Ika Growth Area is a 420ha piece of land located immediately east of Levin. It is bordered by State Highway 57 (Arapaepae Road), Queen Street East, Gladstone Road and Tararua Road. Council, alongside key landowners, developed a Master Plan for this area. This Master Plan is the basis for this Plan Change (Proposed Plan Change 4).
- 3. As notified, the proposed plan change consists of the following:
 - Removal of Structure Plan 13 from the District Plan.
 - Introduce a new 'Tara-Ika Multi-Zone Precinct' Chapter to the District Plan with a replacement structure plan (013) and associated objectives, policies, and rules
 - Rezone land within the Tara-Ika Master Plan Area from Greenbelt Residential Deferred to Greenbelt Residential, Low Density Residential, Standard Residential, Medium Density Residential, Commercial and Open Space;
 - Introduce new area specific subdivision rules;
 - Introduce new area specific bulk and location rules; and
 - Introduce new rules relating to commercial activities in the area.
- 4. As notified, the plan change was expected to enable 2,500-3,000+ homes at a range of densities, supported by publically accessible open space and commercial and community activities.
- 5. This area was formerly known as 'Gladstone Green', but through the development of the Master Plan and Plan Change process, was gifted the name 'Taraika' by the Muaūpoko Tribal Authority. The spelling of the name has been refined since notification to aid correct pronunciation and is now 'Tara-Ika'. Submissions were received on this topic and will be evaluated later in this report, but for the sake of accuracy I will refer to the growth area as 'Tara-Ika' from this point forward.
- 6. The primary issues driving this Plan Change are a need to provide land to meet housing demand and to give effect to the National Policy Statement on Urban Development (NPS-UD) which requires Council's to provide for well-functioning urban environments and provide sufficient development capacity to meet the needs of people and communities.

1.1 Glossary of Terms

CPTED – Crime Prevention through Environmental Design
HDC/the Council – Horowhenua District Council
HDP – Operative Horowhenua District Plan 2015
HRC – Horizons Regional Council
LTP – Horowhenua District Council Long Term Plan 2021-2014
MTA – Muaūpoko Tribal Authority
NOR – Notice of Requirement



NPS – National Policy Statement
NPS-UD – National Policy Statement on Urban Development
NPS-FM – National Policy Statement for Freshwater Management
O2NL – Ōtaki to North Levin (highway project)
PC4/PPC4/Plan Change – Proposed Plan Change 4 (subject plan change)
PNPS-HPL – Proposed National Policy Statement on Highly Productive Land
RMA – Resource Management Act 1991
WKNZTA/NZTA/WK – Waka Kotahi NZ Transport Agency
WTP – Levin Water Treatment Plant
WWTP – Levin Waste Water Treatment Plant

2 Introduction

2.1 Purpose of Report

- 7. The purpose of this report is to summarise the key issues raised in submissions and to provide advice on these matters to the Hearings Panel. All the individual submission points raised have been evaluated in this report, with specific recommendations provided for each point. The submissions points are grouped into 'topics' to enable more efficient assessment of like issues. There is a summary table attached as Appendix 1 to this report, with both the recommended decision for each submission point and the section of this report in which the submission point is evaluated in.
- 8. The recommendations also include suggested amendments to the proposed plan change, including the introduction or deletion of provisions and refinements to some of the wording. A s32AA assessment of recommended changes is provided at the end of this report.

2.2 Qualification and Experience

- 9. My name is Lauren Baddock. I am the District Plan Lead at the Horowhenua District Council. I hold a Bachelor of Resource and Environmental Planning (Hons) degree from Massey University. I am an Intermediate Member of the New Zealand Planning Institute.
- 10. I have close to seven years' experience as a planner. This has included approximately three years' experience as a resource consents planner at both Hastings District Council and Horowhenua District Council. At the beginning of 2018, I moved into the role of Strategic Planner at the Horowhenua District Council and have been involved in a range of policy and strategy work, including a town centre strategy, a community plan, growth strategy, submissions on national policy statements, infrastructure projects, and District Plan work. More recently, I moved into the role of District Plan Lead, tasked with leading the Council's District Plan work programme, with an initial focus on responding to growth and national direction.

2.3 Report Format

11. This report considers submissions and further submissions which were received in response to Proposed Plan Change 4 (Proposed PC4) to the District Plan. This report has been prepared in



accordance with section 42A of the Resource Management Act 1991 to assist the Hearing Panel with its consideration of submissions received in respect of this Plan Change.

- 12. This report is structured according to the following format:
 - An overview of Proposed PC4
 - Statutory Requirements
 - Analysis of Submissions
 - Recommended Decisions
 - s32AA assessment
 - Conclusions.
- 13. The report discusses each submission or groups of similar submissions and includes a recommendation from the reporting officer on each submission received; it should be noted that the recommendation does not represent the decision of the Hearing Panel.
- 14. Following consideration of all the submissions and supporting evidence, if any, presented by the submitters and further submitters at the hearing, the Hearing Panel will hear and make decisions on the plan change.
- 15. This report includes recommendations to the Hearing Panel to accept, accept in part, reject or reject in part individual submission points and any amendments to Proposed PC4. A table of submission and further submission points along with recommended decisions and a reference to where this point is evaluated in this report is included as Appendix 1 of this report.
- 16. The amendments to the plan change provisions arising from the staff recommendations discussed throughout this report are listed in full in Appendix 2 of this report.
- 17. The Analysis of Submissions section has been structured by grouping submission points into topics/themes. Within each topic, the submission points have been grouped into sub-topics. These topics/themes are listed below in the order they appear in this report.
 - 1. Whole Plan Change and General Matters
 - 2. Well-Functioning Urban Environments
 - 3. Urban Form, Character, and Amenity
 - 4. Infrastructure Matters
 - 5. O2NL Matters
 - 6. Transport Matters
 - 7. Māori, Culture and Heritage
 - 8. Natural Environment and Sustainability
 - 9. Minor Drafting Edits
 - 10. Non-RMA Matters
- 18. Each submission and further submission has been given a unique number (e.g. 04/01), with the prefix referring to the plan change number and the final two numbers referring to the submitter.
- 19. Where a submission contains more than one submission point, an additional number has been added to the submission number (e.g. 04/01.1) to help distinguish which part of the submission is being discussed.



- 20. Further submissions are numbered in the same manner, but with the additional prefix of 'FS' (further submission). For example, FS04/01.01.
- 21. This report contains selected text from the plan change documents, either when changes have been requested by a submitter or where a change is recommended by the reporting officer. Where new text is included in this report the following protocols have been followed:
 - Additions to plan change provisions recommended by the reporting officer are shown in <u>underlined italics</u>, with recommendation deletions shown in strikethrough (i.e. <u>abcdefghijkl</u>)
 - In some instances text that is not recommended to be amended has been reproduced from the notified version of the plan change provisions or from the operative Horowhenua District Plan to assist with interpretation. This is shown in *italics and highlight*

3 Background and Context

3.1 Purpose of Plan Change

22. The issue this plan change seeks to address and the rationale behind the approach taken is set out in the s32 report¹. A summary of this is provided below.

3.1.1 Population Growth

- 23. The Horowhenua population is growing rapidly, increasing by an average of 2% per year between 2013 and 2018. Statistics New Zealand estimated that as of June 2019, the Horowhenua population was 35,000. This is an increase of nearly 5,000 people since 2013²,³.
- 24. Early in June 2020, Sense Partners were commissioned by HDC to provide updated population projections for the District. This work was able to take into account the potential impact of COVID19. These projections show that this growth rate is expected to continue long term. Based on recent growth being much faster than previously anticipated, Council have since adopted the 95th percentile growth rate set out in this report for its long term planning, which means significant and ongoing demand for housing, as indicated by the table below.

Table 1: Additional Dwellings Projected Per Year to Support LTP 2021-2041 Population Assumptions (District Wide)

Average Number of Additional	Average Number of Additional	Average Number of Additional
Dwellings per Year 2021-2031	Dwellings per Year 2031-2041	Dwellings per Year 2041-2051
434	686	984

¹ <u>https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/ppc4/proposed-plan-change-4-</u> taraika-growth-area-section-32-report.pdf (Section 2)

² <u>https://www.stats.govt.nz/information-releases/national-population-estimates-at-31-march-2020-infoshare-tables</u>

³ <u>https://www.stats.govt.nz/tools/2018-census-place-summaries/manawatu-whanganui-region#more-data-and-information</u>



3.1.2 Ōtaki to North of Levin (O2NL)

- 25. The preferred corridor for the O2NL highway is located within the growth area, running almost parallel to State Highway 57 near the western extent of the development area.
- 26. At the time of writing this report, WKNZTA had an identified 80-100m 'technically preferred alignment' within a 300m corridor and were working to refine this. WKNZTA have advised they will not make any decisions on the final alignment and land required for this project until the end of 2021. WKNZTA expect to lodge the required resource consents and notice of requirement applications in 2022⁴. The exact nature and scale of effects arising from the proposed highway cannot be determined until the final alignment has been selected and decisions made regarding matters such as road height and surfacing material, interchange locations, and local road connections.

3.1.3 History of Tara-Ika as a Growth Area

- 27. Tara-Ika has been identified as a growth area since the Horowhenua Development Plan 2008. At this time, the District's population was expected to be relatively stagnant but with some additional demand for housing (largely associated with decreasing household size and demand for holiday homes).
- 28. Following this, Tara-Ika (then known as Gladstone Green) was rezoned to 'Greenbelt Residential Deferred' via Plan Change 21 to the first generation Horowhenua District Plan, with the plan change becoming operative in May 2013. This zoning type enables residential development of a minimum lot size of 2,000m2 where reticulated waste water network is available, or 5,000m2 where onsite servicing (e.g. septic tank) is required⁵. Structure Plan 13 was introduced to the District Plan as part of Proposed Plan Variation 1. However, the zoning remained deferred, as the required infrastructure was not in place.
- 29. More recently, the District has begun to experience rapid population growth. This prompted HDC to prepare the Horowhenua Growth Strategy 2040 to replace the Horowhenua Development Plan 2008. The Strategy guides how and where to accommodate growth in the District out to the year 2040 and was adopted by the Council in November 2018.
- 30. The Horowhenua Growth Strategy 2040 identifies Tara-Ika as a growth area (Levin South 6/LS6) and anticipates it being 'upzoned' to a more urban or residential zone to allow residential development at an urban density⁶.
- 31. HDC are currently reviewing the Growth Strategy. Key reasons for this review are that the population has grown faster than was expected at the time the Strategy was developed in 2018 and that the location and construction timeframe for the O2NL highway had not been determined at the time the Strategy was prepared.
- 32. Following the identification of LS6 in the Growth Strategy, several landowners approached HDC to discuss their development plans for this area. It was clear that the existing Greenbelt

⁴ <u>https://www.nzta.govt.nz/projects/wellington-northern-corridor/otaki-to-north-of-levin/</u>

⁵ <u>https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/horowhenua-district-plan-2015-</u> <u>chapter-18-greenbelt-residential-zone.pdf</u>

⁶ <u>https://www.horowhenua.govt.nz/files/assets/public/council-documents/policies/horowhenua-growth-strategy.pdf</u>



Residential Deferred zoning would not enable the scale of housing anticipated by the Growth Strategy. With the agreement of key landowners, HDC worked alongside these landowners to prepare the Tara-Ika Master Plan to guide development in this area, based on a goal of achieving a quality urban environment with a range of housing densities and supporting commercial and community activities.

3.2 Plan Change Area

- 33. The Tara-Ika Growth Area is a 420ha piece of land located immediately east of Levin urban area. It is bordered by State Highway 57 (Arapaepae Road), Queen Street East, Gladstone Road and Tararua Road.
- 34. The Tara-Ika area is currently zoned Greenbelt Residential Deferred in the Operative Horowhenua District Plan and is subject to a Structure Plan (Structure Plan 13). As indicated previously, Greenbelt Residential zoning enables a minimum lot size of 2,000m2 in areas expected to be serviced via reticulated waste water network and 5,000m2 if onsite servicing (e.g. septic tank) is to be utilised. In this case, the trigger for uplifting the deferral is the passing of a Council resolution that there is adequate capacity in a local-authority operated reticulated infrastructure to service the particular area of land.
- 35. The Horowhenua District Plan Maps show that the National Grid Corridor (high voltage transmission lines) is located in the area. However, these transmission lines have since been acquired by Electra (the local electricity distribution lines company) and no longer form part of the National Grid.
- 36. There are several pockets of existing development within the Tara-Ika area which reflect a typical Greenbelt Residential character, with section sizes around 5,000m2 or more. These include:
 - Redwood Grove
 - Pohutukawa Drive
 - Arete Lane
 - South-eastern corner of Tararua and Gladstone Road.
- 37. Other notable features on the site include 'Prouse House', which was constructed in 1891 and may have heritage value although it is not currently listed in the District Plan or with Heritage New Zealand. As the dwelling was constructed pre-1900, it is an archaeological site under the Heritage New Zealand Pouhere Taonga Act 2014.
- 38. The Waiopehu Bush is located at the north eastern extent of the development area. This is vested under the Reserves Act as a Scenic Reserve and as such, will remain as reserve/bush.
- 39. Also located within the development area are two known sites of particular cultural significance; the Maunu Wahine refuge and the Waihau watering hole.
- 40. HDC obtained funding from the Crown Infrastructure Partners Shovel Ready Infrastructure Fund (CIP funding) towards the lead infrastructure costs. Initial works are underway to service the area, as reticulation is required to service the existing District Plan zoning. The CIP funding provides \$25m of investment made up of both grants and funding. The funding represents approximately two thirds of the lead infrastructure costs. Additional infrastructure costs, including infrastructure requirements within subdivisions, will largely be met by individual developers. Council may enter



into private developer agreements in order to facilitate infrastructure delivery, enable development, and ensure quality environmental outcomes.

41. Council also has funding identified in its Long Term Plan for a number of growth related infrastructure projects (e.g. water and waste water treatment plant upgrades) and has recently reintroduced development contributions.

3.3 Outline of Proposed Changes (as notified)

- 42. Proposed PC4 seeks to rezone land contained within the area covered by the Tara-Ika Master Plan. This involves introducing a new structure plan and new objectives, policies, and rules that apply specifically to Tara-Ika. This Plan Change also seeks to ensure that the resulting development is consistent with the vision and design outcomes sought by the Master Plan. A more complete overview of the proposed changes was included in the s32 report. The full plan chapters, structure plan, and planning maps were also included as an appendix to the s32 report. As such, the below focuses on the key matters only.
- 43. The proposed plan change consists of the following:
 - Removal of Structure Plan 13 from the District Plan;
 - Introduce a new 'Tara-Ika Multi-Zone Precinct' Chapter to the District Plan with a replacement structure plan (013) and associated objectives, policies, and rules;
 - Rezone land within the Tara-Ika Master Plan Area from Greenbelt Residential Deferred to Greenbelt Residential, Low Density Residential, Standard Residential, Medium Density Residential, Commercial and Open Space;
 - Introduce new area specific subdivision rules;
 - Introduce new area specific bulk and location rules; and
 - Introduce new rules relating to commercial activities in the area.

44. <u>Tara-Ika Multi-Zone Precinct</u>

- 45. The Tara-Ika Multi-Zone Precinct is based on the National Planning Standards and was selected to ensure the approach was as consistent as possible with the National Planning Standards (which the entire District Plan will align with by 2024) while remaining consistent with the existing structure of the Horowhenua District Plan. While some area specific provisions that seek to achieve particular outcomes within the precinct will be introduced, the underlying zone provisions will generally apply. Therefore, the following assessments will focus only on the proposed new objectives, policies, and rules. Existing District Plan provisions will not be assessed further.
- 46. Tara-Ika specific provisions will therefore be contained in two chapters; Tara-Ika Multi-Zone Precinct Objectives and Policies and Tara-Ika Multi-Zone Precinct Rules. All other relevant chapters of the District Plan will apply (e.g. Residential Zone, Subdivision and Development). Where there is any conflict between provisions, the Tara-Ika Multi-Zone Precinct provisions will prevail.

47. <u>Objectives and Policies</u>

48. As the Tara-Ika Master Plan has a specific vision and design outcomes for this area, Proposed PC4 includes new objectives and policies for Tara-Ika. These new objectives and policies complement



the existing objectives and policies in the District Plan, such as the objectives and policies for the underlying zones.

- 49. <u>Rules</u>
- 50. As Proposed PC4 seeks to enable greenfield development at a larger scale than can occur elsewhere in the District and seeks to achieve a different outcome (namely, give effect to the Master Plan), there are a number of bespoke rules for Tara-Ika, some of which are more enabling than the current District Plan while others are more directive.

3.4 Overview of Process

3.4.1 Pre-Notification

- 51. Consultation and engagement carried out during the pre-notification period is detailed in the s32 report. This included informal engagement through the development of both the Horowhenua Growth Strategy 2040 and the Tara-Ika Master Plan. During the scoping and preparation phases of Proposed PC4, engagement was with Iwi partners and key stakeholders including landowners, Ministry of Education, WKNZTA, and Horizons Regional Council.
- 52. The draft master plan and plan change were also put out to the wider community for informal feedback in August 2020. Refinements were made to the plan change following receipt of this feedback prior to formal notification in November 2020.
- 53. Statutory pre-notification in accordance with clauses 3 and 3B of the First Schedule of the RMA with iwi occurred in August 2020, with follow up in September 2020. Pre-notification occurred with:
 - Muaūpoko Tribal Authority
 - Tamarangi Hapū
 - Ngāti Raukawa ki te Tonga
 - Tanenuiarangi Manawatū Incorporated
 - Ngā Wairiki-Ngāti Apa Charitable Trust

3.4.2 Notification

- 54. The Plan Change was notified on 16th November 2020. Submissions were open until 1st February 2021. This submissions period was well in excess of the statutory requirement of 20 working days. This was in recognition of the fact that Christmas and New Year period occurred during the submission period.
- 55. A total of 40 submissions were received. One submission was received late, being received on 2nd February 2021 which was one day after the submission period closed.
- 56. The summary of submissions was publically notified on 26th February 2021, with the further submission period going from 26th February 2021 until 15th March 2021. A total of 95 further submission were received, with one being received late on the 1st April 2021.



3.4.3 Post-Notification

- 57. Since notification, I have met with a number of submitters both individually and as groups. The nature of individual conversations focused on gaining a better understanding of the matters raised in submissions, as well as providing advice on the plan change process.
- 58. Following advice received from the Hearing Panel in their first minute, six independently facilitated meetings were held covering four key topics raised during submissions. These were as follows:
- 59. Pre-Hearing Meetings: Round One

Zoning and Density – 8th June 2021 Storm water and Servicing – 10th June 2021 O2NL and Transport Matters – 11th June 2021

60. Pre-Hearing Meetings: Round Two

O2NL – 1st July 2021 Zoning and Density – 19th July 2021 Stormwater and Servicing – 20th July 2021

- 61. The independent facilitator has prepared reports outlining the nature of discussions and has circulated this to submitters and the Hearing Panel. These reports are also available on the plan change webpage.
- 62. These meetings were useful in gaining a better understanding of submitters' perspectives and requests. Further conversations have occurred with individual submitters outside of the group pre-hearing meetings. These meetings and conversations have informed my analysis and recommendations.
- 63. Following the pre-hearing meetings, Council appointed a 'friend of the submitter' to assist lay submitters with the hearing process.

3.5 Procedural Matters

64. As referenced above, one late submission and one late further submission were received.

The details of this are set out below:



- 65. The late submission (04/40) was received one day after the submission period closed and was included in the summary of submissions which was publically notified on 26th February 2021. As such, I am of the opinion that while this submission was technically late, it was received only one day after submissions closed and did not have any impact on the ability of further submitters to read, access, and consider the submission.
- 66. The late further submission (FS04/93) was received approximately two weeks after the further submission period closed. As this was a further submission, its late receipt has had no material bearing on any person who may have had an interest in submitting on the matters raised.



- 67. In both cases, the submissions have been able to be addressed in this report. As such, I see no reason why they should be excluded from being considered. Consequently, I recommend that the Hearing Panel grant an extension of time under Section 37(1) of the RMA to admit the late submission and further submission listed above.
- 68. I also note to the panel that I have been made aware that at least one further submission was not served on the original submitter within the required timeframe (further submission FS04/90 from Waka Kotahi). However, all further submissions were made publically available on the plan change webpage and I understand Waka Kotahi have since served notice on the relevant parties. As such, I do not consider this to have a material impact on any submitter.
- 69. Lastly, I note that Further Submission FS04/95 is stamped 19th March 2021 (outside the further submission time period). The further submitter has verbally advised that this submission was a correction to further submission FS04/84 (received within timeframes). However, I have not received written confirmation of this. As such, I have recorded and considered both submissions. In light of this, the panel may need to consider whether Further Submission FS04/95 also needs to be treated as a late submission. If so, I recommend the panel accept the submission for the same reasons as detailed above for other later further submissions.

4 Statutory Requirements and Strategic Level Documents

4.1 Resource Management Act 1991

- 70. In preparing any plan change there are a number of statutory requirements in the RMA that need to be satisfied. These include:
 - Part II, comprising Section 5, Purpose; Section 6, Matters of National Importance; Section 7, Other Matters; and Section 8, Treaty of Waitangi;
 - Section 31, Functions of Territorial Authorities;
 - Section 32, Requirements for preparing and publishing evaluation reports;
 - Section 32AA, Requirements for undertaking and publishing further evaluations;
 - Section 72, Purpose of district plans;
 - Section 73, Preparation and change of district plans;
 - Section 74, Matters to be considered by territorial authorities; and
 - Section 75, Contents of district plans.
- 71. Of particular note is the functional requirement under s.31(1)(aa) for Council to establish, implement and review objectives, policies and methods to ensure there is sufficient land for residential and business development capacity to meet expected demand.
- 72. I have summarised below the key matters relating to the above requirements that are particularly relevant to this proposed plan change.
- 73. Section 6(h) of the RMA requires those exercising functions and powers under it to recognise and provide for 'the management of significant risks from natural hazards', while under Section 7 particular regard needs to be had to:



(b) the efficient use and development of natural and physical resources;

(c) the maintenance and enhancement of amenity values;

(f) maintenance and enhancement of the quality of the environment; and

(g) any finite characteristics of natural and physical resources.

74. Territorial authorities have the following obligations for the purpose of giving effect to the RMA in its district, under Section 31, to:

(a) establish, implement, and review objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district;

(aa) establish, implement, and review objectives, policies, and methods to ensure that there is sufficient development capacity in respect of housing and business land to meet the expected demands of the district; and

(b) control of any actual or potential effects of the use, development, or protection of land, including the avoidance or mitigation of natural hazards.

75. The relevant aspects of the above matters have been considered in the analysis of the submissions in Section 5 of this report.

4.2 National Policy Statements/National Environmental Standards

76. Under Section 75(3)(a) of the RMA a district plan must also give effect to any National Policy Statement (NPS) that has been issued. Of the five NPS's currently in place, the ones of relevance to proposed PC4 are the National Policy Statement on Urban Development (NPS-UD) and the National Policy Statement for Freshwater Management 2020 (NPS-FM).

77. National Policy Statement on Urban Development

- 78. The NPS-UD took effect from 20 August 2020, and replaced the National Policy Statement on Urban Development Capacity.
- 79. The NPS-UD seeks to ensure there is sufficient development capacity to meet the needs of people and communities and recognises the significance of well-functioning urban environments that contribute to community wellbeing and safety. This is extremely relevant to PC4, being the foundation behind what is proposed.
- 80. Horowhenua District Council is a Tier 3 Local Authority as it contains an urban environment (population over 10,000) that is not specified as either Tier 1 or 2. The objectives and policies that apply to Horowhenua District Council and Proposed PC4 are listed below.

Objective 1: New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.

Objective 2: Planning decisions improve housing affordability by supporting competitive land and development markets.



Objective 3: Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:

- (a) the area is in or near a centre zone or other area with many employment opportunities
- (b) the area is well-serviced by existing or planned public transport there is high demand for housing or for business land in
- (c) the area, relative to other areas within the urban environment.

Objective 4: New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations.

Objective 5: Planning decisions relating to urban environments, and FDSs, take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Objective 6: Local authority decisions on urban development that affect urban environments are:

- (a) integrated with infrastructure planning and funding decisions; and
- (b) strategic over the medium term and long term; and
- (c) responsive, particularly in relation to proposals that would supply significant development capacity.

Objective 7: Local authorities have robust and frequently updated information about their urban environments and use it to inform planning decisions.

Objective 8: New Zealand's urban environments:

- (a) support reductions in greenhouse gas emissions; and
- (b) are resilient to the current and future effects of climate change.

Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:

- (a) have or enable a variety of homes that:
 - *i.* meet the needs, in terms of type, price, and location, of different households; and
 - ii. enable Māori to express their cultural traditions and norms; and
- (b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and
- (c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and
- (d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and
- (e) support reductions in greenhouse gas emissions; and


(f) are resilient to the likely current and future effects of climate change.

Policy 2: Tier 1, 2, and 3 local authorities, at all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term.

Policy 5: Regional policy statements and district plans applying to tier 2 and 3 urban environments enable heights and density of urban form commensurate with the greater of: the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or relative demand for housing and business use in that location.

Policy 6: When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters:

- (a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement
- (b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes:
 - may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and
 - (ii) *are not, of themselves, an adverse effect*
- (c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1)
- (d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity
- (e) the likely current and future effects of climate change.

Policy 10: Tier 1, 2, and 3 local authorities:

- (a) that share jurisdiction over urban environments work together when implementing this National Policy Statement; and
- (b) engage with providers of development infrastructure and additional infrastructure to achieve integrated land use and infrastructure planning; and
- (c) engage with the development sector to identify significant opportunities for urban development.

Policy 11: In relation to car parking:

- (a) the district plans of tier 1, 2, and 3 territorial authorities do not set minimum car parking rate requirements, other than for accessible car parks; and
- (b) tier 1, 2, and 3 local authorities are strongly encouraged to manage effects associated with the supply and demand of car parking through comprehensive parking management plans



81. National Policy Statement for Freshwater Management

- 82. The NPS-FM took effect from 3 September 2020, and replaced the National Policy Statement for Freshwater Management 2014.
- 83. It contains objectives and policies relevant to land use developments impacts (particularly those arising from water use for water supply, wastewater management and stormwater management) on freshwater resources.
- 84. The following objective and policies are of specific relevance:

Objective

The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems
- (b) second, the health needs of people (such as drinking water)
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Policy 1

Freshwater is managed in a way that gives effect to Te Mana o te Wai.

Policy 3

Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Policy 15

Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.

85. Proposed National Policy Statement Highly Productive Land

- 86. In addition to the above NPSs, it is worth commenting on the Proposed National Policy Statement for Highly Productive Land (PNPS-HPL) which proposes to protect highly productive land from inappropriate development. Under the current proposal highly productive land defaults to being any land with a land use capability class of 1-3 until such time as Regional Councils undertake an assessment to specifically classify such land within their regions.
- 87. An assessment of the proposed plan change against the PNPS-HPL was included in the s32 report. Further, this topic was raised through submissions and is therefore addressed in Section 5 of this report.

4.3 New Zealand Coastal Policy Statement

88. Under Section 75(3)(b) of the RMA, a District Plan must give effect to any New Zealand Coastal Policy Statement (NZCPS). There are no specific provisions in the NZCPS which are considered directly relevant to Proposed PC4 as the area is not within and/or does not affect the coastal environment.



4.4 Horizons Regional Council One Plan

- 89. Under Section 75(3)(c) of the RMA, a District Plan must give effect to any Regional Policy Statement which, in this instance, is the Horizons Regional Council's 'One Plan' (which comprises a combined Regional Policy Statement and Regional Plan).
- 90. Chapter 1 of the One Plan sets out the 'Big Four' environmental issues for the region. These include:

Big Four Issues	Relevance to Proposed Plan Change
Surface water quality degradation	 Relevant in terms of managing surface water from the development area
Increasing water demand	 Relevant in terms of the demand for water generated by the development
Unsustainable hill country land use	 Not relevant to the proposed plan change
Threatened biological diversity	 Relevant in terms of the stands of native bush within the proposed plan change area

91. An assessment of the plan change against key One Plan Objectives and Policies was included in the s32 report. Further, this topic was raised through submissions and is therefore addressed in Section 5 of this report.

4.5 Operative Horowhenua District Plan

- 92. A full review of the former District Plan (1999) was undertaken between 2009 and 2013, with the Council making its second generation District Plan (the Plan) operative on 1 July 2015. Since this time, HDC have adopted two plan changes:
 - Plan Change 1: incorporated additional heritage buildings, structures and sites into Schedule 2 of the District Plan. This plan change became operative from 1 November 2018.
 - Plan Change 2: amended a limited number of provisions related to residential development, specifically for infill and medium density development. This plan change became operative from 1 November 2018.
- 93. The District Plan follows a predominately 'zoned based' structure, with Objectives, Policies, Methods, Anticipated Environmental Results, Explanation and Principal Reasons relating to the Residential, Greenbelt Residential, Commercial and Open Space Zones. Additionally, the District Plan contains chapters managing vehicle access, parking, loading and roading (Chapter 21), utilities and energy (Chapter 22) and subdivision and development (Chapter 24). These existing provisions are not proposed to be altered by the plan change, but do have relevance to the plan change area.



4.6 Wellington Regional Growth Framework

- 94. The Wellington Regional Growth Framework (the Framework) is a spatial plan that describes a long-term vision for how the region will grow, change and respond to key urban development challenges and opportunities in a way that gets the best outcomes and maximises the benefits across the region.
- 95. The framework has been developed by central government, mana whenua, and Councils in the Wellington Region. While Horowhenua District is not part of the Wellington Region, Horowhenua District Council was involved in developing the framework given Wellington's growth pressures directly impact on Horowhenua.
- 96. The Wellington Regional Growth Framework identifies Tara-Ika as one of the key future urban growth areas to support growth⁷.

5 Discussion and Analysis of Submissions

5.1 Whole Plan Change and General Matters

5.1.1 Plan Change Process

97. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/19	04/19.05		Oppose
04/22	04/22.01		Oppose
04/39	04/39.02		Oppose

Number Point	ubmission lumber	Submission Point	Submitter Name	Submission	Submission
--------------	---------------------	---------------------	----------------	------------	------------

98. Overview of Topic

99. Several submissions questioned whether the correct process was followed in preparing and notifying the plan change, particularly in respect of consultation with landowners and iwi.

100. Summary of Submissions

- 101. **Standard (Submitter 04/19)** outlined his view that the consultation process was a 'rubber stamping' exercise on the basis that Prime Minister Jacinda Ardern attended an onsite ground-breaking ceremony in December 2020, which was ahead of the plan change hearing. The submitter sought for the plan change to be rejected in its entirety.
- 102. **(Submitter 04/22)** stated that the owners of 1134 Queen Street East had not been given information or opportunity for involvement during the preparation of the Tara-Ika master

⁷ https://wrgf.co.nz/



plan and subsequent plan change. The submitter sought specific engagement with the landowners of 1134 Queen Street East.

103.

(Submitter 04/39) stated engagement with iwi had been insufficient on the basis that it had occurred with Muaūpoko Tribal Authority only.

104. Analysis

- 105. I am of the opinion that the plan change process, including the notification and engagement process, has been carried out in accordance with the requirements of the RMA. The process undertaken up until the point of notification is documented in the Section 32 assessment report⁸. Since this time, the proposed Plan Change was publically notified for a period well in excess of the minimum 20 working days requirement. This process included a public notice being issued in the Horowhenua Chronicle and on Horowhenua District Council's website and written notification to all owners of properties within the plan change area. Additionally, a number of information sessions were held at Te Takeretanga o Kura-hau-pō throughout this period. The further submission period was also carried out in accordance with RMA requirements.
- 106. While the Prime Minister attended a 'ground breaking' ceremony at Tara-Ika in December 2020 (during the submissions period), this ceremony was to recognise the funding received from government towards the costs of infrastructure and was not related to the Plan Change process. I note the Tara-Ika area was expected to be serviced by reticulated infrastructure under the existing Deferred Greenbelt Residential (pre-Plan Change) zoning. The funding awarded does not represent or influence the outcome of the RMA process.
- 107. I have met with the owners of 1134 Queen Street East on several occasions since the Plan Change was notified. These landowners have stated they did not receive the information mailed to them and other landowners about the development of the Tara-Ika Master Plan on several occasions ahead of the formal RMA process commencing. I understand that these landowners consider that this has limited their ability to be involved in the process. I note that these landowners have submitted on the Plan Change and have actively engaged in pre-hearing meetings. I also note I have made myself available to them and their family members on several occasions to explain the Plan Change provisions, information, and process. I do not believe that the landowner's ability to participate in the RMA process has been compromised.
- 108. Muaūpoko Tribal Authority (MTA) are the mandated iwi authority for Muaūpoko. However I understand the Tamarangi Hapū of Muaūpoko have advised Council that MTA do not represent them. For this reason, engagement on the Plan Change was undertaken directly with Tamarangi Hapū, as detailed in the Section 32 report.
- 109. Recommended Decision
- 110. I recommend submission points 04/19.05, 04/22.01 and 04/39.02 be rejected.
- 111. That further submission points are accepted or rejected respectively.

⁸ https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/ppc4/proposed-plan-change-4taraika-growth-area-section-32-report.pdf (Section 4)



5.1.2 Whole Plan Change

112. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/04	04/04.01		Oppose
04/19	04/19.01		Oppose
04/26	04/26.06	Horowhenua District Residents and Ratepayers Association	Unclear
04/27	04/27.01		Support
04/30	04/30.01	Horizons Regional Council	Support in part
04/30	04/30.09	Horizons Regional Council	Support in part
04/34	04/34.01	Waka Kotahi	Support in part
04/36	04/36.01		Support

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/83	-		04/19	Oppose

113. Overview of Topic

114. Several submissions were received relating to general plan change matters, including the merits of the plan change as a whole, the extent of the area covered by the plan change, activity status and assessment matters of subdivision across all zones within the plan change area and how existing activities will be provided for.

115. Summary of Submissions

- 116. (Submitter 04/04) opposes the plan change on the basis that it does not include land on the north side of Queen Street and seeks that this land is included. (Submitter 04/19) opposes the plan change in its entirety, stating the land should be used for food production. (Submitter Content of Street and S
- 117. Horowhenua District Residents and Ratepayers Association (Submitter 04/26) questions how the proposed plan change provisions will be followed. The submission does not seek any particular relief.
- 118. **Mathematik** Horizons Regional Council, Waka Kotahi, and Ms McKay (Submitters 04/27, 04/30, 04/34 and 04/36) all generally support the intention of the proposed plan change to provide for additional housing in a manner that increases housing variety, encourages quality and gives effect to the growth strategy and master plan. However, each of these submitters seeks various amendments to the plan change provisions, which will be detailed in subsequent sections of this report under the relevant topic headings.



(Further Submitter FS04/83) opposing submission, stating that while he raised some valid points, the plan change was needed due to the housing crises.

120. Analysis

119.

- 121. The land on the northern side of Queen Street is not part of the proposed plan change. Identifying plan change extent is important for understanding effects, including what is required to service the development (e.g. schools, commercial area, three waters infrastructure). The plan change area has been identified as a growth area since 2008, is currently zoned Greenbelt Residential (deferred) in the District Plan and is identified for 'upzoning' in the Horowhenua Growth Strategy. Further, the proposed plan change site is primarily non-versatile land⁹ (with the exception of the area covered by Waiopehu Bush) and has been extensively master planned. As such, I consider the proposed plan change extent to be logical. The submitter did not put forward any reasons for why the land north of Queen Street should be included in the plan change, nor do they spatially identify the exact area of extent of land they seek for inclusion, but I note the land north of Queen Street generally is currently zoned Rural in the Horowhenua District Plan, is not identified as a growth area in the Horowhenua Growth Strategy 2040 and contains 'versatile' soils.
- 122. Furthermore, I consider increasing the extent of the plan change area by way of submission is likely to be out of scope of the plan change and at the least would negatively impact the ability for the potentially affected parties to participate in the process. For example, landowners and residents on the northern part of Queen Street may have viewed the proposed plan change material and, based on the extent included, decided not to make a submission. For the reasons above, my opinion is that it would be inappropriate to increase the extent of the plan change through this process and that this would not be an effective method for achieving the plan change objectives.
- 123. The need and justification for PPC4 is detailed in the s32¹⁰ report. To summarise, the Horowhenua District is experiencing rapid population growth which is expected to occur for at least the next twenty years. House prices are increasing significantly, which is having a negative impact on the wellbeing of people in the community for whom housing costs (including rents) are unaffordable.
- 124. Furthermore, a lack of housing makes it more difficult for people to find housing that suits their needs (such as accessibility needs, location, house size). The NPS-UD directs Councils to provide for housing that allows people to meet their needs, including enabling growth both 'up' and 'out' i.e. allow increased building heights within existing urban areas and allow expansion of urban areas in rural areas (Objectives 1 and 2, Policies 1 and 5¹¹.)
- 125. The plan change area is largely comprised of class three soils using the Land Use Capability Classification system, which are not considered 'versatile' under the Horowhenua District Plan. While I acknowledge the Proposed National Policy Statement for Highly Productive Land proposes to classify class 3 soils as 'versatile', land use class 1-3 soil covers 41% of the Horowhenua District and surrounds all of the District's urban settlements (Horowhenua District Council WebMap, original source New Zealand Land Resource Inventory LandCare Resource). Therefore, some

⁹ The Horowhenua District Plan define 'versatile land' and Land Use Classification 1 and 2.

¹⁰ https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/ppc4/proposed-plan-change-4taraika-growth-area-section-32-report.pdf

¹¹ https://environment.govt.nz/assets/Publications/Files/AA-Gazetted-NPSUD-17.07.2020-pdf.pdf)



encroachment onto these types of soils is likely to be required to fulfil the requirements of the NPS-UD. The plan change area is already identified as Greenbelt Residential Deferred, which would allow for subdivision down to 2,000m2 and 5,000m2 depending on the exact location. A significant amount of this type of development has already occurred at the outer edges of the plan change area. Therefore this area does not represent a typical food production environment and, when considering what the level of development the Operative District Plan provides for, does not represent additional loss of productive land. I consider that providing for a greater lot yield in this location may have a positive impact on protecting production land as it may reduce demand for further urban expansion in other locations. Therefore, I consider enabling urban development in this location to be an appropriate outcome.

- 126. Should the plan change be approved and become operative, the outcomes sought will be achieved through plan provisions (objective, policies, structure plan, and rules) and the resource consent process. For example, an application to subdivide will require resource consent. The resource consent application will need to set out how the proposed subdivision meets the Plan requirements (e.g. rules). If rules are proposed to be breached, the applicant will have to provide an assessment of why this breach is appropriate. The application will be assessed and determined (and consent granted or refused) by Council.
- 127. The comments in support made in submissions points 04/27.01, 04/30.01, 04/30.09, 04/34.01 and 04/36.01 are acknowledged.
- 128. Recommended Decision
- 129. That submission points 04/04.01, 04/19.01 and 04/26.06 be rejected.
- 130. That submission points 04/27.01, 04/30.01, 04/30.09, 04/34.01 are accepted in part.
- 131. That further submission points are accepted or rejected respectively.

5.1.3 Social Impacts

132. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/19	04/19.04		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
No further subm	nissions received on this	topic	<i>t</i> .	

133. Overview of Topic and Summary of Submission

- 134. **Submitter 04/19** opposes the entire plan change, stating that Levin's health services are insufficient, with no accident and emergency service and long wait times to see a Doctor.
- 135. Analysis



- 136. While the issues raised by the submitter are acknowledged, lack of health services cannot be addressed through this plan change, beyond providing opportunity for such activities to establish within the plan change area. This is because Council has no jurisdiction over health care services.
- 137. Under the Operative District Plan, community activities (including medical centres) are permitted in the Commercial Zone, Restricted Discretionary in the Open Space Zone, and Discretionary Activity in the Residential Zone. The same approach is proposed for Tara-Ika.
- 138. It is noted that Council has previously engaged with MidCentral District Health Board about growth that is occurring in the District.
- 139. Recommended Decision
- 140. That submission 04/19.04 be rejected.

5.1.4 Subdivision Activity Status and Assessment Matters

141. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/27	04/27.03		Oppose
04/27	04/27.04		Oppose
04/28	04/28.01		Oppose
04/33	04/33.04	Truebridge Associates	Oppose
04/33	04/33.08	Truebridge Associates	Oppose
04/33	04/33.11	Truebridge Associates	Oppose
04/33	04/33.20	Truebridge Associates	Oppose
04/33	04/33.23	Truebridge Associates	Oppose
04/33	04/33.24	Truebridge Associates	Oppose
04/38	04/38.09		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/22	FS04/22.05	Truebridge Associates (jointly on behalf of	04/25	Partially Support
FS04/22	FS04/22.06	Truebridge Associates (jointly on behalf of	04/27	Support
FS04/22	FS04/22.03	Truebridge Associates (jointly on behalf of	04/24	Support



FS04/25	FS04/25.09	04/38.09	Support
FS04/91	FS04/91.11	04/33	Support

142. Overview of Topic

- 143. A number of submissions raised matters relating to the activity status of subdivision and the associated assessment matters. Submissions received relating to infrastructure requirements for subdivision are covered elsewhere in this report, under the 'infrastructure' heading.
- 144. Summary of Submissions
- 145. **145. 145**
- 146. If the subdivision and Truebridge Associates sought a range of amendments to the subdivision assessment matters including consequential amendments relating to the request for complying subdivision to be a controlled activity (for example, relocating restricted discretionary activity conditions and selected matters of discretion to controlled activity conditions and matters of control). These submission points also generally seek for the number of subdivision assessment matters to be reduced, stating that some aspects (such as tikanga, earthworks, and heritage) are controlled by other agencies and that other matters (such as variety of lot sizes, design and layout of subdivision, and staging and timing of works) create too much uncertainty for developers and should therefore be at the developer's discretion. The submitters' requested approach for moving assessment matters to matters of control, matters of discretion, or removing entirely varies slightly between zones.
- 147.

(04/38) opposes limits on rear sections.

- 148. Further submissions were received supporting submitters requests that subdivision complying with standards be treated as a controlled activity. These further submissions were from Truebridge Associates (FS04/22) and **Internation** (FS04/91).
- 149. The further submission received from Truebridge Associates (further submitter FS04/22) submission partially supports the Horowhenua District Council Officers Submission (submission 04/25), supporting (in part) this submitters requests relating to zoning type (covered Section 5.2.2 of this report), but seeking subdivision be changed to a controlled activity. It is noted that the activity status of subdivision was not raised by the Horowhenua District Council Officers Submission.
- 150. Another further submission was received from the submission provide the submission of the submission of the submission provide the submission of the su

sections.



151. Analysis

152. Activity Status of Subdivision

- 153. Section 3.4 of the NPS-UD outlines that development is considered zoned for development and therefore plan enabled if the housing (or business) use is provided for as a permitted, controlled, or restricted discretionary activity. As such, I do not agree with the submitters' view that using a restricted discretionary activity status is contrary to the NPS-UD.
- 154. I note that the scale of development expected to occur within the plan change area is likely to be much greater than what has been experienced elsewhere in the District. This scale has the potential to increase the nature and magnitude of adverse effects that need to be avoided, remedied, or mitigated. Examples of this are infrastructure capacity and traffic effects. Technical reports attached to this report state that upgrades to infrastructure assets such as treatment plants and state highway intersections may be required in order to allow Tara-Ika to be fully developed. Council has identified funding in its Long Term Plan 2021-2041 to allow upgrades to its assets and Waka Kotahi have identified funding for State Highway upgrades in its Safer Network Programme. However, if development occurs more quickly than anticipated, the limits on these assets may be reached before scheduled upgrade works occur, which could result in subdivision (and resulting development) generating adverse effects that cannot be effectively avoided, remedied, or mitigated through conditions on resource consent.
- 155. The restricted discretionary activity status also provides greater opportunity (than controlled activity status) to effectively implement the structure plan. Good roading and transport connectivity is a key feature of the structure plan and Objective 6A.1 of proposed PC4. The structure plan states that the location of arterial and collector roads is fixed, while the location of local roads are flexible. In either case, it is important that roads in adjoining subdivisions that cross property boundaries connect with each other. If subdivision is provided for as a controlled activity, the opportunity to influence important outcomes such as this is severely compromised as applicants know their subdivision consents will be approved regardless of whether or not this intent is achieved (in contrast to a Restricted Discretionary Activity, which can be declined if the proposal is contrary to the outcomes sought and does not effectively avoid, remedy, or mitigate adverse effects). Furthermore, such an approach would likely require a large number of performance standards/conditions in the rules for Controlled Activities that would need to be met, which would be highly complex and difficult to implement.
- 156. Restricted Discretionary activity status provides greater certainty of the outcomes sought. I do not consider restricted discretionary activity status to result in an unreasonable level of uncertainty for applicants. When processing resource consent applications for Restricted Discretionary activities, only matters which discretion is restricted to can be considered. This restriction gives applicants clarity on what will be considered. Furthermore, subdivisions that comply with the Restricted Discretionary activity standards were intended to be precluded from either limited or public notification (as indicated in the s32 report), avoiding the costs, delay and perceived uncertainty associated with notification processes. However, there was a drafting error in respect of this intention which was identified in the Horowhenua District Council Officer Submission (04/25). This submission point is evaluated in Section 5.9.1 (minor drafting edits) of this report, but the recommended wording is produced for reference below:



Under section 77D of the RMA, an activity requiring resource consent under Rule XXX shall not be publicly notified or limited notified, except where:

The Council decides special circumstances exist (pursuant to Section 95A(9); or

The applicant requests public notification (pursuant to Section 95A(3)(a)

157. Overall, I consider restricted discretionary activity status, with limited and public notification precluded, an appropriate balance between the need to provide certainty and the need to ensure potential adverse effects are able to be managed.

158. Assessment Matters – Residential Zone

159. Having reviewed the matters of discretion for subdivision, I am of the opinion that these can be refined and simplified to make them more efficient and effective. In particular, I recommend the following changes:

Matter of	Discretion	Change	Justification
		Recommended	
(i)	Consistency with Structure Plan 013	None	The submitter sought for this matter to be made a matter of control. As explained above, I consider Restricted Discretionary Activity status is appropriate. The Structure Plan is a key tool for achieving the outcomes sought. Therefore this should remain as a matter of discretion.
(ii)	For subdivisions within the medium density area, consistency with the Medium Density Residential Development Design Guide	None	A key outcome sought by the Plan Change is improved housing variety – particularly the provision of medium density housing. Given the higher density allowed under medium density zoning, there is greater potential for adverse effects associated with developing (building on) the sites. The most effective approach for managing these effects of medium density development is a concurrent application for land use and subdivision consents – this concurrent application provides for a single integrated assessment of the effects of the land use and subdivision. However, some landowners may wish to apply for subdivision consent first (separately from land use), to create lots at a 'medium density' scale for future development. The notified plan provisions require applications for subdivision consent to show a building siting plan (location and orientation of building footprint) to demonstrate the proposed lots can suitably be developed at a medium density scale.

Residential 15A.8.1.2(a)



			In these instances where subdivision is applied for separately, it is important that a complete assessment is undertaken, including an assessment against the medium density design guide. In these instances, it is anticipated that assessment against the design guide would focus on design guide matters relevant to lot layout and configuration, such as street frontage, relationship between properties, orientation, access and open spaces. Therefore this should remain as a matter of discretion.
(iii)	The design, and	None	I disagree with the submitter's comments that
	layout <u>and variety of</u>		this matter of discretion needs to be removed
	the subdivision		as it is 'over control' and does not provide
	including the size,		certainty. This matter of discretion provides
	shape and position		scope to assess the likely effects of
	of any lot, as well as		development enabled by subdivision. The
	the future land use		future use and outcomes of new lots is a
	and development of		fundamental aspect of both subdivision design
	each lot. In addition,		and assessment and it is important that this is
	connectivity and		considered by both applicants and the consent
	linkages (both within		authority. This matter of discretion is similar to
	and beyond the		Horowhenua District and other District Plans
	suburvision		within the region.
(iv)	Whether the	Delete	I consider this matter of discretion is
	subdivision contains		sufficiently covered by both the site area rules
	a variety of lot sizes		and matter of discretion 15A.8.1.2(a)(iii).
	suitable for the area		
	it is located within		Accordingly, I recommend this matter be
			deleted in its entirety.
(v)	Whether the	Delete	I consider this matter of discretion is
	subdivision and		sufficiently covered by both the site area rules
	likely future		and matter of discretion 15A.8.1.2(a)(iii).
	development will		
	represent good		Accordingly, I recommend this matter be
	urban design and		deleted in its entirety.
	will result in the		
	ievel of amenity		
	anticipated for the		
()	dred.	None	The submitter cought for this matter to be
(VI)		NOTE	made a matter of control
	publically accessibly		



op re ap lo pr sh wi 01	pen space and creation that is ppropriately cated and of a facticable size and hape, in accordance ith Structure Plan L3.		As evaluated above, I consider Restricted Discretionary Activity is the most appropriate activity status to achieve the objectives.
(vii) <u>W</u> <u>pr</u> ∓⊧ pr pl:	<u>Thether the</u> <u>oposal includes</u> he provision of acticable street antings.	Delete text shown in strikethrough Added text shown in <u>underlined</u> <u>italics</u>	Amend phrasing to show that provision of street plantings is optional and encouraged, rather than a prescriptive requirement.
(viii) Th <u>aa</u> ro ar lin ro ur th ali ex pr pa pa pa ar e a	ne provision of <u>ccess</u> , any new ads, cycleways, nd provision of hages to existing ads, access over or nder railway lines, e diversion or teration of any tisting roads, the rovision of access, assing bays, arking and anoeuvring areas, ad any necessary asements.	Delete text shown in strikethrough Added text shown in <u>underlined</u> <u>italics</u>	Matters of discretion (viiii) and (ix) cover similar matters. Condensing them into a single matter and removing aspects that are not relevant to this location (such as reference to rail lines) will improve the efficiency and effectiveness of the provisions. As such, I recommend the changes noted.
(ix) Th ac in ba ar ar ne ea	ne provision of access to sites, cluding passing ays, car parking ad manoeuvring eas, and any ecessary asements	Delete	I consider this matter of discretion is sufficiently covered by amended matter of discretion 15A.8.1.2(a)(viii). Accordingly, I recommend this matter be deleted in its entirety.
(x) Th tra ar ac th	ne management of affic generated nd potential Iverse effects on e safety and	None	As evaluated above, I consider Restricted Discretionary Activity is the most appropriate activity status to achieve the objectives. Therefore this should remain as a matter of discretion.



r			
	efficiency of the		
	street network.		
(xi)	Minimise use of cul	None	Maintaining good levels of connectivity is a key
	de sacs, particularly		outcome sought by this plan change. The
	cul de sacs that are		provision as stated does not preclude the use
			of oul do coose but rather requires that they be
			of cul-de-sacs, but father requires that they be
	visibility to or from		used in appropriate contexts. As such, i
	the street they		consider this matter of discretion important to
	connect to.		uphold the objectives and policies of the plan
			change.
			Therefore this should remain as a matter of
			discretion.
(xii)	Consideration of		As evaluated above. I consider Restricted
()	Crime Prevention		Discretionary Activity is the most appropriate
	thursen the second seco		activity status to achieve the objectives.
	through		
	Environmental		Therefore this should remain as a matter of
	Design Principles.		discretion.
(xiii)	The provision of		As evaluated above. I consider Restricted
(,,	servicing including		Discretionary Activity is the most appropriate
	water cupply		activity status to achieve the objectives.
	water suppry,		
	wastewater systems,		Therefore this should remain as a matter of
:	stormwater		discretion
	management and		
	disposal,		
	telecommunications,		
	gas and electricity.		
(xix)	Effocts on significant		I do not agree with the submitter's $(04/22)$
(×1V)	sites and features	None	claim that this assessment matter can be
	sites and features,		delated on the basis that Heritage New
	including natural,		Zealand manage this effect. While Heritage
	cultural,		New Zealand Poubere Taonga play an
	archaeological and		important role in the management of historic
	historical sites.		heritage this role does not absolve local
			authorities of responsibility. Protection of
			historic beritage from inappropriate
			subdivision use and development is a matter
			of national importance under s6(f) of the RMA
			The Horowhenua District Plan recognises and
			provides for this protection through identifying
			historic heritage sites and buildings which are
			protected through objectives, policies and
			rules. While there are no listed historic
			heritage sites within the plan change area. or
			listed cultural or archaeological sites in the
			District Plan, I am aware that there are sites



			within the Plan Change area that have heritage or cultural value. The Prouse Homestead, being pre-1900, is also an archaeological site. There is an equivalent matter of control and/or discretion for subdivision in the Residential Zone of the Operative Horowhenua District Plan.
(xv) Avoid	ance or	-	As such, this matter of discretion is important to recognise and provide for a matter of national importance and for consistency with the remainder of the District Plan. As evaluated above, I consider Restricted
mitiga hazar	ition of natural ds.		Discretionary Activity is the most appropriate activity status to achieve the objectives. Therefore this should remain as a matter of discretion.
(xvi) Mana constr includ move of ope earth erosic sedim	gement of ruction effects, ing traffic ments, hours eration, noise, works and on and ent control.		There is an equivalent matter of control and/or discretion for subdivision relating to construction effects in the Residential Zone of the Operative Horowhenua District Plan. This matter has not been raised as an issue elsewhere in the District and, given the scale of subdivision and development expected to occur in Tara-Ika, it is considered extremely applicable. Having reviewed the Subdivision and Design Principles and Requirements ¹² , I believe the submitter (04/33) may have not fully understood how this matter is covered within this document. In order to ensure adverse effects during the construction period are appropriately managed and to maintain consistency with the Operative Horowhenua District Plan, this matter should be retained.
(xvii) Whet and cu proto follow consti partic under earth	ner tikanga ultural cols will be ring during the ruction phase, ularly when taking works.		The submitter (04/33) may be unclear or confused about the role of Heritage New Zealand relating to tikanga and cultural protocols being followed during construction and earthworks. Heritage New Zealand are not responsible for ensuring tikanga and cultural protocols are followed during construction and earthworks.

¹² <u>https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/documentsincorporated/pc1-subdivision-and-development-principles-and-requirements-2014-version-clean-final.pdf</u>





(xix)	Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).	As evaluated above, I consider Restricted Discretionary Activity is the most appropriate activity status to achieve the objectives. Therefore this should remain as a matter of discretion.
(xx)	The potential effects of the development on the safe and efficient operation, upgrading, maintenance and replacement of existing lawfully established network utilities.	As evaluated above, I consider Restricted Discretionary Activity is the most appropriate activity status to achieve the objectives. Therefore this should remain as a matter of discretion.

160.

(04/38) opposed restrictions on rear sections. This restriction arises from the requirement set out in Table 15A-3 that specifies all sites must have at least 7m of road frontage. The Tara-Ika Master Plan sought for minimal use of rear sections, as a means of promoting CPTED and walkability. This desired outcome was the basis for the standard. As currently worded, the provision contained within Table 15A-3 prevents the creation of any rear sections through complying (restricted discretionary) subdivision. This is very restrictive as there is likely to be instances where rear sections will be the most effective means of utilising the land. Furthermore, enabling both rear lots and street fronting lots improves choice and variety. The remaining plan provisions relating to subdivision (such as the restricted discretionary activity status, shape factor requirement, and matters of discretion relating to subdivision design and layout) provides a means of avoiding overuse of rear sections, while also providing flexibility. As such, I consider removing the street frontage requirement from Table 15A-3 and allowing the outcome sought by this provision to be managed through other provisions, to be an efficient and effective means of achieving the plan change objectives.

161. I recommended that consequential amendments be made to corresponding matters of discretion for subdivision in all other zones to provide consistency.

162. Assessment Matters – Commercial

- 163. Commercial 15A.8.2.4(a)
- 164. Many of the submission points raised in relation to the matters of discretion for commercial subdivision are similar to those raised in relation to residential subdivision (primarily whether matters of discretion should be changed to matters of control and whether the matter in question is managed by another agency). As such, I do not consider it necessary to repeat the evaluation. The evaluation above for the corresponding residential subdivision matter of discretion therefore apply. Refer to the above table. Therefore, the following analysis will focus only on matters where submitters have raised additional points.



- 165. 15A.8.2.4(a)(iii) The amalgamation of any proposed allotments or balance areas to existing titles of land.
- 166. I agree with the point raised by the submitter (04/33) that conditions cannot involve land that is not part of the subdivision application. However, this outcome or situation is not the intent of the matter of discretion. This matter of discretion exists as a matter of control elsewhere in the Operative Horowhenua District Plan in zones where there is no minimum site size for subdivision (e.g. commercial, open space, industrial). In these zones, there is potential that subdivision could result in the creation of very small, unusable lots. This matter of discretion provides clear guidance that lots can be amalgamated with other lots or titles that form part of the application to achieve an appropriate outcome. I consider this approach to be effective and efficient to achieve the outcome of creating useable lots through amalgamation. I am not aware of any issues associated with this approach elsewhere in the District. I note that amalgamation conditions are required to be approved as practicable by Land Information New Zealand. It is my understanding that Land Information New Zealand would not approve an amalgamation condition seeking to amalgamate land that is not part of the subdivision. As such, I do not consider it likely that the situation that the submitter is concerned about likely to arise.
- 167. 15A.8.2.4(a)(iv) The provision of any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements
- 168. The submitter (04/33) seeks that 15A.8.2.4(a)(iv) be deleted as it is covered by 15A.8.2.4(a)(ii). I disagree with this statement. Matter of discretion 15A.8.2.4(a)(ii) relates to subdivision design and layout, including the size, shape, and layout of lots. Matter of discretion 15A.8.2.4(a)(iv) relates to roads and access. I consider these matters relate to two distinct and separate issues and that both are required. I do however, recommend some wording changes to 15A.8.2.4(a)(iv) to achieve consistency with the recommended changes to the corresponding residential zone matter detailed earlier in this report.
- 169. Assessment Matters Open Space
- 170. *Open Space 15A.8.3.1(a)*
- 171. Refer to the assessment provided above for 15A.8.2.4(a)(iii).

172. Assessment Matters – Greenbelt Residential

- 173. Greenbelt Residential 15A.8.4.1(a)
- 174. As previously referenced, I consider Restricted Discretionary Activity to be the most appropriate activity status for subdivision. The reasons for this conclusion are not repeated here.
- 175. I disagree with the submitter's statement that 'servicing' in Greenbelt Residential Zone should only relate to effluent disposal on the basis that water supply can be via roof collection if reticulated water is not available. The intention is for the plan change area to have access to



reticulated services. Furthermore, it is important for subdivision applications to set out the proposed means of servicing regardless of whether they are proposing to connect to reticulated servicing or utilise onsite means.

- 176. Recommended Decision
- 177. That submissions 04/27, 04/28, 04/33 and 04/38 be accepted in part in relation to this topic.
- 178. That further submission points are accepted or rejected respectively.

5.1.5 Existing Land Uses

179. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/38	04/38.10		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/25	FS04/25.10		04/38	Support

180. Overview of Topic & Summary of Submissions

(Submitter 04/38) seeks for existing uses, such as farms, to be provided for as a permitted activity. (further

submitter FS04/25) support this request.

182. Analysis

- 183. Existing uses are provided for by Section 10 of the Resource Management Act 1991, which states that land uses lawfully established before the plan (or plan change) was notified can continue, so long as the effects of the use are the same or similar in character, intensity, and scale to those which existed before the rule became operative or the proposed plan was notified. The plan change area is currently zoned Greenbelt Residential Deferred. The Operative Horowhenua District Plan 2015 states that the Rural Zone rules apply in the Greenbelt Residential Deferred Zone. Therefore, any activities that were established prior to notification of Plan Change 4 (16th November 2020) and are permitted in the Rural Zone (or otherwise lawfully established) are able to continue. These rights include land based primary production (farming). Therefore, I do not consider it necessary or appropriate to include 'existing uses' as a permitted activity.
- 184. Recommended Decision

^{181.}



- 185. That submission point 04/38.10 be rejected.
- 186. That further submission points are accepted or rejected respectively.

5.2 Well-Functioning Urban Environments

5.2.1 Structure Plan

187. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/02	04/02.01		Oppose
04/06	04/06.01		Oppose
04/18	04/18.02		Oppose
04/18	04/18.01		Oppose
04/31	04/31.02	Incite (on behalf of Redwood Grove Properties)	Oppose
04/36	04/36.02		Support
04/38	04/38.03		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/85	2		04/18	Oppose
FS04/22	FS04/22.25	Truebridge Associates (jointly on behalf of	04/18	Partially Oppose
FS04/34	FS04/34.02		04/31	Oppose
FS04/26	FS04/26.02		04/31	Partially Support
FS04/25	FS04/25.03		04/38.03	Support
FS04/01			04/06	Support

188. Overview of Topic

189. A number of submissions were received in relation to features shown on the Structure Plan.



190. Summary of Submissions

- 191. Many of the submissions relating to the Structure Plan focussed on the location and nature of roads.
- 192. (Submitter 04/06) opposes additional roads connecting to Gladstone Road, stating that these connections will create traffic issues, such as racing behaviours. The submitter seeks measures to encourage recreational activities on Gladstone Road to occur instead.
- 193. Incite (on behalf of a range of Redwood Grove Residents) and second and a second seco
- 194. Incite (on behalf of a range of Redwood Grove Residents) and **Example** (Submitters 04/18, 04/31 and 04/38) all oppose aspects of the collector road located between Arapaepae Road and Redwood Grove. **Example 1** and Incite (on behalf of a range of Redwood Grove Residents) also oppose the arterial road east of Redwood Grove. These submitters seek the roads be shifted 100m away from Redwood Grove properties to protect amenity. Submitter 04/38 seeks for the easternmost north/south collector road to be downgraded to a local road to reduce impacts on the submitter's historic homestead.
- 196. **Example 196** (Submitter 04/02) opposes local roads being shown on their property, stating they have no intention of developing or selling.
- 197. **Submitter** (Submitter 04/36) seeks a walking/cycling connection from Pohutukawa Drive in to the plan change area to be shown on the structure plan, or alternatively provision for direct pedestrian access from the submitter's property on to the proposed arterial road shown on the structure plan running north-south adjacent to the submitter's property.
- 198. A number of further submissions were received specifically in relation to this topic from Truebridge Associates

FS04/01, FS04/22,

FS04/31, FS04/34, FS04/38 and FS04/85).

- 199. In the supported the request by Ms Leighfield that no new roads be created with access onto Gladstone Road. Truebridge Associates and the submitter of the request by submitter . In the submitter is a submitter of the request in Redwood Grove and the rest of the development area.
- 200. opposed the request by submitter Jack to relocate arterial and collector roads away from properties in Redwood Grove. supported the request by the supported the request by the support of the request by the suppo



to remove the road into Redwood Grove and downgrade collector road on Prouse property to a local road.

201. partially supported the request by Incite (04/31) to set arterial and collector roads back from Redwood Grove.

202. Analysis

203. Arterial and Collector Road

- 204. Providing for a neighbourhood centre (commercial and community activities) to establish at the heart of the development area and good connectivity both within Tara-Ika and to Levin is a key outcome sought by the plan change. The roading network, including the location of arterial and collector roads, have been designed to facilitate this. For example, the arterial roads provide north-south and east-west movement links and are positioned centrally to the plan change area to provide direct access to the commercial community centre. Shifting the location of the either the arterial or collector roads would likely necessitate moving the commercial/community centre. The proposed location for this centre was carefully considered through the Master Plan process and justification for the location selected is set out in the Tara-Ika Design Rationale in the Master Plan report. Therefore, I consider the location of the commercial centre and associated roading network logical and central to achieving the objectives sought.
- 205. In terms of concerns from submitters about loss of amenity from the location of the arterial and collector road, the submitters have not provided detail of the nature and scale of amenity effects they are concerned about. For guidance on this matter, I have referred to Waka Kotahi's "Guide to the management of effects on noise sensitive land use near to the state highway network" identifies the 'effects area' in relation to State Highways is generally up to 100m from the road edge. This is for high speed (100kph) state highways. The roads within the Tara-Ika will have much less traffic (in particular, less heavy vehicles) and much lower speeds (e.g. 50kph) and will therefore generate far less significant effects than a state highway.
- 206. Roads within Tara-Ika will be low speed (e.g. 50kph) and of a very similar nature to what exists in the wider urban environment. I do not consider potential amenity effects arising from the location of these roads to be greater than what would typically be observed within urban environments. As such, if the wider Tara-Ika area is deemed to be appropriate for urban development, the effects generated by urban roads will also be acceptable. While I acknowledge that proposed roads (and the plan change as a whole) will result in a change to the amenity experienced by existing residents (including Redwood Grove), this change is not in itself an adverse effect (as stated by Policy 6(b) of the NPS-UD¹³). Accordingly, I do not consider the current location of the arterial and collector roads to have a significant impact on either the amenity of properties in Redwood Grove or the heritage value of the Prouse homestead. In particular, I do not consider there to be justification to move the arterial and collector roads to be 100m from Redwood Grove so as to protect existing amenity.

¹³ https://environment.govt.nz/assets/Publications/Files/AA-Gazetted-NPSUD-17.07.2020-pdf.pdf



- 207. I also note that the location of these roads have been determined to provide direct access through the centre of the development area from the outer edge to the Tara-Ika neighbourhood centre and to the Levin town centre.
- 208. I do not consider the proposed collector road nearest to Arapaepae Road to have an adverse effect on the homestead located or an adverse property. This is because it will be located approximately 70m from the dwelling. As indicated in the Integrated Traffic Assessment (ITA) report included as Appendix 11 of this report, the 'collector road' status is considered necessary to achieve the desired level of connectivity throughout the development area. Further consideration is given to this point under the 'Transport' heading of this report.
- 209. I also note that the historic building, while pre-1900 and therefore an archaeological site, is not listed with either Heritage New Zealand or in the Horowhenua District Plan and could therefore be heavily modified, to the point where heritage value is lost, as of right. However, based on information provided by the submitter and heritage assessments carried out by Waka Kotahi as part of the Ōtaki to North Levin highway investigations¹⁴, I do accept the dwelling has heritage value. For this reason, I do not consider it appropriate to relocate the collector road to be 100m away from properties in Redwood Grove, as requested by submitter Incite (on behalf of a range of Redwood Grove Residents), because this would result in the road being approximately 1m from the homestead. This matter was identified by further submitter **Determined State State**
- 210. Based on the ITA included as Appendix 11 of this report, I do not consider it likely that the north-south road between Arapaepae Road and Gladstone Road will cause significant traffic effects. Further based on the ITA, I consider this connection will help to improve connections between Tara-lka and the rest of Levin with the Tararua Ranges and the recreation opportunities available in the vicinity. The road will be designed and constructed in a manner that provides a safe and efficient movement corridor (for example, traffic calming may be used), as this is a key outcome sought by the objectives and policies of the proposed plan change, as well as the Tara-lka Master Plan. Further, it is likely that Gladstone Road will be upgraded to address any safety issues. Such changes would take into account expected use (for example, servicing a more urban function). Such changes could include intersection upgrades and footpaths, which provide more opportunity for active transport modes. Considering the above, and the assessment provided in the traffic report included as Appendix 11 of this report, I do not consider it efficient or effective to remove the connection onto Gladstone Road as it would not achieve the level of connectivity sought in the objectives.
- 211. The structure plan specifies that the location of local roads are flexible. Local roads are shown on the structure plan to demonstrate the level of connectivity anticipated. Further, it allows future landowners/developers to benefit from the detailed design and planning undertaken in developing the Tara-Ika Master Plan. These local roads do not need to be constructed until such time as a landowner chooses to subdivide. This approach provides landowners with a high degree

¹⁴ https://www.nzta.govt.nz/assets/projects/otaki-to-north-of-levin/docs/technical-reports/mcareports/O2NL-Community-MCA-Report-September-2017-Appendix-F.pdf



of flexibility over where and when the roads are constructed. While I understand many landowners, especially smaller landowners, may have no short term intentions to sell or develop, it is conceivable it could take 10-20 years for Tara-Ika to become fully developed. Landowner aspirations can change significantly over this time. Therefore, I consider it efficient and effective to make provision for the desired future outcome of a connected street to be achieved. Therefore, I do not recommend removing the local road shown from the submitter's property.

- 212. As noted by (Submitter 04/36), the draft Tara-Ika master plan showed a connection between Pohutukawa Drive and the rest of the Tara-Ika area. During the drafting stage, this connection was removed. This was due to feedback from property owners and residents in Pohutukawa Drive who opposed activity that would increase traffic on Pohutukawa Drive. The submitter seeks for this connection to be reintroduced as a walking or cycling connection or, alternatively, for the submitter to have pedestrian access from their property onto the identified arterial road. While there is no connection shown on the structure plan in this location, this does not preclude one from being established in the future (for example, roads are created as part of subdivision proposals throughout the District without being demonstrated on a structure plan). As it is not yet known whether this would be the case and, if so, the nature of access requirements I do not consider it appropriate to show a walking/cycling only connection location as it could create the perception that this would be the only form of connection suitable in this location. As such, I consider this matter best resolved by way of future resource consent (if development is to occur in this location), so the appropriate type of connection can be determined based on assessment of a particular proposal and the nature of the surrounding environment.
- 213. In regard to **determined** request for direct pedestrian access from her property on to the proposed arterial road, I note that if this road is constructed in the future, they would have the option of installing a pedestrian connection (e.g. pedestrian gate) into this if they chose to.

214. Central Open Space and School Site

215. The plan change objectives specifically seek to achieve an integrated, walkable and connected urban form. The key objective to this effect is reproduced below (as notified):

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design.



- 216. The location of commercial and community facilities (including the education site and public open space) are critical to achieving the desired urban form. By locating these facilities close to the centre of the development, they are accessible to a greater number of people. The proposed location is expected to be well serviced by transport infrastructure, including cycleways. Co-locating the community facilities with the commercial zone delivers on the objective of providing an integrated urban form as it will provide a resilient, multi-functional heart which will give people a wide range of reasons to visit. This also gives effect to Policy 1 of the NPS-UD¹⁵.
- 217. I note that several locations for the commercial and community centre were considered when developing the Master Plan. The assessment of these alternatives and the justification for the proposed location is set out in Appendix 3 of the s32a report (Tara-Ika Design Rationale). As detailed in the Commercial Centre Assessment included as Appendix 4 of this report, this location has been further considered in light of requested zoning changes and determined to be the most effective location, based not only accessibility within the Plan Change area, but also accessibility to areas such as eastern Levin.
- 218. Relocating the education site and central green space only (leaving the commercial zone in its identified location) would fragment this central 'heart' and would reduce accessibility of community facilities (including walkability) for other Tara-Ika residents. Splitting these facilities would also undermine the objective of achieving an integrated and connected urban form. Such a change may also make it more difficult to achieve higher density development within Tara-Ika. This is because easy access to a range of amenities all in close proximity to each other (e.g. commercial, education, open space) makes this type of living more attractive and also reduces vehicle dependency. Furthermore, I note the Ministry of Education have submitted on this plan change and have advised that they support the currently identified location.
- 219. I am of the opinion that relocating these facilities would not result in an urban form that is effective or efficient as sought in the plan change objectives. As such, I recommend that the education site and public open space remain in their current proposed location, co-located with the commercial zoning.
- 220. I understand that the submitter's request for these facilities to be relocated is primarily to provide a 'buffer' between properties in Redwood Grove and the rest of the development. The existing properties in Redwood Grove are generally large-lot residential, with most being over 5,000m². Dwellings are generally constructed in the centre of the site, being several metres from boundaries. Many properties already have significant planting and screening, which will provide a buffer between these properties and the rest of the plan change area.
- 221. Recommended Decision
- 222. I recommend that submission points 04/02.01, 04/06.01, 04/18.02, 04/18.01, 04/31.02, 04/36.02 and 04/38.03 be rejected.
- 223. That further submission points are accepted or rejected respectively.

¹⁵ <u>https://environment.govt.nz/assets/Publications/Files/AA-Gazetted-NPSUD-17.07.2020-pdf.pdf</u>



5.2.2 Zoning

224. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/08	04/08.01		Support in part
04/09	04/09.01		Support in part
04/10	04/10.01		Support in part
04/11	04/11.01		Support in part
04/14	04/14.01		Support in part
04/16	04/16.01		Support in part
04/18	04/18.03		Oppose
04/18	04/18.04		Oppose
04/18	04/18.05		Oppose
04/20	04/20.01		Oppose
04/22	04/22.02		Oppose
04/23	04/23.01		Support in part
04/24	04/24.05		Oppose
04/25	04/25.01	Horowhenua District Council Officer Submission	Support in part
04/25	04/25.02	Horowhenua District Council Officer Submission	Support in part
04/27	04/27.05		Support in part
04/31	04/31.01	Incite (on behalf of a range of Redwood Grove properties)	Oppose
04/31	04/31.06	Incite (on behalf of a range of Redwood Grove properties)	Oppose
04/37	04/37.01		Oppose
04/38	04/38.05		Oppose

Further	Further	Further Submitter Name	On what	Support/Oppose
Submission	Submission		Submission	Submission
Number	Point			



FS04/22	FS04/22 01	Truebridge Associates Limited (jointly on behalf	04/20	Support
FS04/22	FS04/22.17	Truebridge Associates Limited (jointly on behalf of	04/9	Partially Support
FS04/22	FS04/22.18	Truebridge Associates Limited (jointly on behalf of	04/10	Support
F504/22	FS04/22.19	Truebridge Associates Limited (jointly on behalf of	04/11	Partially Support
FS04/22	FS04/22.21	Truebridge Associates Limited (jointly on behalf of	04/14	Support
FS04/22	FS04/22.23	Truebridge Associates Limited (jointly on behalf of	04/18	Partially Support
FS04/22	FS04/22.24	Truebridge Associates Limited (jointly on behalf of	04/18	Partially Support
FS04/22	FS04/22.04	Truebridge Associates Limited (jointly on behalf of	04/25	Partially Support
FS04/22	FS04/22.07	Truebridge Associates Limited (jointly on behalf	04/27	Support
FS04/22	FS04/22.09	Truebridge Associates Limited (jointly on behalf of	04/31	Oppose
FS04/23	FS04/23.01	Horizons Regional Council	04/25.01	Partially Support
FS04/23	FS04/23.02	Horizons Regional Council	04/25.02	Partially Support
FS04/24	FS04/24.01		04/8	Oppose
FS04/24	FS04/24.02		04/9	Oppose
FS04/24	FS04/24.03		04/10	Oppose
FS04/24	FS04/24.04		04/11	Oppose
FS04/25	FS04/25.05		04/38.05	Support
FS04/26	FS04/26.01		04/31	Partially Oppose
FS04/32	3		04/9	Oppose
FS04/33	-		04/9	Oppose
FS04/34	FS04/34.01	And a series of the second	04/31.01	Oppose



FS04/36	-	04/9	Oppose
FS04/71	-	04/14	Support and Oppose
FS04/75	2	04/31	Oppose
FS04/77	-	04/08	Support
FS04/81	-	04/23	Support
FS04/82	1 =	04/20	Support
FS04/87	· · · · · · · · · · · · · · · · · · ·	04/08	Oppose
FS04/86	÷	04/07	Support
FS04/88	÷ j	04/08	Oppose
FS04/89	4	04/22	Support
FS04/91	FS04/91.11	04/27	Support in part
FS04/91	FS04/91.15	04/25	Support in part
FS04/91	FS04/91.05	04/9	Support in part
FS04/91	FS04/91.06	04/10	Support in part
FS04/91	FS04/91.07	04/11	Support in part
FS04/91	FS04/91.08	04/14	Support in part
FS04/91	FS04/91.09	04/20	Support in part
FS04/92	-	04/22	Support
FS04/94	FS04/94.01	04/25	Support
FS04/95	FS05/95.01	04/07	Support in part

225. Overview of Topic

- 226. A range of submissions were received seeking changes to residential zoning types. Some submitters sought 'upzoning' or zoning that allowed more density than proposed, while others sought lower density. These submissions related to specific areas as well as the plan change area generally.
- 227. Particular submissions were received in regard to the 'Arapaepae Special Treatment Overlay' and Redwood Grove.

228. Summary of Submissions

- 229. Refer to figures on the following pages that show requested zoning changes. Figure 1 (page 48) shows submission and further submission requests relating to zoning of individual sites, while Figure 2 (page 49) shows submissions and further submissions requests relating to more generalised zoning requests.
- 230. The nature of submissions summarised below:

231.

Horowhenua District Council Officer Submission,

(Submitters 04/08, 04/09, 04/10, 04/11, 04/14, 04/18, 04/20, 04/22, 04/23, 04/24, 04/25, 04/27 and 04/38) all sought additional density in a variety of different manners, including:



- Remove all Greenbelt Residential and Low Density Residential areas and replace with 'standard' Residential.
- Seeking particular properties be rezoned from Greenbelt Residential or Low Density Residential to 'standard' Residential.
- Rezone some 'standard' Residential areas to Medium Density Residential.

Justification given included:

232.

- The District is experiencing rapid population growth, therefore needs to maximise the potential lot yield from urban growth areas.
- Allowing for more density would better align with the NPS-UD and protect other rural areas from urban development, aligning with the PNPS-HPL.
- Increasing potential lot yield will improve development viability.
- just one zone, rather than multiple as proposed.
- 233. **Control** (Submitter 04/37) opposed low and high density housing being located near to each other, citing concerns about an increase in crime. Submitter 04/37 also specifically sought for low density housing to be built near to O2NL.
- 234. Overlay, which is proposed to be zoned 'standard' Residential and Greenbelt Residential, to be zoned medium density, commercial, or open space, stating that these zonings would enable more suitable land uses. Truebridge Associates (further submission FS04/22) supported this request, stating that this land should be rezoned for commercial and service based activities.
- 235. Incite (on behalf of a range of Redwood Grove properties) (Submitter 04/31) seeks that the zoning of Redwood Grove and adjoining properties be changed to Low Density Residential and, in addition, be subject to a new overlay titled 'Redwood Grove Special Buffer Area'. This overlay would set the minimum site area for all properties covered by this change to 2,000m2. In addition, this submission seeks a variety of different screening/boundary treatment options. The buffer area request will be considered here, while the boundary treatment request will be assessed in Section 5.3.5 of this report.
- 236. A number of further submissions were received relating to zoning. In general, the following further submissions supported submissions seeking zoning that allows increased density:







237. Reasons given in further submissions aligned with the reasoning given in original submissions.

238. The following further submissions opposed submissions seeking zonings that allow increased density. These submissions largely related to land near to existing pockets of low density and lifestyle development within the plan change area:



239. Reasoning given in these further submissions for opposing zoning that allowed additional density included:

- Standard residential zoning would have a negative impact on the character/amenity of existing low density/lifestyle areas.
- Retaining Low Density Residential or Greenbelt Residential Zoning would encourage some larger sections, providing needed variety.
- Land adjoining Greenbelt Residential should be no smaller than existing development to
 protect mental health and wellbeing of those already living in the area.
- 240. One further submissions was received in relation to the zoning of Redwood Grove. This further submission from **Constant Constant Constant Constant**: (FS04/26) opposed the submission from Incite (on behalf of a range of Redwood Grove properties) (Submitter 04/31) and sought for the zoning of Redwood Grove to remain as notified (standard Residential).

Figure 1: Map of Location/Site Specific Re-Zoning Requests





Horowhenua 🔀

Figure 2: General Rezoning Requests

04/23

All low density



Tara-Ika General Re-Zoning Requests (non site/location specific)

FS04/36



241. Analysis

242. General

- 243. The District's population is growing quickly, at a rate of 2.1% per annum between 2013-2018. As previously identified in Section 3.1.1 of this report, Council's growth projections expect this to continue. Shortly before this plan change was notified, Council adopted the 95% percentile growth rate for the purposes of its long term planning. Based on these numbers, the Horowhenua District is projected to require over 11,000 additional houses over the next 20 years. As notified, this plan change expected to enable 2,500-3,000 of these homes (note: this is expected yield, not maximum yield).
- As identified by submitters, this growth has significant implications for housing demand. I agree that this is an important factor to consider when evaluating requests that seek to change land zoning to enable more housing, particularly in light of the NPS-UD which directs Councils to ensure planning decisions are responsive to housing markets. In particular, I note that the NPS-UD directs Councils to enable intensification within urban areas (in particular, Policies 1 and 5¹⁶). New 'greenfield' urban areas such as Tara-Ika provide significant opportunity to develop at scale, as the land is largely free of existing buildings and development. I consider this an important factor to consider when evaluating how to give effect to the direction of the NPS-UD.
- 245. Increasing the extent of Medium Density Residential and 'standard' Residential zoning will enable a greater lot yield and therefore support land and development markets to determine how to develop the land most efficiently. It is expected that this change would result in an increased lot yield, as developers would likely choose to develop at a higher density than they would under a low density zoning, thus better responding to demand for housing. In addition, 'standard' Residential zoning enables more variety than low density zoning in that the more permissive minimum lot size provides the market with the option of creating either smaller or larger sections (or a combination of both).
- 246. As previously identified, land cost is a major component of house price. Therefore, providing opportunities to increase density across the plan change area may improve development viability and housing affordability. This would align with NPS-UD objectives which seek for planning decisions to improve housing affordability by supporting competitive land and development markets (Objective 2).
- 247. Changing the zoning in a manner that enables an increased lot yield may also better support the commercial centre and the education site, as there will be more residents within the catchment to support these services. This statement has particular relevance to the request to rezone land to Medium Density Residential near the commercial/community centre. Increasing the potential lot yield may give greater confidence to those looking to establish these sorts of activities and may enable them to establish sooner, which would be of benefit to the overall plan change objective of achieving an integrated and connected urban form.

¹⁶ https://environment.govt.nz/assets/Publications/Files/AA-Gazetted-NPSUD-17.07.2020-pdf.pdf



- 248. The plan change is the District's largest growth area, is the furthest through the RMA planning process, and already has identified funding for infrastructure. Average house sale price in the District is continuing to increase, reaching an average of \$475,000 in March 2021 compared with \$197,500 in 2016¹⁷. The Ministry of Housing and Urban Development's Urban Development Dashboard shows household growth is significantly ahead of new dwelling building consents¹⁸ indicating significant unmet demand for housing. Enabling increased density within this plan change area provides Council with a means of being responsive to demand for housing and therefore contribute towards fulfilling its obligations under the NPS-UD.
- 249. Enabling an increased lot yield within the plan change area may also reduce pressure on rural land by enabling more intensive and efficient use of existing growth areas, which would align with both the NPS-UD and the PNPS-HPL.
- 250. Based on the above, there are a number of benefits arising from increasing the extent of 'standard' Residential zoning.
- 251. Potential costs of increased density associated with the requested upzoning include that a greater number of dwellings could increase demand on infrastructure, amenities, and services including roads, parks, and commercial/community services. The technical reports and statements included as Appendix 7, Appendix 9 and Appendix 11 of this report set out that the three waters and roading infrastructure are capable of accommodating some increase in density.
- 252. The urban design statement recommends additional park and reserve space be considered alongside 'upzoning' Low Density and Greenbelt Desidential areas to residential, in order to achieve the plan change objectives, including that all residential properties have sufficient access to public open space. While this comes at a cost to landowners, this is a direct result of enabling additional lots to be created. Given demand for housing and the significant health, recreation and amenity benefits associated with residential land uses having access to public open space. I consider the benefits of enabling additional housing and ensuring good access to public open space to outweigh the costs of providing additional reserve space. As such, I recommend that any change in residential zoning is accompanied by additional public open space, sized and located on the structure plan in a manner consistent with Tara-Ika Master Plan Design Rationale report contained in Appendix 2 of the s32 report. This will help to ensure zoning changes uphold the objectives of the plan change.
- 253. Additional lot yield, particularly towards the eastern half and Tararua Road sides of the plan change area, could result in demand for additional commercial activities within walking distance of these areas given the distance of this areas from the identified centre and the emphasis contained within the plan change on walkability. However, the scale of such activities will be small and will not play the same 'centre' function as the zoned commercial area (for example a 'corner store'). Based on the information contained within Appendix 4, I do not consider it effective or efficient to 'zone' an additional commercial area. This is because the short distance that would exist between two

¹⁷ Ministry of Housing and Urban Development – Urban Development Dashboard – Dwelling Sale Prices <u>https://huddashboards.shinyapps.io/urban-development/</u>

¹⁸ Ministry of Housing and Urban Development – Urban Development Dashboard – New Dwellings Consents Compared to Household Growth <u>https://huddashboards.shinyapps.io/urban-development/</u>



centres and the size of populations they would serve would make it difficult for two such centres to be viable, or would result in two smaller and therefore weaker centres (compared to having one larger one). Instead, I consider it appropriate for such commercial activities to establish by way of resource consent if and when demand arises. I also note that consideration could be given to zoning a commercial centre on/near Tararua Road when growth area LS7 (identified in the Horowhenua Growth Strategy 2040), on the southern side of Tararua Road, is considered for rezoning.

- 254. In respect of providing for a range of housing types and environmentally sensitive development, I note that the plan change area has existing pockets of 'greenbelt residential' style development, particularly at the outskirts of the plan change area. At the eastern edge of the plan change area in particular, this form of development acts as a transition to productive rural uses at the Tararua foothills. Further submissions indicate that this character is valued by these submitters.
- 255. Furthermore, I note the presence of the Waiopehu Bush within the plan change area. This reserve is owned by Council and maintained by the Department of Conservation and is of ecological value. Retaining areas of Greenbelt Residential and Low Density Residential zoning in particular locations, such as the southern edge of the plan change area and near the Waiopehu Bush would align with the plan change objective of environmentally sensitive design and providing for a range housing types. In addition, I refer to the urban design statement of evidence included as Appendix 5 which states that these outer areas are too far from the planned neighbourhood centre and that the existing large lot development in the surrounding zone compromises potential to achieve roading connectivity needed to support good quality 'Residential' development
- 256. Having evaluated submissions 04/08, 04/09, 04/10, 04/11, 04/14, 04/18, 04/20, 04/22, 04/23, 04/24, 04/25, 04/27 and 04/38, I recommend a number of changes to residential zoning types.
- 257. In particular, I recommend that the areas marked 'A' be rezoned to 'standard' Residential, the areas marked 'B' be rezoned to Medium Density Residential and the areas marked 'C' be rezoned to Low Density Residential as indicated on Figure 3 on the following page.
- 258. I also recommended a series of consequential changes to the Structure Plan to facilitate this change, including additional open space and alterations to roading configurations, to respond to increased housing density. Recommended changes are shown on Figure 3.
- 259. To summarise, I consider this an effective balance between providing greater development potential in response to growth and national direction, while maintaining a lower level of development intensity in certain locations to provide housing variety, protect the Waiopehu Bush and to provide a transition between urban and rural environments.

260. Range of Zones within Single Properties

261. As referenced above, **and the submitter** requested their property (identified on the map included as Appendix 14) have just one zone. As notified, the submitter's property was subject to three different zonings (Low Density, 'standard' Residential and Open Space). As a result of the zoning changes recommended above, the submitter's property will have two zones, being 'standard' Residential and Open Space. I consider this zoning appropriate and effective, given this


is one residential zone and that the identified open space areas are required to provide for the amenity of future residents and achieve the objectives of the plan change.



Figure 3 – Structure Plan showing recommended changes (including zoning)



Proposed Plan Change 4 (Tara-Ika Growth Area) Section 42a Report



262. Mixed Density

- 263. As referenced above, a raised concerns about the mix of housing densities resulting in an increase in crime. Providing a range of housing types to meet a variety of different needs and preferences is widely accepted as contributing positively to a well-functioning urban environment as well as providing opportunity for people to provide for their social, economic, and cultural wellbeing. Providing opportunity for housing variety is also a requirement of the NPS-UD. The proposed urban form (highest density housing at the centre, near to services and amenities, before generally transitioning to a lower development form at the outskirts of the urban area) is consistent with the Master Plan rationale and represents a logical and coherent urban form. This gives effect to Objective 3 and Policy 5 of the NPS-UD¹⁹. I do not consider that a mix of housing types and densities will lead to adverse social outcomes and the submitter has not provided any evidence to support their assertion.
- 264. The urban design statement of evidence included as Appendix 5 of this report considers mixed density housing from an urban design perspective. It states that changes in residential density are common both at neighbourhood level and along streets in urban areas across New Zealand and that there is no evidence that this leads to an increase in crime. The urban design statement further states that while a theoretical proportion of the population might engage in criminal activities and, with all other things being equal, the presence of more people might be argued to commensurately increase the risk of criminal activity, Crime Prevention through Environmental Design experience suggests that the presence of more people providing informal community oversight over the public realm may help to reduce crime.
- 265. Based on currently available information, I consider the proposed density mix to be appropriate and desirable from a planning perspective

266. Arapaepae Road Special Treatment Overlay

267. Several submitters sought for a wide variety of activities to be provided for within the Arapaepae Road Special Treatment Overlay, stating that the underlying Residential zoning was not appropriate in this location. In particular, submitters requested zoning that would allow medium density housing, commercial, or open space activities to establish. As notified, the plan changes rules specify that any development within this area is a Restricted Discretionary Activity. As outlined in the s32 report, this Overlay and rule approach was intended to provide a high degree of flexibility for how this land could be utilised, recognising the unique constraints in this area, while still providing a mechanism to avoid, remedy, or mitigate adverse effects. Therefore, all activities suggested by submitters as being potentially appropriate could establish in this area by way of a Restricted Discretionary Activity resource consent. I consider this approach appropriate and highly flexible. However, these submissions have highlighted there is some confusion in how this rule framework is intended to apply. Therefore, I recommend introducing a new policy to clarify the purpose of the Arapaepae Special Treatment Overlay and the outcomes intended to be achieved. Suggested wording is included below:

¹⁹ https://environment.govt.nz/assets/Publications/Files/AA-Gazetted-NPSUD-17.07.2020-pdf.pdf



Policy 6A.1.7

<u>Provide for a range of land uses within the Arapaepae Road Special Treatment Overlay to</u> <u>allow flexibility to deliver a context specific response that recognises both the unique</u> <u>attributes of the site and the need to appropriately manage adverse effects, including safe</u> <u>and efficient access and avoiding or minimising reverse sensitivity effects.</u>

268. **Redwood Grove**

- 269. Incite (on behalf of a range of Redwood Grove properties) sought for properties in Redwood Grove and adjoining properties to be rezoned from 'standard' Residential to Low Density Residential and be covered by the introduction of new a Redwood Grove Special Buffer or overlay area. The submitter requests that this zoning and overlay would set the minimum lot size in this zone to 2,000m2.
- 270. Overlays are a tool set out in the National Planning Standards. While the Horowhenua District Plan does not need to achieve compliance with zoning and spatial tools section of the national planning standards until 2024, it is useful to consider how any plan changes during the interim years align with the standards so as to reduce the amount of rework required. This consideration was a key driver behind using a 'multi-zone precinct' approach within Tara-Ika. Therefore, I consider it necessary to consider whether a 'Redwood Grove Buffer' overlay would align with National Planning Standards.
- 271. National Planning Standards states the following:

"An overlay spatially identifies distinctive values, risks or other factors which require management in a different manner from underlying zone provisions"²⁰

- 272. The submitter has not detailed the specific values, risks, or other factors of Redwood Grove that require specific management. Given the intent of National Planning Standards is to address complexity in RMA plans, including District Plans, I consider the significance of these specific values, risks, or other factors as a critical factor in determining whether an overlay should be used. As an established 'lifestyle' neighbourhood, I acknowledge that the character of Redwood Grove will likely be different to the rest of Tara-Ika. However, I do not consider this difference to represent special character in and of itself. Rather, I consider the character of Redwood Grove to be similar to many other lifestyle areas in the District in terms of density, house positioning, and the use of planting to provide screening. I note that land use patterns change over time, with new development establishing around pockets of existing development. This does not necessarily represent an adverse effect. I do not consider a potential change to surrounding land use alone sufficient justification to recommend use of an overlay.
- 273. In regard to the request to rezone Redwood Grove to Low Density Residential, I note that a key justification given within the submission is that these properties are subject to a private covenant that prevents the creation of a through road or subdivision below 4,000m2. I do not consider this strong justification for utilising an RMA response. This is because private covenants are imposed

²⁰ <u>https://environment.govt.nz/assets/Publications/Files/guidance-for-zone-framework-and-district-spatial-layers-standards.pdf</u> (page 2).



outside of the RMA (i.e. they are imposed without an RMA based assessment) and can be removed or altered though a civil (non-RMA) process. I understand this process requires the agreement of affected landowners. I also note that this covenant means that the existing character of Redwood Grove can be protected by this mechanism for as long as this remains a priority for landowners, irrespective of plan provisions. For the reasons set out below, standard 'Residential' development in this area would be consistent with the urban form anticipated for this area. Therefore, I consider it effective and efficient for the District Plan to provide for this outcome regardless of the private covenants.

- 274. I do not agree with the submitter's view that Redwood Grove must be rezoned to Low Density Residential in order to be consistent with PC4 objectives and policies relating to recognition of local history and identity or achieving a logical urban form and a variety of lot sizes. I am not aware of any particular heritage values associated with Redwood Grove that would require specific protection. Further, I note that Redwood Grove is located in relatively close proximity to both the Tara-Ika commercial/community centre and the rest of Levin. Therefore, applying standard Residential zoning to Redwood Grove is consistent with general density pattern anticipated. When considering the other recommended zoning changes, the urban form anticipated is one of standard density zoning towards the western edge (near to Levin), transitioning to medium density development around the centre, transitioning back to standard density towards the west before transitioning to Low Density and then Greenbelt Residential towards the Tararua Foothills. I consider this urban form is the most efficient and effective to achieve the objectives in the Plan Change. I also note that this pattern continues to provide significant areas for Low Density and Greenbelt Residential development, thus providing opportunities for housing variety. Lastly I note that 'standard' Residential zoning does not preclude low density development from occurring. Low density development would remain an option for developers under 'standard' Residential zoning.
- 275. Recommended Decision
- That submissions 04/08.01, 04/09.01, 04/10.01, 04/11.01, 04/14.01, 04/16.01, 04/18.03, 04/18.04, 04/18.05, 04/20.01, 04/22.02, 04/23.01, 04/24.05, 04/25.01, 04/25.02, 04/27.05 and 04/38.05 are accepted in part.
- 277. That submission 04/37.01, 04/31.01 and 04/31.06 is rejected.
- 278. That further submission points are accepted or rejected respectively.

5.2.3 Medium Density Housing

Submission Number	Submission Point	Submitter Name	Support/Oppose
		Horowhenua District	
		Residents and Ratepayers	
04/26	04/26.08	Association	Unclear
04/32	04/32.04	Leith Consulting	Support in Part
04/33	04/33.21	Truebridge Associates	Oppose



Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/76	i.		04/32	Support

280. Overview of Topic

- 281. Two submissions were received in relation to provision for medium density housing (in addition to the submissions covered above which related to the extent of Medium Density Residential Zoning).
- 282. Summary of Submissions
- 283. Horowhenua District Residents and Ratepayers Association (Submitter 04/26) identifies a risk of 'social stratification' in Tara-Ika as a result of mixed density housing.
- 284. Leith Consulting (Submitter 04/32) supports the intent of providing for medium density development, but suggests giving further consideration as to how the conditions and matter of discretion could be modified to facilitate this. In particular, the submitter suggests a design led rather than an allotment size approach.
- 285. Truebridge Associates (Submitter 04/33) opposes the requirement for a building siting plan to be provided for medium density subdivision on the basis the requirement is unclear and too restrictive.
- 286. review of the medium density provisions is required.
- 287. Analysis
- 288. I have considered the concern raised by Horowhenua District Residents and Ratepayers Association that mixed density housing could result in 'social stratification'. I am of the view that providing for a mix of zones enabling a variety of housing types and densities, within a relatively defined area may actually improve social diversity when compared to using just one residential zone type. As determined by the Medium Density Housing Report (included as Appendix 4 of the s32 report), it is likely that there is significant unmet demand for smaller dwellings and higher density housing. At present, the majority of new houses being built are standalone and relatively large (3+ bedrooms) in size which does not meet the full spectrum of needs and preferences in the community. As such, I do not agree that providing for mixed density housing will result in social stratification.
- 289. Land cost is a major contributor to housing price. Providing opportunities to increase density with smaller property sizes could contribute to reducing housing cost and improving affordability. The potential impact of living in smaller houses on smaller sections is offset by this encouraging this type of housing to locate close to the commercial/community centre and quality publically accessible open space. While higher density housing provides an opportunity to provide more affordable housing, not all higher density housing will target this bracket. It is possible that some higher density housing will be constructed to attract higher income households that prefer the



lifestyle that this housing types offers. As such, I would expect to see a variety of household values within the Medium Density Housing Area.

- 290. I also note that all zones will be served by the same commercial/community centre, the same education site, and the same parks and reserves. This provides opportunity for social interaction.
- 291. I agree with Leith Consulting (Submitter 04/32) that there is merit in investigating a 'design-led' approach to managing higher density housing, as opposed to using minimum lot size standards. The proposed approach for managing medium density in the plan change area largely adopts the approach applied elsewhere in the District in that it is managed through both minimum standards and a design guide. I acknowledge some challenges with the current approach (for example, the current standards allow duplex development, but not multi-unit development), as well as the complexity involved in using both minimum standards and a design guide. However, as this issue has broader applicability beyond the plan change area I consider it is more appropriate to address this matter in a subsequent District-wide plan change. Council are in the earlier stages of investigating a residential intensification plan change, which will consider the residential provisions across all residential zones. This review/plan change would be an opportune time to consider an alternative approach to providing for medium density development in the District and would provide greater opportunity for input from key stakeholders, such as the construction industry.
- 292. I consider reviewing the medium density provisions, including considering a different approach (e.g. one standard based and one design based) at a District level is more effective than addressing them solely in the Tara-Ika plan change. While there are some challenges with the existing medium density provisions (highlighted above), the resource consent process provides opportunity for this type of development to establish regardless. The proposed objectives and policies of PC4 express a clear intent for housing variety, including increased density in certain locations, so there is policy support for this nature of development where it is underpinned by good design.
- 293. Truebridge Associates (submitter 04/33) opposed the requirement that medium density subdivision include a building siting plan. Reasons given for opposition included that the requirement was unclear and too restrictive. The requirement for a building site plan is reproduced below:

The siting plan shall show the location, pedestrian entrances, and outdoor living areas for all future dwellings. Although the dwellings do not need to be built prior to s224 being issued, a condition will be imposed on the subdivision requiring the siting plan to be complied with at the time the site is developed. This outcome will be secured by consent notice.

- 294. The above specifies the information that must be included on the building siting plan; namely the location of buildings, the pedestrian entrances, and the outdoor living areas. As such, I consider the standard to be clear. The submitter may like to advise which aspects of the requirement they consider to be unclear at the hearing.
- 295. There are two consenting pathways to developing within the medium density area. Through the subdivision rules (which require subdivision to be complete and the building site plan to be approved) or via the medium density housing rules set out in the Operative Horowhenua District Plan (dual subdivision and land use consent, requiring both subdivision and dwelling construction



to be completed). Both consenting pathways require the proposal to be assessed against the Medium Density Residential Development Design Guide²¹.

- 296. The purpose of assessing such proposals against the Design Guide is to ensure that increased development density does not result in poor outcomes. The design guide identifies important development outcomes (including privacy and access to quality outdoor living areas) which are at greater risk of being compromised when development intensity increases, but provides flexibility in terms of how this outcome is met.
- 297. Within the Tara-Ika medium density area, sites can be as small at 150m². This site size would represent a much greater density than what presently exists within the District. Reduced lot sizes can reduce the number of options for how the site can be developed and can increase the potential for adverse effects if the design of the dwelling units are not considered at the subdivision planning stage.
- 298. In order to understand the potential adverse effects of proposals within this area, and how well they align with both the design guide and the plan change objectives and policies, it is important to understand what the built form will be. If this information is not provided at subdivision stage, the proposals will not be able to be assessed against the design guide and the potential for adverse effects will be largely unknown. Further, if an 'example' building site plan is provided at subdivision stage but allowed to change significantly at building consent stage (e.g. no consent notice imposed requiring this siting plan to be followed) there is potential for the adverse effects that eventuate to be significantly different to what was assessed at the subdivision consent stage.
- 299. Further, the proposed approach encourages house design and orientation to occur first (or at least be considered at the outset), with lot boundaries drawn to support the intended outcome, rather than drawing lot boundaries first and then having to design houses to fit. I consider this more likely to lead to a positive outcome, particularly on smaller sites.
- 300. The building siting plan does not require detailed drawings or elevations, but rather requires a building outline, identified pedestrian entrances and outdoor living. As such, the approach still allows flexibility in that detailed designs only need to be within the identified footprint and generally accord with the pre-identified pedestrian entrances and outdoor living areas. This encourages a comprehensive and integrated approach to development where consideration is given to the future use of the site (namely how the site will be developed for residential purposes) to ensure a quality residential outcome for future residents that contributes to a well-functioning urban environment.
- 301. Based on the above evaluation, I consider the approach of requiring a building siting plan to be provided for medium density subdivisions to be an effective and efficient means of assessing the potential adverse effects of increased development intensity and ensuring the objectives and policies of the plan change are met.

²¹ <u>https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/ppc12approval/horowhenua-district-plan-2015-schedule-10-medium-density-residential-development-design-guide.pdf</u>



- 302. Recommended Decision
- 303. That submission 04/26.08 be rejected.
- 304. That submission 04/32.04 be rejected, but note that the approach suggested will be investigated as part of a future residential intensification plan change.
- 305. That submission 04/33.21 be rejected.
- 306. That further submission points are accepted or rejected respectively.

5.2.4 Community Activities (Retirement Homes, Education, and Open Space)

307.	Relevant Submissions		

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/16	04/16.03		Support in part
04/17	04/17.02	Ministry of Education	Support
04/17	04/17.03	Ministry of Education	Support
04/17	04/17.04	Ministry of Education	Support in part
04/17	04/17.05	Ministry of Education	Support in part
04/24	04/24.06		Oppose
04/27	04/27.06		Support in part
04/34	04/34.04	WKNZTA	Support in part

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
No further su	ubmissions receiv	red on this topic.		

308. Overview of Topic

309. A range of submissions were received on matters such as how 'community' type activities are provided for within the plan change area, including education facilities, retirement homes, and public open space.

310. Summary of Submissions



312. Ministry of Education (Submitter 04/17) supports that provision has been made for education facilities and supports the focus on walking and cycling. The submitter seeks some amendments to Objective 6A.1 (addition of the word 'social infrastructure') and Policy 6A.6.3 (relates to education activities) seeking the reference to 'limits on scale' be removed, as it creates uncertainty and there are no corresponding standards. The submitter also sought that consideration be given to providing for education activities as a permitted activity with appropriate standards (as opposed to restricted discretionary, as notified).

313. **Submitter 04/27**) seeks for provision to be made for retirement homes/villages within the plan change area.

314. Analysis

315. Open Space

- 316. Open space areas will provide amenity for future residents, help to offset smaller section sizes, and provide opportunities for recreation and exercise. Given these benefits and the nature and scale of the growth area, identifying open space areas is considered appropriate. The exact configuration and design (e.g. what type of reserve the open space area will be) will be determined at the time of subdivision/development. However, future development will be subject to the existing District Plan rules which include a maximum building height of 8.5m. The overall building form within public open space is generally very low (for example, limited to toilet blocks and play equipment) and therefore unlikely to compromise views. As such, I do not consider it necessary to introduce any further provisions to limit the nature of development beyond what already exists in the Operative Horowhenua District Plan.
- 317. Public open space is an important part of the Structure Plan, particularly given the anticipated areas of higher density housing. Open space areas identified on the Structure Plan have been specifically sized and located to be useable and accessible for future residents as detailed in Appendix 3 of the s32 report (Tara-Ika Design Rationale). As such, I do not consider it appropriate to offer a high degree of flexibility in the size and location of open space. I acknowledge the submitter's concern that this could result in misalignment between zone and activity boundaries (for example, the zone boundary could be 1m away from the reserve boundary). This is expected to occur across the plan change area between the commercial zone and the residential zone types. I consider the most effective and efficient approach for addressing this is a future 'tidy up' plan change.
- 318. The subdivision matters of discretion already make reference to the provision of public open space as well as new roads (which require footpaths) and cycleways. This, combined with the direction given by the Structure Plan, provides direction to developers on these matters, while still allowing for detailed design to occur at subdivision stage. I consider this approach effective and efficient at guiding provision of open space and walking/cycling infrastructure.

319. Education Facilities

320. I agree with the point raised by submitter 04/17 that Objective 6A.2 would be clearer if it explicitly referred to social infrastructure and that the reference to 'limits on scale' contained within Policy 6A.6.3 is unclear in the absence of any such limits specified. This could create unintended



uncertainty when the clear intent of the Structure Plan is to enable education activities in the identified location. As such, I recommended amending the wording of the objective and policy in question as follows:

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, <u>social infrastructure</u>, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

Policy 6A.6.3

Enable education facilities to establish at a scale that supports the needs of the local community, with limits on scale to protect the amenity of the surrounding environment.

321. I have discussed with the submitter their request to include a permitted activity status with associated standards for education activities. I understand from this discussion that the Ministry will be likely to use the Notice of Requirement process if they were to establish an education activity rather than relying on District Plan rules. The nature and scale of future education activities is not currently known, so it would be difficult to draft fit for purpose provision at this time. As such, I do not consider it efficient or effective to introduce permitted activity status and standards and consider the option of using the notice of requirement process or alternatively applying for a Restricted Discretionary resource consent to be the most appropriate methods.

322. Retirement Homes

- 323. Retirement villages are already provided for in the Residential Zone (including low density and medium density) under the 'Integrated Residential Development' provision in the Operative Horowhenua District Plan. This requires resource consent as a Restricted Discretionary Activity and does not put any limits on density. I consider this approach to be an appropriate balance between providing flexibility and providing a means of controlling potential effects that arise from development of the scale that typically arises from retirement villages. I do not consider a change in how this type of development is provided for in the plan change area compared to the wider residential environment would be more effective in achieving the objectives for the plan change than the approach set out in the Operative District Plan.
- 324. Recommended Decision
- 325. That submission 04/16.03 be rejected.
- 326. That submission 04/17.02, 04/17.03, 04/17.04, and 04/17.05 be accepted in part.
- 327. That submission 04/24.06 be rejected.
- 328. That submission 04/27.06 be rejected.
- 329. That submission 04/34.04 be accepted in part.



5.2.5 Commercial Activities

330. *Relevant Submissions*

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/33	04/33.09	Truebridge Associates	Oppose

Further Submission	Further Submission	Further Submitter Name	On what Submission	Support/Oppose Submission	
Number	Point				
No further submissions received on this topic.					

331. Overview of Topic & Summary of Submissions

332. Truebridge Associates (Submitter 04/33) seeks for new commercial buildings and external alterations to commercial buildings to be a Permitted Activity (as opposed to Restricted Discretionary, as notified), as there are standards to follow.

333. Analysis

- 334. Having well designed commercial buildings that contribute positively to the streetscape is an important component of the commercial environment. This helps to encourage pedestrian activity and provides opportunity for interaction between public and private space. Achieving a commercial/community 'heart' for the plan change area is a key outcome sought, as expressed in the notified policy framework. Therefore, I consider it important the plan provisions ensure commercial buildings contribute positively to the amenity of the commercial environment.
- 335. The approach notified (Restricted Discretionary Activity status, with associated standards) is consistent with the approach applied throughout other Commercial Zones in the District where pedestrian experience is a priority (namely the Foxton and Levin town centre areas). This approach was considered as part of the Horowhenua District Plan review in 2012. The s32 report for the Commercial Zone prepared as part of this review identified the following issue:

"Historically, the Levin and Foxton town centres have been a mix of smaller-scale commercial and retail businesses and buildings. Recently, there has been a trend towards much larger retailers replacing a number of smaller-scale businesses. This trend has also lead to new, larger buildings which produce a different (and often poor) relationship with adjoining streets and public areas where the newer buildings have a lower level of detail and responsiveness to their surroundings. There are also consequential differences in the scale of advertising signs, parking (and surface water runoff), and traffic generation."

336. The urban design statement of evidence included as Appendix 5 of this report states that site planning and building design are both important and linked. Appropriate controls ensure buildings are located, oriented and designed to achieve an acceptable amenity outcome, which also contributes to ongoing commercial success (and good service facilities for the local residents). The urban design statement further details that these considerations are particularly important within



Tara-Ika given it is an open greenfield site with no precedent development to either guide or constrain development. This increases the risk of badly located, oriented, planned and designed development. The urban design advice states that standards alone carry a very high risk of leading to a poor outcome.

- 337. Based on the above evidence, I consider the issue identified in the 2012 District Plan review to be to highly relevant to the plan change area, necessitating careful consideration of how building design and layout is controlled in the commercial zone.
- 338. The submitter has not provided an assessment of why a different approach (to what currently exists the Operative District Plan) should apply in this location, or how Permitted Activity status would be a more effective way of delivering the outcomes sought. However, I have considered the costs and benefits of utilising a Permitted Activity status, supported by appropriate standards below.
- 339. The primary benefit associated with utilising a Permitted Activity status is that it provides an opportunity for activities to establish without needing resource consent, removing the time and cost associated with this process.
- 340. The costs of utilising a Permitted Activity status include risk that the anticipated design outcome is not achieved (as expressed in the urban design statement) or that the permitted activity conditions need to be more extensive and complex to achieve the intended outcome. As such, I do not consider this to be an efficient or effective approach.
- 341. I consider the notified approach of requiring resource consent as a Restricted Discretionary Activity with both standards (e.g. quantitative controls) and matters of discretion (allowing for qualitative assessment) and appropriate approach. As a restricted discretionary activity the matters than can be considered are limited, therefore reducing risk and uncertainty for developers while also giving appropriate consideration to achieving a quality design outcome.
- 342. Recommended Decision
- 343. That submission 04/33 be rejected.

5.2.6 Arapaepae Road Special Treatment Overlay

Submission Number	Submission Point	Submitter Name	Support/Oppose
		Horowhenua District	
04/25	04/25.11	Council Officer Submission	Support in part

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission		
No further submissions were received in relation to this topic						



345. Overview of Topic & Summary of Submission

- 346. Horowhenua District Council Officer Submission (Submitter 04/25) seeks the inclusion of a policy explaining the intent of the Arapaepae Special Treatment Overlay to assist with Plan usability and implementation.
- 347. Analysis
- 348. An assessment of the 'zone type' and the range of activities enabled for the land covered by the Arapaepae Road Special Treatment Overlay is provided in both the s32 report and section 5.2.2 of this report. In addition to the point raised by Submitter 04/25, the nature of the submissions considered under section 5.2.2 of this report has revealed that the purpose of this overlay is not clear enough in the current plan provisions. As such, I recommended amending Objective 6A.1 to include reference to the Arapaepae Road Special Treatment Overlay and introducing a new policy to provide clarity on this matter. I have suggested wording below:

Addition to Objective 6A.1

Within the Arapaepae Road Special Treatment Overlay, development that is appropriate for the site in terms of scale, access, and compatibility with surrounding land uses.

Policy 6A.1.7

<u>Provide for a range of land uses within the Arapaepae Road Special Treatment Overlay to</u> <u>allow flexibility to deliver a context specific response that recognises both the unique</u> <u>attributes of the site and the need to appropriately manage adverse effects, including safe</u> <u>and efficient access and avoiding or minimising reverse sensitivity effects.</u>

- 349. Recommended Decision
- 350. That submission 04/25.11 is accepted.

5.3 Urban Form, Character and Amenity

5.3.1 Bulk and Location

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/04	04/04.03		Oppose
04/25	04/25.03	Horowhenua District Council Officer Submission	Support in part
04/32	04/32.03	Leith Consulting	Support in part

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/22	FS04/22.12	Truebridge Associates	04/32	Support

Ho	rowhenu	a 🚬
	ENSTRICT COL	NEL

FS91	FS04/91.14	04/32	Support	
------	------------	-------	---------	--

- 352. Overview of Topic
- 353. A range of submissions were received on 'bulk and location' matters, such as building setbacks from boundaries and building heights.
- 354. Summary of Submissions
- 355. **Mathematical** (submission 04/04) opposes the minimum building setback from front boundary (2 metres), stating that this is poor urban design.
- 356. Horowhenua District Council Officer Submission (submission 04/25) states that as the plan change encourages an increase in building density, there may be some instances where buildings that exceed the maximum permitted height may be appropriate. The submitter seeks the introduction of a policy relating to this matter would assist with implementation.
- 357. Leith Consulting (Submitter 04/32) seeks clarification on how the building setback from front boundary standard applies to a structure housing a vehicle, seeking that in cases where a vehicle takes direct entry to a structure from the road, a 5m setback should apply with the 2m setback applying to living areas.
- 358. Further submissions from Truebridge Associates and **Example 1** FS04/22 and FS04/91) support Leith Consulting's submission in relation to boundary standards.
- 359. Analysis
- s view that a 2m front yard setback represents poor urban design. 360. I have considered Allowing dwellings to be built closer to the front boundary enables space to be used more efficiently, as it allows for a greater portion of the site to be allocated to rear yards which can provide private outdoor living space (where the site's orientation make rear yards the preferred private outdoor living space). This is considered important given the plan change seeks to achieve areas of higher density housing. In addition, allowing dwellings to be located nearer to the street than garages will encourage dwellings to be built forward of garages, making dwellings the primary feature of residential neighbourhoods. This provides for a more attractive street frontage, provides better crime prevention through environmental design (CPTED) outcomes, and encourages opportunities for social interaction as 'active' parts of the dwelling will have better visibility over the street. I note that the proposed 2 metre front yard setback is a minimum and therefore developers can choose to build further from the boundary if they consider this to provide a better urban design outcome in the context they are building in. Further discussion on this matter is contained within Appendix 5 of this report.
- 361. In regards to Leith Consulting's submission, I confirm that the intention of the plan change provisions is for any structure housing a vehicle (including integral garages and freestanding garages) to be located 5m from the front boundary, if the vehicle would take direct access from the street to the garage (i.e. where the vehicle access door fronts the street). This requirement is



set out in 15A.6.2.4(a). Having reviewed the provision I consider it to be clear, but the submitter could provide alternate wording at the hearing if they still consider this provision to be unclear.

- 362. I agree with the Horowhenua District Council Officers submission that, in the context of seeking to achieve higher density development, there may be some instances where it may be appropriate for buildings to exceed the maximum building height (currently allows for 8.5m in 'standard' Residential and 10m in Medium Density Residential). Such applications would require resource consent as a Restricted Discretionary Activity. I note that the Policy 5 of NPS-UD requires provision to be made for upwards growth. However, it is important that the privacy and solar access of neighbouring properties is protected. The urban design statement of evidence included as Appendix 5 of this report identifies that additional building heights be encouraged via a policy that sets out the relevant matter for consideration, including visual dominance and shading. The urban design statement recommends that such a policy does not reference 'viewshafts' (referenced in submission 04/25) on the basis that that neither the District Plan nor the Plan Change identify these viewshafts. As a result, reference to viewshafts could be interpreted as applying to views to any part of the ranges from any point within the plan change area which the urban design statement states would be unduly onerous.
- 363. I agree with the Horowhenua District Council Officers submission and with the Urban Design evidence included as Appendix 5 of this report that a policy providing direction on this matter would be an appropriate way of addressing this matter. A recommended policy is included below:

Policy 6A.1.6

Encourage additional building height where this would contribute to a well-functioning urban environment (for example, increased housing variety), so long as reasonable privacy of neighbouring dwellings is maintained, and visual dominance and excessive shading beyond the subject site are avoided

- 364. Recommended Decision
- 365. That submission 04/04.03 be rejected.
- That submission 04/32.03 be accepted in part.
- That submission 04/25.03 be accepted.
- 368. That further submission points are accepted or rejected respectively.
- 5.3.2 Fencing
- 369. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/25	04/25.12	Horowhenua District Council Officers	Support in part
04/33	04/33.16	Truebridge Associates	Oppose
04/36	04/36.03		Support in part



Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
No further su	ubmissions recei	ved on this topic		

370. Overview of Topic

- 371. Submissions were received in relation to fencing standards.
- 372. Summary of Submissions
- 373. The Horowhenua District Council Officers submission (submission 04/25) requested that the second bullet point of standard 15A.6.2.6(c) be amended to say the maximum height of the fence when it meets the road shall be 1.2m to be consistent with standard 15A.6.2.(a).
- 374. Truebridge Associates (Submitter 04/33) states that the fence paling height of 1.2m is uneconomic and wasteful. No relief is specified.
- 375. Submitter 04/36) states that the Structure Plan shows an arterial road running along the boundary of the submitter's property. The submitter's notes that the existing large pine trees and farm style fencing along this boundary are likely inconsistent with the urban streetscape anticipated in this area. The submitter seeks a Council decision to remove the pine trees and install appropriate fencing and planting.
- 376. Analysis
- 377. I agree with the Horowhenua District Council Officers submission that the standard referenced should be updated. This would correct a drafting error and would address the resulting inconsistency. The recommended change is indicated below:

Fences perpendicular to the road shall taper downwards towards the road boundary. The taper should commence at least 1.5m from the road boundary and the maximum height of the fence where it meets the road boundary shall be 1.2m high if the road is a local road, or 1.5m high if it is an arterial or collector road.

- 378. I am not clear on the argument presented by Truebridge Associates that a 1.2m fence height is 'uneconomic' and 'wasteful'. From my research, popular fencing materials (such as timber and coloursteel) are available in 1.2m height as a 'standard' product. Having a 'low' front fence height (lower than eye level) follows CPTED principles in that it allows for visibility between the street and private property, therefore contributing to safety, security and walkability. In the absence of information as to why the proposed height limit is not practicable, or any relief sought I do not consider it appropriate to make any changes to these provisions.
- 379. I am not clear whether **inclusion** is requesting for the plan provisions to allow a transition to a more 'urban' boundary treatment approach or for Council to take financial responsibility for this.



If the former, the Plan provisions allow for this. If the latter, such a decision would need to be made outside of the RMA process.

- 380. *Recommended Decision*
- 381. That submission 04/25.12 be accepted.
- 382. That submission 04/33.16 be rejected.
- 383. That submission 04/36.03 be accepted in part.

5.3.3 Integral Garages

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/33	04/33.15	Truebridge Associates	Oppose

Further Submission	Further Submission	Further Submitter Name	On what Submission	Support/Oppose Submission
Number	Point			
No further su	ibmissions receive	es on this topic.		

- 385. Overview of Topic & Summary of Submission
- 386. Truebridge Associates (submission 04/33) states that the rule requiring integral garages to be either recessed back from the main pedestrian entrance by 1m or account for no more than 50% of the front façade of the dwelling is a design guide issue. The submitter seeks for the design guide to be reviewed before including such as provision.
- 387. Analysis
- 388. I believe Truebridge Associates are referring to the Medium Density Residential Design Guide which is contained in Schedule 10 of the Operative Horowhenua District Plan.
- 389. The existing design guide and the proposed standard (15A.6.2.3(a)) apply in different scenarios and serve different purposes. The design guide only applies to medium density residential development in the District (including subdivision within the Medium Density area of the plan change area), while the proposed standard applies to all residential development within the plan change area (and does not apply outside of the plan change area). The design guide seeks to guide medium density residential development, while the proposed standard seeks to avoid integral garages from dominating the streetscape across the plan change area. This design outcome is considered important to achieving the highly walkable environment sought for the plan change area.
- 390. The design guide (which is not proposed to be amended as part of this plan change) provides guidance on how particular design outcomes can be achieved, rather than containing set



standards. This allows flexibility of approach and serves a different purpose to a standard which is a set metric that must be met (or resource consent will be triggered).

- 391. Further, I do not consider the contents of the design guide to conflict with this provision in that there is nothing in the design guide that encourages or directs a conflicting outcome to the proposed standard (for example, the design guide does not encourage garages to be forward of the dwelling). If there were instances where the integral garage standard meant that another aspect of the design guide could not be met, such 'conflict' would only arise for activities that already triggered resource consent (as all medium density developments require resource consent) and could therefore be addressed through the resource consent process, noting that design guide content provides guidance on how design outcomes can be achieved and therefore inherently provides flexibility compared to set standards.
- 392. The urban design statement of evidence included as Appendix 5 of this report states that standards such as this hep to ensure dwellings engage with and overlook the street and to avoid the visual dominance of garages and consequent visual monotony at the street edge. This helps to reduce the visual impact of garage doors at the street edge, making occupied parts of the dwelling more visually prominent. This combination of setbacks is an approach that is consistent with best urban design practice.
- 393. On the basis of the above, I do not recommend removing or delaying the integral garage standard.
- 394. I do note for the submitter's reference that Council intends to investigate a residential intensification plan change, which will consider residential provisions across residential zones. This would likely include a review of the Medium Density Residential Design Guide.
- 395. *Recommended Decision*
- 396. That submission 04/33.15 be rejected.

5.3.4 Signage (Non-State Highway Facing)

397. *Relevant Submissions*

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/33	04/33.18	Truebridge Associates	Oppose

Further	Further	Further Submitter Name	On what	Support/Oppose
Submission	Submission		Submission	Submission
Number	Point			
No further su	Ibmission receive	d on this topic.		

398. Overview of Topic & Summary of Submission



Horowh

400. Analysis

- 401. The purpose of this rule was to manage the size of signs inside shop display windows. There are instances were such signs cover the full extent of shop windows and therefore prevent visibility between the shop and the street. This impacts on walkability and pedestrian experience.
- 402. However, this provision is quite onerous, unduly restricting use of commercial spaces, and could result in high enforcement costs for Council and compliance costs for businesses. Such signs are generally easily removed. Therefore, I recommended removing this provision.
- 403. Recommended Decision
- 404. That submission 04/33.18 be accepted.

5.3.5 Redwood Grove Screening

405. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/31	04/31.07	Incite (on behalf of a range of Redwood Grove properties)	Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/34	FS04/34.03		04/31	Oppose

406. Overview of Topic & Summary of Submission

- 407. Incite (on behalf of a range of Redwood Grove properties) (submitter F504/31) seeks the introduction of a provision requiring screening along the external (to the rest of the plan change area) boundaries of Redwood Grove properties to protect the amenity of Redwood Grove residents and provide privacy of neighbouring properties. A variety of different screening provisions are proposed, with the majority of Redwood Grove properties selecting which option they want for their affected boundary within the submission. The boundary treatment options requested are summarised below:
 - No screening
 - 2.1m high fence
 - 6m wide buffer zone of native plants between 3-5m high.

408.

The submitter seeks for the screening to be implemented at the time of subdivision of the adjoining property. The submitter also seeks for a new matter of discretion to be added to 15A.8.1.2(a)



detailing this requirement and the need to provide details of ongoing maintenance and legal protection of said screening.

- 409. Further submitter **and the second second** (FS04/34) opposes this request, stating that a 6m wide planting would be difficult to maintain and solely for Redwood Grove residents' benefit. Prouse Trust Partnership further states there is space for Redwood Grove residents to do this on their own properties.
- 410. Analysis
- 411. The relief sought by the submitter requires different levels of boundary treatment on adjacent properties to mitigate the same perceived effect. For this reason, I consider the relief sought to be unnecessarily complex.
- 412. In case of the 6m wide native planting, the submitter does not specify whether their preference is for screening plants to be located within the Redwood Grove property, the adjoining subdivided property or split between the two. It would not be possible to require works outside of the subject site as part of the subdivision, meaning such screening would have to be within the boundaries of the properties being subdivided, which may not give residents of Redwood Grove certainty that the screening would be retained and maintained in perpetuity. I consider it would take a significant length of time and high compliance costs to address any non-compliance (for example, removal of the screening without appropriate approval). In the case of the 2.1m high fence, this would be slightly over the maximum permitted height for a fence set in the Operative Horowhenua District Plan (being 2m).
- 413. If Redwood Grove residents want certainty that screening will be provided in the individualised and ongoing manner sought, the most practical, efficient and effective approach is for those residents who wish to have screening, to do so on their own properties. I note many properties on Redwood Grove already have significant planting along their boundaries which would provide a level of screening. There is sufficient space on Redwood Grove properties to extend this screening if the residents choose to do so. Requiring screening on adjoining properties would, in many cases, be a 'double up' and therefore could be an inefficient approach. I also note that dwellings on Redwood Grove are typically between 15-40m from the 'Tara-Ika' boundary. This separation provides additional protection for Redwood Grove properties.
- 414. I therefore consider that imposing screening provisions as requested by the submitter would be an inefficient and ineffective means of achieving the outcome sought by the submitter.
- 415. Recommended Decision
- 416. That submission 04/31.07 be rejected.
- 417. That further submission points are accepted or rejected respectively.
- 5.3.6 Other Urban Design Matters
- 418. Relevant Submissions



Submission Number	Submission Point	Submitter Name	Support/Oppose
04/24	04/24.03		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
No further su	ubmissions were	received on this topic.		

- 419. Overview of Topic & Summary of Submission
- 420. (Submitter 04/24) seeks for the words "achieves good solar access to buildings" to be added to Objective 6A.1.
- 421. Analysis
- 422. I agree with the submitter's statement that solar access is an important component of good urban design. However, I consider this matter to be adequately covered in the existing policy framework. In particular, within Policy 6.3.15 of the Operative Horowhenua District Plan (which will apply to development in the plan change area). This policy is included below for reference:

Policy 6.3.15 (Operative Horowhenua District Plan)

Maximise opportunities for sunlight access to buildings and private areas of open space and minimise shading of private open space and buildings caused by structures on adjacent sites.

- 423. As such, I consider this matter is efficiently and effectively addressed by the Operative District Plan, with no changes needed.
- 424. Recommended Decision
- 425. That submission 04/24.03 is rejected.
- 426. That further submission points are accepted or rejected respectively.

5.4 Infrastructure

5.4.1 One Plan Matters Relevant to Infrastructure

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/30	04/30.02	Horizons Regional Council	Support in part
04/30	04/30.08	Horizons Regional Council	Support
04/30	04/30.10	Horizons Regional Council	Oppose



Further	Further	Further Submitter Name	On what	Support/Oppose
Submission	Submission		Submission	Submission
Number	Point			
No further su	ibmission receive	d on this topic.	·	

428. Overview of Topic

429. This topic covers a range of topics relevant to infrastructure, which have an interface with the Horizons One Plan, which is a higher order document in the Resource Management Hierarchy.

430. Summary of Submission

- 431. Horizons Regional Council (Submitter 04/30) supports the requirement for sites not connected to reticulated waste water infrastructure (and therefore dependant on onsite waste water disposal) to be at least 5,000m2 (net). This is because this aligns with One Plan requirements.
- 432. Horizons Regional Council outlines that the One Plan contains Objectives and Policies that require subdivisions to encourage energy-efficient house design and access to solar energy. The submitter states that the plan change, as notified, does not fully give effect to this policy. The submitter requests that Objective 6A.1 be amended to include reference to energy efficiency, the inclusion of a new policy requiring subdivision layout that will enable buildings to utilise energy efficiency, and amendments to the matters of discretion for residential subdivision to make reference to energy efficiency, conversation, and access to solar energy.
- 433. The submitter further requests amendments to matters of discretion to makes the dual functionality of public open space and stormwater management areas clear.
- 434. Analysis
- 435. The submitter's support for the minimum subdivision size for sites not connected to reticulated wastewater is noted.
- 436. The plan change gives effect to One Plan direction in regard to energy efficiency (One Plan Objective 3-2 and Policy 3-7). In addition to the statutory requirement to give effect to higher order documents, there is a clear link between energy efficiency and sustainable management. In the context of large scale greenfield development, there is opportunity to more directly consider how subdivision design can lead to energy efficient house design.
- 437. I consider the submitter's suggested amendment to the objective and a new policy to be an appropriate and effective means of giving effect to this One Plan policy direction. I also consider the amended matter of discretion to be an effective means of aligning with this policy direction. While house design is often not known at subdivision stage, my opinion is that it is important to consider how lots are sized, orientated and shaped to allow future buildings to be designed so that living areas/habitable rooms maximise solar access. If consideration is not given to this matter at subdivision stage, future design outcomes could be compromised. This matter of discretion would not restrict future house design, but rather ensure that future land use in relation to this matter was considered at the subdivision stage.

438. Recommended wording is included below:

Addition to Objective 6A.1

Encouraging subdivision and development design to enable energy efficiency and reduced energy consumption;

Horowhe

New Policy

<u>Require subdivision layout that will enable buildings to utilise energy efficiency and conservation measures.</u>

Addition to Matters of Discretion for Subdivision in Residential and Greenbelt Residential Zone (15A.X.X(a))

The design and layout of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision) <u>energy efficiency and conservation, and</u> <u>access to solar energy.</u>

Provision of land for publically accessibly open space and recreation that is appropriately located and of a practicable size and shape to support management of stormwater during <u>heavy rain events</u> in accordance with Structure Plan 013.

- 439. Recommended Decision
- 440. That submission 04/30.02, 04/30.08, and 04/30.10 be accepted.

5.4.2 Network Capacity (Water, Waste Water and Landfill)

441. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/06	04/06.03		Oppose
04/13	04/13.01		Support in part
04/19	04/19.03		Oppose
04/26	04/26.03	Horowhenua District Residents and Ratepayers Association	Oppose
04/40	04/40.02		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
No further su	ubmissions recei	ved on this topic.		

442. Overview of Topic

443. A number of submissions were received questioning the capacity of the water supply and waste water network to accommodate the additional demand expected from Tara-Ika. One submitter also sought that a new regional landfill be planned before houses are built.

Horowh

444. Summary of Submissions

- 445. Ms Leighfield and Horowhenua District Residents and Ratepayers Association (submitters 04/06 and 04/26) both sought additional information to understand Council's ability to supply reticulated services in a sustainable, reliable manner and questioned the financial impacts of the associated costs.
- 446. (Submitter 04/13) recommended that network planning be done on the basis of the population doubling over the next 20 years. This submitter raised concerns about water availability in the Ōhau River to support this growth. Ms Schibli supports the requirement for onsite rainwater tanks (addressed in detail in a later section of this report) and suggests investigating alternate water sources, such as known bores.
- 447. (Submitter 04/19) opposes the plan change entirely on the basis that there is insufficient water supply to meet current needs. The submitter seeks the plan change to be rejected in its entirety.
- 448. **General** (Submitter 04/40) seeks sufficient water and waste planning, including a new regional landfill, be undertaken before new houses are built.

449. Analysis

- 450. I agree with submitters that it is important to understand the network's capacity to deal with additional demand. This is because it is critical than land use and infrastructure planning are aligned. If this does not occur, the plan change will not be successful in enabling housing to meet projected demand and/or adverse environmental effects could result.
- 451. Appendix 6 of the s32 report provides an overview of the infrastructure works needed to service the development. A more comprehensive report has since been prepared by GHD to evaluate the capacity of the Levin Water Treatment Plan (WTP) and the Waste Water Treatment Plant (WWTP) and is additionally supported by a water and waste water statement of evidence. The report is included as Appendix 7 of this report and the statement of evidence as Appendix 8. In short, these technical documents conclude that:
 - It is feasible to service Tara-Ika from the Levin WTP until 2030.
 - The current water take consent is sufficient to service growth in Levin until 2030.
- 452. After 2030 upgrades and higher abstraction limits, or alternative water sources will be required.
- 453. There is budget in the Long Term Plan 2021-2041 (LTP)²² to investigate and complete the necessary works prior to 2030. It is noted that such works would be required to accommodate growth even

77

²² https://www.horowhenua.govt.nz/files/assets/public/council-documents/plans/ltp2021-41/hdc-long-termplan-2021-2041-22-july-2021-web-v2.pdf



if a different growth area within Levin was selected instead of Tara-Ika. As identified in the water and waste water statement of evidence, it is common for infrastructure to fully service greenfield areas to require upgrades in the future (i.e. not all capacity in network and plants is there ahead of rezoning), due to the inefficiencies of having full infrastructure in place ahead of a decision on a plan change or years ahead of demand. Rezoning provides certainty for infrastructure planning, including for future upgrades to be scheduled based on expected demand.

- 454. The water and waste water reports and evidence also identify that upgrades are currently required to the Levin WWTP to service Tara-Ika (and infill development in Levin). There is budget in the LTP this financial year and next financial year to carry out these works.
- 455. I note that the financial impacts of such works are not relevant for the purposes of the plan change. Instead, these costs are determined, considered, and budgeted for through the LTP process. Council adopted its 2021-2041 LTP on 30 June 2021 and includes budget for infrastructure upgrades needed to accommodate growth. I note for the sake of completeness that Council has resolved to reintroduce development contributions which will contribute towards the costs of growth related capital expenditure. The Development Contributions Policy came into effect on 1 July 2021.
- 456. I also note that the plan change specifies subdivision as a Restricted Discretionary Activity and that the provision of servicing, including water supply and wastewater systems, is a relevant matter of discretion. This means that if adverse effects associated with servicing issues arise (e.g. capacity is reached sooner than expected) there is scope to decline the resource consent or impose resource consent conditions to manage actual and potential adverse effects.
- 457. I do not consider it necessary to investigate and plan for a new regional landfill prior to houses being built at Tara-Ika. There are no known capacity issues at the current landfill and there are a range of alternative options for disposing of solid waste. Furthermore, the Horowhenua Waste Minimisation and Management Plan²³ seeks to reduce waste to the landfill through avoiding creating waste and encouraging recycling.
- 458. As previously referenced, I do not consider it efficient or effective to reject the plan change in its entirety. The reasons for proceeding with the plan change have been set out in earlier sections of this report and the referenced servicing reports set out that there is a means of servicing the plan change area.
- 459. *Recommended Decision*
- 460. That submission 04/06.03 be rejected.
- 461. That submission 04/13.01 be rejected.
- 462. That submission 04/19.03 be rejected.

²³ <u>https://www.horowhenua.govt.nz/files/assets/public/council-documents/plans/horowhenua-waste-minimisation-and-management-plan-web.pdf</u>



- 463. That submission 04/26.03 be rejected.
- 464. That submission 04/40.02 be rejected.

5.4.3 Stormwater Management

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/01	04/01.01		Oppose
04/07	04/07.02		Support in part
04/15	04/15.01		Oppose
04/19	04/19.06		Oppose
04/21	04/21.01	Fire and Emergency New Zealand	Support in part
04/26	04/26.01	Horowhenua District Residents and Ratepayers Association	Oppose
04/30	04/30.02	Horizons Regional Council	Support in part
04/30	04/30.03	Horizons Regional Council	Support in part
04/34	04/34.10	WKNZTA	Support in part
04/35	04/35.04	MTA	Neutral
04/38	04/38.07		Oppose
04/39	04/39.01		Oppose
04/40	04/40.01		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
		Truebridge Associates Limited (jointly on behalf of		62.01
FS04/22	FS04/22.14	1	04/34	Partially Oppose
		Truebridge Associates Limited (jointly on behalf of		
FS04/22	FS04/22.16		04/7	Partially Support
FS04/22	FS04/22.22	Truebridge Associates Limited (jointly on behalf of	04/15	Partially Support
FS04/23	FS04/23.03	Horizons Regional Council	04/34.10	Support
FS04/23	FS04/23.06	Horizons Regional Council	04/38.07	Partially Support
FS04/27	-	Horowhenua District Council - Infrastructure Development Group	04/34	Neutral
FS04/72	-		04/15	Support



FS04/84	FS04/84.02		04/7	Support
FS04/93	FS04/93		04/35	Support
FS04/25	FS04/25.02		04/38.02	Support
FS04/25	FS04/25.07		04/38.07	Support
FS04/22	F504/22.15	Truebridge Associates Limited (jointly on behalf of	04/38	Support
FS04/94	FS04/94.02		04/30	Neutral
FS04/94	FS04/95.02		04/07	Support in part

466. Overview of Topic

- 467. A number of submissions were received in regard to stormwater management, including the options for managing stormwater and the potential effects on fresh water bodies, including Lake Horowhenua.
- 468. Summary of Submissions

469. Environmental Impacts – Water Bodies

- 470. (submissions 04/01, 04/19, 04/26, 04/39 and 04/40) are opposed to the plan change due to limited information on stormwater treatment and potential impact on water courses and land, including Lake Horowhenua, and The Pot (land where Levin's treated wastewater is discharged as irrigation). Relief sought ranges from provision of more information to rejecting the plan change in its entirety.
- 471. **Granden** (submission 04/07) supports plan change so long as stormwater is managed to avoid additional runoff into Koputaroa Stream or under the new expressway into existing drains.
- 472. Horizons Regional Council (submission 04/30) notes that Lake Horowhenua is a threatened habitat under the One Plan and that discharge of stormwater is a non-complying activity. The Koputaroa catchment has known flood carrying capacity issues and the submitter holds indicative ponding information which suggests there may be areas in Tara-Ika that experience surface ponding during heavy rain. The submitter supports objectives, policies, and rules relating to managing the quantity and quality of stormwater. The submitter seeks some changes to wording of certain provisions to more clearly give effect to the intent of plan change objectives and policies relating to stormwater.
- 473. Muaūpoko Tribal Authority (Submitter 04/35) seeks to ensure good environmental outcomes and protect the mauri of waterways. The submission identifies the kaitiaki relationship of Muaūpoko to this environment. Subsequent conversations with MTA have identified that the concept of 'te



mana o te wai' can be applied in this context and the importance of these values (mauri, kaitiakitanga and te mana o te wai) being reflected in plan provisions.

474. Further submitter Truebridge Associates (FS04/22) partially supports **processes** submission, stating there should be no additional stormwater entering downstream catchments in any rain event.

475. Further submitter **1999 and the second (FS04/84)** support **1999 and the second se**

- 476. Further submitter Lake Horowhenua Trust supports the Muaūpoko Tribal Authority submission regarding stormwater management and Lake Horowhenua.
- 477. Further submitter (FS04/94) is neutral on Horizons Regional Council, stating that there is no history of flooding on their property, which has been owned by family since 1963.
- 478. Appropriateness of Proposed Approach
- 479. **Construction** (Submitter 04/15) opposes the use of wetlands, stating these will not be sufficient to manage stormwater. The submitter advises that water runs through her property west of Arapaepae Road during heavy rain and states specifically designed sumps and swales would be more appropriate than wetlands.
- 480. **How we have a means of dealing with stormwater from either the development area or O2NL.** The submitter is concerned there is not enough information about how intended outcomes will be managed across parties and is concerned that a stormwater management facility will be located on their property without their approval or adequate compensation.
- 481. Fire and Emergency New Zealand (Submitter 04/21) seeks to ensure the stormwater solution is capable of managing stormwater without causing adverse effects on the receiving environment.
- 482. Horizons Regional Council (Submitter 04/30) seeks inclusion of provisions requiring large private carparks and commercial roofs over 500m2 need to provide their own water quality treatment, as per the Three Waters Infrastructure Plan supporting PPC4.
- 483. WKNZTA (Submitter 04/34) supports the requirement for onsite stormwater detention and emphasises the importance of good stormwater design to avoid runoff entering the state highway network. The submission details that while there have been conversations between HDC and Waka Kotahi on a shared stormwater management solution, discussions are ongoing.
- 484. Further submitter Truebridge Associates (FS04/22) supports and the basis that they have done testing which shows subsurface soakage is of such a rate that onsite treatment and disposal is possible and therefore, a wetland system is not required.
- 485. Further submitter Horizons Regional Council (FS04/23) supports WKNZTA's submission stating they are concerned the original submission suggests that Tara-Ika cannot utilise the O2NL corridor for stormwater management as this would reduce the space available for managing stormwater and increase discharge to Lake Horowhenua and Koputaroa Stream catchments.



Horowh

- 487. Further submitter Horowhenua District Council Infrastructure Development Group (FS04/27) is neutral towards WKNZTA's submission. The further submitter states that site investigations show that a communal stormwater management approach will be needed for Tara-Ika (e.g. wetlands). Waka Kotahi and HDC have been in discussions about a shared approach for Tara-Ika and O2NL. As identified in the original submitter's submission, this approach has not yet been confirmed due in part to PC4 and O2NL projects proceeding on different timeframes. This means an alternative solution needs to be investigated to find an efficient and pragmatic stormwater solution that fits with both Tara-Ika and O2NL. A solution is provided with the further submission.
- 488. Further submitter action of the submission stating that wetlands/stormwater attenuation areas could impact on the heritage value of the Prouse property.
- 489. Further submitter **Council** (FSO4/72) supports WKNZTA's submission, stating that Council should use basket style sump technology. Ms Schibli also supports the **Submission**, stating that wetlands will not be effective.

490. Pre-Hearing Meetings

- 491. Two pre-hearing meetings were held on stormwater and servicing. This meeting was useful to clarify and summarise the scope of submissions. At this first pre-hearing meeting it was determined that submitters were generally aligned in that they all wanted stormwater to be retained within the plan change area (discharged to ground) and for both the quality and quantity of stormwater to be managed in a way that avoids negative impacts on Lake Horowhenua and the Koputaroa Stream. However, submitters' views differed on how this should be achieved. The two keys options identified are for a communal (plan change wide) approach or for each subdivision/activity to manage its stormwater individually. Additionally, submitters sought for flexibility to determine the most appropriate approach at consent stage and as a result, were opposed to stormwater management areas being spatially identified on the structure plan.
- 492. Following this first meeting, it was agreed that Council and their advisors would explore the costs and benefits of both a communal approach and a subdivision-by-subdivision/activity-by-activity approach and the most appropriate means of giving effect to this in the plan provisions.
- 493. Analysis
- 494. I agree with the points raised by submitters that it is very important to take steps to ensure the mauri of freshwater is protected and that the quality and quantity of stormwater is appropriately managed to avoid both adverse effects on water bodies and unintended flooding. Not only is this needed to protect water bodies of significance to iwi and the wider community, but this is also required to give effect to the One Plan.



- 495. As indicated above, Council and WKNZTA have been exploring a shared stormwater management approach for O2NL and Tara-Ika. As identified by submitters, no formal arrangements have be made in this respect. This is due in part to O2NL and Tara-Ika occurring on different timeframes. As such, the stormwater approach presented in further submission by Horowhenua District Council Infrastructure Development Group (FS04/27) sought to show that there was a feasible stormwater management solution that did not depend on O2NL. I understand that this plan was conceptual only. Since this time, and in response to submissions, the recommended stormwater approach has been further refined as presented in the technical report and stormwater statement of evidence included as Appendix 9 and Appendix 10 of this report.
- 496. To summarise, this report states:
 - That stormwater can be retained within the plan change area (discharged to ground) up to a 1 in 100 year event (including allowance for climate change), thus avoiding discharge to the Koputara Stream or Lake Horowhenua utilising the following:
 - Individual lots to have rainwater tanks and soak pits, sized as per District Plan requirements to accommodate up to a 1 in 10 year storm event.
 - Stormwater from Roads and access ways, as well as runoff from lots in a greater than 1 in 10 year event, to be managed via a network of attenuation basins (where possible, co-located with recreation space), and treatment wetlands. This approach manages both quality and quantity.
- 497. The report recommends using a communal approach over a subdivision by subdivision (or activity by activity) approach on the basis that this provides more benefits and fewer costs. This assessment is included in the report, but summarised below. While the report recommends pursuing a communal approach, it recommends against spatially identifying the stormwater management areas (basins and wetlands) on the structure plan. This is to provide flexibility to size and locate these in an optimal way, once the detail of subdivision (e.g. section sizes) is known.
- 498. Benefits of the communal (centralised) approach include:
 - More efficient long-term operations and maintenance by virtue of having fewer but larger facilities which lead to better outcomes, including better environmental outcomes;
 - Ability to utilise CIP funding to contribute to the costs of design and constructing facilities, potentially lowering costs to subdivide;
 - Allows facilities to be co-located with the O2NL corridor;
 - More efficient use of land (i.e. overall, less space-consumptive that numerous small facilities).
- 499. Costs of the communal (centralised) approach include:
 - Requires landowner willingness to be effective (if not demarcated on the structure plan), requiring Council to play a greater facilitation role;
 - Requires consideration of financial fairness and equity. While not strictly a plan change matter, if this issue is not addressed it may discourage development;
 - Requires enabling infrastructure to be in place in order to development to proceed.
- 500. Benefits of the subdivision by subdivision (de-centralised) approach include:
 - Each landowner has the ability to proceed with development at their own pace, regardless of if downstream stormwater measures have been put in place, providing a high degree of flexibility and removing the potential 'fairness' issue.



- 501. Costs of the subdivision by subdivision (de-centralised) approach include:
 - Less efficient use of land in that a larger number of smaller facilities will occupy more footprint than fewer, larger facilities;
 - Risk of inconsistent design leading to poorer outcomes;
 - Increased maintenance costs (and increased complexity of maintenance), including that some facilities may stay in private ownership, increasing risk of failure and/or poor outcomes in the long term due to inconsistent management and maintenance;
 - Potential for higher costs as costs cannot be shared (between subdivisions and with O2NL).
- 502. Based on the above, I consider a communal approach to managing stormwater likely to deliver more benefits with fewer costs. While I acknowledge the potential risk related to fairness/cost sharing, I consider this able to be dealt with outside of the District Plan (for example development contributions or private developer agreements). As such, Council will likely need to act as a facilitator for this action, though this will occur outside of the District Plan.
- 503. I agree with the conclusions reached in the report that spatially identifying stormwater management areas on the structure plan would not be efficient or effective, as the size and location requirements could change once subdivision/activity detail is determined (e.g. section size, lot layout, and individual site soakage testing results). As such, I consider inclusion of 'outcome based' stormwater provisions to be an appropriate means of securing the quality outcome sought, while also allowing sufficient flexibility. These provisions have been drafted in conjunction with Council's stormwater advisor and are set out below. I recommend these apply to all restricted discretionary activities as this will capture subdivision, medium density development, integrated residential development, and new commercial buildings (all activities that have the potential to generate stormwater effects, if not appropriately managed). The need to ensure these provisions apply to commercial activities as well as residential is identified in both the stormwater technical report and the Horizons Regional Council submission.

Objective 6A.3

Stormwater management in Tara-Ika will be resilient and environmentally sustainable, including:

Resilient to natural hazards and the likely effects of climate change;

Incorporating Water Sensitive Design;

Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems.

Policy 6A.3.1

Require an integrated approach to managing stormwater from Tara-Ika to ensure the quality and quantity of runoff does not have an adverse effect on Lake Horowhenua, <u>the Koputaroa</u> <u>Stream, or other downstream environments.</u>

Policy 6A.3.2

<u>Require stormwater to be retained within the Tara-Ika Growth area for up to a 1 in 100 year</u> <u>annual return interval rainfall event (with allowance for climate change), and treated and</u>



managed utilising the best practicable option to mitigate the effects of stormwater by including the following:

- <u>limiting the extent of impervious areas;</u>
- <u>incorporating on-site treatment and disposal of stormwater into subdivision and</u> <u>development design;</u>
- provision of catchment-wide facilities like wetlands that are efficient and effective from both a construction and maintenance perspective.

Policy 6A.3.3

Recognise <u>te mana o te wai and the significance to kaitiaki relationship</u> of iwi to the Tara-Ika environment and its connection to Lake Horowhenua by working with iwi to <u>protect the</u> <u>mauri of freshwater</u> through managing stormwater quality and quantity.

15A.8.1 All Zones

15A.8.1.1 Conditions for All Restricted Discretionary Activities

(i) Stormwater Management Plan

All applications for restricted discretionary activities must include a stormwater management plan which sets out how stormwater will be managed via both onsite and centralised treatment and soakage facilities (i.e. wetlands and soakage basins) in a manner that ensures stormwater is retained and disposed of within the Tara-Ika Growth Area for up to a 1 in 100 year average recurrence interval (ARI) rainfall event (with allowance for climate change). The Plan shall be consistent with the more stringent of the Horowhenua District Plan Subdivision and Development Principles and Requirements 2014 and NZS 4404:2010 (Land development and subdivision infrastructure) and shall include the following:

- <u>The size, design, location and expected maintenance of stormwater management</u> <u>devices (e.g. rainwater tanks, on-lot soakage, wetlands and soakage basins),</u> <u>including those to be vested with Council.</u>
 - Pre-soakage treatment is required for all runoff from all impervious surfaces excluding roofs and other on-lot impervious areas (patios, shed etc.) but including private driveways and parking areas. The primary method of treatment shall be through centralised end-of-pipe stormwater wetlands that are sized and located to efficiently service the Tara-Ika Grwoth Area in an integrated manner. Wetlands shall include a high flow bypass into an adjoining/downstream soakage basin for disposal, sized to bypass flows greater than the Water Quality Flow.
 - <u>The stormwater treatment devices (wetlands) shall be sized to</u> <u>accommodate the Water Quality Flow and Water Quality Volume of the</u> <u>contributing catchment, excluding the roof and on-lot impervious areas</u> <u>that are connected to appropriately sized on-lot soakage devices. The</u> <u>contributing catchment includes adjoining development blocks within</u> <u>Tara-Ika and must consider the future developed upstream catchment.</u> <u>The stormwater soakage devices shall be sized to provide full retention</u> <u>and disposal of the 1 in 100 year ARI runoff volume (with allowance for</u> <u>climate change) with no overflows to the downstream environment.</u>



- Overland flow paths for the 100-year ARI rainfall event (with allowance for climate change) and proposed mechanisms for managing these. The reduction of runoff volume and flow from on-lot soakage disposal cannot be considered in the sizing calculations for the 100-year ARI overland flow path, in order to ensure sufficient capacity is available during extreme events.
- <u>Calculations undertaken to prepare the stormwater management plan. These</u> <u>should be carried out in the following manner:</u>
 - <u>The 12-hour nested design storm specified by Wellington Water in</u> <u>"Reference Guide for Design Storm Hydrology" (2019) shall be applied to</u> <u>Tara-Ika stormwater design calculations.</u>
 - Design storms shall be developed with HIRDS v4 rainfall data for the development site using the RCP 8.5 (2081-2100) climate change scenario.
 - The soakage rate for on-lot soakage devices to receive roof runoff from roofs and other impervious areas (excluding driveways and parking areas) shall be determined by carrying out soakage testing in accordance with Horowhenua District Plan Subdivision and Design Requirements and Principles, with a safety factor of 1.5 applied to the testing results (i.e., divide soakage rate result by 1.5). Evidence of the site-specific soakage testing must be provided, including the suitability of soil layers at the location and depth of the purposes of initial design a soakage rate of 100mm per hour will be applied. Rainwater tank volume shall not be considered in the sizing of on-lot soakage.
 - <u>The Water Quality Volume (WQV) and the Water Quality Flow (WQF)</u> <u>used to size treatment devices shall be calculated using the method</u> <u>specified in Wellington Water's "Water Sensitive Design for Stormwater:</u> <u>Treatment Device Design Guideline" (2019).</u>

Acceptable design standards for treatment and soakage devices include Wellington Water's "Water Sensitive Design for Stormwater: Treatment Device Design Guideline" (2019), or Auckland Council's "Stormwater Management Devices in the Auckland Region" (2017).

Advice Note: Pre-application meetings with Council are strongly encouraged.

504. I support the changes to plan provisions requested by Horizons Regional Council. I agree that these changes will more clearly give effect to proposed Objective 6A.6. These changes are set out below:

Policy 6A.6.2

Ensure public parks and reserves area of a size, shape and type that enables a functional <u>and</u> recreational use<u>s</u> by requiring all subdivision and development to comply with Structure Plan 13.

15A.8.1.2 Subdivision

(a) Matters of Discretion

(vi).Provision of land for publically accessible open space and recreation that is appropriately located and of a practicable size and shape <u>to support management of stormwater during heavy rain events</u>, in accordance with Structure Plan 013.

505. Recommended Decision



- 506. That submissions 04/01.01 be rejected.
- 507. That submission 04/19.06 be rejected.
- 508. That submission 04/26.01 be rejected.
- 509. That submission 04/39.01 be rejected.
- 510. That submission 04/40.01 be rejected.
- 511. That submission 04/07.02 be accepted in part.
- 512. That submission 04/30.02 and 04/30.03 be accepted in part.
- 513. That submission 04/35.04 be accepted.
- 514. That submission 04/15.01 be rejected.
- 515. That submission 04/38.07 be accepted in part.
- 516. That submission 04/21.01 be accepted in part.
- 517. That submission 04/34.10 be accepted in part.
- 518. That further submission points are accepted or rejected respectively.

5.4.4 Rainwater Tanks

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/06	04/06.02		Support
04/13	04/13.01		Support in part
04/25	04/25.04	Horowhenua District Council Officers	Support in part
04/30	04/30.04	Horizons Regional Council	Support in part
04/32	04/32.02	Leith Consulting	Support in part
04/33	04/33.14	Truebridge Associates	Unclear

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/22	FS04/22.11	Truebridge Associates Limited (jointly on behalf of	04/32	Support



		Truebridge Associates Limited (jointly on behalf of	1.1	1.5.12
FS04/22	FS04/22.20		04/13	Support in part
FS04/91	FS04/91.03		04/13	Support in part
FS04/91	FS04/91.02		04/7	Support in part
FS04/91	FS04/91.04		04/15	Support in part
FS04/91	FS04/91.14		04/32	Support
FS04/91	FS04/91.11		04/33	Support

520. Overview of Topic

521. A range of submissions were received in relation to the proposed requirement for Residential lots to have an onsite rainwater tank.

522. Summary of Submissions

- 523. Ms Leighfield and **control** (Submitter 04/06 and 04/13) supported the requirement for onsite rainwater tanks on Residential lots. Ms Leighfield sought for this requirement to be extended to Greenbelt Residential lots and for the tanks on these lots to be capable of providing potable water supply for an average family. The submitter also seeks for Council to introduce incentives for using rainwater tanks for water supply, such as rates reductions.
- 524. Horowhenua District Council Officers (Submitter 04/25) sought the inclusion of an advice note clarifying how the requirement for onsite rainwater tanks should apply to multiple joined dwellings, as this was currently unclear.
- 525. Leith Consulting (Submitter 04/32) supported the requirement for rainwater tanks, but sought some changes to provisions to improve flexibility on the size, shape, and nature of the tanks to assist with the tanks integrating with the built environment. In particular, the submitter seeks for the specified tank size to be a 'minimum' rather than a set size and for provision to be made for tanks to be used for toilet flushing and outdoor taps, clarification of the bulk and location requirements, and provisions to protect against cross-contamination.
- 526. Truebridge Associates (Submitter 04/33) sought for the rainwater tank provision to be moved from Chapter 15A to engineering standards chapter of the District Plan.
- 527. Horizons Regional Council (Submitter 04/30) supported the requirement for onsite rainwater tanks, but sought that non-compliance with standard be a non-complying activity.
- 528. Further submitter Truebridge Associates (FS04/22) supports the Leith Consulting submission and Example the submission.
- 529. Further submitter (FS04/91) supports the submission from the
- 530. Analysis


- 531. The requirement for onsite rainwater tanks was generally supported by submitters. This approach enables rainwater to be reutilised for non-potable uses (such as toilet flushing and garden watering) and therefore reduces overall consumption from the reticulated network.
- 532. Extending the requirement for onsite rainwater tanks to include Greenbelt Residential lots will increase the water 'reuse' benefits. The rationale for requiring rainwater tanks on Residential lots provided in the s32 report is considered to apply equally to Greenbelt Residential lots. As such, I recommend extending the requirement to these lots. The same provision wording as applies in the residential zone would apply in the greenbelt residential zone. As such, the wording is not reproduced here.
- 533. The plan change allows and encourages multi-unit development. However, the plan provisions requiring rainwater tanks could be difficult to apply to this type of development, as it does not explicitly state a requirement for multi-unit development or conjoined dwellings. I consider the provisions would be more effective with greater clarity provided to how the standard would apply in these situations. This could be achieved through the use of an advice note. Suggested wording is included below:

Note: Multi-unit dwellings may share an appropriate sized communal tank.

534. The notified provisions specify the required rainwater tank size. At present, the provision reads as though the size is set and that tanks can be neither smaller nor larger. It would be more appropriate if the provision made clear that the size specified in the standard was a minimum requirement, therefore allowing people to install a larger tank (without requiring resource consent) if they choose to. The provisions already require the tanks to be permanently connected to internal and external non-potable uses (e.g. toilet flushing and outdoor taps) and to be fitted with a non-return valve to protect the public potable water supply. I consider these provisions, subject to the changes discussed above, effective and appropriate I do not consider any other changes necessary in terms of the intent of the provisions. I do however, consider it necessary to make the following changes in order to aid the clarity of the provision and how they relate to other onsite stormwater management devices:

15A.6.X.X Rainwater Tanks

(a) All dwellings shall have a stormwater rainwater collection tank permanently connected to internal and external non-potable reuse including toilet flushing, laundry, and outdoor taps. Rainwater tanks must be design and installed as follows:

(i) Size of tank:

- Roof area of 75m² or less *minimum* 2,000 litre capacity
- Roof area of 75m² to 200m² minimum 3,000 litre capacity
- Roof area of more than 200m² <u>minimum</u> 5,000 litre capacity
- (ii) The roof area to be connected will be the total footprint of the building (excluding freestanding accessory buildings) and 90% of this must be able to freely drain to the tank *without need for pumping. Only runoff from roof surfaces is to be collected*



into the rainwater tanks.

- (iii) The rainwater tank, plumbing and pump system must be maintained in working condition of <u>over</u> the life of the dwelling.
- (iv) The public potable water supply shall be adequately protected by installation of a non-return valve.
- (v) <u>Rainwater tanks are to overflow when full into an on-lot soakage device for</u> stormwater disposal.
- 535. The engineering standards chapter of the District Plan (Chapter 24) applies across the District. This plan change is location specific. Therefore, I do not consider it appropriate to move the rainwater tank provision to Chapter 24 of the District Plan at this time. If the use of rainwater tanks in Tara-Ika proves effective, the requirement could be extended to the District Plan generally by way of future plan change. If this situation arises, consideration could be given to the provision be relocated to a different chapter of the plan at that time.
- 536. As notified, the activity status for non-provision of a rainwater tank is Restricted Discretionary. The matters of discretion include the potential for increased volume of stormwater discharge and the proposed methods for managing both quality and quantity of stormwater. Non-provision of a stormwater tank is considered to have a relatively defined range of potential adverse effects (namely limited to the quality and quantity of stormwater). As such, I considered restricted discretionary activity status for non-provision of a rainwater tank effective and appropriate.
- 537. *Recommended Decision*
- 538. That submission 04/06.02 be accepted in part.
- 539. That submission 04/13.01 be accepted in part.
- 540. That submission 04/25.04 be accepted.
- 541. That submission 04/30.04 be rejected.
- 542. That submission 04/32.02 be accepted in part.
- 543. That submission 04/33.14 be rejected.
- 544. That further submission points are accepted or rejected respectively.

5.4.5 Infrastructure Requirements for Subdivision and Development

545. *Relevant Submissions*

Submission Number	Submission Point	Submitter Name	Support/Oppose
		Fire and Emergency New	
04/21	04/21.04	Zealand	Support in part



04/24	04/24.07		Oppose
04/33	04/33.05	Truebridge Associates	Oppose
04/33	04/33.22	Truebridge Associates	Oppose
04/38	04/38.06		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/74	FS04/74.01		04/24.01	Support
FS04/25	FS04/25.06		04/38.06	Support
FS04/80	3		04/24	Support

546. Overview of Topic

547. A number of submissions were received in relation to the infrastructure requirements for subdivision and development. In particular, the requirement to construct and vest key infrastructure.

548. Summary of Submissions

- 549. Fire and Emergency New Zealand (Submitter 04/21) seeks the introduction of provisions requiring subdivisions to ensure 'firefighting water supply', and for buildings to have a firefighting supply in accordance with the New Zealand Firefighting Code of Practice SNZ/PAS 4509:2008.
- 550. Truebridge Associates and **Construction** (submitters 04/24, 04/33 and 04/38) all opposed provision 15A.8.1.2(b)(ii) (and associated provisions such as 'methods' in the objectives and policies chapter) on the basis that this may require parties to construct infrastructure over and above what is required for their development or result in land being acquired without compensation. The submitters sought relief to ensure infrastructure construction costs are distributed fairly.

551.	Further submitters	(FS04/74 and FS04/80)
	supported Mr Preston's submission. Further submitter E	e and
	(FS04/25) supported the	

552. Analysis

553. I have discussed submission 04/21 with the submitter (Fire and Emergency New Zealand) to explain the existing District Plan requirements in relation to water supply for firefighting purposes and determine whether these are sufficient. The submitter has since advised that the current District Plan requirement (Section 12.1 of the Subdivision and Development Principles and Requirements 2014, which is incorporated by reference of the Horowhenua District Plan and applies to all



activities) is sufficient. Therefore, I do not consider there to be a need to make any changes to the water supply for firefighting purposes requirement.

- 554. Ensuring the required infrastructure is constructed in the location and extent shown on the Structure Plan is critical for achieving the nature and level of development anticipated. The Operative Horowhenua District Plan already recognises that such an approach can be effective to future proof and enable future development. Chapter 24 of the Operative Horowhenua District Plan states that where the site of the proposed development or subdivision contains or adjoins other land which is expected to be subdivided or developed in the future; and where the future development or subdivision of that other land would rely on reticulated services the developer or subdivider shall provide for and construct the required reticulated service through the proposed development or subdivision to such a standard as is expected to be necessary to provide adequate reticulation to that other land.
- 555. The Operative District Plan then contains a note stating that where this requirement results in the developer or subdivider incurring design and construction costs in excess of those that would be required to serve the proposed development or subdivision, Council may reimburse the additional costs to the developer or subdivider.
- 556. Provision 15A.8.1.2(b)(ii) makes this requirement more explicit and directs that is applies to nonreticulated infrastructure (such as roading and parks). Such a provision is an effective way of ensuring the necessary infrastructure is constructed to enable anticipated development and therefore achieves the outcomes sought by the objectives and policies of the Plan Change.
- 557. Determining who pays for what and when is best determined outside of the District Plan, through private developers agreements or other similar arrangement. I note that Council has recently reintroduced Development Contributions, which may provide means of providing financial recognition of infrastructure costs (for example, reduction in development contribution in recognition of additional roading costs). This provides an opportunity for infrastructure investment (e.g. parks) made by developers to be financially recognised. Council encourages subdivision applications of scale to be discussed prior to lodgement to determine matters such as this. At one of the pre-hearing meetings, there was discussion on whether an advice note should be introduced to the District Plan stating that private development agreements and other mechanisms between Council and landowners/developers can be considered at subdivision stage. I have considered this request and am of the opinion that private developer agreements would be best described as a method to enable the plan change objectives to be met. For this reason, I recommended that private developer agreements be listed as a 'method' in Chapter 6A (Objectives and Policies) rather than as an advice note in Chapter 15A (Rules). Recommended wording is included below:

• The use private developer agreements to facilitate infrastructure works

558. I also note that Council are not able to acquire land without compensation. If no cost sharing agreement were reached and the infrastructure was proposed not be constructed, Council would simply assess the subdivision consent accordingly, against the appropriate tests set out in the RMA and make a decision about whether to grant (and potentially impose conditions), or refuse resource consent. Applicants would then have appeal options available to them.



559. *Recommended Decision*

- 560. That submissions 04/21.04, 04/33.05, and 04/38.06 be rejected.
- 561. That submissions 04/24.07 and 04/33.22 be accepted in part.
- 562. That further submission points are accepted or rejected respectively.

5.4.6 Impact of Infrastructure of Amenity Values

563. *Relevant Submissions*

Submission Number	Submission Point	Submitter Name	Support/Oppose
		Incite (on behalf of a range	
		of Redwood Grove	
04/31	04/31.03	properties)	Oppose

Further Submission	Further Submission	Further Submitter Name	On what Submission	Support/Oppose Submission		
Number	Point					
No further submissions received in relation to this topic.						

- 564. Overview of Topic & Summary of Submission
- 565. Incite (on behalf of a range of Redwood Grove properties) (Submitter 04/31) states they are concerned that the proposed infrastructure (including roading, three waters infrastructure, power, telecommunications, and gas) needed to service Tara-Ika will have a negative impact on the current amenity enjoyed by Redwood Grove. The submission did not seek any particular relief in relation to this matter.
- 566. Analysis
- 567. The submitter's concerns in relation to roading (and proximity to Redwood Grove) has already been evaluated in the 'Structure Plan' section of this report. As such, I will primarily focus on three waters, power, telecommunications, and gas in this section.
- 568. The District Plan requires new infrastructure to be undergrounded. As such, new powerlines and telecommunications infrastructure, water pipes, waste water pipes and gas pipes will not be visible to any resident. Existing properties that are already developed (such as the majority of sites on Redwood Grove) will be able to continue their existing servicing arrangements (e.g. onsite) and would not be required to connect to any new infrastructure.
- 569. Furthermore, infrastructure of this nature is required to service urban development. The need to provide land for urban development has been outlined previously. As such, I consider the proposed infrastructure requirements to be effective, efficient and appropriate in this context.
- 570. *Recommended Decision*



571. That submission 04/31.03 be rejected.

5.4.7 Electricity Transmission Lines

572. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/27	04/27.07		Support in part
04/28	04/28.01	Electra	Support in part

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/22	FS04/22.08	Truebridge Associates	04/28	Support
FS04/91	FS04/91.12		04/28	Support

- 573. Overview of Topic & Summary of Submissions
- 574. There are existing electricity transmission lines passing through the plan change area. These lines were previously part of the national grid, but were transferred from Transpower to Electra in 2017 and now form part of the local distribution network and operate at 110kv.
- 575. Two submissions were received on this topic.
- 576. (Submitter 04/27) seeks for the location of high voltage transmission lines to be considered in regard to heath and visual impact. Electra (Submitter 04/28) stated they support plan changes that support good urban design, but have concerns the proposed plan change does not provide sufficient protection for the existing power lines.
- 577. Further submitters Truebridge Associates Limited and Level (FS04/22 and FS04/91) support Electra's submission.
- 578. Analysis
- 579. The presence of the powerlines within Tara-Ika will have a visual impact, given the size of the structures, as well as require 'no build' setback areas in accordance with the requirements of the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34). No specific recognition or protect of the local lines network has been proposed as part of the Plan Change. This is consistent with the approach elsewhere in the District.
- 580. An ideal outcome would be for these lines to be relocated or undergrounded. However, I do not consider this to be a requirement for the plan change to proceed. There are other examples where significant lines traverse urban areas (such as Summerhill Palmerston North).



- 581. As the lines are existing private assets on private land and safety matters are controlled through other legislation, for example the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34). I do not consider it effective or appropriate for the District Plan to offer any additional protection to the local lines network. I also note that Electra have advised that these lines are protected by easement.
- 582. Any decisions to relocate or underground the lines, as a means of future proofing, are most appropriately managed outside of the District Plan. I do not consider any changes necessary.
- 583. Recommended Decision
- 584. The submissions 04/27.07 and 04/28.01 be rejected.
- 585. That further submission points are accepted or rejected respectively.

5.5 O2NL Matters

5.5.1 Corridor Protection and Staging/Timing Matters

586. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/05	04/05.01		Neutral
04/34	04/34.02	WKNZTA	Neutral
04/34	04/34.09	WKNZTA	Neutral
04/38	04/38.08		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/22	FS04/22.13	Truebridge Associates	04/34	Oppose
FS04/25	FS04/25.08		04/38	Support
FS04/35	FS04/35.03		04/34.02	Oppose
FS04/35	FS04/35.01		04/34.01	Oppose
FS04/35	FS04/35.04		04/34.06	Oppose
FS04/94	FS04/94.03		04/34	Oppose

587. Overview of Topic

588. A number of submissions and further submissions were received regarding O2NL, including how the corridor should be considered in the plan change and on the structure plan and how to manage issues likely to arise as a result of this project passing through the same area, but proceeding on different timeframes.



589. Summary of Submissions

- 590. **Summary** (Submitter 04/05) was neutral on the plan change, stating that there was insufficient information to understand the impact of O2NL on components of the Tara-Ika development, such as the central east/west arterial road and, as a result, insufficient information to understand the likely impacts of the plan change on their land (75-77 Arapaepae Road). The submitter sought further information, including detailed design of O2NL and the Tara-Ika central east/west arterial road).
- 591. WKNZTA (Submitter 04/34) note that while it is known that O2NL will pass through Tara-Ika, the design work for this is not advanced enough to determine the final alignment and form meaning that associated effects and required mitigation is not known at this time. Furthermore, WKNZTA highlight potential timing effects associated with development occurring within Tara-Ika ahead of O2NL resulting in traffic issues at existing state highway intersections. Potential traffic effects on existing state highway intersections will be assessed in the 'transport' section of this report. This section will face specifically on submitters' requests in relation to the future O2NL corridor.
- 592. The WKNZTA submission sought for the indicative O2NL corridor and the land 100m either side of the indicative corridor be either 'downzoned' to Low Density Residential (as opposed to the proposed standard density) or be staged to occur after O2NL. The submitter states that this is to protect the ability for O2NL to be constructed, avoid future adverse effects, and provide for good integration between the road and adjoining urban areas. WKNZTA also seek ongoing collaboration with Council on this matter.
- 593. Further submitters Truebridge Associates, FS04/35, FS04/94) all opposed this request. Reasons for opposition include:
 - O2NL is not yet the subject of a Notice of Requirement application and therefore has no legal status.
 - That the request is excessive and goes beyond WKNZTA guidelines. WKNZTA should assess
 and then mitigate noise effects from the proposed highway during highway construction,
 rather than restrict development within 100m of the indicative corridor.
 - That planning for Tara-Ika was already underway when the indicative O2NL corridor was selected.
 - That WKNZTA could be seen as seeking to reduce land value ahead of the Public Works Act
 process to reduce land purchase costs.
 - Currently experiencing a housing crises and should not restrict development to the extent requested.

progressing at different speeds, resulting in issues such as showing O2NL accurately on the Structure Plan and progressing joint stormwater management options. Further submitter

support the

on this

(FS04/22,

matter.

594.



- 595. WKNZTA also notes that SH57 is likely to be revocated once O2NL is open but that this work is yet to begin. The submitter requests consideration of how development between SH57 and O2NL occurs to ensure connectivity and integration, given the revocation project is yet to start.
- 596. Analysis
- 597. The issues raised by submitters are complex. I acknowledge that having a proposed highway passing through an urban growth area has the potential to create adverse effects, particularly as the urban growth area and the proposed highway are to be established under different processes which are proceeding on different time scales. While WKNZTA have identified a preferred corridor for the highway, detailed design (including exact location) is yet to be determined. As such, the exact nature and extent of effects likely to arise from the new highway are unknown.
- 598. This issue and the planning tools that could address this were discussed extensively during prehearing meetings. A range of different options were discussed, ranging from 'down zoning', development staging, overlays and no controls.
- 599. As a result of these discussions, WKNZTA advised they wished to amend their submission as follows:

"Waka Kotahi <u>no longer wish to proceed</u> with that part of the Waka Kotahi submission that requested a change in zoning for the indicative O2NL corridor or that looked to restrict development rights within the indicative O2NL corridor. The management of activities within the O2NL corridor will be addressed through the separate designation and approval process for the corridor. It is expected that the Notice of Requirement for the O2NL corridor will be lodged with the councils mid-2022."

- 600. Other aspects of WKNZTA submission, including the request for additional reverse sensitivity provisions in relation to state highways and additional provisions to control signage visible from state highways remain. These aspects are considered elsewhere in this report.
- 601. Following receipt of the above, one further pre-hearing meeting was held to provide other submitters with the opportunity to ask WKNZTA questions about what this meant and discuss the details of what was now being sought. At this pre-hearing meeting, the following approach was suggested (in line with the amended submission) and agreed to by meeting attendees:
 - That the Structure Plan will show the most update version of the O2NL corridor (note this location could be further refined between the time this report was report and the hearing).
 - That the District Plan would include no restrictions on land use as a result of the corridor being shown on the Structure Plan.
 - That a note be included on the Structure Plan that the corridor location is for information purposes only.
 - That the depiction of the O2NL corridor will be removed from the Structure Plan within 5 years (1/7/2026) in the event that Waka Kotahi have not designated this corridor.
- 602. Further detail on this is included in the pre-hearing meeting report prepared by Andrea Harris (independent pre-hearing facilitator) and provided to the hearing panel. All parties present at the



pre-hearing meeting agreed to this approach, though I note that not all relevant submitters attended this meeting.

- 603. I agree with submitters that this is an appropriate outcome. Relying on the notice of requirement process to protect and establish the highway and manage the interface effects is the most efficient and effective approach. This is because the notice of requirement application will contain information about the nature and scale of effects and proposed mitigation (this information is not currently available). This will avoid imposing unnecessary restriction in the District Plan.
- 604. I acknowledge the uncertainty faced by **Matterial** (submitter 04/05) as a result of O2NL and the central east/west arterial road. The east/west arterial road cannot be designed without knowing the detailed design of O2NL (such as whether O2NL will be at grade or below grade). WKNZTA are responsible for designing O2NL. I understand that detailed designs are not yet available. I note that this level of information cannot be required or secured through the plan change process. Consequently, there is uncertainty in the design of the central east/west arterial road. However, this road provides a number of benefits as identified in the integrated traffic assessment, included as Appendix 11 of this report. Additionally, this road helps to connect the Tara-Ika neighbourhood centre to the rest of Tara-Ika and to the established part of Levin. As such, I consider it important to express the future intention of this road, despite the uncertainty over the final design.
- 605. I acknowledge the comments made by submitters that having O2NL and this plan change proceed on different timeframes and through different process raises complexity and challenges for those involved. However, the timeframes for O2NL moving through the required WKNZTA processes and then the RMA process is outside the scope of this plan change. There is demand for housing within the Horowhenua District now and for this reason, I consider it necessary and appropriate for this plan change to proceed now. The above refinements to the plan change may also alleviate some of these concerns.
- 606. I acknowledge Submitter 04/34's comments about the likelihood of State Highway 57 being revoked once O2NL is complete and agree that it will be important for Council and WKNZTA to work together on this process. However, this is subject to a separate process and relates to land that it outside of the plan change area. Therefore, I do not consider it necessary or appropriate to make any changes to the plan change in relation to this matter.
- 607. Recommended Decision
- 608. That submission 04/05.01 be accepted in part.
- 609. That submission 04/34.02 and 04/34.09 be accepted in part.
- 610. That submission 04/38.08 be accepted in part.
- 611. That further submission points are accepted or rejected respectively.
- 5.5.2 Potential Severance and Interface Effects
- 612. Relevant Submissions



Submission Number	Submission Point	Submitter Name	Support/Oppose
04/04	04/04.02		Oppose
04/19	04/19.02		Oppose
04/22	04/22.05		Oppose
04/34	04/34.06	WKNZTA	Support in part
			1

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
No further su	ubmissions recei	ved in this topic.		

613. Overview of Topic

614. Several submitters raised concerns about the potential for O2NL to cause interface or severance effects on the plan change area.

615. Summary of Submissions

- 616. **Control of the Browth area means that O2NL will bisect** Levin.
- 617. **Control of** (Submitter 04/19) states they oppose the plan change due to the potential impact of O2NL. The submitter state that the location of Tara-Ika means Levin still straddles a State Highway, resulting in effects such as noise, light, and air pollution. The submitter seeks for the plan change to be rejected in its entirety.
- 618. (Submitter 04/22) states there is insufficient integration between O2NL and Tara-Ika. The submitter seeks of consultation and consideration of how O2NL and Tara-Ika will integrate with each other.
- 619. WKNZTA (submitter 04/34) also comments in their submission on potential severance and interface effects between Tara-Ika and O2NL. In particular, the WKNZTA submission disputes that O2NL is creating 'severance' stating that SH57 already severs Tara-Ika from Levin and that the land that is the subject of Plan Change 4 was zoned deferred greenbelt residential (and was therefore expected to have significantly less development than is now proposed) when the O2NL corridor was selected. WKNZTA request that reference to O2NL having the potential to cause severance be removed.
- 620. WKNZTA also seek for the plan change to include additional mechanisms requiring onsite mitigation of noise and vibration effects. Given the notified plan provisions already contain reverse sensitivity standards in relation to Arapaepae Road/SH57 specifically, I understand that this submission points seeks the introduction of additional provisions that apply to state highways generally in order to 'future proof' the plan for new state highways.
- 621. WKNZTA states that this will ensure landowners can enjoy their property free from unreasonable interference and nuisance. WKNZTA seek to remain involved in the drafting of amendment of



Objectives, Policies and Rules to ensure appropriate mitigation to manage the effects of this development be to the same standard that WK require themselves to design to on projects, such as O2NL.

- 622. Analysis
- 623. The s32 report acknowledges the potential for severance effects to occur as a result of both O2NL and existing SH57. The s32 report also outlines why the plan change area was considered appropriate for development, in spite of the potential for O2NL to pass through the area. To summarise, Tara-Ika has been identified as a growth area since 2008 and was identified again in 2018 specifically for 'upzoning' to residential (i.e. before the O2NL corridor was identified). It has been subject to an extensive Master Plan process which, as identified by submitters, began in 2018 before the preferred highway corridor was identified in October 2019.
- 624. As a new, four lane highway O2NL has the potential to result in more significant severance effects than existing SH57, which is likely to become a local road post O2NL. The master plan that informed the structure plan considered the location of the proposed highway in determining the urban form of Tara-Ika by assessing the influence different highway options would have on aspects such as zoning and the location of the commercial centre. Furthermore, the structure plan seeks to address severance effects by identifying multiple walking and cycling connections across the proposed highway. As such, I do not consider any changes in regard to identifying severance as a potential issue.
- 625. Waka Kotahi's has a guidance document on managing effects arising from development near state highways, titled: "Guide to the management of effects on noise sensitive land use near to the state highway network²⁴" (hereafter referred to as WK Guidance Document). To summarise, this guidance document suggests the use of both buffer areas and effects areas to manage reverse sensitivity effects in relation to state highways. Buffer areas are nearest the road edge (typically they extend about 40m from the road edge) with the effects area extending inwards from this, up to 100m from the road edge. The WK guidance document states that in rural areas, no noise sensitive activities should be built within the buffer area but that in urban areas this is sometimes not practical, with noise sensitive activities able to establish with mitigation. The guidance document states that in the case of new designations, the buffer area can be included in the designation.
- 626. In both rural and urban areas, mitigation (e.g noise insulation) is recommended for noise sensitive activities in the effects area. The WK guidance includes standard plan provisions that can be included in plans to achieve a suitable level of mitigation. These standard include matters such as internal noise standards that need to be achieved. I assume that these are the standards that WK are seeking to have introduced to the Tara-Ika plan change in relation to state highways generally so as to 'future proof' the District Plan for O2NL. I note that these provisions area were already proposed to apply to the SH57 through the Arapaepae Special Treatment Overlay in the notified version of this plan change.

²⁴ <u>https://www.nzta.govt.nz/resources/effects-on-noise-sensitive-land/</u>



- 627. While such provisions with general applicability could be introduced to the Tara-Ika plan change, there could be significant difficulty in implementing such provisions at the current time. This is because the alignment and design of the new highway are not yet known. This means that neither the noise levels nor the buffer and effects area can be determined and therefore cannot be overlaid on District Plan maps. Furthermore, introducing provisions at this time has the risk of requiring 'doubling up' of mitigation. The WK guidance document notes that introducing buffer and effects areas to District Plan maps will likely require a plan change. As such, a subsequent plan change would potentially be required to set the effects area, even if provisions were introduced now. As such, I do not consider introducing provisions at the current time to be an efficient of effective means of addressing potential interface effects.
- 628. The WK guidance document states that for new and altered state highways the onus falls on the Transport Agency to address noise effects, whereas for new and altered noise sensitive activities near state highways the responsibility lies with councils to include appropriate land-use controls in district plans and on landowners/developers to implement them. As such, I consider a combination of O2NL design mitigation and District Plan provisions the appropriate way to managing this issue in the long term. However, I do not consider it appropriate to introduce these provisions to the District Plan at the current time, which is ahead of finalised road design or an NOR application.
- 629. The WK guidance document states that in the case of significant changes in the state highway network (such as a new highway), the Transport Agency may seek a specific plan change to include buffer and effects maps (page 7²⁵). For example, this may occur in parallel with a Notice of Requirement for a new state highway. This appears to be the most appropriate option in this case. This would have the added benefit of being able to apply to the whole O2NL corridor, including future growth areas, rather than only applying to Tara-Ika.
- 630. O2NL currently has no formal RMA status given it is yet to be subject of any RMA application. I also note the detailed design work has not been completed. Therefore, I do not consider it practical for the plan change to attempt control or manage the integration or potential interface effects to a greater extent than already recommended in the previous section of the report. The NOR process for O2NL is the appropriate process to carefully consider how the highway can integrate into an urban environment. Council are committed to working to WKNZTA to achieve the best possible outcome and WKNZTA have expressed a similar desire. However, if WKNZTA have suggestions on how to manage future interface effects in a manner that responds to the efficiency and effectiveness matters raised above I encourage them to do so in their hearing evidence.
- 631. In light of the above, I do not consider any further changes necessary.
- 632. Recommended Decision
- 633. That submission 04/04.02, 04/19.02 and 04/22.05 be rejected.
- 634. That submission 04/34.06 be accepted in part.

²⁵ <u>https://www.nzta.govt.nz/assets/resources/effects-on-noise-sensitive-land/effects-on-noise-sensitive-land-use.pdf</u>



5.6 Transport Matters

5.6.1 Rear Access Lanes

635. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/06	04/06.04		Support in part
04/23	04/23.02		Support
04/24	04/24.09		Oppose
04/32	04/32.01	Leith Consulting	Oppose
04/33	04/33.13	Truebridge Associates	Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS 04/22	04/22.02	Truebridge Associates Limited (jointly on behalf of	04/06	Partially support
FS 04/22	04/22.10	Truebridge Associates Limited (jointly on behalf or the second	04/32	Partially support
FS 04/91	04/91.01		04/06	Partially support

636. Overview of Topic

639.

637. Several submissions and further submissions were received on rear access lanes, the use of which is intended to avoid vehicle crossings onto the strategic cycleway network in the plan change area.

638. Summary of Submissions

(Submitter 04/06) supports the concept that vehicles should not cross strategic cycleways but opposes the use of rear access lanes due to CPTED (crime prevention through environmental design) concerns. The submitter seeks that advice (e.g. design guidelines) be included as part of the plan change, which would show how rear access lanes should be designed to best give effect to CPTED principles.

640. Truebridge Associates Limited (jointly on behalf of the submitter considers that there is a risk of negative outcomes from poorly maintained rear accesses. The further submitter considers that the provisions should be amended to allow access from either the front or rear of the site, subject to consideration of effects, including a supporting traffic assessment. **Consideration** (Further submitter 04/91) partially supports the original submission point as well, as they consider there would be adverse traffic effects from prohibiting access onto collector roads. This further submitter



seeks the removal of Rule 15A.6.1.1(a), and instead suggests inserting a policy under 6A.1.1 that encourages access from rear lanes.

- 641. (Submitter 04/23) supports allowing vehicle crossings onto secondary collector roads.
- 642. Hereit (Submitter 04/24) seeks the removal of the rule requiring vehicle access via rear access lanes for properties fronting strategic cycleways. The submitter also seeks amendments to the associated policy to allow for more flexibility and creative design.
- 643. Truebridge Associates (Further Submitter FS04/22) supports dealers Registering submission in full.
- 644. Truebridge Associates (Submitter 04/33) opposes the non-complying activity status for vehicle crossings onto strategic cycleways. The submitter states that there are several cycle and walkways with site access over them elsewhere in the District and that the non-complying activity status will slow or stop development in affected areas. The submitter seeks that the rule be amended to provide for crossings in strategic cycleways as a controlled activity when accompanied by a traffic assessment.
- 645. Leith Consulting (Submitter 04/32) considers that further assessment needs to be undertaken into the feasibility of requiring properties fronting strategic cycleways to be accessed via rear access lanes only. The submitter states that this could deter development or result in a number a resource consents being sought to depart from this standard, which, collectively, could adversely impact on the integrity of the Structure Plan. The submitter also notes there could be other means of achieving a safe cycling environment.
- 646. Truebridge Associates Limited (jointly on behalf of **Benautric Structures**) (Further submitter 04/22) supports the above submission point from Leith Consulting and also seeks that further consideration should be given to vehicle access across state highways.
- 647. Analysis
- 648. In response to the submissions from **Equiparent and** and Leith Consulting, requiring vehicle access via rear access lanes where lots have frontage onto strategic cycleways is fundamental to creating a safe walking and cycling environment in this particular context and is a key aspect of upholding the principles of the Master Plan. Creating a safe environment for active transport modes was also a key justification for uplifting the zoning on the plan change area and allowing development to proceed. The intention of designing the plan change area to make walking and cycling more attractive was intended to reduce car dependence and will therefore minimise the overall transportation effects of the plan change area on the wider transport environment.
- 649. Truebridge Associates submission seeks that the relevant rule be amended to provide for vehicle crossings onto strategic cycleways as a Controlled activity when accompanied by a traffic assessment. A Controlled activity status is not considered appropriate for this activity, as it does not give Council scope to decline consent if the traffic assessment concludes the access was unsafe or inefficient. As stated above, the purpose of rear access lanes is to avoid vehicle crossings onto strategic cycleways, thereby creating a safe environment for active transport modes. Allowing this activity as a Controlled activity would undermine the integrity and safety of strategic cycleways,



which is a key component of this plan change area. However, I note that the wording of Rule 15A.6.1.1(a) could be clarified by stating that access via side road is also a suitable means of providing access to properties that front a strategic cycleway. This point is identified in Appendix 6.

- 650. In response to Elizabeth Leighfield's submission, as outlined above, requiring rear access lanes for lots fronting onto strategic cycleways is a key component in the safe and efficient functioning of the transport network in the plan change area. Consideration of CPTED principles is included as a matter of discretion for residential and greenbelt residential subdivisions, new buildings and additions/alterations in the Commercial Zone. As such, I consider these matters have been addressed and do not consider that any further changes are necessary.
- 651. Recommended Decisions
- 652. That submission 04/06.04 be rejected.
- 653. That submission 04/23.02 be rejected.
- 654. That submission 04/24.09 be rejected.
- 655. That submission 04/32.01 be rejected.
- 656. That submission 04/33.13 be rejected.
- 657. That further submissions be accepted or rejected respectively.

5.6.2 Cycleways

658. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/09	04/09.02		Support in part
04/11	04/11.02		Support in part
04/12	04/12.01		Support in part
04/16	04/16.02		Support in part
04/22	04/22.03		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/70	ι÷.		04/12	Support

659. Overview of Topic



- 660. Several submissions and further submissions were received on cycleways, mostly relating to their positioning and staging in the plan change area, and their connectivity to the wider cycleway network outside the plan change area.
- 661. Summary of Submissions
- 662.

Submitter 04/09) and

(Submitter 04/11) support the use of strategic cycleways. Both submitters consider that it should be relocated to the collector road, in part because this may enable it to be built earlier.

- 663. Similarly, **Sector 1** (Submitter 04/12) supports use of cycleways, but seeks that they are constructed in a timely manner and are not reliant on development occurring. This submitter seeks modifications to the cycleway route so that it follows fixed roads (roads that run north-to-south and east-to-west) and seeks to eliminate the 'dog leg' in the cycleway shown near the Waiopehu Reserve. **Sector 1** (Further submitter 04/70) supports their own submission point above. This submitter also considers that the proposed route is too short to be effective and is concerned that the cycleway is reliant on a single landowner to develop. The further submitter seeks that cycleways be relocated to the north, east, and west perimeters of Tara-Ika, to give access to Gladstone Road and cycle trails.
- 664. (Submitter 04/16) seeks that roads and cycleways should be relocated to follow ownership boundaries.
- 665. (Submitter 04/22) considers that the cycle network is disconnected from the wider cycle network and does not provide sufficient connections into Levin. The submitter seeks improvements in cycle connectivity to Levin.
- 666. Analysis
- 667.

submissions seek that the extent of strategic cycleways be limited to arterial roads only. The existing cycleways largely follow the path of arterial and collector roads. The cycleways are an important part of the overall functioning of Tara-Ika as a whole, and their placement has been carefully considered by Council while developing the plan change. Further consideration was given to the cycleways in response to submissions and in the supporting ITA. Accordingly, no further changes to the placement and configuration of cycleways is recommended in this report. These points are therefore accepted in part.

668.

submission also considers that the timing of cycleway construction should not be dependent on subdivision application timing. As the arterial roads are the primary access points to the plan change area, cycleways will likely be constructed along these arterial routes earlier than cycleways on collector or local roads, for example. However, given the land is privately owned (i.e. it is not owned by Council), Council would not be able to require landowners to construct cycleways ahead of an application for development (for example, Council could not impose rules requiring immediate construction of cycleways in the District Plan Change). However, the detailed designs for road construction (including any potential timing) can be considered as part of future



subdivision consent(s). I also note that constructing cycleways ahead of the arterial and collector roads would be ineffective and inefficient. There would be no need for cycleways until subdivision, when supporting infrastructure (such as the roads) are built and there are people residing in the area to use this new infrastructure. As such, this point is accepted in part.

- 669. **Manual submission** considers that roads and cycleways should be relocated to follow ownership boundaries. This would be a significant change from the notified structure plan, and likely one not anticipated by landowners and submitters to date. As such, I consider there are issues regarding scope and natural justice to be weighed in considering this submission. I also note that the subdivision application process will provide the opportunity to determine the final paths of roads and cycleways. As such, the point is acknowledged, but no changes are recommended at this time as there is scope for refinement at subdivision stage. This submission point is therefore accepted in part.
- 670. **Consider the submission considers that connectivity to the wider Levin cycleway network should** be improved. The cycleway network inside the plan change area has been designed to connect with the wider network insofar as possible. Further improvements outside the plan change area are not within the ambit of this plan change. I therefore consider further changes are not necessary.
- 671. Recommended Decisions
- 672. That submission 04/09.02 be accepted in part.
- 673. That submission 04/11.02 be accepted in part.
- 674. That submission 04/12.01 be accepted in part.
- 675. That submission 04/16.02 be accepted in part.
- 676. That submission 04/22.03 be rejected.
- 677. That further submissions be accepted or rejected respectively.

5.6.3 Vehicle Network Functioning and Connectivity

678. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/21	04/21.02	Fire and Emergency New Zealand	Support in part
04/26	04/26.02	Horowhenua District Residents and Ratepayers Association	Unclear
04/26	04/26.09	Horowhenua District Residents and Ratepayers Association	Unclear



04/29	04/29.01	Rangeview Villas Body Corporate	Oppose
04/30	04/30.05	Horizons Regional Council	Support in part
04/30	04/30.06	Horizons Regional Council	Support in part
04/34	04/34.03	Waka Kotahi NZ Transport Agency	Neutral
04/34	04/34.05	Waka Kotahi NZ Transport Agency	Support in part
04/34	04/34.07	Waka Kotahi NZ Transport Agency	Oppose
04/34	04/34.08	Waka Kotahi NZ Transport Agency	Oppose
04/34	04/34.11	Waka Kotahi NZ Transport Agency	Oppose
04/34	04/34.12	Waka Kotahi NZ Transport Agency	Oppose
04/38	04/38.04		Oppose
04/40	04/40.03		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/2 – FS04/21			04/29	Support



F504/37 - - 04/29 Support F504/68 - 04/29 Support F504/25 04/25.4 04/35.05 Support	FS04/28 – FS04/31	-	04/29	Support
F504/25 04/25.4 04/35.02 04/35.05 Support in 1	FS04/37 – FS04/68		04/29	Support
E\$04/35 04/35.02 04/35.05 Support in	FS04/25	04/25.4	04/38.04	Support
ESU4/35 04/35 02 04/35 02	F00 4 /05	04/05 00	01/05 05	
	-504/35	04/35.02	04/35.05	Support in part

679. Overview of Topic



680. Several submissions and further submissions were received on the vehicle network functioning and connectivity. These submissions largely focus on whether the proposed structure plan has been designed to enable the best outcomes from the internal transport within and outside the plan change area, and the internal network's connectivity with the existing network.

681. Summary of Submissions

- 682. Fire and Emergency New Zealand (Submitter 04/21) supports road carriage widths that are sufficient to allow fire trucks to access properties. No changes are sought.
- 683. Horowhenua District Residents and Ratepayers Association (Submitter 04/26) raises two questions:
 - whether sufficient space has been allocated for carparking around the Commercial zone.
 - whether there is a proposal for a roundabout at the intersection of Arapaepae Road and the termed 'Liverpool Street extension' and, if not, why not?
- 684. No specific relief is sought on the above two points from Horowhenua District Residents and Ratepayers Association.
- 685. Rangeview Villas Body Corporate (Submitter 04/29) refers to the proposed future roading connection from Arapaepae Road to Liverpool Street. The submitter considers the connection is not required and opposes the road connection as it will cause disruption, reduce amenity values, and create safety issues for Rangeview Villas residents. The submitter seeks removal of the reference to a Liverpool Street extension in all relevant planning documents.
- 686. Further submitters FS 04/2 04/21, FS 04/28 FS 04/31, and FS 04/37 FS 04/68 all support the above submission from Rangeview Villas, and seek removal of the reference to a Liverpool Street extension for the same range of reasons raised by the original submitter.
- 687. Horizons Regional Council (Submitter 04/30) raises the following two submission points relating to transport:
 - a. Supports inclusion of objectives, policies, and rules that seek to achieve connectivity, safety, and transport choice. Specifically, the submitter supports Objective 6A.1, Policy 6A.1.1, and Rule 15A.6.1.1. The submitter supports medium density development in the centre of Tara-Ika as this supports connectivity and active and public transport options. The submitter notes a lack of provision for public transport in the proposed plan provisions. The submitter requests some changes to the wording of the proposed plan change policies and provisions to improve clarity and make specific reference to public transport. Requested additions are shown <u>underlined</u>:

Objective 6A.4: Achieve a high amenity, <u>connected</u>, walkable environment.

Policy 6A.4.2: Enable and encourage a range of housing types and section sizes in Taraika to meet the variety of needs and preferences in our community, while ensuring a high level of residential amenity <u>and connectivity</u>.

Rule 15A.8.1.2 Subdivision



(a) Matters of Discretion

- (viii) The provision of any new roads, cycleways, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, car parking and manoeuvring areas, bus stops and tuning areas, and any necessary easements.
- b. This submitter also states that consideration should be given to how public and school bus services will enter and exit Tara-Ika from Arapaepae Road and that consideration needs to be given to how safe crossing locations will be provided for pedestrians and cyclists, particularly before and during construction of O2NL.
- 688. Waka Kotahi NZ Transport Agency (WKNZTA) (Submitter 04/34) raises the following six submission points relating to transport:
 - a. Notes that Tara-Ika will increase traffic onto the existing State Highway 57, the associated east/west intersections, and the wider roading network. The increase in traffic may require road upgrades to be undertaken by WKNZTA. WKNZTA seeks further information about potential roading impacts to enable it to undertake upgrade planning.
 - b. Seeks several transport-related amenity improvements, including traffic calming measures to reduce traffic speed, reduced speed limits, cycle lanes, placemaking, prioritisation of pedestrians at traffic lights, and improvements to co-ordination between water, transport, and landscape systems.
 - c. Notes that the development will accommodate a significant number of people, increasing the amount of traffic needing to cross SH57, but notes this has not been subject to an Integrated Traffic Assessment (ITA). The submitter seeks the preparation of an ITA to assess the traffic effects that will result from the plan change, given the scale of anticipated subdivision and development. The submitter also seeks that the Council responds to the recommendation of the ITA accordingly (for example, consider introducing development thresholds if required).
 - d. Seeks that the plan change area be staged to align with the WKNZTA Safe Networks Programme and the O2NL programme. The submitter considers that Council should be able to decline subdivisions where the state highway does not have the capacity for additional vehicle movements.
 - e. Raises concerns about the effect that signage on or near the State Highway could have on traffic safety. WKNZTA seeks the inclusion of standards to require developers to comply with WKNZTA signage standards. The submitter also seeks that that digital sign boards visible from the state highway should be a non-complying activity.
 - f. Relating to the above submission point on aligning the development stages with the WKNZTA Safe Networks Programme and the O2NL programme, and introducing the ability for Council to decline subdivisions where the state highway does not have the capacity for additional vehicle movements, WKNZTA also seeks that commercial activities adjoining or gaining access from a State Highway should be a non-complying activity.

regarding transport-related amenity improvements above. This aligns with the further submitter's own requests for a local road connection north-to-south, as this would better preserve the heritage

689.

110



value of the Prouse site by making the road adjoining the further submitter's site a local road instead of a connector road as currently indicated in the Structure Plan.

- 690. Generation (Submitter 04/38) seeks flexibility in where local roads are provided to allow for better lot yield and development viability.
- 691. (Further Submitters 04/25) support the above submission point to enable the location of local roads to be flexible to enable better use of land.
- 692. **Control of the second second (Submitter 04/40) opposes unsafe roundabouts that can't be used by trucks. No specific relief is sought. Control of C**

693. Analysis

- 694. Regarding Horowhenua District Residents and Ratepayers Association's submission points, Council can no longer require on-site car parking for any activity (due to Policy 11 of the NPS-UD 2020). Considering on-road car parking spaces, detailed road design will come at subdivision stage. Adequate provision of on-road car parking will be considered at that stage in line with Council's engineering requirements. Regarding a roundabout at Arapaepae Road and the noted Liverpool Street extension, this is outside the plan change area. The ITA report concludes that is connection is desirable, but is not critical from a traffic perspective. Other mitigation options include a leftin/left-out on the east-west link into Tara-Ika. Considering the above, this option may be investigated after the plan change and once the final design of the O2NL is known. No further changes are recommended at this stage.
- 695. Regarding Rangeview Villas Body Corporate's submission that all references to the Liverpool Street extension be removed, there are no references to the proposed extension in statutory planning documents. The Tara-Ika Master Plan is not a statutory planning document. No changes are needed to the plan change in this respect.
- 696. Horizons Regional Council's submission seeks minor wording changes to Objective 6A.4, Policy 6A.4.2, and Rule 15A.8.1.2 Subdivision to emphasise transport connectivity and enable bus stop and turning areas in the road reserve. The minor changes to wording suggested by Horizons Regional Council are considered appropriate as the street network has been designed to support the circulation of a public transport (bus) services. Therefore, I recommended that the changes sought by the submitter are accepted.
- 697. Regarding Horizon Regional Council's second submission point, the ITA report states that the indicative road layout allows public transport to be introduced in future, and the increased residential zoning and density recommended as part of the plan change makes public transport a more viable option. No further changes are therefore recommended.
- 698. In response to WKNZTA's submission points:



- An ITA report has been prepared to support the plan change. The ITA will assist WKNZTA with
 its road improvement planning. In addition, upgrades to the Queen St/SH57 intersection is
 currently underway.
- Regarding WKNZTA's request for various transport amenity improvements, the exact road design and treatments will be determined at consent stage. Traffic effects will be considered as part of the consent process, as traffic effects are included as a matter of discretion.
- An ITA has been prepared since WKNZTA's submission was lodged. The traffic crossing SH57 has been considered as part of the ITA. As noted earlier, the ITA concludes that this connection to SH57 is desirable, but is not critical. Other mitigation options include a left-in/left-out on the east-west link into Tara-Ika. As this connection is outside the plan change area however, this option may be investigated after the plan change and once the final design of the O2NL is known. No further changes are therefore recommended at this stage.
- WKNZTA considers that the plan change area should be staged to align with its Safe Networks
 Programme and its O2NL programme. In response, subdivision is already a Restricted
 Discretionary activity in the plan change area. Traffic effects are included as a matter of
 discretion, which would allow subdivisions to be assessed on a case-by-case basis. If there are
 significant traffic effects or conflicts, the activity status provides for the application to be
 declined. It is also noted however, WKNZTA still has a responsibility to provide a safe and
 efficient state highway network for users.
- WKNZTA considers that commercial activities adjoining or gaining vehicle access from a state highway should be a Non-complying activity. In response, none of the proposed Commercial Zone fronts onto a state highway. Commercial activities outside the Commercial Zone would trigger a requirement for resource consent. State Highway 57 is a limited access road, this is a matter that would be referred to WKNZTA as part of any consent application to gain access from the State Highway. As such, the existing plan and proposed plan change provisions are considered appropriate to manage this issue.
- WKNZTA seeks that signage near state highways be subject to compliance with WKNZTA's signage standards and seeks that digital billboards visible from state highways be a non-complying activity. Compliance with WKNZTA's signage would sufficiently control any potential adverse effects from signage, including the effects of digital billboards. However, I consider non-complying activity status too onerous for all signage. To allow Council to decline an application or to impose conditions when necessary, a Restricted Discretionary activity status is considered more appropriate where signs breach the relevant standards, with consideration being restricted to the effects of the standard(s) being breached. The WKNZTA submission does not specify which design standards they would like to see introduced to the Plan to manage signage near State Highways. WKNZTA may like to provide this information at the hearing to ensure the most appropriate and up to date standards are introduced.
- 699. Regarding **Construction of the second s**
- 700. Regarding **control of the second submission** point, the final road design will be finalised when the application for subdivision is received by Council. The road design will need to be in accordance with Council's engineering standards, which will ensure that vehicles are able to navigate roads



safety. Compliance with the engineering standards will ensure that trucks are able to navigate roundabouts safely. As such, I do not consider that any further changes are necessary.

- 701. Recommended Decisions
- 702. That submission 04/21.02 be accepted.
- 703. That submission 04/26.02 be rejected.
- 704. That submission 04/26.09 be rejected.
- 705. That submission 04/29.01 be rejected.
- 706. That submission 04/30.05 be accepted.
- 707. That submission 04/30.06 be accepted in part.
- 708. That submission 04/34.03 be rejected.
- 709. That submission 04/34.05 be rejected.
- 710. That submission 04/34.07 be rejected.
- 711. That submission 04/34.08 be rejected.
- 712. That submission 04/34.11 be accepted in part.
- 713. That submission 04/34.12 be rejected.
- 714. That submission 04/38.04 be rejected.
- 715. That submission 04/40.03 be rejected.
- 716. That further submissions be accepted or rejected respectively.

5.7 Māori, Culture, and Heritage Values

5.7.1 Māori, Culture, and Heritage

717. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/24	04/24.02		Oppose
04/27	04/27.02		Support in part
04/33	04/33.03	Truebridge Associates	Support in part
04/35	04/35.01	Muaŭpoko Tribal Authority	Neutral



04/35	04/35.02	Muaŭpoko Tribal Authority	Neutral
04/35	04/35.03	Muaūpoko Tribal Authority	Neutral
04/35	04/35.05	Muaūpoko Tribal Authority	Neutral
04/35	04/35.07	Muaūpoko Tribal Authority	Neutral
04/38	04/38.01		Support
04/38	04/38.02		Support in part
04/37	04/39.03		Oppose
04/40	04/40.05		Oppose

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/23	FS04/23.04	Horizons Regional Council	04/35.02	Support
FS04/25	FS04/25.01		04/38.01	Support
FS04/74	FS04/74.02		04/24.02	Support
FS04/78	FS04/78.01		04/38	Support
FS04/79	FS04/79		04/27	Support

718. Overview of Topic

- 719. Several submissions and further submissions were received on the topic of Maori, cultural, and heritage values. These submissions generally covered:
 - Protection of culturally significant or archaeological sites.
 - Protection and enhancement of heritage values.
 - Protection and enhancement of cultural values.
 - Use of the name "Tara-Ika".

720. Summary of Submissions

- 721. Haddon Preston (Submitter 04/24) raises that protection of cultural sites (e.g. Maunu Wahine and Waihau Waterhole) is referenced as a key design principle in the Master Plan but notes there is no associated policy or rule in the proposed Plan Change. He seeks to introduce a policy that requires these specific sites to be protected. Truebridge Associates (Further Submitter FS04/22) supports this submission.
- 722. Haddon Preston, specifically the submitter 04/74) supports the above submission point from Haddon Preston, specifically the submitter's suggestion to introduce an objective to recognise the protection of cultural sites, which would see Prouse Homestead is protected from inappropriate effects.



- 723. Muaŭpoko Tribal Authority (MTA) (Submitter 04/35) raises the following submission points:
 - The submission details the Muaūpoko rohe and MTA's historic association with the land. The submission establishes a clear link between Muaūpoko wellbeing and the wellbeing of the whenua (land), maunga (mountain), lakes, and waterways in the area.
 - The submission details Crown breaches of the Treaty of Waitangi and the effects this had on Muaūpoko people.
 - The Tara-Ika plan change area is located within an area that Muaūpoko have been in for over 1,000 years. It is therefore likely to contain artefacts, sites of archaeological significance, or Tangata koiwi that could be uncovered during construction. MTA seeks that earthworks and other construction be subject to robust cultural monitoring protocols and accidental discovery processes agreed with Muaūpoko.
 - The Tara-Ika project is occurring alongside the O2NL highway project, which is a significant development in the region. The gifting of the name 'Tara-Ika' recognises the significant impact of the development and reiterates the need for the history of the site to be cherished and respected. This includes Muaūpoko stories, ancestors, and MTA's association with the whenua of Tara-Ika being intentionally and consciously recognised through development stages such as design stages and naming public parks and streets. The spiritual pathway from wāhi tapu in the Tararua Range to Taitoko needs to be protected from the built environment to avoid interrupting the connections and view path from the maunga to Punahau (Lake Horowhenua) and onwards to the moana.
 - The submission references the need for appropriate protection of cultural sites and values, native species, and habitats.
- 724. Muaūpoko Tribal Authority have since prepared a Cultural Impact Assessment (Appendix 13 of this report) which provides further detail and evidence to support the matters raised and changes requested in the submission.
- 725. Horizons Regional Council (Further Submitters 04/23) support the request from MTA that sites of cultural and historic significance be protected, as this is consistent with One Plan Objective 2-1.
- 726. Truebridge Associates (04/33) and Brendan McDonnell (04/27) both seek for multiple cultures, including Māori and that of current landowners, to be recognised in street and reserve naming.
 - (Submitter 04/38) supports the objectives and policies that seek to enhance cultural, heritage and ecological values. Specifically, the submitter also supports the use of the name Tara-lka. However, the submitter seeks further protection of heritage values associated with the Prouse Homestead and its surrounds by avoiding and/or minimising the potential adverse effects on the homestead from nearby roading connections and stormwater management areas (e.g. wetlands).
- 728.

727.

(Further Submitters 04/25)

supports Parameterized and submission above, noting that the heritage values of Prouse Homestead could be threatened by both O2NL and Tara-Ika developments. They consider the current provisions do not provide sufficient protection for the homestead. They seek further



protection of the archaeological site, the homestead, and its curtilage in recognition of the site's heritage value.

729.

(Further Submitter 04/78) also support F

submission, particularly the original submitter's objective to recognise and protect cultural sites to ensure that the Prouse Homestead is protected.

- 730. (Submitter 04/39) opposes the use of the name "Taraika". The submitter does not believe that MTA have the right to gift this name and states that the spelling put forward is incorrect. The submitter seeks that Council engage with the people of Ngai Tara/Muaūpoko tribe.
- 731. Guessian encoded (Submitter (04/40) also opposes the use of the name "Taraika", stating it does not actually recognise Māori heritage. The submitter states that consultation on this was insufficient, as only MTA were consulted. The submitter does not state any specific relief sought.
 Insufficient (Further Submitter 04/73) reiterates her support for the points raised in her original submission.
- 732. Analysis
- 733. In response to **protection of cultural sites**, I note that it is for iwi to determine how such sites should be protected. The CIA provided by MTA provides further detail on this and this topic will be assessed further below.
- 734. In response to the matters raised by Muaūpoko Tribal Authority (MTA):
 - With regard to Muaūpoko historic association with the land, a Cultural Impact Assessment (CIA) has been prepared to support the MTA submission. This is included as Appendix 13 of this report and is hereafter referred to as the CIA. Further analysis of this is provided below.
 - Regarding the Crown breaches of the Treaty of Waitangi, no clear relief is sought on this point. As such, the comment is noted but the submission point is recommended to be rejected.
- 735. The CIA raises the following matters:
- 736. Partnership Approach
- 737. The CIA highlights the importance of continuing to build and maintain a partnership relationship between Muaūpoko and Council. This relationship is very important to Council and is currently supported through a range of non-Plan mechanisms, including relationship agreements. While it is very important for the Plan to articulate the need to protect cultural values, partnership and is more effectively built through these non-Plan mechanisms including the way in which Council and Muaūpoko work together.
- 738. With some revisions in line with the CIA recommendations (evaluated below), I consider that the policy framework of Plan Change 4 speaks to the intent of furthering a partnership relationship with Muaūpoko and providing opportunity for Muaūpoko to exercise katiakitanga (for example,



policies that specifically recognise Muaūpoko history and relationship to the land, policy that seek protect cultural values and sites through identifying sites, making Muaūpoko histories visible and requiring appropriate tikanga to be followed during site works).

739. <u>Culturally Significant Sites</u>

- 740. Several submitters identified that protection and enhancement of cultural sites is a key principle of both the Master Plan and the PC4 objectives and policies.
- 741. The CIA identifies a number of culturally significant sites within Tara-Ika and nearby. Further detail is provided in the CIA, the sites within Tara-Ika are summarised below:
 - Maunu Wahine (women's place of refuge) near Waiopehu Reserve and Te Awa a Te Tau tributary. The exact size needed for protection has yet to be determined.
 - Wai Maire spiritual pathway. Wai Maire was an intermittent stream that flowed along what is now Queen Street East. The waterway was possibly destroyed at the time Queen Street was built.
 - Waiopehu Reserve.
 - Wai hau. Wai hau was a natural depression and was a renowned source of freshwater within an otherwise waterless area. It was located a little south of Maunu Wahine. Its exact location is unknown and could have been destroyed.
 - Queen Street East Bush Remnants (containing culturally significant species including skinks).
- 742. Ensuring these sites are appropriately protected is important to ensure consistency with the plan provisions, but also to be consistent with Part 2, Section 6(e) of the RMA which identifies the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga as a matter of national importance.
- 743. In light of the Master Plan principles, plan change objectives and policies, Policy 1(a)(ii) of the NPS-UD (requires urban environments that enable Māori to express their cultural traditions and norms) and the information and evidence presented in submissions and the CIA I consider introducing more specific provisions to protect identified culturally significant sites both appropriate and efficient.
- 744. The reasons for significance vary (as detailed in the CIA) and therefore appropriate protection mechanisms vary. Refer to the changes in the later section of this evaluation for recommendations.

745. <u>Protection of Cultural Values</u>

- 746. The CIA identifies that land development has the potential to impact cultural values. In particular, earthworks and construction activities. The CIA recommends that earthworks over 250m2 require resource consent to enable consideration of the effects on water bodies and cultural values to be considered.
- 747. Under the Operative Horowhenua District Plan, earthworks do not typically require resource consent (with some exceptions in sensitive landscapes or flood hazard areas). Instead, earthworks have primarily been controlled by the Regional Council's One Plan. The nature of potentially



adverse effects arising from earthworks identified in the CIA (effects on waterbodies and sedimentation) are controlled through the One Plan. Additionally, I consider introducing earthworks rules (that trigger a specific resource consent) likely out of scope of the plan change.

- 748. Within Tara-Ika I expect most earthworks will be associated with subdivision. The Plan details the management of construction effects, including earthworks, as a relevant matter of discretion for subdivision. To recognise the above issue but within scope of the Plan Change, I recommend adding further detail to the subdivision matters of discretion in respect of earthworks, advising that cut and fill plans and erosion and sediment control plans may be required. Additionally I note that the Plan requires cultural monitoring protocols and accidental discovery processes be followed during construction. I understand that MTA are working on a document to provide guidance on appropriate tikanga during site works. Such a document could be included as a condition of consent through the existing proposed matters of discretion.
- 749. The CIA requests that waterbodies (Punahau Lake Horowhenua, Te Awa a Te Tau and overland flow pathways within the Horowhenua gravels) be mapped. I note some of these waterbodies are outside of the plan change area. MTA may like to provide information on the exact location in their Hearing evidence to allow this to occur. MTA could present a wider waterbodies map at the Hearing for information purposes, but only the areas within the Plan Change can be marked on maps associated with the plan change.
- 750. The CIA note that construction near bush remnants or culturally significant sites has the potential to impact cultural values, through increased risk of predation on native species (e.g. pet cats) and damage through human activity.
- 751. The CIA requests a range of measures to mitigate this effect including:
 - Buffer areas around bush remnants.
 - Restriction on cat ownership for properties owners near Waiopehu Reserve and Queen Street East bush remnants.
 - A pest management strategy.
 - Restrictions on lightspill.
 - Discretion for Muaūpoko to consider the impact of activities on cultural values and sites. Evaluation of this report is provided under 'role for Muaūpoko'.
- 752. I note that Tara-Ika is currently largely used for pastoral farming and could have a relatively high degree of residential development occur under the existing 'Greenbelt Residential' zoning. As such, existing permitted land uses may stand to cause significant damage to bush remnants and native species (through stock trampling and general farming activity or residential activity). I also note that development of pastoral land into residential lots will not necessarily result in a loss of ecological cover, particularly on larger lots as residential property owners may choose to plant their sections to enhance amenity. In particular I note that planting in the area now known as Pohutukawa Drive dramatically increased as the lots were developed for residential purposes.
- 753. The most significant bush habitat, being Waiopehu Reserve, is already expected to have a 'buffer' free of residential development as a result of the open space area indicated on the Structure Plan. The zoning plan also requires larger lots in this area, reducing pressure on ecological values.



- 754. In respect of the Queen Street bush remnants identified in the CIA I note that the westernmost one is a Schedule F Habitat under One Plan and therefore is subject to rules that protect against vegetation clearance. In respect of the easternmost one (largely contained within the Prouse property) I note that consideration was given to protecting this during Plan Variation 1 to the Horowhenua District Plan. I note that at this time the stand of trees were considered highly degraded and consequently not worthy of protection. I understand the proposal to protect this stand of trees was opposed by the landowner. The landowner may like to comment on this, particularly the health and quality of the bush at the Hearing.
- 755. However, I note that the CIA identifies that both habitats contain culturally significant species. To ensure that Plan policies that seek to ensure cultural values are protected, I consider that it is important to recognise this in some way (such as identification on the structure plan) to ensure this is assessed at the consent stage.
- 756. Based on currently available information about the Queen Street bush habitats (e.g. their conditions) and the threats they face as a result of permitted activities I am not convinced that buffer area restrictions or restrictions on cat ownership are necessary at the current time. I note that cat ownership restrictions would be difficult to enforce and would not preclude predation of taonga species from feral cats or other predators such as rats.
- 757. However, I note that matters of discretion for subdivision include consideration of the effects on significant sites, including ecological sites and native habitats. As such, I consider the Plan provides scope for the particular effects of subdivision on particular sites to be assessed at the consent stage (for example, there is scope to require an ecological impact assessment for subdivision in or near the identified habitats) and a bespoke approach to managing these effects determined and implemented by way of consent conditions. However, to ensure this is appropriately considered at consent stage I recommend these habitats be marked on the structure plan.
- 758. I consider this approach efficient and effective as it allows individual site and activity assessment to occur and site specific approach determined accordingly.
- 759. In respect of developing a pest management strategy I note that the most significant ecological area, Waiopehu Reserve, is maintained by DOC. As such, any additional pest management requirements are best pursued via this arrangement or other non-plan mechanisms such as education for residents living near the reserve.
- 760. In respect of lightspill I note that at the District Plan already controls lightspill in residential areas (provision 15.6.14(a)). Based on information currently available, I do not consider there to be sufficient justification for an alternative approach. However, MTA may like to present further information at the Hearing to support this request.

761. <u>Stormwater Management</u>

762. In addition to the matters covered in Section 5.4.3 of this report, I note and evaluate following matters related to stormwater and cultural values.



- The CIA states that stormwater management devices (such as wetlands and basins) need to avoid culturally significant sites. Discharge stormwater to culturally significant sites could have a serious impact on the cultural values of these sites and would undermine objectives and policies that identify the need to the need to protect these sites. As such, I support the statement raised in the CIA and recommend an addition to Policy 6A.3.2 to make this intent clear.
- That stormwater should not affect downstream or ground water effects. The policy framework articulates this intent. I do not consider further changes to provisions necessary, but encourage the submitter to specify any further changes need to protect freshwater.

763. <u>Cultural Referencing and Recognition</u>

- 764. The intention to recognise Muaūpoko in the design and naming of public parks and streets, and protecting the connections and viewshafts between the Tararua Ranges, Taitoko/Levin, Punahau (Lake Horowhenua) and the sea is already referenced in the plan change policies.
- 765. The Road Naming Policy is a non-RMA process and is therefore outside the scope of this plan change. However, it is noted that current Council current street naming policy requires engagement on Māori place names. No additional action is needed on this submission point.
- 766. The CIA details that cultural referencing and recognition should be incorporated into the design of commercial areas. I note this approach would align with Policy 1(a)(ii) of the NPS-UD (requires urban environments that enable Māori to express their cultural traditions and norm. However, further detail on what this would entail in the way of provisions is needed to support this request. The submitter may like to provide this in their hearing evidence.
- 767. As identified in the CIA, significant opportunities exist to recognise and reference Muaūpoko history and values in the design of public spaces (e.g. reserves). This would align with Plan Change objectives and policies that seek to recognise and protect Muaūpoko history and values as well as with national level documents including the NPS-UD (Policy 1(a)(ii) and the RMA (Section 6(e)). To give effect to this, I recommend the inclusion of a new policy specifying that parks and reserves recognise and celebrate Muaūpoko history and values. Example wording is provided below:

<u>Require public parks and reserves to recognise and celebrate Muaūpoko history and</u> values through design, naming, and use of planting.

768. The CIA requests Council and MTA prepare an open space design guide to aid this. I concur that this would be a valuable resource, but would need to be progressed outside of the Plan Change. This could be listed as an 'other matter' in Chapter 6A of the plan change.

769. Use of Names and Terminology

770. The MTA submission details the importance of using historically accurate names. I understand MTA request that Lake Horowhenua be dually referred to by its traditional name 'Punahau' and Lake Horowhenua.



- 771. The CIA states that within the Tara-Ika plan chapters, that 'Muaūpoko' should be specifically reference instead of using more general terms of 'iwi' and 'Māori'. The CIA advises this is because there are no overlapping areas of interest in this location.
- 772. For the reasons detailed in the CIA I recommend these changes be made.
- 773. <u>Role for Muaūpoko</u>
- 774. The CIA requests that discretion should be provided to Muaūpoko to consider the impacts of proposals on their values and significant sites, including the opportunity to be included in design phases and/or be identified as an affected party. It further questions how Muaūpoko can be enabled to fully participate, including project planning and design stages, highlighting that enabling kaitiakitanga is an effective way to minimise impacts on the cultural environment and mana whenua.
- 775. As the land is privately owned and Council's primary role is as a regulator, there is limited opportunity for the Plan to facilitate partnership between Council and Muaūpoko at the subdivision design stage. However, there are opportunities for partnership and co-design (including Council, Muaūpoko and developers) on public spaces and communal wetlands, as well as opportunity to provide expert input into effects assessments. This intent is expressed in the revised policy framework. Beyond this, partnership is best pursued through other means, such as continuing relationship agreements and/or other mechanisms (such as project specific memorandum of understanding) to clearly capture intent and ensure this is retained over the long term.
- 776. The impacts of subdivision on culturally significant sites is a matter of discretion and the recommended policy framework articulates a need to protect cultural values. The Plan could include "consultation with Muaūpoko" as an 'other matter' for developers to follow and be cognisant of in the application development phase and for Council to follow when processing applications that have the potential to cause adverse effects on cultural values. When an application is received, Council will need to assess the impacts of the proposal on all relevant matters, including cultural effects. If there is likely to be cultural effects this would likely require consultation with Muaūpoko as an expert (similar approach to what is taken when referring certain applications to HRC for information to help understand the effects). I consider this a procedural matter for Council to consider during the consent processing stage, but note that this is different to being identified as an affected party. It is noted that for complying subdivisions, notification is precluded which means identification of affected parties would not be possible.
- 777. There may be 'out of plan' methods to enable Muaūpoko to be involved in the assessment of a resource consent application, but these would be out of scope of the plan change.
- 778. I do not consider any changes to provisions necessary although encourage MTA to provide suggestions in their Hearing evidence relating to this matter.
- 779. In light of the above and to summarise, I recommend the following changes:



- That the Maunu Wahine site be identified on the Structure Plan and zoned 'open space'. Given the historic use of this site as a place of refuge, safety, and congregation for women and children, this is considered an appropriate means of protection that would align with the historic use of this site. Maunu Wahine has been spatially identified in the CIA, but I understand the landowner has a different view about where precisely this site is located. Both the landowner and MTA may like to speak to this at the Hearing. I note there is an important role for Muaūpoko in the future management of this site (for example, how it could be developed as a reserve space). This approach would align with the plan objectives and policies, as well as national level documents. Protecting this site would deliver significant cultural and environmental benefits by ensuring the site is accessible for future generations and that the histories and values associated with it are protected. There are costs associated with this approach in that the area protected would not be available for housing. However, given the plan objectives and policies and that the relationship of Māori with ancestral lands, sites and waahi tapu is a matter of national importance, I do not consider residential development of this site appropriate. Therefore, the benefits outweigh the costs. I also note that the other zoning changes evaluated and recommended in Section 5.2.2 of this report will increase the lot yield for the impacted property when compared to the notified version of Plan Change.
- As the location of Wai hau is unknown and may have been destroyed it cannot be further protected in this plan change. However, its historic use may be able to be recognised in the design of other public parks and reserves. This point is noted, but beyond inclusion of a policy outlining this intention, it is out of scope of the plan change. I do not recommend any further changes in this respect.
- Wai Maire pathway be identified in the Structure Plan and supported by an addition to
 Policy 6A.1.6 stating that culturally important views are maintained along Queen Street East.
 MTA may like to advise whether additional provisions are needed to support this at the
 Hearing (for example, setbacks as referenced in the CIA). I note that other non-Plan
 mechanisms such as landscape treatment in the road corridor may be an alternative and
 effective means to deliver this outcome.
- The following addition to matters of discretion for subdivision in all zones
 - Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may require cut</u> and fill plans and erosion and sediment control plans to be submitted with <u>applications for subdivision.</u>
- 780. This approach has the benefit of making the provision clearer and ensuring applications are supported by appropriate information to ensure potential effects are assessed and controlled.
 - Policies amended or added as follows:
 - Policy 6A.1.6 states that culturally important views are maintained along Queen Street East
 - Objective 6A.2 be amended to include reference to 'cultural values'
 - Objective 6A.3 be amended to state that stormwater management should avoid natural areas and ecosystems that are sensitive to modifications to changes in groundwater and surface water levels and flows.



- Policy 6A.3.2 be amended to state that catchment wide (stormwater) facilities avoid culturally significant sites.
- That a new Policy 6A.6.2 be included as follows:
 - Require public parks and reserves to recognise and celebrate Muaūpoko history and values through design, naming, and use of planting.
- 781. These changes will ensure that cultural values are appropriately protected, better aligning with the plan change objectives and Part 2 of the RMA.
 - The inclusion of the following to the open paragraphs of Chapter 6A (Page 1) and to the Issue Discussion (Page 2):

Muaūpoko have a very strong and enduring relationship with the Tara-Ika area, as it is an area where they have worked, cultivated, hunted and gathered resources for over 1000 years. Tara-Ika sits between areas of high cultural association to Muaūpoko, including Punahau (Lake Horowhenua) and the Tararua Ranges, and is therefore part of important physical, ecological, visual and spiritual pathways. (page 1)

Tara-Ika is anticipated to become high amenity residential development. However, there is also a risk development could adversely affect the environmental quality <u>and cultural values</u> of the area due to effects arising from increased built form, traffic, and demand for infrastructure and services <u>and pressure on eco-systems</u>.

- That Muaūpoko are specifically named throughout Chapter 6A.
- That Lake Horowhenua is also referred to by its traditional name 'Punahau' throughout Chapter 6A.
- 782. I support the intent of the following matters raised in the MTA submission and Muāupoko CIA, but understand MTA will provide further detail, including provision wording, as to how the plan change can give effect to the CIA at the Hearing:
 - Further detail for inclusion in the 'Issue discussion' section of Chapter 6A regarding Muaūpoko history and values associated with the area.
 - The introduction of a new objective specifically regarding cultural and traditional relationships Muaūpoko have with Tara-Ika, and the sites of significance, natural features and ecosystems that contribute to those relationships, are protected.
 - The introduction of a new policy giving effect to the above objective outline that speaks to protecting Muaūpoko sites of significance, waterbodies, features, and their cultural values and attributes.
 - Further details about the way of providing for cultural referencing in the design of commercial areas
 - Land size needed to adequately protect Maunu Wahine
 - Information regarding the need for buffers and pest management.
- 783. I support the intent of the following matters raised in the MTA submission and Muāupoko CIA but believe that these matters are best secured through non-District Plan means (such as relationship agreements):



- The importance of enabling Muaūpoko to exercise kaitiakītanga is clearly expressed in the CIA and the intent recognised in the policy framework. However, the process for achieving this to the extent expressed in the CIA should be explored through non-District Plan mechanisms.
- As previously referenced the development of an Open Space Design Guide would support implementation of the proposed policy framework but would need to be secured through an 'out of plan' agreement.
- Again, I encourage MTA to present any means of securing these outcomes within the District Plan for consideration at the hearing.
- 784. I disagree with the following matters raised in the MTA submission and Muaupoko CIA for the following reasons:
 - Lightspill for the reasons already outlined.
 - Additional protection for Waiopehu Reserve given it is already protected under the existing DOC and reserve status.
- 785. In response the submission from Truebridge Associates and the submission regarding street and reserve naming, I note that the PC4 policy framework specifically references that both Māori and non-Māori names should be used. Council's road naming policy allows for landowners to submit names to be used within their development. As such, I do not considered any further changes are needed in response to these points beyond those already covered in respect of referring to 'Muaūpoko' as opposed to 'Māori'.
- 786. In response to the submission from **Constitution of the seeks**, which seeks that the location of roads and stormwater management areas consider the heritage values of the site, these values were taken into account in the development of the Master Plan and as a result, the Structure Plan. I note that the submitter and landowner is not seeking for the property to be listed as a heritage property in the District Plan. This is something they may wish to consider as this would provide greater protection of the heritage values of the homestead and site. No further changes are considered necessary in response to this submission point.
- 787. In response to **Constitution** submissions on the use of the name "Tara-Ika", Council has undertaken the actions sought by these submitters during the plan change process. I believe Council has followed the correct engagement protocols have been followed during the development of this plan change, including the gifted name Tara-Ika. A comprehensive overview of the pre-consultation undertaken for this plan change is available in the section 32 report. Consultation with iwi (particularly MTA) has been ongoing throughout the plan change process. As a result of further consultation, the spelling has been corrected from "Taraika" to "Tara-Ika" as requested by MTA.
 - 788. During the pre-notification engagement phase, the MTA expressed a desire to name the area. I understand MTA went through an extensive internal process to identify and approve the name Tara-Ika. This name was presented to some of the key landowners who have been involved in the development of the plan for Tara-Ika. These landowners supported the name. This information is simply provided for context, as the name of the plan change area is not a relevant resource


management matter and therefore cannot be altered through the plan change process. I also note that no alternative was suggested by submitters.

- 789. Recommended Decision
- 790. That submission 04/24.02 be accepted in part.
- 791. That submission 04/27.02 and 04/33.03 be accepted in part.
- 792. That submission 04/35.01 be accepted in part.
- 793. That submission 04/35.02 be accepted in part.
- 794. That submission 04/35.03 be rejected.
- 795. That submission 04/35.05 be accepted in part.
- 796. That submission 04/35.07 be accepted in part.
- 797. That submission 04/38.01 be accepted in part.
- 798. That submission 04/38.02 be accepted in part.
- 799. That submission 04/39.03 be rejected.
- 800. That submission 04/40.05 be rejected.
- 801. That further submissions be accepted or rejected respectively.

5.8 Natural Environment and Sustainability Matters

5.8.1 Natural Environment and Sustainability

802. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/03	04/03.01		Support in part
04/07	04/07.01		Support in part
04/21	04/21.03	Fire and Emergency New Zealand	Support in part
04/22	04/22.04		Oppose
04/26	04/26.04	Horowhenua District Residents and Ratepayers Association	Unclear
04/30	04/30.07	Horizons Regional Council	Support in part
04/30	04/30.11	Horizons Regional Council	Oppose
04/30	04/30.12	Horizons Regional Council	Support in part



04/35	04/35.02	Muaŭpoko Tribal Authority	Neutral	
04/35	04/35.04	Muaŭpoko Tribal Authority	Neutral	

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/23	FS04/23.04	Horizons Regional Council	04/35.02	Support
FS04/23	FS04/23.05	Horizons Regional Council	04/35.04	Support
FS04/71	-		04/07	Support and Oppose
FS04/77	-	1	04/08	Support
FS04/84	FS04/84.01		04/07	Support
FS04/86	-		04/07	Support
FS04/89	-	1	04/22	Support

803. Overview of Topic

804. Several submissions and further submissions were received regarding the natural environment, including submissions on protecting indigenous biodiversity and habitats, protecting productive soils, and managing the effects of natural hazards and climate change.

805. Summary of Submissions

- 806. **Submitter 04/03**) supports the Tara-Ika plan change, but he further seeks that the plan change includes a requirement for planting native trees to establish native bird and butterfly habitats and pathways.
- 807. (Submitter 04/07) supports the Tara-Ika plan change, so long as Land Use Capability (LUC) Class 1 and 2 soils are protected from subdivision. No specific relief is sought.
- 808. Class 3 soils be subject to increased density to protect Class 1 and 2 soils. John and Jeny Brown (Further Submitters 77, 84, and 86) also support the above submission point, that there be no subdivision of Class 1 and 2 soils. The source of a last raise similar issue to the submitters 1 and 2 soils. The source of a last 1 and 2 by developing lower class land and consider that Council should maximise the use of lower-class land by encouraging medium- to high-density housing. This point has been evaluated elsewhere in this report (section 5.2.2).
- 809. Fire and Emergency New Zealand (Submitter 04/21) supports the approach to managing risk from natural hazards in the plan change and seek that these provisions be retain as proposed.



Horowhe

- 811. Horowhenua District Residents and Ratepayers Association (Submitter 04/26) questions what measures are proposed within the proposed plan change to manage effects arising from climate change. The submitter also seeks modelled hydrological changes to the water table across the District and the proposed measures to mitigate risk of damage to infrastructure. No clear relief is sought, other than the information requested.
- 812. Horizons Regional Council (Submitter 04/30) submission raises the following points:

There may be a history of flooding in the area, but there is currently no flood data modelling available for the area. The submitter supports the inclusion of Rule 15A.8.3.1(a)(ix) for subdivision, which includes the avoidance and mitigation of natural hazards as a matter of discretion. However, the submitter requests reference to the Horizons Hazards Report 2008 in this rule be deleted for consistency with other provisions within the proposed Chapter 15A.

- There are two areas of threatened habitats in Tara-Ika. One of these is identified as Waiopehu Reserve on Structure Plan 013. However, the other is near to the Open Space area within the Arapaepae Road Special Effects Overlay, but it does not appear to be identified or protected. The submitter notes that land disturbance and vegetation clearance of these areas is a Noncomplying activity in the One Plan and as such, seeks that the extent of these areas be appropriately identified in Structure Plan 013.
- There are several waterways flowing through Tara-Ika that have Domestic Food Production Value under the One Plan. Many activities associated with subdivision (e.g. land disturbance, vegetation clearance) will trigger resource consent under the One Plan where these activities occur in or adjacent to such streams and in or adjacent to threatened habitats. The submitter seeks the inclusion of general wording near the beginning of Chapter 15A advising plan users of One Plan requirements.
- 813. Muaŭpoko Tribal Authority (MTA) (Submitter 04/35) raises the following points:
 - There are several sites of historic and cultural significance to Muaūpoko in the plan change area, including Waiopehu Reserve and Maunu Wāhine. Waiopehu Reserve contains native bush and is the habitat of the endangered native carnivorous snail, Powelliphanta traversi. Muaūpoko has kaitiaki obligations over these species. MTA seeks appropriate protection of cultural sites, native species, and habitats in the plan change area.
 - Muaūpoko have an obligation to care for, protect, and enhance the natural environment in their rohe. The submission raises concerns about the potential effects of water takes, stormwater discharges, and wastewater disposal on waterways. MTA seeks to ensure protection of native species and habitats and good environmental outcomes for waterways.
- 814. Horizons Regional Council (Further Submitter 04/23) supports both MTA's submission points above regarding appropriate protection of cultural sites, native species and habitats, and the potential impacts resulting from development on catchment waterways from activities associated with the plan change area. Activities that have the potential to cause adverse effects on these values include



stormwater discharges and contamination on land and waterways. The relief sought is consistent with Objective 2-1: Resource Management of the One Plan:

"To have regard to the mauri of natural and physical resources to enable hapū and iwi to provide for their social, economic, and cultural wellbeing.

"Kaitiakitanga must be given particular regard and the relationship of hapū and iwi with their ancestral lands, water, sites, wāhi tapu, and other taonga (including wāhi tūpuna) must be recognised and provided for through resource management processes."

- 815. Analysis
- 816. In response to **accelerate the submission** regarding native bird and butterfly habitats and pathways, there is no clear evidential reason for adopting this amendment as part of the plan change, as the area is currently pastoral farmland as opposed to significant habitat. Areas of habitat are already being protected through both this plan change at the Horizons One Plan.
- 817. In response to **Constitution** submission regarding protection of Class 1 and 2 soils, the entire plan change area is located on Class 3 soils with exception of Waiopehu Bush which is vested reserve land and cannot be developed.
- 818. Regarding **Generations** submission querying the Waiopehu Reserve protections, Waiopehu is already vested and gazetted as reserve land, which is owned by HDC and managed by the Department of Conservation.
- 819. In response to the Horowhenua District Residents and Ratepayers Association's submission enquiring about measures within the proposed plan change that manage effects of climate change, the Structure Plan for Tara-Ika sets out arterial cycleways and community amenities within walkable distances that are designed to reduce residents' reliance on car transport. The notable indigenous biodiversity area will continue to be protected as part of Waiopehu Reserve. The density proposed will strike a balance between good urban design outcomes and concentrating residential use where it will have less effect on the natural environment (i.e. on Class 3 soil, away from Lake Horowhenua, indigenous habitats are protected). Regarding the Association's query about measures to mitigate damage to infrastructure, infrastructure within the plan change area will be designed to accommodate the anticipated future density and will link into Levin's existing infrastructure. The detailed design of infrastructure will be finalised at subdivision stage. Further detail and evaluation on this is provided in Section 5.4.2 of this report. Regarding the Association's final point in this topic, modelling hydrological changes to the water table across the district is outside the scope of this plan change.
- 820. In response to the points raised by Horizons Regional Council for this topic:
 - Deleting reference to the Horizons Hazards Report 2008 in 15A.8.3.1(a)(xi) is considered appropriate for the reasons set out by the submitter.
 - The One Plan provides protections for threatened habitats and it is unnecessary to duplicate
 rules across multiple plans (i.e. create a situation where the same effect is being assessed
 under two plans/resource consent process). The Horowhenua District Plan refers applicants
 to the One Plan, which assists applicants to be aware of their responsibilities and reduces the



risk of regional rules being overlooked. However, this approach could be enhanced by identifying the ecological sites on the structure plan. This would also address the related submission point from MTA evaluated below.

• Including additional general wording near the beginning of Chapter 15A advising plan users of One Plan requirements is considered appropriate for the reasons outlined in the above point.

821. In response to the matters raised by MTA:

- As mentioned earlier, MTA have provided a CIA to support their submission. This report is attached as Appendix 13 of this report. As previously stated, this report identified sites of cultural significance, including those associated with historic use and native species. As previously referenced, I recommend that the most significant cultural site (Maunu Wahine) be protected through identification on the structure plan and through open space zoning. In relation to other sites (for examples, habitats of culturally significant species, as identified in the CIA report) be spatially identified on the Structure Plan as a trigger for specific assessment as subdivision stage, as per the proposed matters of discretion. This reasons for this are as per those already outlined.
- Regarding MTA's concerns about the effects of water takes, wastewater disposal, and stormwater discharges on native species, habitats, and waterways – subdivision in the plan change area requires consent as a Restricted Discretionary activity. Water, wastewater disposal, and stormwater discharges need to be considered as a matter of discretion, and it is considered this provides appropriate protection to these values in line with District Council jurisdiction over such matters. The matters of discretion already direct assessment of effects on significant sites (natural, cultural, and heritage sites) and on indigenous habitats. However, I recommended including the word 'ecological' into this matter of discretion to better articulate the intent.
- 822. Recommended Decision
- 823. That submission 04/03.01 be rejected.
- 824. That submission 04/07.01 be rejected.
- 825. That submission 04/21.03 be accepted in part.
- 826. That submission 04/22.04 be rejected.
- 827. That submission 04/26.04 be rejected.
- 828. That submission 04/30.07 be accepted.
- 829. That submission 04/30.11 be accepted in part.
- 830. That submission 04/30.12 be accepted.
- 831. That submission 04/35.02 be accepted in part.
- 832. That submission 04/35.04 be accepted in part.



833. That further submissions be accepted or rejected respectively.

5.9 Minor Drafting Edits

5.9.1 Minor Drafting Edits

834. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/17	04/17.01	Ministry of Education	Support in part
04/24	04/24.04		Oppose
04/25	04/25.05	Horowhenua District Council	Support in part
04/25	04/25.06	Horowhenua District Council	Support in part
04/25	04/25.07	Horowhenua District Council	Support in part
04/25	04/25.08	Horowhenua District Council	Support in part
04/25	04/25.09	Horowhenua District Council	Support in part
04/25	04/25.10	Horowhenua District Council	Support in part
04/25	04/25.13	Horowhenua District Council	Support in part
04/25	04/25.14	Horowhenua District Council	Support in part
04/25	04/25.15	Horowhenua District Council	Support in part
04/33	04/33.01	Truebridge Associates	Support in part
04/33	04/33.02	Truebridge Associates	Support in part
04/33	04/33.07	Truebridge Associates	Oppose
04/33	04/33.10	Truebridge Associates	Oppose
04/33	04/33.12	Truebridge Associates	Oppose
04/33	04/33.17	Truebridge Associates	Oppose
04/33	04/33.19	Truebridge Associates	Oppose
04/35	04/35.08	Muaŭpoko Tribal Authority	Neutral

Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
No further su	ubmissions rece	ived on this topic.		



835. Overview of Topic and Summary of Submissions

- 836. The Ministry of Education (Submitter 04/17) supports the intent of Objective 6A.1 but seeks that the term 'social infrastructure' be amended to include education facilities.
- 837. Submitter 04/24) notes there is an inconsistency in zoning terminology. The planning maps use the term "Low Density Residential" and structure plan uses the term "Low Density Area". The submitter seeks these terms be made consistent. Truebridge Associates (Further Submitter FS04/22) supports this submission.
- 838. Horowhenua District Council (Submitter 04/25) raises several points on this topic:
 - Rule 15A.6.2.1 requiring on-site rainwater tanks could be clarified by stating the tanks are also required to be "designed and installed" in accordance with the requirements of the provision.
 - The Section 32 report references a non-notification provision for all complying subdivisions. This provision appears in the Commercial, Open Space, and Greenbelt Residential zones, but not the Residential Zone. This appears to be an error. The submitter seeks the introduction of a non-notification provision for complying residential subdivision.
 - Table 15A-3 requires a concept plan for medium density standalone dwellings. However, it
 appears that this should also apply to attached units. The submitter seeks amendment to
 Table 15A-3 to include "Medium Density Attached Units: 150m²".
 - The requirement for "Those matters described in Sections 108 and 220 of the RMA" to be considered as a matter of discretion only applies in some zones. This requirement appears in the remainder of the Horowhenua District Plan. This requirement should be amended to apply to Restricted Discretionary subdivisions in all zones.
 - Matters of discretion 15A.8.1.4(a)(i) and (ii) are similar and could be combined.
 - Provisions 15A.8.2.2(b)(i) and 15A.8.2.3(b)(ii) should be reworded to be consistent with the
 requirements of the NPS-UD. It should be clear that car parking is not required (except for
 disabled parking), but that if on-site car parking is provided, then it should be to the rear of
 the building(s). The submitter seeks that 15A.8.2.2(b)(i) and 15A.8.2.3(b)(ii) be reworded to
 clarify that the standard only applies where the applicant chooses to provide carparking.
 - It is not clear what activities qualify as a "service-based commercial activity". The submitter seeks inclusion of examples of "service based" commercial activities" in Policy 6A.5.2 for clarity.
 - The following changes (additions <u>underlined</u>, deletions struckthrough) to 15A.1.2(a) could improve clarity of the provisions:
 "Commercial Activities (excluding entertainment activities) occupying a maximum floor area

"Commercial Activities (excluding entertainment activities) occupying a maximum floor area of up to 250m², Retail Activities occupying a maximum floor area of up to 250m²."

- 839. Truebridge Associates (Submitter 04/33) also raises several points on this topic:
 - Issue 6A.1: The submitter notes a typo in the second line of the first paragraph and seeks that this be corrected.
 - Issue Discussion Paragraph 3: The submitter notes the word "a" is missing from the third line
 of paragraph three and seeks that this be corrected.
 - 15A.1: The submitter states that paragraph 3 of page 1 needs to be amended to refer to 'existing areas' rather than 'existing zones' and seeks that this be amended.



- 15A.4: The submitter states there are no activities listed under the Discretionary Activity heading. Clarification is sought.
- 15A.4.3(b): The submitter states that the wording should be amended to "do <u>not</u> comply", as this appears to be an error.
- 15A.6.3.1(b): The submitter specifies there is a typo in the standard and seeks that this be amended.
- 15A.8.1.1(b)(i): The submitter has identified a typo in the word "designed" and seeks that this be amended.
- 840. Muaūpoko Tribal Authority (Submitter 04/35) submits that the name 'Taraika' should be spelt 'Tara-Ika' in the plan change documents.
- 841. Analysis
- 842. I recommend accepting the Ministry of Education's submission point seeking to include education facilities under the definition of 'social infrastructure' in Objective 6A.1. This was the intent of the current wording, so the addition provides clarification.
- 843. I recommend accepting Haddon Preston's submission point regarding the inconsistent terminology between planning maps, which use the term "Low Density Residential", and the structure plan, which uses "Low Density Area". This edit will improve consistency and reduce confusion.
- 844. In response to the matters raised by Horowhenua District Council:
 - I recommend accepting the submission point that seeks to add wording specifying the requirements for rainwater tanks, as this was the intention of the rule and it will improve clarity. This point is further assessed in Section 5.4.4 of this report.
 - I recommend accepting the submission point to introduce a non-notification provision for complying residential subdivision, as this was the intention and was an oversight.
 - I recommend accepting the submission point to amend Table 15A-3 to include "Medium Density Attached Units: 150m^{2*}", as this was the intention and improves clarity.
 - I recommend accepting the submission point seeking that "*Those matters described in Sections 108 and 220 of the RMA*" be included as a matter of discretion for Restricted Discretionary subdivisions in all zones, as it is a minor wording change that provides clarity.
 - I recommend accepting the submission point suggesting that the matters of discretion under 15A.8.1.4(a)(i) and (ii) be combined, as it is a minor wording change that will improve clarity.
 - I recommend accepting the submission point that seeks to reword 15A.8.2.2(b)(i) and 15A.8.2.3(b)(ii) to be consistent with the National Policy Statement on Urban Development by clarifying the standard only applies where the applicant chooses to provide carparking. This will improve the clarity of the provision and ensure that it is read consistently with national-level direction (NPS-UD).
 - I recommend rejecting the submission point that seeks to include examples of "service-based" commercial activities" to Policy 6A.5.2 to improve clarity. Listing particular examples may unintentionally and unnecessarily constrain Council's interpretation, especially if a new service-based activity arises in the future that Council requires more control over.



- I recommend accepting the submission point that suggests the following changes (additions <u>underlined</u>, deletions struckthrough) to 15A.1.2(a) to improve clarity:
 "Commercial Activities (excluding entertainment activities) occupying a maximum floor area <u>of up to 250m², Retail Activities occupying a maximum floor area of up to 250m².
 </u>
- 845. In response to the submission points from Truebridge Associates:
 - Issue 6A.1: I recommend accepting this submission point, as it corrects a minor typo in the second line of the first paragraph.
 - Issue Discussion Paragraph 3: I recommend rejecting this submission point, as there does not appear to be an error in the third line of paragraph three.
 - 15A.1: I recommend rejecting this submission point that seeks to amend paragraph 3 of page 1 to refer to 'existing areas' rather than 'existing zones', as "zone" is the appropriate term.
 - 15A.4: I recommend rejecting this submission point regarding the lack of activities listed under the Discretionary Activity heading, as this is incorrect. Sections 15A.4.1-15A.4.3 set out Discretionary activities.
 - 15A.4.3(b): I recommend accepting this submission point that seeks to change the wording to "do <u>not</u> comply", as this will be a correction.
 - 15A.6.3.1(b): I recommend accepting this submission point that seeks to correct the typo in this standard.
 - 15A.8.1.1(b)(i): I recommend accepting this submission point that seeks to correct the misspelling of the word "designed".
- 846. I recommend accepting MTA's submission point that corrects the spelling of 'Taraika' to 'Tara-Ika'.
- 847. *Recommended Decision*
- 848. That submission 04/17.01 be accepted.
- 849. That submission 04/24.04 be accepted.
- 850. That submission 04/25.05 be accepted.
- 851. That submission 04/25.06 be accepted.
- 852. That submission 04/25.07 be accepted.
- 853. That submission 04/25.08 be accepted.
- 854. That submission 04/25.09 be accepted.
- 855. That submission 04/25.10 be accepted.
- 856. That submission 04/25.13 be rejected.
- 857. That submission 04/25.14 be rejected.
- 858. That submission 04/25.15 be accepted.



- 859. That submission 04/33.01 be accepted.
- 860. That submission 04/33.02 be rejected.
- 861. That submission 04/33.07 be rejected.
- 862. That submission 04/33.10 be rejected.
- 863. That submission 04/33.12 be accepted.
- 864. That submission 04/33.17 be accepted.
- 865. That submission 04/33.19 be accepted.
- 866. That submission 04/35.08 be accepted.
- 5.10 Non-RMA Matters

5.10.1 Miscellaneous Matters

867. Relevant Submissions

Submission Number	Submission Point	Submitter Name	Support/Oppose
04/06	04/06.05		Oppose
04/24	04/24.01	6	Oppose
04/26	04/26.05	Horowhenua District Residents and Ratepayers Association	Unclear
04/26	04/26.07	Horowhenua District Residents and Ratepayers Association	Unclear
04/31	04/31.04	Incite (on behalf of a range of Redwood Grove properties)	Oppose
04/31	04/31.05	Incite (on behalf of a range of Redwood Grove properties)	Neutral
04/33	04/33.06	Truebridge Associates	Oppose
04/35	04/35.06	Muaŭpoko Tribal Authority	Neutral
04/38	04/38.11		Neutral
04/39	04/39.04		Oppose
04/40	04/40.04		Oppose



Further Submission Number	Further Submission Point	Further Submitter Name	On what Submission	Support/Oppose Submission
FS04/22	FS04/22.03	Truebridge Associates Limited (jointly on behalf of	04/24	Support
FS 04/25	FS 04/25.11		04/38.11	Support
FS04/69			04/39	Support
FS04/78	FS 04/78.02		04/38.11	Support
FS04/78	FS 04/78.03		04/38.11	Support
FS04/73	-		04/40	Support

868. Overview of Topic and Summary of Submissions

869.

Commercial Zone and seeks to prohibit liquor stores in Tara-Ika.

- 870. **Base of the Street Network** (Submitter 04/24) raises that the 'street network' terminology contained within the Master Plan document is inconsistent with that used on the Structure Plan and seeks to address the inconsistency. Truebridge Associates (Further Submitter FS04/22) supports this submission.
- 871. Horowhenua District Residents and Ratepayers Association (Submitter 04/26) questions whether development contributions will be reintroduced before the Proposed Plan Change is adopted. The submitter also questions whether there are sufficient resources available to build 400 houses a year and, if not, what Council's responsibility on this matter is. No specific relief is sought on either point.
- 872. Incite (Submitter 04/31) is concerned that the proposed rezoning will have a financial impact on Redwood Grove properties via increasing rates, given Council does not charge financial or development contributions. No specific relief is sought on this point. The submitter also requests that the Plan Change hearing be heard solely by qualified and experienced independent commissioners.
- 873. Truebridge Associates (Submitter 04/33) seeks that working with developers be included as an 'other method' for addressing issues and objectives for Tara-Ika. The submitter seeks that reference to developers be included under the 'Other' heading on page 10 in Section 6A to give effect to this.
- 874. Muaūpoko Tribal Authority (Submitter 04/35) notes the opportunity that Tara-Ika presents to create a positive legacy, including new jobs, planting, housing (including affordable housing), and cultural expression. The submitter seeks prioritisation of Muaūpoko members in new jobs, planting to enhance and restore waterways, specific provisions in the Plan Change to require provision of housing for people on low-moderate incomes, and specific steps to connect cultural and spiritual history.

875. **Sector and the sector and and the sector and**

Horowh

876.

(Further Submitter 04/25) supports this submission. The submitters consider that changing to residential zoning will make rates unaffordable and will unfairly force subdivision. They seek rates relief for properties not being used for residential activity. (Further Submitters 04/78) also support this submission, specifically the comments about how growth funding is addressed to ensure costs are distributed equitably. They support the assertion that there should be rates relief when zoning changes for rural to residential use, and seek clarification on rates relief and how this could facilitate development.

- 877. **Control (Submitter 04/39) states that the plan change has insufficient information about matters such as land ownership, Gladstone Green development business owners and shareholders, and Council conflicts of interest. No clear relief is sought. Control (Further Submitter 04/69)** reiterates his support of his original submission.
- 878. **Sector and an an an anti-** (Submitter 04/40) opposes ratepayers funding growth and seeks the introduction of development contributions to cover the costs of growth. **Introduction** (Further Submitter 04/73) reiterates her support for the points raised in her original submission.
- 879. Analysis
- 880. **Second and a submission** seeks to prohibit liquor stores in Tara-Ika. This matter is out of the scope of this plan change and cannot be controlled via an RMA process. Council's liquor licencing function is the appropriate mechanism to control this matter. I therefore recommend rejecting this submission point.
- 881. **Between the Master Plan the Structure Plan.** The Master Plan is not part of this plan change and this submission is therefore out of scope. There will be an opportunity to update the Master Plan via non-statutory process (e.g. a Council meeting) once the plan change has been finalised (if this is needed). I therefore recommend rejecting this submission point.
- 882. Horowhenua District Residents and Ratepayers Association's submission questioned whether development contributions will be reintroduced before the Proposed Plan Change is adopted. Introducing development contributions is outside of the scope of the plan change. However, I can advise that Council has reintroduced development contributions in the 2021-2041 Long Term Plan which came into effect on 1st July 2021. The submitter also questioned whether there are sufficient resources available to build 400 houses a year and, if not, what Council's responsibility on this matter is. The National Policy Statement on Urban Development is clear in that it sets out Council obligations to provide for growth, but that it is the market's role to respond to and fulfil demand. Council is not responsible for training or securing builders for construction. I therefore recommend rejecting these submission points.
- 883. Incite's submission is concerned that the proposed rezoning will have a financial impact on Redwood Grove properties, through an increase in rates, given Council does not charge financial



or development contributions. This request is outside the scope of what can be considered under this plan change. Rates are determined by Council's financing and rating policy developed as part of the Long Term Plan. The submitter also requested the Plan Change hearing be heard solely by qualified and experienced independent commissioners. However, there is no mechanism for submitters to request this. However for information sake, I note that the split is 2:1 (two independents, one councillor). I therefore recommend rejecting these submission points.

- 884. Truebridge Associates' submission sought that developers be included as a method to deliver on issues and objectives for Tara-Ika. This is inferred by the fact that developers apply for resource consent. In respect of street naming which is also covered by this submission point, I note that this is covered by Council's Street Naming Policy and is out of scope of the matters than can be considered in this Plan Change. I therefore recommend rejecting this submission point.
- 885. MTA's submission seeks prioritisation for Muaūpoko members for new jobs, planting to enhance and restore waterways, specific provisions in the Plan Change to require provision of housing for people on low-moderate incomes, and specific steps to connect cultural and spiritual history. I accept this point in part. While the request for job prioritisation falls outside the scope of what can be considered under this plan change, planting and affordable housing matters generally can be considered. However, the relief sought on these points is unclear. The submitter may like to provide additional detail on this submission point at the hearing.
- 886. **Reference to the second submission** raised concerns about rates affordability and sought rates relief. This submission is outside the scope of the plan change. I therefore recommend rejecting this submission point.
- 887. **Matters such as land ownership**, Gladstone Green development business owners and shareholders, and Council conflicts of interest. As no clear relief is sought and due process has been followed in the development of this Plan Change, I recommend rejecting this submission point.
- 888. **Best and a submission** sought for development contributions to cover cost of growth. Development contributions have recently been reintroduced as part of Council's recent Long Term Plan. This is a separate process to the plan change and is out of scope. I therefore recommend rejecting this submission point.
- 889. Recommended Decision
- 890. That submission 04/06.05 be rejected.
- 891. That submission 04/24.01 be rejected.
- 892. That submission 04/26.05 be rejected.
- 893. That submission 04/26.07 be rejected.
- 894. That submission 04/31.04 be rejected.



- 895. That submission 04/31.05 be rejected.
- 896. That submission 04/33.06 be rejected.
- 897. That submission 04/35.06 be accepted in part.
- 898. That submission 04/38.11 be rejected.
- 899. That submission 04/39.04 be rejected.
- 900. That submission 04/40.04 be rejected.
- 901. That further submissions be accepted or rejected accordingly.

5.11 Further Submissions not already assessed

902. Several further submission (or parts of further submissions) were received that were either not 'on' a submission, or supported/opposed an original submission as whole. As such, these further submissions have not been assessed under any of the 'topic' based assessments above. An assessment of these further submissions is provided below.

903. Further Submission FS0/22.03 – Truebridge Associates

- 904. This further submission point supports all aspects of the original submission by **Interest** (04/24) and requests that the relief sought by this original submission be accepted. The relief sought by the original submission has been evaluated throughout this report. The table attached as Appendix 1 is a reference for where in the report each point has been evaluated.
- 905. As such, I recommended this further submission point be accepted and/or rejected accordingly, based on the recommendations made in relation to the original submission points.

906. Further Submission FS04/73 -

907. The further submission by **control** refers to concerns about three waters planning and traffic effects. It is not clear which submission this further submission is 'on', but I note that the matters raised have been assessed throughout this report. This further submission can be accepted/rejected as per the recommendation made on the relevant points in this report.

908. Further Submission FS04/69 -

909. The further submission by **present of** refers to concerns about process, three waters planning (in particular stormwater), and concludes by referring to the further submitter's own original submission. These matters have been assessed throughout this report. This further submission can be accepted/rejected as per the recommendation made on the relevant points in this report.

910. Further Submission FS04/90 – Waka Kotahi



911. This further submission opposes all aspects of the original submissions outlined below and requests that the relief sought by the original submissions be rejected.

Original Submission Number	Submitter Name
04/33	Truebridge Associates
04/09	
04/10	
04/11	
04/15	
04/18	
04/20	
04/22	
04/23	
04/25	Horowhenua District Council Officer Submission
04/27	
04/24	

- 912. The relief sought by the original submissions has been evaluated throughout this report. The table attached as Appendix 1 is a reference for where in the report each point has been evaluated.
- 913. As such, I recommended this further submission point be accepted and/or rejected accordingly, based on the recommendations made in relation to the original submission points.
- 914. Further Submission FS04/91.10 -
- 915. This further submission point supports all aspects of the original submission by Horowhenua District Council Officers (04/25) and requests that the relief sought by this original submission be accepted. The relief sought by the original submission has been evaluated throughout this report. The table attached as Appendix 1 is a reference for where in the report each point has been evaluated.
- 916. As such, I recommended this further submission point be accept and/or rejected accordingly, based on the recommendations made in relation to the original submission points.

917. Further Submission FS04/91.13 -

- 918. This further submission point supports all aspects of the original submission by **constant (04/38)** and requests that the relief sought by this original submission be accepted. The relief sought by the original submission has been evaluated throughout this report. The table attached as Appendix 1 is a reference for where in the report each point has been evaluated.
- 919. As such, I recommended this further submission point be accept and/or rejected accordingly, based on the recommendations made in relation to the original submission points.



6 Section 32AA Assessment

920. The below sets out a summary of all changes/amendments to the notified plan provisions recommended as a result of submissions and further submissions, evaluated above. To allow for efficient s32AA assessment these have been grouped where possible.

921. Recommended Change 1: Zoning

Zoning changes as indicated by Figure 3 and Appendix 2 and evaluated in Section 5.2.2 of the s42A evaluation report.

922. Recommended Change 2: Structure Plan

Structure Plan changes as indicated by Figure 3 and Appendix 2 and evaluated in Sections 5.2.1, 5.2.2 and 5.6 of this evaluation report

923. Recommended Change 3: O2NL corridor identification and protection

Recommended approach explained and detailed below and evaluated in Section 5.5.1 of the evaluation report:

- That the Structure Plan will show the most update version of the O2NL corridor (note that this location could be further refined between the time this report was prepared and the hearing).
- That the District Plan would include no restrictions on land use as a result of the corridor being shown on the Structure Plan.
- That a note be included on the Structure Plan that the corridor location is for information purposes only.
- That the depiction of the O2NL corridor will be removed from the Structure Plan within 5 years (1/7/2026) in the event that Waka Kotahi have not designated this corridor.

924. Recommended Change 4: Amendments to Objective 6A.1

Changes recommended below (addition shown in *italics underline*) and evaluated in Sections 5.2.4, 5.2.6 and 5.4.1 of this s42A evaluation report.

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, <u>social infrastructure</u>, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design;



- <u>Encouraging subdivision and development design to enable energy efficiency and</u> <u>reduced energy consumption;</u>
- <u>Within the Arapaepae Road Special Treatment Overlay, development that is</u> <u>appropriate for the site in terms of scale, access, and compatibility with surrounding</u> <u>land uses.</u>

925. Recommended Change 5: New Policy for Arapaepae Road Special Treatment Overlay

Addition of new policy indicated below and evaluated in Section 5.2.6 of this s42A evaluation report.

Policy 6A.1.7

Provide for a range of land uses within the Arapaepae Road Special Treatment Overlay to allow flexibility to deliver a context specific response that recognises both the unique attributes of the site and the need to appropriately manage adverse effects, including safe and efficient access and avoiding or minimising reverse sensitivity effects.

926. **Recommended Change 6: Changes to policy relating to education activities**

Changes recommended below (deletions shown in strikethrough) and evaluated in Section 5.2.4 of the s42A evaluation report.

Policy 6A.6.3

Enable education facilities to establish at a scale that supports the needs of the local community, with limits on scale to protect the amenity of the surrounding environment.

927. Recommended Change 7: Rainwater tanks

Requirement for rainwater tanks extended to Greenbelt Residential Zone, as evaluated in Section 5.4.4 of the s42A evaluation report.

928. Recommended Change 8: New policy relating to building height

Addition of a new policy, as indicated below, and evaluated in Section 5.3.1 of the s42A evaluation report.

Policy 6A.1.6

Encourage additional building height where this would contribute to a well-functioning urban environment (for example, increased housing variety), so long as reasonable privacy of neighbouring dwellings is maintained, and visual dominance and excessive shading beyond the subject site are avoided.

929. **Recommended Change 9: Conditions and matters of discretion for subdivision**

Residential Zone

15A.1.1.1 <u>Subdivision (Refer to Rule 15A.3.1(a))</u>

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.



- (ii) For subdivisions within the medium density area, consistency with the Medium Density Residential Development Design Guide.
- (iii) The design, and layout and variety of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision) <u>energy</u> <u>efficiency and conservation, and access to solar energy.</u>
- (iv) Whether the subdivision contains a variety of lot sizes suitable for the area it is located within.
- (v) Whether the subdivision and likely future development will represent good urban design and will result in the level of amenity anticipated for the area.
- (vi)(iv)Provision of land for publically accessibly open space and recreation that is appropriately located and of a practicable size and shape to support management of stormwater during heavy rain events, in accordance with Structure Plan 013.
- (*vii*)(*v*) Whether the proposal includes *The* provision of practicable street plantings.
- (viii)(vi) The provision of access, any new roads, cycleways, and provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- *(ix)* The provision of access to sites, including passing bays, car parking and manoeuvring areas, and any necessary easements.
- (x)(vii) The management of traffic generated and potential adverse effects on the safety and efficiency of the street network.
- (xi)(viii) Minimise use of cul-de-sacs, particularly cul-de-sacs that are long or have poor visibility to or from the street they connect to.
- (xii)(ix) Consideration of Crime Prevention through Environmental Design Principles.
- (x) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, telecommunications, gas and electricity.
- (xiv)(xi) Effects on significant sites and features, including natural/ecological, cultural, archaeological and historical sites.
- (xv)(xii) Avoidance or mitigation of natural hazards.
- (xvi)(xiii) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may require cut</u> and fill plans and erosion and sediment control plans to be submitted with applications for subdivision.



- (xvii)(xiv) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xviii)(xv) The staging of development and timing of works.
- (xix)(xvi) Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).
- (xvii) The potential effects of the development on the safe and efficient operation, upgrading, maintenance and replacement of existing lawfully established network utilities.

(xx)(xviii) Those matters described in Section s108 and 220 of the RMA

- (b) Conditions
 - (i) Minimum Allotment Area and Shape

Each allotment shall comply with the following site area and shape factor standards for each settlement set out in Table 15A-3 below.

Residential Zone	Minimum Net Site Area	Maximum Net Site Area/Maximum Density	Minimum Shape Factor	Other Requirements	Road Frontage
Medium Density	Attached Units: 150m ²	450m ² -	7m	Maximum street block length: 200m Must include building siting plan.*	
	Detached Units: 225m ² *	450m ² *	10m	Maximum block length: 200m Must include building siting plan.*	All sites must have road frontage for at least 7m
Standard Residential	330m ²	-	13m	Maximum block length: 200m	
Low Density Residential	1000m ²	-	18m	N/A	

Table 6A-1: Standards Applying to Subdivision and Residential Dwelling Units



Commercial Zone

15A.8.2.4 Subdivision (Refer to Rule 15A.3.1(a))

- (iv) The provision of any-access, any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (x) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may require cut</u> <u>and fill plans and erosion and sediment control plans to be submitted with</u> <u>applications for subdivision.</u>

Open Space Zone

15A.8.3.1 Subdivision (Refer to Rule 15A.3.1(a))

- (iv) The provision of any access, new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (x) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control <u>this may require cut</u> and fill plans and erosion and sediment control plans to be submitted with <u>applications for subdivision.</u>

Greenbelt Residential Zone

15A.8.4.1 Subdivision (Refer to Rule 15A.3.1(a))

- (c) Matters of Discretion
 - (iv) Consistency with Structure Plan 013.
 - (v) The design and layout of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision) <u>energy efficiency</u> and conservation, and access to solar energy.
 - (vi) Whether the subdivision contains a variety of lot sizes suitable for the area it is located within.
 - (vii) Whether the subdivision and likely future development will represent good urban design and will result in the level of amenity anticipated for the area.
 - (viii)(vi) Provision of land for publically accessibly open space and recreation that is appropriately located and of a practicable size and shape to support management of stormwater during heavy rain events, in accordance with Structure Plan 013-



- (ix)(vii) Whether the proposal includes The the provision of practicable street plantings.
- (x)(viii) The provision of anyaccess, any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (xi) The provision of access to sites, including passing bays, car parking and manoeuvring areas, and any necessary easements.
- (xii)(ix) The management of traffic generated and potential adverse effects on the safety and efficiency of the street network.
- (xiii)(x) Minimise use of cul-de-sacs, particularly cul-de-sacs that are long or have poor visibility.
- (xiv)(xi) Consideration of Crime Prevention through Environmental Design Principles.
- (xv)(xii) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, telecommunications, gas and electricity.
- (xvi)(xiii) Effects on significant sites and features, including natural, <u>ecological</u> cultural, archaeological and historical sites.
- (xvii)(xiv) The protection and enhancement of any natural habitat of indigenous species within the subdivision
- (xviii)(xv) Avoidance or mitigation of natural hazards.
- (xix)(xvi) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may require cut</u> and fill plans and erosion and sediment control plans to be submitted with applications for subdivision.
- (xx)(xvii) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xxi)(xviii) The staging of development and timing of works
- (xxii)(xix) Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).
- (xx) The potential effects of the development on the safe and efficient operation, upgrading, maintenance and replacement of existing lawfully established network utilities.

(xxiii)(xxi) Those matters described in s108 and s220 of the RMA.



930. Recommended Change 10: Stormwater

Objective 6A.3

Stormwater management in TaraikaTara-Ika will be resilient and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- <u>Incorporating</u> Water <u>sSensitive</u> <u>designDesign</u>;
- Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems.

Policy 6A.3.1

Require an integrated approach to managing stormwater from <u>TaraikaTara-Ika</u> to ensure the quality and quantity of runoff does not have an adverse effect on Lake Horowhenua, <u>the Koputaroa</u> <u>Stream, or other downstream environments.</u>-

Policy 6A.3.2

Require stormwater to be retained within the Tara-Ika Growth area for up to a 1 in 100 year annual return interval rainfall event (with allowance for climate change), and treated and managed utilising the best practicable option to mitigate the effects of stormwater by including the following:

- (i) limiting the extent of impervious areas;
- (ii) incorporating on-site treatment and disposal of stormwater into subdivision and development design;
- (i)(iii) provision of catchment-wide facilities like wetlands that are efficient and effective from both a construction and maintenance perspective.

Policy 6A.3.32

Recognise te mana o te wai and the significance tokaitiaki relationship of iwi of to the TaraikaTara-Ika environment and its connection to Lake Horowhenua by working with iwi to protect the mauri of freshwater through manage managing stormwater quality and quantity.

15A.8.1 All Zones

15A.8.1.1 Conditions for All Restricted Discretionary Activities

(i) Stormwater Management Plan

All applications for restricted discretionary activities must include a stormwater management plan which sets out how stormwater will be managed via both onsite and centralised treatment and soakage facilities (i.e. wetlands and soakage basins) in a manner that ensures stormwater is retained and disposed of within the Tara-Ika Growth Area for up to a 1 in 100 year average recurrence interval (ARI) rainfall event (with allowance for climate change). The Plan shall be consistent with the more stringent of the Horowhenua District Plan Subdivision and Development Principles and Requirements 2014 and NZS 4404:2010 (Land development and subdivision infrastructure) and shall include the following:



- The size, design, location and expected maintenance of stormwater management devices (e.g. rainwater tanks, on-lot soakage, wetlands and soakage basins), including those to be vested with Council.
 - Pre-soakage treatment is required for all runoff from all impervious surfaces excluding roofs and other on-lot impervious areas (patios, shed etc.) but including private driveways and parking areas. The primary method of treatment shall be through centralised end-of-pipe stormwater wetlands that are sized and located to efficiently service the Tara-Ika Grwoth Area in an integrated manner. Wetlands shall include a high flow bypass into an adjoining/downstream soakage basin for disposal, sized to bypass flows greater than the Water Quality Flow.
 - The stormwater treatment devices (wetlands) shall be sized to accommodate the Water Quality Flow and Water Quality Volume of the contributing catchment, excluding the roof and on-lot impervious areas that are connected to appropriately sized on-lot soakage devices. The contributing catchment includes adjoining development blocks within Tara-Ika and must consider the future developed upstream catchment. The stormwater soakage devices shall be sized to provide full retention and disposal of the 1 in 100 year ARI runoff volume (with allowance for climate change) with no overflows to the downstream environment.
- Overland flow paths for the 100-year ARI rainfall event (with allowance for climate change) and proposed mechanisms for managing these. The reduction of runoff volume and flow from on-lot soakage disposal cannot be considered in the sizing calculations for the 100-year ARI overland flow path, in order to ensure sufficient capacity is available during extreme events.
- Calculations undertaken to prepare the stormwater management plan. These should be carried out in the following manner:
 - The 12-hour nested design storm specified by Wellington Water in "Reference Guide for Design Storm Hydrology" (2019) shall be applied to Tara-Ika stormwater design calculations.
 - Design storms shall be developed with HIRDS v4 rainfall data for the development site using the RCP 8.5 (2081-2100) climate change scenario.
 - The soakage rate for on-lot soakage devices to receive roof runoff from roofs and other impervious areas (excluding driveways) shall be determined by carrying out soakage testing in accordance with Horowhenua District Plan Subdivision and Design Requirements and Principles, with a safety factor of 1.5 applied to the testing results (i.e., divide soakage rate result by 1.5). Evidence of the site-specific soakage testing must be provided, including the suitability of soil layers at the location and depth of the proposed on-lot soakage. In the absence of soakage testing or for the purposes of initial design a soakage rate of 100mm per hour will be applied. Rainwater tank volume shall not be considered in the sizing of on-lot soakage.
 - The Water Quality Volume (WQV) and the Water Quality Flow (WQF) used to size treatment devices shall be calculated using the method specified in Wellington Water's "Water Sensitive Design for Stormwater: Treatment Device Design Guideline" (2019).



Acceptable design standards for treatment and soakage devices include Wellington Water's "Water Sensitive Design for Stormwater: Treatment Device Design Guideline" (2019), or Auckland Council's "Stormwater Management Devices in the Auckland Region" (2017).

Advice Note: Pre-application meetings with Council are strongly encouraged.

931. Recommended Change 11: Alignment with Horizon's Regional Council One Plan

Changes indicated below and evaluated in Section 5.4.1 of the s42a evaluation report.

Policy 6A.1.5

Require subdivision layout to ensure street design enables the safe and efficient movement of people, traffic and <u>public transport</u>, provides a high level of safety and amenity for pedestrians and cyclists, and contributes positively to the public realm.

Policy 6A.1.8

<u>Require subdivision layout that will enable buildings to utilise energy efficiency and</u> <u>conservation measures.</u>

Objective 6A.4

Achieve a high amenity, <u>connected</u>, walkable residential environment with a range of section sizes and housing types, including affordable housing options, in Tara-Ika.

Policy 6A.4.2

Enable and encourage a range of housing types and section sizes in Tara-Ika to meet the variety of needs and preferences in our community, while ensuring a high level of residential amenity and <u>connectivity</u>.

Policy 6A.4.3

Use both minimum and maximum density standards to encourage housing variety and to ensure development occurs at a scale and density consistent with the amenity expected for that particular area.

Addition to Matters of Discretion for Subdivision in Residential and Greenbelt Residential Zone (15A.8.4.1(a))

The design and layout of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision) <u>energy efficiency and conservation, and access to solar energy.</u>

Provision of land for publically accessibly open space and recreation that is appropriately located and of a practicable size and shape <u>to support management of stormwater during</u> <u>heavy rain events</u> in accordance with Structure Plan 013.

932. Recommended Change 12: Remove reference to 2008 Horizons hazards report in 15A.8.3.1(a)(xi).

Outlined and evaluated in Section 5.8.1 of the s42A evaluation report.



933. Recommended Change 13: Signage fronting a State Highway

Detailed standards to be provided by WKNZTA at the hearing. Intent of the changes evaluated in Section 5.6.3 of the s42A evaluation report.

934. Recommended Change 14: Removal of 'inside display window provision'

Changes indicated by track changes below and evaluated in Section 5.6.3of the s42A evaluation report.

Table 15A-2: Sign Dimensions

Sign Type	Maximum Dimensions
Building Façade	Maximum area 1.2m ² .
Verandah Fascia	Must not extend beyond the fascia.
Under Veranda	Must have a least 2.5m clearance above the ground.
Side Wall	Maximum 8m ² and set back at least 0.5m from corner.
Inside the Display Window	Depth of sign must be no greater than 0.3m and must be either above 2m
	high or below 0.8m high in relation to ground.

935. Recommended Change 15: Change to Fencing Rule

Change indicated by track changes below and evaluated in Section 5.3.2 of the s42A evaluation report.

- (d) Other Boundaries
 - The maximum height of a fence or wall sited on the boundary or within 1 metre from the boundary shall not exceed 2 metres.
 - Fences perpendicular to the road shall taper downwards towards the road boundary. The taper should commence at least 1.5m from the road boundary and the maximum height of the fence where it meets the road boundary shall be 1.2m high if the road is a local road, or 1.5m high if it is an arterial or collector road.

936. **Recommended Change 16: Changes in Response to Cultural Impact Assessment**

- Identification, protection and open space zoning for Maunu Wahine site.
- Wai Maire pathway identified on structure plan.
- Habitats for culturally significant species identified on structure plan (Queen Street East bush remants).
- The following addition to matters of discretion for subdivision in all zones
 - Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control. <u>This may require cut and fill plans</u> and erosion and sediment control plans to be submitted with applications for subdivision.
- Policies amended or added as follows:
 - Policy 6A.1.6 states that culturally important views are maintained along Queen Street East
 - Objective 6A.2 be amended to include reference to 'cultural values'
 - Objective 6A.3 be amended to state that stormwater management should avoid natural areas and ecosystems that are sensitive to modifications to changes in groundwater and surface water levels and flows.



- Policy 6A.3.2 be amended to state that catchment wide (stormwater) facilities avoid culturally significant sites.
- That a new Policy 6A.6.2 be included as follows:
 - Require public parks and reserves to recognise and celebrate Muaūpoko history and values through design, naming, and use of planting.
- The inclusion of the following to the open paragraphs of Chapter 6A (Page 1) and to the Issue Discussion (Page 2):

Muaūpoko have a very strong and enduring relationship with the Tara-Ika area, as it is an area where they have worked, cultivated, hunted and gathered resources for over 1000 years. Tara-Ika sits between areas of high cultural association to Muaūpoko, including Punahau (Lake Horowhenua) and the Tararua Ranges, and is therefore part of important physical, ecological, visual and spiritual pathways. (page 1)

Tara-Ika is anticipated to become high amenity residential development. However, there is also a risk development could adversely affect the environmental quality <u>and cultural values</u> of the area due to effects arising from increased built form, traffic, and demand for infrastructure and services <u>and pressure on eco-systems</u>.

- That Muaūpoko are specifically named throughout Chapter 6A.
- That Lake Horowhenua is also referred to by its traditional name 'Punahau' throughout Chapter 6A.

937. Recommended Change 17: Minor Drafting Edits

Changes summarised below and evaluated in Section 5.9.1 of the s42A evaluation report

- Correct typing errors as indicated in the amended plan chapters.
- Changes to wording related to requirements for rainwater tanks.
- Address inconsistency in zoning terminology between planning maps (Low Density Residential) and structure plan (Low Density Area).
- Reword carparking provisions to be clear they only apply in the event developers/applicants choose to provide carparking.
- Make the following additions (shown in underline italics) and deletions (shown in strikethrough) to 15A.1.2 (a) to improve clarity Commercial Activities (excluding entertainment activities) occupying a maximum floor area <u>of up to</u> 250m2, Retail Activities occupying a maximum floor area <u>of up to</u> 250m2.
- Combine matters 15A.8.1.4(i) and 15A.8.1.4(iii) into one.
- Change spelling of "Taraika" to "Tara-Ika" throughout the plan change documents.
- Introduce a non-notification provision for restricted discretionary residential subdivision and correct the rule reference in the non-notification provision for restricted discretionary subdivision in other zones.
- Amend Table 15A-3 Standards Applying to Subdivision and Residential Dwelling Units to include a "*": reference for Medium Density Attached Units: 150m2.
- Include "Those matters described in Sections 108 and 220 of the RMA" as a matter of discretion for restricted discretionary subdivision in all zone.
- Amend Rule 15A.6.2.1 as follows:



No vehicle crossings shall cross a strategic cycleway shown on Structure Plan 013 will be permitted. In such cases, vehicle access to the site shall be via <u>side road or</u> rear access lanes shown on Structure Plan 013



6.1.1 Section 32AA Assessment Table

Note: In the case of all change assessed below, the 'other reasonably practicable option' is the 'as notified' version. The assessment of appropriateness, efficiency, effectives, costs, and benefits for the 'as notified' option is contained within the original s32 assessment report.

Recommended Change/Amendment	How recommended change is the most appropriate way of achieving the purpose of the Act/plan change objectives	Efficiency/Effectiveness	Costs	Benefits
Recommended Change 1: Zoning	 Enables more flexibility which may lead to improved choice, including better chance of more affordable sections while offering flexibility for larger lots (Objective 6A.4). Greater opportunity for people and communities to provide for their wellbeing through accessing quality housing (NPS-UD, Part 2). 	 Better gives effect to NPS-UD, for the reasons detailed in s42A. Allows land to be used more efficiently. Better protects rural land resource. Allows infrastructure investment to be maximised. Less restrictive plan rules. Reduces plan complexity in that there is one less zone. 	 Environmental Greater load on infrastructure, more SW and traffic. Loss of lifestyle/low density character. Social Likely to reduce the number of larger lots available, which some people may prefer. Cultural Higher number of houses increase land disturbance and SW run off, if not appropriately managed. 	 Environmental Intensification in identified urban areas reduces pressure on rural land. More flexibility may contribute better to a well-functioning urban environment. Social Better supports community infrastructure (e.g. school). Increases number of houses available – gives more people opportunity to have a home.



Recommended	How recommended change	Efficiency/Effectiveness	Costs	Benefits
Change/Amendment	is the most appropriate way			
	of achieving the purpose of			
	the Act/plan change			
	objectives			
			Economic - Potentially higher infrastructure costs.	Cultural - None Economic - Makes commercial centre more viable. - Increase supply of housing (may improve
				affordability).
Recommended Change 2: Structure Plan	 Changes to Structure Plan align with zoning changes and protect cultural sites and and therefore achieve objective 6A.4. 	Efficient and effective for Structure Plan to be amended to reflect other changes, given this is the primary vehicle for achieving the layout anticipated for Tara-Ika.	Environmental - Impact of zoning changes (assessed above). Social. - None Cultural - Better protection of cultural sites. Economic - Increased open space increases costs.	Environmental - More open space. Social - None Cultural - None Economic - Costs associated with additional public open space.
Recommended Change 3: O2NL Corridor Identification and Protection	Recognises strategic importance of O2NL and that this project is expected to deliver wellbeing benefits, but without	This approach is considered efficient and effective as it ensures people are aware of the proposed highway, but without restricting	Environmental, Social, Cultural, and Economic	Environmental, Social, Cultural, and Economic



Recommended Change/Amendment	How recommended change is the most appropriate way of achieving the purpose of the Act/plan change objectives restricting development ahead of the Notice of Requirement.	Efficiency/Effectiveness development/doubling up on restrictions that will be introduced by the highway NOR.	Costs - None, given there are no restrictions associated with this.	Benefits - None, given there are no restrictions associated with this.
Recommended Change 4: Amendments to Objective 6A.1	Makes link to social infrastructure clearer. This closely relates to wellbeing. Energy efficiency linked to current and future environmental and economic wellbeing. Arapaepae Road Special Treatment Overlay seeks to avoid, remedy or mitigate adverse effects on environment (e.g. reverse sensitivity).	Improves clarity Provides better links to other provisions (e.g. policies/matters of discretion) and therefore makes them more efficient effective.	 Environmental, Social and Cultural None, purpose is to make objective clearer. Economic Consideration of energy efficiency require, may increase application costs. 	Environmental - Explicit requirement to consider energy efficiency may improve outcomes. Social, Cultural and Economic - None, primary purpose is to make objective clearer.
Recommended Change 5: New Policy for Arapaepae Road Special Treatment Overlay	Aligns with Objective 6A.1 in that it seeks to achieve high amenity urban environment.	Provides policy direction to support rule that was notified. Efficient and effective for policies and rules to be aligned. This was a drafting error.	As this policy is to support existing rule, costs are the same as in the original s32 report.	As this policy is to support existing rule, benefits are the same as in the original s32 report.



Recommended	How recommended change	Efficiency/Effectiveness	Costs	Benefits
Change/Amendment	is the most appropriate way			
	the Act/plan change			
	objectives			
		The Araepaepae Road		
		special treatment overlay		
		seeks to respond to the		
		unique constraints for the		
		land located between State		
		Highway 57 (Arapaepae		
		Road) and the proposed		
		O2NL corridor. There is		
		some uncertainty about the		
		future of State Highway 57;		
		once O2NL is completed, the		
		State Highway status will		
		likely be revoked and the		
		state highway status		
		removed.		
Recommended Change 6:	More clearly enables variety	Removing reference to	As this is a minor wording	As this is a minor wording
Changes to policy relating to	of land uses needed to	limits on scale within policy	change and does not change	change and does not change
education activities	support a well-functioning	is efficient and effective,	the intent, costs are the	the intent, costs are the
	urban environment	given the plan provisions do	same as in the original s32	same as in the original s32
		not contain any such limits.	report.	report.
		Ministry of Education		
		facilities are likely to		
		establish through the notice		
		of requirement process. Any		
		non-ministry activities (e.g.		
		early childhood) can		
		establish in open space zone		



Recommended	How recommended change	Efficiency/Effectiveness	Costs	Benefits
Change/Amendment	is the most appropriate way			
	of achieving the purpose of			
	the Act/plan change			
	objectives			
		as a Restricted Discretionary Activity (as a community activity), which has appropriate Matters of Discretion to manage effects		
Recommended Change 7: Rainwater Tanks	Extending requirement to Greenbelt Residential (instead of just residential) extends the benefits to managing stormwater and reducing demand for water.	The expectations for each lot are clear and easily enforceable and built on the premise that each individual lot should take small steps to deliver a collective benefit.	 Environmental & Social Environmental costs associated with the visual appearance of rainwater tanks, especially on small sites. Cost of maintaining tanks, particular where shared arrangements are used. Costs associated with the tank when compared with the rest of the residential environment. Cultural There is unlikely to be any cultural cost 	 Environmental & Social Improved stormwater management. Although the individual lot improvement may be marginal there will be a cumulative benefit resulting from the reuse of water and reduction in discharge to ground via soakpit. Reduces reliance on mains water supply. Cultural Cultural benefits associated with improved environmental outcomes



Recommended Change/Amendment	How recommended change is the most appropriate way of achieving the purpose of the Act/plan change objectives	Efficiency/Effectiveness	Costs	Benefits
			associated with this provision.	associated with less stormwater being discharged to ground via soak put.
				Economic - As tanks would be required at building consent stage (as opposed to subdivision stage), that costs of subdividing are reduced, with these costs to be met only when the house is constructed.
Recommended Change 8: New Policy relating to building heights	This policy aligns with direct from the NPS-UD to enable increased building heights. This is linked to improve housing affordability, choice, and variety which is closely linked with economic and social wellbeing.	Inclusion of a policy to guide assessment of resource consents that do not meet the maximum building height standard is considered an efficient and effective means of managing this issue as it identifies the outcomes sought, therefore offering	As this policy is to support existing rule, costs are the same as in the original s32 report.	As this policy is to support existing rule, benefits are the same as in the original s32 report.



Recommended	How recommended change	Efficiency/Effectiveness	Costs	Benefits
Change/Amendment	is the most appropriate way			
	the Act/plan change			
	objectives			
		protection, while still providing flexibility.		
Recommended Change 9: Conditions and matters of discretion for subdivision	The changes largely seek to reduce duplication and improve consistency between zones. As such, the remaining provisions are more focused and are aligned with plan change objectives for the same reasons as detailed in the original s32a report.	Reducing Plan complexity while retaining the same intent is considered efficient and effective. The s42A evaluates this in more detail.	As recommended changes to matters of discretion for subdivision are to reduce duplication and improve clarity and consistency between zones, the costs are similar to those detailed in the original s32 report.	As recommended changes to matters of discretion for subdivision are to reduce duplication and improve clarity and consistency between zones, the benefits are similar to those detailed in the original s32 report. A small economic benefit is expected in that consent processing costs will be slightly reduced.
Recommended Change 10: Stormwater	As indicated in the stormwater report included as Appendix 9 of this report, the proposed approach of using communal stormwater facilities to support onsite management of stormwater delivers a range of environmental benefits. This upholds key objectives and policies of the plan change which seek to avoid adverse	Efficient and effective as it allows basins and wetlands to be designed, sized, and located based on the nature and scale of the activity. This also allows for dual purpose facilities (e.g. reserve space and stormwater attenuation). Approach provides flexibility.	Environmental, Social, and Cultural - The social, economic, cultural and environmental costs of development have already been considered in the s32 report. Therefore, the costs be considered here	Environmental - Better environmental outcomes associated with fewer but larger facilities being more effective and allowing a greater level of design (e.g. landscaping and planting).



Recommended	How recommended change	Efficiency/Effectiveness	Costs	Benefits
Change/Amendment	is the most appropriate way			
	of achieving the purpose of			
	the Act/plan change			
	objectives			
	effects on groundwater,		are those associated	Social
	Lake Horowhenua, and		with requiring a	- Provides
	downstream environments.		stormwater	opportunity for
			management plan	community to
	This helps to protect		that meets the	connect with the
	environmental resources for		requirements of the	environment and
	future generations and		Plan, including that	experience low
	recognises the significance		communal facilities	impact stormwater
	of water and environmental		are to be used. As	systems.
	outcomes to Māori.		this will deliver	Economic
			environmental,	 Reduced economic
			social, and cultural	costs in that fewer,
			benefits when	larger facilities are
			compared to the	easier to maintain.
			status quo approach	Cultural
			(as evidence in the	 Cultural benefits in
			technical report and	that a quality
			evaluated earlier in	stormwater system
			this report), I do not	will protect ground
			consider there to be	water and Lake
			any costs associated	Horowhenua.
			with these matters.	
			Fronomic	
			- Potential for higher	
			compliance costs for	
			some landowners	
			some fandowners.	
		1	1	1



Recommended	How recommended change	Efficiency/Effectiveness	Costs	Benefits
Change/Amendment	is the most appropriate way			
	of achieving the purpose of			
	the Act/plan change			
	objectives			
Recommended Change 11:	Some of the changes	The efficiency and	As per 'recommended	As per 'recommended
Alignment with Horizons	recommended to improve	effectiveness of this	change 4'.	change 4'.
Regional Council One Plan	alignment with the Horizon	recommended change has		
	Regional Council are minor	been evaluated in the s42A		
	wording changes that more	report.		
	clearly articulate the original			
	intention (e.g. addition or			
	words such as 'connected'			
	and 'public transport').			
	These changes do not			
	change the intent of			
	provisions assessed in the			
	original s32 report. As such,			
	the primary benefit of these			
	changes is a clearer, more			
	effective District Plan. No			
	further assessment is			
	considered necessary.			
	The most significant change			
	to improve alignment with			
	the One Plan is the			
	introduction of both a policy			
	and a matter of discretion of			
	subdivision requiring energy			
	efficiency to be considered			
	during subdivision and			
	development design.			


Recommended Change/Amendment	How recommended change is the most appropriate way of achieving the purpose of the Act/plan change objectives	Efficiency/Effectiveness	Costs	Benefits
	This change directly seeks to achieve the recommended amendment to Objective 6A.1 which have been assessed under 'recommended change 4' above.			
Recommended Change 12: Remove reference to 2008 Horizons hazard report	This report is out of date. Natural hazard risk is a matter of discretion for subdivision and is matter contained within the RMA. As such, it is efficient and effective to remove this reference. Doing so does change how the provisions achieve the plan change objectives.		As the 2008 Horizons hazard report is out of date, and the RMA already requires an assessment of natural hazard risk when determining subdivision consents, there are no costs associated with removing this provision.	There is a small economic benefit in that consent processing costs will be reduced. There are no other relevant benefits.
Recommended Change 13: Signage fronting a State Highway	Requiring signage fronting a State Highway to comply with WKNZTA's signage standards will minimise the risk of driver distraction and improve transport safety in the plan change area.	This change will increase the effectiveness of the plan change in delivering transportation safety objectives and policies in the rest of the District Plan.	 Environmental, Social, Cultural, Economic Additional matter for developers to consider and potentially seek consent for. Costs to Council associated with 	 Environmental, Social, Cultural, Economic Improved traffic safety. Less intrusive signage resulting in positive visual effects.



Recommended	How recommended change	Efficiency/Effectiveness	Costs	Benefits
Change/Amendment	is the most appropriate way			
	of achieving the purpose of			
	the Act/plan change			
	objectives			
			processing any potential consent(s).	
Recommended Change 14: Removal of inside display	Removing this requirement is considered to have a	The efficiency and effectiveness of removing	<i>Environmental</i> - Potential for very	Environmental, Social, Cultural
window sign provision	relatively minor impact in	this provision has been	large, dominating	- None. as change is
	that it would have only	assessed in the s42A	signs within shop	minor.
	applied in limited	evaluation report.	display windows.	Economic
	circumstances and that any		However, these are	- Slightly reduced
	'poor quality' window signs		easily removable.	Plan complexity and
	can be easily removed or			compliance costs.
	modified. As such, removing		Social, Cultural, Economic	
	this provision will not be		- None, as change is	
	contrary to Plan objectives		minor and reduces	
	that seek to achieve an		compliance costs.	
	attractive urban			
	environment.			
Recommended Change 15:	Corrects a specific drafting	Addressing a drafting error	Nil	Nil
Change to Fencing Rule	error, as such achieves the	will make the plan		
	plan change objectives for	provisions more efficient		
	the same reasons as	and effective.		
	originally assessed in the			
	s32 report.			
Recommended Change 16:	More clearly articulates the	I consider the	Environmental,	Cultural
Changes in Response to	need to protect cultural	recommended approach	Social and Cultural	- Provides better
Cultural Impact Assessment	values and culturally	efficient and effective, as it		protection of
	significant sites. This aligns	provides most direction	- There are minimal	culturally important
	with the intent of the	where there is the most	environmental,	sites and cultural
	notified objectives and	certainty about the values	social, and cultural	values.



Recommended Change/Amendment	How recommended change is the most appropriate way of achieving the purpose of the Act/plan change objectives	Efficiency/Effectiveness	Costs	Benefits
	policies, as well as the NPS- UD and Part 2 of the RMA.	that need protecting and the outcomes sought (for example Maunu Wahine site), with more flexibility to apply a bespoke approach where there is less certainty (for example, through matters of discretion for subdivision).	costs associated with this changes. <i>Economic</i> - May increase the costs of consenting (due to additional assessment or need for expert reports) - May reduce the amount of 'developable' land.	Environmental - Given the knowledge Muaūpoko have of this environment and their katiaki relationship with the area, enhancing protection of cultural values and sites will deliver a range of environmental benefits including protection of ecology, habitats and waterbodies.
				Social and Economic - Nil
Recommended Change 17: Minor drafting edits	The minor drafting edits are for outcomes sought. These chan primary benefit of these chan	or the purposes of correcting ty ges do not change the intent of ges is a clearer, more effective	ping and grammar errors or mo provisions assessed in the orig District Plan. No further assessr	ore clearly articulating the inal s32 report. As such, the ment is considered necessary.



7 Conclusion

- 938. Plan Change 4 seeks to rezone a 420ha piece of land located immediately east of Levin and bordered by State Highway 57 (Arapaepae Road), Queen Street East, Gladstone Road and Tararua Road.
- 939. In summary, the plan change proposes the following:
 - Removal of Structure Plan 13 from the District Plan.
 - Introduce a new 'Tara-Ika Multi-Zone Precinct' Chapter to the District Plan with a supporting structure plan (013) and associated objectives, policies, and rules
 - Rezone land within the Tara-Ika Master Plan Area from Greenbelt Residential Deferred to Greenbelt Residential, Low Density Residential, Standard Residential, Medium Density Residential, Commercial and Open Space.
 - Introduce new area specific subdivision rules;
 - Introduce some new bulk and location rules relevant to the area;
 - Introduce new rules relating to commercial activities in the area.
- 940. A number of submissions and further submissions were received on the plan change. In light of these submissions and the evaluation and assessment undertaken throughout this report, a number of changes to the plan provisions (including zone maps and structure plan) are recommended. These are summarised below:
 - Recommended Change 1: Zoning
 - Recommended Change 2: Structure Plan
 - Recommended Change 3: O2NL corridor identification and protection
 - Recommended Change 4: Amendments to Objective 6A.1
 - Recommended Change 5: New Policy for Arapaepae Road Special Treatment Overlay
 - Recommended Change 6: Changes to policy relating to education activities
 - Recommended Change 7: Rainwater tanks
 - Recommended Change 8: New policy relating to building height
 - Recommended Change 9: Conditions and matters of discretion for subdivision
 - Recommended Change 10: Stormwater
 - Recommended Change 11: Alignment with Horizon's Regional Council One Plan
 - Recommended Change 12: Remove reference to 2008 Horizons hazards report in 15A.8.3.1(a)(xi).
 - Recommended Change 13: Signage fronting a State Highway
 - Recommended Change 14: Removal of 'inside display window provision'
 - Recommended Change 15: Change to Fencing Rule
 - Recommended Change 16: Changes in Response to Cultural Impact Assessment
 - Recommended Change 17: Minor Drafting Edits
- 941. Overall, it is recommended that the Panel approve Proposed PC4, subject to the amendments put forward in this report.



Appendix 1: Table of Submission and Further Submission Points with Recommended Decisions and s42A report references.

Appendix 2: Proposed Plan Chapters (Chapter 6A Objectives and Policies: Tara-Ika Multi-Zone Precinct and Chapter 15A Rules: Tara-Ika Multi-Zone Precinct), with recommended changes annotated

Appendix 3: Structure Plan 013 and Zoning Maps showing recommended changes

- Appendix 4: Commercial Centres Assessment
- Appendix 5: Statement of Evidence Urban Design
- Appendix 6: Statement of Evidence Landscape
- Appendix 7: Water and Waste Water Capacity Assessment
- Appendix 8: Statement of Evidence Water and Waste Water
- Appendix 9: Stormwater Technical Memorandum
- Appendix 10: Statement of Evidence Stormwater
- Appendix 11: Integrated Traffic Assessment Report
- Appendix 12: Statement of Evidence Traffic
- Appendix 13: Cultural Impact Assessment
- Appendix 14: Map Showing Location of Submitters who own land within Tara-Ika

Taraika Master Plan

Horowhenua District Council

Prepared for Horowhenua District Council

Prepared by Local Landscape Architecture Collective McIndoe Urban Ltd. Morphum Environmental Ltd. Urbacity Ltd.

Document Issue 18th November 2020

Contents

Α	Introduction	3
	Project background	4
	Important considerations	4
В	The Vision	6
	Key Moves	7
С	The Plan	8
	1. Connectivity	10
	2. Streets for people	12
	3. Variety and choice of housing	14
	4. A centre for the community	16
	5. Distinctive and memorable character	18
	6. A network of parks and open space	20
	7. Stormwater and ecology	
	8. Integrated services infrastructure	24
	9. Planning for staged implementation	25

Introduction

The Taraika Master Plan is a comprehensive blueprint for residential growth in Taraika. It defines the location of key roads and pedestrian /cycle connections, parks and a village centre. It sets aside an area of open space adjacent to the village centre that could be used for an education site as the community grows. In addition to this the Master Plan also sets out guidance on housing types, property sizes, stormwater management and street design.

The Taraika Master Plan will help to ensure new development is well designed, co-ordinated and connected to the rest of Taitoko/Levin, while allowing enough flexibility to ensure it is can adapt to changing market and community demands over time.

The Master Plan includes key design principles (objectives) and a spatial plan. These have informed the District Plan rules that will apply in the area. It is envisioned that all development proposals within the Master Plan area will be consistent with this Master Plan.

Project Background

Horowhenua District Council (Council) first identified Taraika as a growth area in 2008. Initially, Council anticipated rural lifestyle development within the area. However, the District has since begun to experience rapid population growth, leading to Council to prepare the Horowhenua Growth Strategy 2040, which determines where and how the District will grow. The Growth Strategy identified that given the current growth projections, Taraika should develop at an urban residential scale. This instigated the Master Plan process.

The community outcomes identified within the Council's Long Term Plan 2018-2038 have informed the Master Plan. These outcomes are:



SH1 Arapaepae Rd SH57 Oxford Street O2NL **Important Considerations** Location Taraika is located immediately south east of Levin, enabling the easy extension of infrastructure and ensuring that future residents are close to jobs, shops, and services. The area should be developed as an extension of the town not as a standalone community. The development of Taraika therefore should complement and reinforce the existing town's facilities and services, provide links to the town centre to reinforce its vitality and the wider town's growth. To achieve this of Taraika needs to be well Taraika connected to Levin and the surrounding amenities. Land characteristics The land is considered suitable for development for a range of reasons. The area has the status of Land Use Class 3 and constraints on its usability due to presence

of stony soils at the surface. Concentrating development in this area supports the protection of other higher class agricultural soils provided by the current Horowhenua District Plan. In addition it is largely flat and not subject to any known natural hazard.

O2NL / State Highway Network

Taraika is immediately east of State Highway 57, with the main access into Levin being via the busy and dangerous State Highway 57/ Queen Street intersection. The Otaki to North of Levin expressway corridor (O2NL) also traverses the development area. While O2NL will bring massive safety benefits for the whole community, a key factor in preparing the Master Plan was how to manage effects arising from the expressway. Furthermore, it will be several years before O2NL is completed. Taraika will begin developing long before this, resulting in additional traffic passing through the State Highway 57/Queen Street intersection. This means interim safety improvements such as a roundabout will be required in the immediate future.

Implementation and delivery

The Taraika area is currently home to a number of large and small properties. The Plan needs to respond to these homes and land patterns and allow for development by a number of different landowners to occur incrementally over time. Taraika is Levin's most significant planned growth area and is expected to meet a large proportion of Levin's future housing demand.

The Vision



Taraika will transform into a thriving part of a growing Levin. It will provide the community with a choice of house types and living options, with excellent connections to Levin's town centre and the region's attractions. A network of leafy green streets and shared paths will provide residents with easy access to local facilities such as shops, parks, and education services at the centre of the community.

Key Moves

1. Connectivity

Ensure a high level of internal and external connectivity for good local access and multi-modal movement.

2. Streets for people

Create a high-quality streetscape environment for pedestrians and cyclists as an attractive setting for urban life.

3. Variety and choice of housing

Provide for housing diversity with a range of lot sizes from small urban to large rural-residential lots, with smallest lots and highest intensity in high amenity locations closest to the centre.

4. A centre for the community

Local service retail, education and recreational open space facilities as a focus of community.

5. Distinctive and memorable character

High streetscape quality and public space amenity to give a unique and memorable identity that assists legibility and complements but does not replicate existing urban development.

6. A network of parks and open space

Distributed public open spaces and recreational paths are readily accessible within all local neighbourhoods.

7. Stormwater and ecology

Urban ecology and environmentally sustainable stormwater management achieved by integrating wetlands and raingardens into public spaces.

8. Integrated services infrastructure

Connection with existing and planned services networks, and the staged roll-out of new services.

9. Planning for staged implementation

Coordination of structure, space and connections with current land ownership to enable gradual release of existing land, and ensure access is possible to all landholdings and development.





Connectivity

Good connectivity means providing easy, safe, and efficient transport options, for both vehicles and people walking or cycling.

Taraika presents an opportunity to plan the street network to provide for this at the outset and to ensure a connected network is achieved. The Master Plan achieves this by locking in the primary and secondary roads and cycle connections.

Internal Connections

Design Principle

A logical and coherent interconnected network of streets and movement links.

To achieve this, the Master Plan includes:

- Short street blocks to encourage walking and to provide a variety of different routes

 in urban areas, blocks will generally be
 60-100 metres across and no more than
 200 metres long.
- A 'deformed' grid road layout. Grid networks provide multiple route options, making wayfinding easy. 'Deformed' street layouts (e.g. roads with curves) assist with slowing and calming traffic.
- Minimal use of cul-de-sacs.

External Connections

Design Principle

Roading connections to all areas in Taraika, Levin, and to future urban growth areas.

To achieve this, the Master Plan includes:

- High-quality roads, walking paths and cycleways that connect to the rest of Levin, including to Liverpool Street, Queen Street and Arapaepae Road.
- Accessible links to existing open space networks including Waiopehu Reserve and the Trig Walkway to the east.
- Connections into existing pathways and cycle lanes.
- Intersections are to be designed to ensure safe movements for vehicles,

and people on foot or cycling. The use of roundabouts will be minimised to key intersections to aid movement and wayfinding.

·····

 Connections into existing rural-residential streets and future development areas wherever possible.

Design Principle

Integration with O2NL alignment.

To achieve this, the Master Plan includes:

Multiple connections across the expressway including three street crossings, and two cycle/ pedestrian bridges.



Design Principle

Integration with Arapaepae Rd (SH57).

- To achieve this, the Master Plan includes:
- Safety improvements at the Queen Street/SH 57 intersection.
- Key connections across SH57 to ensure it is a connector, not a divider.
- Intersections that allow for safe and convenient movement of pedestrians and cycles.

Design Principle

Plan for public transport in the future. To achieve this, the Master Plan includes:

• A hierarchical system of interconnected streets with sufficient width to allow for an efficient local public transport network.

Key Existing road Arterial road Collector road Local road Laneway Existing cycle path Strategic Cycleways Scale (m) 0 100 200 400

Streets for people

A high-quality streetscape will create a safe and comfortable environment attractive to pedestrians and cyclists. As a backdrop to urban life, positive visual and landscape attributes contribute to the quality of the setting and outlook from people's homes, encouraging natural surveillance and a sense of community.





spaces with a carriageway of 6m



Horowhenua Growth Strategy growth management principles:

- Provide safe and comfortable streets for walkers, cyclists, cars and other transport.
- Provide for walking and cycling as healthy, sustainable and affordable ways of moving around.
- Ensure streets are interconnected to assist with efficient movements, walkability and way finding.
- Improve the use of street trees to provide scale, shade, visual amenity and definition of street hierarchy.
- Establish clear hierarchies in street design of arterial roads (e.g. State Highway), primary roads, local traffic to collector roads and residential traffic to neighbourhood acess streets.
- Encourage the transport system to provide adequately for the community's long term transport needs.
- Recognise the influence of State Highways economically to the settlements and of the railway for movement of people and goods for the future.
- Encourage through urban development areas increased viability for public transport.

Design Principle

An environment that encourages the community's health and wellbeing making walking and cycling safe, easy, and fun.

To achieve this, the Master Plan includes:

- Cycleways along major transport routes, connecting key features such as commercial area, parks, and future community services.
- Connections to the existing and planned town-wide cycleway network.
- Quality, attractive, well lit streetscape to encourage walking and cycling.
- Street trees and planting to contribute to visual amenity, shelter and comfort.

Design Principle

Public accessibility and safety.

To achieve this, the Master Plan includes:

- Minimal intersections and driveways on cycleways, to reduce potential risks between cyclists and cars - using rear lane access to lots facing these cycleways wherever appropriate.
- Streets and their related lots that are configured to ensure that dwellings front the street. This contributes to visual interest and amenity along the street edge as well as providing the natural surveillance that contributes to safety and security.

Design Principle

Coordinate with the requirements for Arapaepae Road (SH57)

To achieve this, the Master Plan includes:

- Modification of Arapaepae Road to be an urban arterial following construction of the expressway.
- Positive street frontage and quality streetscape along Arapaepae Road with a combination of boulevard treatment and district plan controls on frontages.
- Building frontages and a streetscape treatment along Arapaepae Road to ensure it gives the appearance of entering a residential environment.

Variety and choice of housing

Taraika will provide a variety of housing options as part of an integrated and inclusive neighbourhood. The smallest / highest density housing will be located near to the village centre, where there is easy access to key facilities (e.g. shops, parks and reserves), transitioning to lower density and existing rural -residential lots further from the centre.









Horowhenua Growth Strategy growth management principles:

Provide housing choice - range of lot sizes/densities. Higher densities around centres (e.g. 25-50dw/ha) and larger lots at edges.

Recognise and provide affordable housing choices for people with a low income.



Design Principle

Choice and variety of housing types.

To achieve this, the Master Plan includes:

- A mix of housing types and sizes that caters to a wide cross section of the community.
- A variety of lot sizes, with smaller lots at the centre and large rural residential lots at the periphery.
- A street network that generates an efficient block depth appropriate to the housing type and densities.
- Provisions for high quality streets and medium density developement between Arapaepae Road (SH57) and the expressway to ensure integration of the new housing and eastern Levin.







A centre for the community

There will be a centre with local service retail, education, and recreational open space. These facilities will become a focus for neighbourhood and community.















Design Principle

Local community and educational services at the centre.

To achieve this, the Master Plan includes:

- Provision for future education or community services at the centre of Taraika where they are easily accessible and near to other services and facilities, creating a hub for the community.
- Encourage non-Council community infrastructure to form part of the public open space network to allow the community better use of the parks.

Design Principle

Enable a neighbourhood commercial centre that will provide a hub for the community and serve their day to day needs, in a manner that does not compete with Levin Town Centre.

To achieve this, the Master Plan includes:

- A neighbourhood commercial centre located at the centre of the development to support commercial viability and be readily accessible to the community.
- Some flexibility to ensure the centre is adaptable to cater for changing feasibility and community needs.
- Ample street-side parking, complemented by a shared on-site car park behind the village centre to reduce the overall dominance of parking in the area.
- Enable social, educational and amenity services as well as small scale retail to establish within the neighbourhood commercial centre.
- Ensure the centre is of a quality design, to make it an attractive place to spend time.

Distinctive and memorable character



Taraika will have a distinctive character that recognises and protects the unique heritage of the area, as well as the special landscape values derived from views of the Tararua Ranges.

Design Principle

Distinctive character that is welldesigned and complementary to adjoining areas.

- To achieve this, the Master Plan includes:
- Clear thresholds and a design treatment and landscaping along Arapaepae Road/ SH57 that signals entry to a residential area. Use similar landscaping and design elements along key roads across the development area.
- The design of streets, parks and reserves to have a consistent palette of materials

Horowhenua Growth Strategy growth management principles:

Utilise natural landscape features to guide the pattern of development and retain features that contribute to 'sense of place'.



and plants relating to the Levin's natural and cultural context.

• Distinctive streets orientated and positioned to take advantage of local features and views of the Tararua ranges.

Design Principle

A distinctive identity for individual neighbourhoods.

To achieve this, the Master Plan includes:

• Neighbourhood-scale character areas with open spaces at their centre.

Design Principle

Easy navigation and wayfinding.

To achieve this, the Master Plan includes:

- A combination of street network connectivity, streetscape hierarchy and memorable local variation.
- Expression of hierarchy including consistency along main arterial streets
- Inclusion of memorable local features and variation relating to variation in uses along the street edge.

Design Principle

Retention, celebration and protect of cultural, heritage and landscape values. This is achieved with:

- Identify and protect the Maunu Wahine refuge and Waihau waterhole.
- Protect the rural setting of the Prouse Homestead.
- Recognise and celebrate the history of the area through steps such as street and reserve naming.
- Locate key roads to follow historic land and vegetation patterns and to emphasise views .

A network of parks and open space

Taraika will provide a distributed network of public open spaces that integrates stormwater treatment and recreational paths, and ensures passive and active recreational open space is readily accessible within all local neighbourhoods.



Design Principle

- A fit-for-purpose network of open space distributed across the development area, which provides a variety of recreational opportunities for the Taraika community as well as the rest of the District.
- To achieve this, the Master Plan includes:
- The primary public open space (A) for Taraika will be located alongside the neighbourhood commercial centre,

potentially co-located with services that will support the needs of the new community, with smaller parks distributed throughout the development area (B).

- Minimum of 2ha of useable recreational space per 1000 people.
- Public open spaces with play or recreational areas within 800m of all dwellings.
- Lots and streets designed to front
 houses towards parks and reserves and



provide natural surveillance over them to contribute to safety.

Design Principle

Open spaces designed to provide positive environmental outcomes.

To achieve this, the Master Plan includes:

- Open spaces are to be designed to provide . recreational, stormwater and ecological benefits.
- Preserve vegetation and ecological areas

near the Prouse Homestead

- . Prioritise use of native planting over exotic plants within the open spaces to provide habitats that encourage native fauna.
- Provide pedestrian and cycle access and ecological corridor links from Taraika to Waiopehu Reserve.

Design Principle

Provide community activities and recreational opportunities for all

Horowhenua residents and visitors. To achieve this, the Master Plan includes:

- A diverse range of local and destination activities and environments for all ages.
- A recreational network that extends and . complements the town's existing facilities including continuation of the existing cycle path network, and extension of new connections to Waiopehu Reserve and towards the trig walkway.

- Provide for the formal and informal recreational needs of people in towns - sports and casual use.
- Provide for definition to the

Stormwater and ecology

Stormwater shall be managed onsite at a range of scales from individual lots through to a wider development scale. All infiltrated flows will receive water quality treatment prior to discharge or be solely from low contaminant surfaces such as roofs. A key objective of the stormwater management approach is to manage the quantity and quality of stormwater runoff to avoid further degradation of water quality in Waipunahau/Lake Horowhenua. This is very important given the value this environment holds for mana whenua and the wider community.

Design Principle

Implement principles of water sensitive urban design.

To achieve this, the Master Plan includes:

- An integrated approach to stormwater management to protect downstream environments and enhance amenity.
- Open space that is located in co-ordination with stormwater management to support community and environmental health and wellbeing.
- Recommendations to explore the use of rainwater collection tanks, to contribute to both stormwater management and water demand reduction.

 Recommendations to explore use of water meters in order to reduce water consumption.

Design Principle

Design to both improve the quality of stormwater and to retain stormwater onsite, to the greatest extent possible.

To achieve this, the Master Plan includes:

- Where possible, retain and treat stormwater onsite.
- Larger residential lots will be encouraged to include rainwater tanks for the capture of roof runoff. To be used for internal non-

potable demands and external uses such as garden watering.

- Overflow from rainwater tanks and runoff from paved surfaces (except driveways and other trafficable surfaces) shall discharge to soak pits where possible.
- Integrate stormwater treatment into open spaces and streets.
- Use landscape buffers alongside the expressway to manage and treat stormwater.
- Design stormwater management approach to accommodate predicted climate change.

Horowhenua Growth Strategy growth management principles:

Minimise stormwater and over flow management by environmental design, especially in sensitive catchments (Lake Horowhenua, Lake Papaitonga and Manawatū River Estuary).

• Understanding of and respect for the link to Lake Horowhenua in management of stormwater.

Design Principle

Infrastructure is feasible and affordable.

To achieve this, the Master Plan includes:

- Extension of existing water and wastewater infrastructure that is future proofed with sufficient capacity.
- Road layouts that allow for extension of services.

Design Principle

Ngā Wai Ora & Rangatiratanga

To achieve this, the Master Plan includes:

• Provision for the active involvement of Tangata Whenua in the stormwater management design to ensure that freshwater, waterways, and springs are protected. Key
Wetland Areas
Integrated detention &
open spaces
Overland flow paths
Inflitration swales/bypass
Scale (m)

Integrated water and waste water infrastructure

Horowhenua Growth Strategy growth management principles:

Provide water, sewer, stormwater to an adequate standard to reflect Council strategies.

Plan and develop infrastructure which minimises energy use, discourages emissions, and reduces waste.

Minimise stormwater and over flow management by environmental design, especially in sensitive catchments (Lake Horowhenua, Lake Papaitonga and Manawatū River Estuary).

In non-reticulated areas, adopt best practice solutions for on-site disposal of wastewater and the supply of portable water.

The development of Taraika requires a coordinated response to services to ensure existing planned service networks are efficient and manageable over time.

Connection to existing and planned services are set out in the Infrastructure Plan that supports this Master Plan.

Design Principle

Infrastructure is feasible and affordable. To achieve this, the Master Plan includes:

- Extension of existing water and wastewater infrastructure that is future proofed with sufficient capacity.
- Road layouts that allow for extension of services.
- The primary network maximises the ability of landowners to initiate development independent of neighbouring properties for service connections.

Scale (m)

Key



Primary water network Secondary water network Primary sewer mains

Planning for staged implementation

This masterplan is intended to guide coordinated development within Taraika. To successfully achieve this a number of consistent elements are essential across all development stages. These will be accomplished through a number of key process and responses set out here.

Structure Plan

The spatial plan within this Master Plan will be used to create a Structure Plan for inclusion in the District Plan. The Structure Plan will identify the location of key features such as arterial and collector roads, parks and reserves, and require developers to provide for these when they subdivide/ develop.

District Plan

A Plan Change to the Horowhenua District Plan will rezone the land and enable the type of development anticipated by the Master Plan. This will result in the inclusion of new objectives, policies, and rules to enable and to ensure development is consistent with the Master Plan and Design Principles.

Infrastructure Plan

The Infrastructure Plan that supports this Master Plan sets out:

- Stormwater Management Approach
- Water Supply
- Waste Water
- Roading Layout.

Connectivity

The Master Plan requires developers to construct arterial and collector roads and cycleways in or near to the locations identified within the Master Plan and supporting Structure Plan. This will ensure the intended function is delivered, and is consistent with the typologies identified by the Master Plan.

Developers are required to deliver an interconnected network of local streets and rear access lanes as or in general accordance with the layout on the Master Plan. There is flexibility within the Master Plan, as long as overall the connectivity intent is protected. Variation in street typology may be acceptable so long as it is consistent with the intent of the master plan, and will achieve plan objectives in a localised area.

Streetscape

The Master Plan show the proposed dimensions and design of streets and associated vegetation. Subdivision and development will need to provide these in the manner shown on the Master and Structure Plans. Council will only consider variations when there is strong justification to do so, subject to an assessment of the potential impact on the Taraika area as a whole.

Open space

Subdivision and development is required to provide public open space in the locations, and of a size and shape as shown on the Master and Structure Plans. Council will only consider variations when there is strong justification to do so, subject to an assessment of the potential impact on the Taraika area as a whole.

Lot Layout and Design

All lots within the medium density and residential areas should front the street or public open space, with rear lots representing only a minor proportion (i.e. less than 5%) of any development.

Lot size and housing density will be largely consistent with the Master Plan. This means that smaller lots will be near the neighbourhood centre. Large lots (suitable for rural residential properties) are not anticipated in this location and will be located at the periphery of the development.

Taraika Master Plan

Att st to WIGHTA

rest of Levin

This Plan shows the O2NL corridor. While it shows features such as a road alignment, interchange, and local road connections, these are illustrative only and shown to demonstrate desired outcomes only. No decisions have been made about any of these features. All decisions made regarding O2NL will be made by Waka Kotahi (NZTA).

- educational se Key A - Village Centre B - Future Education Site C - Recreational Amenities D - Vehicle bridge with shared path
 - E Pedestrian and cycle bridge
 - F O2NL Interchange

From: Sent: To: Cc: Subject: Attachments:

Lauren Baddock Friday, 18 September 2020 11:58 am

David McCorkindale RE: RMA Pre-Notification - Taraika Plan Change 6A - Taraika - Objectives and Policies - August 2020 - RMA Pre-Notification.pdf; 15A - Rules - Taraika - August 2020 - RMA Pre-Notification.pdf; RMA Pre-Notification - Plan Change Summary for Ngāi Raukawa ki te Tonga - August 2020.pdf

Tēnā Koe

I just wanted to follow up on the email below and check that you had received it and that there were no issues with accessing the attachments etc.

As indicated below, I am more than happy to arrange a face to face discussion to talk through the approach and any feedback you may have,

Kind Regards,

Lauren Baddock

Strategic Planner | Kaiwhakamahere Rautaki



To: z Cc: David McCorkindale < Subject: RMA Pre-Notification - Taraika Plan Change

Tēnā Koe Lindsay,

As you are likely aware, the Taraika Master Plan is currently out for community engagement. So far, we have had a number of good conversations with community members and quite a high degree of interest in the project. This stage of engagement is essentially an 'informal' round of engagement ahead of the formal RMA plan change process.

The next step in the process is to begin this formal RMA process. This includes requirements set out in Clause 3B and Clause 4A of the 1st Schedule of the Resource Management Act. In short, this requires Council's to engage with iwi on the plan change provisions prior to public notification. This is the stage we are at now.

Attached are the Proposed Plan Change documents. This includes proposed rules, objectives and policies, and the proposed structure plan. I have also included a covering letter/summary document to support this information. You will notice that some parts of the plan change documents require further work – specifically around stormwater. I am awaiting some information from a stormwater/environmental engineer and will share in due course.

It would be great to find some time to discuss this face to face – as you will see, there is quite a lot of information and it does require familiarity with the District Plan.

It would be great to have feedback on this by 28th September 2020 to allow us to move forward this the process. If you have any questions, please let me know.

Kind Regards,

Lauren Baddock Strategic Planner | Kaiwhakamahere Rautaki





27 August 2020

Chief Executive Officer Ngāti Raukawa ki Te Tonga

Dear L

Proposed Plan Change 4 - Taraika Maser Plan Development Area

The purpose of this letter is to formally advise you that Council officers are preparing 'Proposed Plan Change 4 – Taraika Growth Area' and, as required by the First Schedule of the Resource Management Act 1991, your feedback is sought on what is being proposed as part of this plan change.

The Resource Management Act 1991 sets out particular requirements for councils to engage and consult with lwi Authorities on proposed plan changes. We have had several prior conversations with you about this project. However, we now need to commence this formal stage set out in Clause 3B and 4A of Schedule 1 of the RMA for the plan change process to progress.

Taraika Plan Change - Summary of Approach

This document is provided to support the attached proposed plan change documents (Chapter 15A – Taraika Multi Zone Precinct Rules, Chapter 6A – Taraika Multi Zone Precinct Objectives and Policies, Structure Plan 14 – Taraika). The plan change documents are technical planning documents and can be challenging to understand if you are not familiar with the District Plan. To try aid the understanding of the plan change, this document summarises the proposed plan change approach and identifies key changes to the current District Plan.

The Taraika Plan Change will rezone the land contained within the Taraika Master Plan to enable development in accordance with the Master Plan to occur. This will involve introducing a new structure plan and new objectives, policies, and rules that will apply specifically to Taraika. This Plan Change seeks to ensure that the resulting development is consistent with the vision and design outcomes sought by the Master Plan.

The purpose of the proposed plan change is to:

- Remove Structure Plan 13 from the District Plan.
- Introduce a new 'Taraika Multi-Zone Precinct' Chapter to the District Plan with a supporting structure plan and associated objectives, policies, and rules
- Rezone land within the Taraika Master Plan Area from Greenbelt Residential Deferred to Greenbelt Residential, Low Density Residential, Standard Residential, Medium Density Residential, Commercial and Open Space.

Taraika Multi-Zone Precinct

The Taraika Multi-Zone Precinct is based on the National Planning Standards tool. This tool was selected to ensure the approach was as consistent as possible with the National Planning Standards (which the entire District Plan will have to align with by 2024) while still being consistent with the existing structure of the Horowhenua District Plan. This will mean that the underlying zone provisions will apply, but with some area specific provisions that seek to achieve a particular outcome within the precinct.

Taraika specific provisions will therefore be contained in two chapters; Taraika Multi-Zone Precinct Objectives and Policies and Taraika Multi-Zone Precinct Rules. All other relevant chapters of the District Plan will apply (e.g. Residential Zone, Subdivision and Development). Where there is conflict between provisions, the Taraika Multi-Zone Precinct provisions will override.

Summary of Objectives and Policies

Refer to the attached Objectives and Policies Chapter for the full version. A summary is provided below:

General

- Taraika will be a well-connected development that reflects cultural values and local identity, represents good urban design, is supported by a well-connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents.
- To ensure the above is achieved, all development must be consistent with the structure plan, or propose an alternative that will deliver the same outcome.
- Recognise Māori heritage and values associated with the area through street and reserve naming and design.
- Taraika will be resilient and environmentally sustainable, by following water sensitive design and managing and treating stormwater effectively.

Residential Zones

- Taraika will have a high amenity residential environment with a range of section sizes and housing types, including affordable housing options.
- Optimise walkability and encourage choice and a variety of housing types, by providing for higher density residential development near commercial and community facilities and lower density residential development at the outer edge of Taraika.

Commercial Zone

- Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.
- Ensure the design, nature, and scale of commercial activities contributes positively to the image and overall amenity of Taraika.

Open Space Zone

- To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.

Key Rule Changes

The most significant rules changes are summarised below. However, all rules contained within the Taraika Multi-Zone Precinct Rules chapter represent a departure from the existing District Plan approach.

Summary of rule	How this differs from current	Reason change is proposed
	District Plan	_
Structure Plan – both land use	Only subdivision activities are	Instances where land use
and subdivision activities will be	required to be consistent with	activities have compromised the
required to be consistent with	the Structure Plan. Subdivisions	ability for the Structure Plan to
the Structure Plan. Activities	that are not consistent with the	be delivered (e.g. buildings
that are not consistent with the	Structure Plan are a	where roads were anticipated)
Structure Plan are a Non-	Discretionary Activity.	and other implementation
Complying Activity.		issues with integrity of the
		Structure Plan not being upheld
--	---	--
Subdivision – maximum lot size in medium density area, all complying subdivision is a Restricted Discretionary (non- notified) Activity, and additional maters of discretion.	Complying subdivision is a Controlled Activity and there are no maximum site areas in Residential Zones – only minimum site areas.	Restricted Discretionary Activity status to give more scope to ensure Structure Plan is adhered to (e.g. if a slight deviation to a road network is proposed on one site, the neighbouring site must follow this to ensure roads join up). Maximum site area in medium density zone to ensure higher density housing is delivered – this will help to achieve variety and more affordable options.
Strategic Cycle Links – no vehicle entrances allowed in roads with strategic cycle links. Instead, houses must be accessed via rear access lane.	No similar provision in the current District Plan.	Minimise 'hazard' or conflict points between vehicles and cyclists (e.g. vehicle crossings) to create a safe cycling environment.
Stormwater – all dwellings to have onsite rainwater tanks plumbed into household grey water (e.g. toilets), integrated approach to managing stormwater quality and quantity, involving O2NL corridor, reserve and street network.	Stormwater from rooves are disposed of via soakpit. No requirement for rainwater tanks.	More effective stormwater management and reduce water consumption.
Fences – front fences limited to 1m high, unless setback from the road boundary.	The current District Plan allows front fences to be 2m high where the top 0.5m is at least 50% transparent, or 1.5m high if the entire fence is 'closed' style.	Encourage dwellings as key feature of street. Low front fences help with creating an open, visible streetscape which helps with safety/pedestrian experience.
Front Yard Setbacks – dwellings permitted within 2m of front boundary, accessory buildings (including integral garage) permitted within 4-5m of front boundary, depending on whether vehicle access to accessory building is direct from street.	Dwellings must be 4m from front boundary. Requirement for accessory buildings to be located behind or to the side of dwellings does not apply to integral garages.	Encourage site design where dwellings are primary feature of the street (as opposed to garages) by enabling dwellings to be build closer to boundary than garages. This will help to contribute to a safe/attractive living environment and encourage site development that enables private outdoor space (e.g. backyard) to be used more efficiently.
Commercial Activities – floor area limit of 250m ² , activities such as supermarkets and drive-through restaurants provided for as Restricted Discretionary Activity, Large Format Retail a non-complying activity.	Floor area limit of 1,000m ² outside of the Large Format Retail overlay. No specific requirements for drive-through restaurants and supermarkets.	In terms of scale limit, the objective is to protect Levin Town Centre. In regard to supermarkets and drive through restaurants, Taraika is considered likely to be an attractive location for both, but have specific effects (e.g. traffic) that need to be managed.
Signage – no 'remote' signage (signs must be located on the same site as the activity being	'Remote' signage allowed in commercial zone (e.g. electronic billboard on Oxford	Existing signage rules allow very large signs that can be distracting to motorists and

advertised is occurring) on, limit	Street, Levin). More permissive	detract from an attractive urban
of two signs per site, limit on	limits on size and number of	environment.
size and signs.	signs.	

Stormwater Recommendations – Basis for Provisions

- Private rainwater tanks on all stand alone and duplex dwellings plumbed into internal (toilet and laundry) and external (outside taps). Tank size shall range from 2 – 5 kL dependant on roof size and number of bedrooms.
- Rainwater tanks and other private pavements shall discharge to on lot soakage devices located within accessible positions on properties (driveways). Soakage devices shall be sized to accommodate up to the 10% AEP stormwater volume for the connected roof. These shall be based on a standardised design suited to efficient inspection and cleanout to support long term functionality.
- Stormwater from roads shall be collected and conveyed in a standard reticulated network in accordance with HDC standards and sized for the 10% AEP flows. Where possible streetscape planting shall support passive irrigation through connections with kerb and channel. Distributed public streetscape raingardens (bioretention) may be located at high trafficked intersections in the village centre but shall not be implemented throughout the road corridors.
- Large private car parks (> 10 vehicles), service stations and commercial roofs (over 500 m²) shall provide their own water quality treatment devices to be approved by HDC and supported by appropriate maintenance contracts.
- Stormwater from roads (and lots without private rainwater tanks and/or soakage) shall be conveyed to centralised constructed wetlands for treatment. These wetlands shall primarily be located along the landscape buffer between O2NL and the development. Dedicated constructed wetland treatment areas shall be sized based on the final area of untreated stormwater from the development at between 3.5 4.0 % of the contributing catchment area (which excludes area of lots with tanks/soakage). Wetlands shall broadly be aligned to flow south to north and discharge treated flows into existing open channel on Queen Street and shall be designed with the inclusion of high-low bypass integrated into the adjacent landscaped areas. Where feasible, wetlands can be integrated with stormwater discharging from O2NL assuming inlets are compatible (in terms of levels and position) and wetland function will not be compromised. Where feasible areas of soakage (for treated stormwater) shall be included in the integrated wetland design.
- Flood detention of flows up to the 1% AEP events shall be included within the buffer wetland area including temporary storage above the operating level of the wetlands and within the adjacent landscaped area ensuring this does not impact essential shared paths or create public safety issues. Further flood detention shall be provided within public green spaces within the development through subtle contouring of parks to create shallow storage volumes which is only engaged in events greater than 10% AEP events and is free draining immediately following.
- Overland flow paths shall be restricted to public road corridors and comply with relevant standards (Austroads or similar). Flow paths shall converge on the main east-west connector roads which shall be designed with a cross section to accommodate these up to the 1% AEP peak flowrates for the critical ToC. Overland flow paths shall discharge into the wetland buffer and be managed as part of site wide flood detention.

Conclusion

I hope this summary document has been helpful. I would be very interested in discussing the Proposed Plan Change further with you by either kanohi ki te kanohi, or other arrangement. Please let me know what would be suitable.

We would appreciate your feedback by **28th September 2020** to enable us to keep moving forward with the Plan Change process.

I look forward to hearing from you,

Nga Mihi, Na

ABaddack

Lauren Baddock Strategic Planner

Tara-Ika Submitter Names

First Name	Last Name	On Behalf Of
-		
-		
-		
-		
-		
-		
_		
-		
_		
_		
-		Ministry of Education
-		
_		
-		
_		Fire & Emergency NZ
-		
-		
-		
-		
-		HDC Officers
		Electra
		Rangeview Villas
		Horizons Regional Council
		Redwood Grove

Truebridge Associates
WKNZTA
Muaūpoko Tribal Authority

Tara-Ika Further Submitter Names

First Name	Last Name	on Behalf of
		Truebridge Associates
		Horizons Regional Council
		HDC Officers

_	

_	
_	
	WKNZTA
	Haddon Preston
	Horowhenua Lake Trust

Information Only

Otaki to North Levin Corridor

Zoning and Overlays



Primary Features



Secondary Features

Local roads and laneways

Secondary Reserves





DISTRICT COUNCIL

Tara-Ika Structure PlanSP013Zoning, Overlays and Features

Transport





	Commercial
	Education Overlay
	Arapaepae Rd Special Effects Overlay
	Medium Density Residential
	Residential
	Low Density Residential
-	Greenbelt Residential
	Open Space



McIndoe Urban + local ^{1:1500@A3} A Issued For: HDC Review

DRAFT FOR DESIGN TEAM REVIEW

Queen St East Waiopehu Reserve

Job Number: 1805 -0982



Taraika Master Plan Drawing Title: Structure Plan - WIP



Appendix 1 - Taraika Master Plan

Taraika Master Plan

Horowhenua District Council

Prepared for Horowhenua District Council

Prepared by Local Landscape Architecture Collective McIndoe Urban Ltd. Morphum Environmental Ltd. Urbacity Ltd.

Document Issue 18th November 2020

Contents

Α	Introduction	3
	Project background	4
	Important considerations	4
В	The Vision	6
	Key Moves	7
С	The Plan	8
	1. Connectivity	10
	2. Streets for people	12
	3. Variety and choice of housing	14
	4. A centre for the community	16
	5. Distinctive and memorable character	18
	6. A network of parks and open space	20
	7. Stormwater and ecology	
	8. Integrated services infrastructure	24
	9. Planning for staged implementation	25

Introduction

The Taraika Master Plan is a comprehensive blueprint for residential growth in Taraika. It defines the location of key roads and pedestrian /cycle connections, parks and a village centre. It sets aside an area of open space adjacent to the village centre that could be used for an education site as the community grows. In addition to this the Master Plan also sets out guidance on housing types, property sizes, stormwater management and street design.

The Taraika Master Plan will help to ensure new development is well designed, co-ordinated and connected to the rest of Taitoko/Levin, while allowing enough flexibility to ensure it is can adapt to changing market and community demands over time.

The Master Plan includes key design principles (objectives) and a spatial plan. These have informed the District Plan rules that will apply in the area. It is envisioned that all development proposals within the Master Plan area will be consistent with this Master Plan.

Project Background

Horowhenua District Council (Council) first identified Taraika as a growth area in 2008. Initially, Council anticipated rural lifestyle development within the area. However, the District has since begun to experience rapid population growth, leading to Council to prepare the Horowhenua Growth Strategy 2040, which determines where and how the District will grow. The Growth Strategy identified that given the current growth projections, Taraika should develop at an urban residential scale. This instigated the Master Plan process.

The community outcomes identified within the Council's Long Term Plan 2018-2038 have informed the Master Plan. These outcomes are:



SH1 Arapaepae Rd SH57 Oxford Street O2NL **Important Considerations** Location Taraika is located immediately south east of Levin, enabling the easy extension of infrastructure and ensuring that future residents are close to jobs, shops, and services. The area should be developed as an extension of the town not as a standalone community. The development of Taraika therefore should complement and reinforce the existing town's facilities and services, provide links to the town centre to reinforce its vitality and the wider town's growth. To achieve this of Taraika needs to be well Taraika connected to Levin and the surrounding amenities. Land characteristics The land is considered suitable for development for a range of reasons. The area has the status of Land Use Class 3 and constraints on its usability due to presence

of stony soils at the surface. Concentrating development in this area supports the protection of other higher class agricultural soils provided by the current Horowhenua District Plan. In addition it is largely flat and not subject to any known natural hazard.

O2NL / State Highway Network

Taraika is immediately east of State Highway 57, with the main access into Levin being via the busy and dangerous State Highway 57/ Queen Street intersection. The Otaki to North of Levin expressway corridor (O2NL) also traverses the development area. While O2NL will bring massive safety benefits for the whole community, a key factor in preparing the Master Plan was how to manage effects arising from the expressway. Furthermore, it will be several years before O2NL is completed. Taraika will begin developing long before this, resulting in additional traffic passing through the State Highway 57/Queen Street intersection. This means interim safety improvements such as a roundabout will be required in the immediate future.

Implementation and delivery

The Taraika area is currently home to a number of large and small properties. The Plan needs to respond to these homes and land patterns and allow for development by a number of different landowners to occur incrementally over time. Taraika is Levin's most significant planned growth area and is expected to meet a large proportion of Levin's future housing demand.

The Vision



Taraika will transform into a thriving part of a growing Levin. It will provide the community with a choice of house types and living options, with excellent connections to Levin's town centre and the region's attractions. A network of leafy green streets and shared paths will provide residents with easy access to local facilities such as shops, parks, and education services at the centre of the community.

Key Moves

1. Connectivity

Ensure a high level of internal and external connectivity for good local access and multi-modal movement.

2. Streets for people

Create a high-quality streetscape environment for pedestrians and cyclists as an attractive setting for urban life.

3. Variety and choice of housing

Provide for housing diversity with a range of lot sizes from small urban to large rural-residential lots, with smallest lots and highest intensity in high amenity locations closest to the centre.

4. A centre for the community

Local service retail, education and recreational open space facilities as a focus of community.

5. Distinctive and memorable character

High streetscape quality and public space amenity to give a unique and memorable identity that assists legibility and complements but does not replicate existing urban development.

6. A network of parks and open space

Distributed public open spaces and recreational paths are readily accessible within all local neighbourhoods.

7. Stormwater and ecology

Urban ecology and environmentally sustainable stormwater management achieved by integrating wetlands and raingardens into public spaces.

8. Integrated services infrastructure

Connection with existing and planned services networks, and the staged roll-out of new services.

9. Planning for staged implementation

Coordination of structure, space and connections with current land ownership to enable gradual release of existing land, and ensure access is possible to all landholdings and development.





Connectivity

Good connectivity means providing easy, safe, and efficient transport options, for both vehicles and people walking or cycling.

Taraika presents an opportunity to plan the street network to provide for this at the outset and to ensure a connected network is achieved. The Master Plan achieves this by locking in the primary and secondary roads and cycle connections.

Internal Connections

Design Principle

A logical and coherent interconnected network of streets and movement links.

To achieve this, the Master Plan includes:

- Short street blocks to encourage walking and to provide a variety of different routes

 in urban areas, blocks will generally be
 60-100 metres across and no more than
 200 metres long.
- A 'deformed' grid road layout. Grid networks provide multiple route options, making wayfinding easy. 'Deformed' street layouts (e.g. roads with curves) assist with slowing and calming traffic.
- Minimal use of cul-de-sacs.

External Connections

Design Principle

Roading connections to all areas in Taraika, Levin, and to future urban growth areas.

To achieve this, the Master Plan includes:

- High-quality roads, walking paths and cycleways that connect to the rest of Levin, including to Liverpool Street, Queen Street and Arapaepae Road.
- Accessible links to existing open space networks including Waiopehu Reserve and the Trig Walkway to the east.
- Connections into existing pathways and cycle lanes.
- Intersections are to be designed to ensure safe movements for vehicles,

and people on foot or cycling. The use of roundabouts will be minimised to key intersections to aid movement and wayfinding.

·····

 Connections into existing rural-residential streets and future development areas wherever possible.

Design Principle

Integration with O2NL alignment.

To achieve this, the Master Plan includes:

Multiple connections across the expressway including three street crossings, and two cycle/ pedestrian bridges.



Design Principle

Integration with Arapaepae Rd (SH57).

- To achieve this, the Master Plan includes:
 Safety improvements at the Queen Street/SH 57 intersection.
- Key connections across SH57 to ensure it is a connector, not a divider.
- Intersections that allow for safe and convenient movement of pedestrians and cycles.

Design Principle

Plan for public transport in the future. To achieve this, the Master Plan includes:

• A hierarchical system of interconnected streets with sufficient width to allow for an efficient local public transport network.

Key Existing road Arterial road Collector road Local road Laneway Existing cycle path Strategic Cycleways Scale (m) Scale (m)

Streets for people

A high-quality streetscape will create a safe and comfortable environment attractive to pedestrians and cyclists. As a backdrop to urban life, positive visual and landscape attributes contribute to the quality of the setting and outlook from people's homes, encouraging natural surveillance and a sense of community.





spaces with a carriageway of 6m



Horowhenua Growth Strategy growth management principles:

- Provide safe and comfortable streets for walkers, cyclists, cars and other transport.
- Provide for walking and cycling as healthy, sustainable and affordable ways of moving around.
- Ensure streets are interconnected to assist with efficient movements, walkability and way finding.
- Improve the use of street trees to provide scale, shade, visual amenity and definition of street hierarchy.
- Establish clear hierarchies in street design of arterial roads (e.g. State Highway), primary roads, local traffic to collector roads and residential traffic to neighbourhood acess streets.
- Encourage the transport system to provide adequately for the community's long term transport needs.
- Recognise the influence of State Highways economically to the settlements and of the railway for movement of people and goods for the future.
- Encourage through urban development areas increased viability for public transport.

Design Principle

An environment that encourages the community's health and wellbeing making walking and cycling safe, easy, and fun.

To achieve this, the Master Plan includes:

- Cycleways along major transport routes, connecting key features such as commercial area, parks, and future community services.
- Connections to the existing and planned town-wide cycleway network.
- Quality, attractive, well lit streetscape to encourage walking and cycling.
- Street trees and planting to contribute to visual amenity, shelter and comfort.

Design Principle

Public accessibility and safety.

To achieve this, the Master Plan includes:

- Minimal intersections and driveways on cycleways, to reduce potential risks between cyclists and cars - using rear lane access to lots facing these cycleways wherever appropriate.
- Streets and their related lots that are configured to ensure that dwellings front the street. This contributes to visual interest and amenity along the street edge as well as providing the natural surveillance that contributes to safety and security.

Design Principle

Coordinate with the requirements for Arapaepae Road (SH57)

To achieve this, the Master Plan includes:

- Modification of Arapaepae Road to be an urban arterial following construction of the expressway.
- Positive street frontage and quality streetscape along Arapaepae Road with a combination of boulevard treatment and district plan controls on frontages.
- Building frontages and a streetscape treatment along Arapaepae Road to ensure it gives the appearance of entering a residential environment.

Variety and choice of housing

Taraika will provide a variety of housing options as part of an integrated and inclusive neighbourhood. The smallest / highest density housing will be located near to the village centre, where there is easy access to key facilities (e.g. shops, parks and reserves), transitioning to lower density and existing rural -residential lots further from the centre.









Horowhenua Growth Strategy growth management principles:

Provide housing choice - range of lot sizes/densities. Higher densities around centres (e.g. 25-50dw/ha) and larger lots at edges.

Recognise and provide affordable housing choices for people with a low income.



Design Principle

Choice and variety of housing types.

To achieve this, the Master Plan includes:

- A mix of housing types and sizes that caters to a wide cross section of the community.
- A variety of lot sizes, with smaller lots at the centre and large rural residential lots at the periphery.
- A street network that generates an efficient block depth appropriate to the housing type and densities.
- Provisions for high quality streets and medium density developement between Arapaepae Road (SH57) and the expressway to ensure integration of the new housing and eastern Levin.







A centre for the community

There will be a centre with local service retail, education, and recreational open space. These facilities will become a focus for neighbourhood and community.















Design Principle

Local community and educational services at the centre.

To achieve this, the Master Plan includes:

- Provision for future education or community services at the centre of Taraika where they are easily accessible and near to other services and facilities, creating a hub for the community.
- Encourage non-Council community infrastructure to form part of the public open space network to allow the community better use of the parks.

Design Principle

Enable a neighbourhood commercial centre that will provide a hub for the community and serve their day to day needs, in a manner that does not compete with Levin Town Centre.

To achieve this, the Master Plan includes:

- A neighbourhood commercial centre located at the centre of the development to support commercial viability and be readily accessible to the community.
- Some flexibility to ensure the centre is adaptable to cater for changing feasibility and community needs.
- Ample street-side parking, complemented by a shared on-site car park behind the village centre to reduce the overall dominance of parking in the area.
- Enable social, educational and amenity services as well as small scale retail to establish within the neighbourhood commercial centre.
- Ensure the centre is of a quality design, to make it an attractive place to spend time.

Distinctive and memorable character



Taraika will have a distinctive character that recognises and protects the unique heritage of the area, as well as the special landscape values derived from views of the Tararua Ranges.

Design Principle

Distinctive character that is welldesigned and complementary to adjoining areas.

- To achieve this, the Master Plan includes:
- Clear thresholds and a design treatment and landscaping along Arapaepae Road/ SH57 that signals entry to a residential area. Use similar landscaping and design elements along key roads across the development area.
- The design of streets, parks and reserves to have a consistent palette of materials

Horowhenua Growth Strategy growth management principles:

Utilise natural landscape features to guide the pattern of development and retain features that contribute to 'sense of place'.



and plants relating to the Levin's natural and cultural context.

• Distinctive streets orientated and positioned to take advantage of local features and views of the Tararua ranges.

Design Principle

A distinctive identity for individual neighbourhoods.

To achieve this, the Master Plan includes:

• Neighbourhood-scale character areas with open spaces at their centre.

Design Principle

Easy navigation and wayfinding.

To achieve this, the Master Plan includes:

- A combination of street network connectivity, streetscape hierarchy and memorable local variation.
- Expression of hierarchy including consistency along main arterial streets
- Inclusion of memorable local features and variation relating to variation in uses along the street edge.

Design Principle

Retention, celebration and protect of cultural, heritage and landscape values. This is achieved with:

- Identify and protect the Maunu Wahine refuge and Waihau waterhole.
- Protect the rural setting of the Prouse Homestead.
- Recognise and celebrate the history of the area through steps such as street and reserve naming.
- Locate key roads to follow historic land and vegetation patterns and to emphasise views .

A network of parks and open space

Taraika will provide a distributed network of public open spaces that integrates stormwater treatment and recreational paths, and ensures passive and active recreational open space is readily accessible within all local neighbourhoods.



Design Principle

- A fit-for-purpose network of open space distributed across the development area, which provides a variety of recreational opportunities for the Taraika community as well as the rest of the District.
- To achieve this, the Master Plan includes:
- The primary public open space (A) for Taraika will be located alongside the neighbourhood commercial centre,

potentially co-located with services that will support the needs of the new community, with smaller parks distributed throughout the development area (B).

- Minimum of 2ha of useable recreational space per 1000 people.
- Public open spaces with play or recreational areas within 800m of all dwellings.
- Lots and streets designed to front
 houses towards parks and reserves and



provide natural surveillance over them to contribute to safety.

Design Principle

Open spaces designed to provide positive environmental outcomes.

To achieve this, the Master Plan includes:

- Open spaces are to be designed to provide . recreational, stormwater and ecological benefits.
- Preserve vegetation and ecological areas

near the Prouse Homestead

- . Prioritise use of native planting over exotic plants within the open spaces to provide habitats that encourage native fauna.
- Provide pedestrian and cycle access and ecological corridor links from Taraika to Waiopehu Reserve.

Design Principle

Provide community activities and recreational opportunities for all

Horowhenua residents and visitors. To achieve this, the Master Plan includes:

- A diverse range of local and destination activities and environments for all ages.
- A recreational network that extends and . complements the town's existing facilities including continuation of the existing cycle path network, and extension of new connections to Waiopehu Reserve and towards the trig walkway.

- Provide for the formal and informal recreational needs of people in towns - sports and casual use.
- Provide for definition to the

Stormwater and ecology

Stormwater shall be managed onsite at a range of scales from individual lots through to a wider development scale. All infiltrated flows will receive water quality treatment prior to discharge or be solely from low contaminant surfaces such as roofs. A key objective of the stormwater management approach is to manage the quantity and quality of stormwater runoff to avoid further degradation of water quality in Waipunahau/Lake Horowhenua. This is very important given the value this environment holds for mana whenua and the wider community.

Design Principle

Implement principles of water sensitive urban design.

To achieve this, the Master Plan includes:

- An integrated approach to stormwater management to protect downstream environments and enhance amenity.
- Open space that is located in co-ordination with stormwater management to support community and environmental health and wellbeing.
- Recommendations to explore the use of rainwater collection tanks, to contribute to both stormwater management and water demand reduction.

 Recommendations to explore use of water meters in order to reduce water consumption.

Design Principle

Design to both improve the quality of stormwater and to retain stormwater onsite, to the greatest extent possible.

To achieve this, the Master Plan includes:

- Where possible, retain and treat stormwater onsite.
- Larger residential lots will be encouraged to include rainwater tanks for the capture of roof runoff. To be used for internal non-

potable demands and external uses such as garden watering.

- Overflow from rainwater tanks and runoff from paved surfaces (except driveways and other trafficable surfaces) shall discharge to soak pits where possible.
- Integrate stormwater treatment into open spaces and streets.
- Use landscape buffers alongside the expressway to manage and treat stormwater.
- Design stormwater management approach to accommodate predicted climate change.

Horowhenua Growth Strategy growth management principles:

Minimise stormwater and over flow management by environmental design, especially in sensitive catchments (Lake Horowhenua, Lake Papaitonga and Manawatū River Estuary).

• Understanding of and respect for the link to Lake Horowhenua in management of stormwater.

Design Principle

Infrastructure is feasible and affordable.

To achieve this, the Master Plan includes:

- Extension of existing water and wastewater infrastructure that is future proofed with sufficient capacity.
- Road layouts that allow for extension of services.

Design Principle

Ngā Wai Ora & Rangatiratanga

To achieve this, the Master Plan includes:

• Provision for the active involvement of Tangata Whenua in the stormwater management design to ensure that freshwater, waterways, and springs are protected. Key
Wetland Areas
Integrated detention &
open spaces
Overland flow paths
Inflitration swales/bypass
Scale (m)

Integrated water and waste water infrastructure

Horowhenua Growth Strategy growth management principles:

Provide water, sewer, stormwater to an adequate standard to reflect Council strategies.

Plan and develop infrastructure which minimises energy use, discourages emissions, and reduces waste.

Minimise stormwater and over flow management by environmental design, especially in sensitive catchments (Lake Horowhenua, Lake Papaitonga and Manawatū River Estuary).

In non-reticulated areas, adopt best practice solutions for on-site disposal of wastewater and the supply of portable water.

The development of Taraika requires a coordinated response to services to ensure existing planned service networks are efficient and manageable over time.

Connection to existing and planned services are set out in the Infrastructure Plan that supports this Master Plan.

Design Principle

Infrastructure is feasible and affordable. To achieve this, the Master Plan includes:

- Extension of existing water and wastewater infrastructure that is future proofed with sufficient capacity.
- Road layouts that allow for extension of services.
- The primary network maximises the ability of landowners to initiate development independent of neighbouring properties for service connections.

Scale (m)

Key



Primary water network
Secondary water network
Primary sewer mains

Planning for staged implementation

This masterplan is intended to guide coordinated development within Taraika. To successfully achieve this a number of consistent elements are essential across all development stages. These will be accomplished through a number of key process and responses set out here.

Structure Plan

The spatial plan within this Master Plan will be used to create a Structure Plan for inclusion in the District Plan. The Structure Plan will identify the location of key features such as arterial and collector roads, parks and reserves, and require developers to provide for these when they subdivide/ develop.

District Plan

A Plan Change to the Horowhenua District Plan will rezone the land and enable the type of development anticipated by the Master Plan. This will result in the inclusion of new objectives, policies, and rules to enable and to ensure development is consistent with the Master Plan and Design Principles.

Infrastructure Plan

The Infrastructure Plan that supports this Master Plan sets out:

- Stormwater Management Approach
- Water Supply
- Waste Water
- Roading Layout.

Connectivity

The Master Plan requires developers to construct arterial and collector roads and cycleways in or near to the locations identified within the Master Plan and supporting Structure Plan. This will ensure the intended function is delivered, and is consistent with the typologies identified by the Master Plan.

Developers are required to deliver an interconnected network of local streets and rear access lanes as or in general accordance with the layout on the Master Plan. There is flexibility within the Master Plan, as long as overall the connectivity intent is protected. Variation in street typology may be acceptable so long as it is consistent with the intent of the master plan, and will achieve plan objectives in a localised area.

Streetscape

The Master Plan show the proposed dimensions and design of streets and associated vegetation. Subdivision and development will need to provide these in the manner shown on the Master and Structure Plans. Council will only consider variations when there is strong justification to do so, subject to an assessment of the potential impact on the Taraika area as a whole.

Open space

Subdivision and development is required to provide public open space in the locations, and of a size and shape as shown on the Master and Structure Plans. Council will only consider variations when there is strong justification to do so, subject to an assessment of the potential impact on the Taraika area as a whole.

Lot Layout and Design

All lots within the medium density and residential areas should front the street or public open space, with rear lots representing only a minor proportion (i.e. less than 5%) of any development.

Lot size and housing density will be largely consistent with the Master Plan. This means that smaller lots will be near the neighbourhood centre. Large lots (suitable for rural residential properties) are not anticipated in this location and will be located at the periphery of the development.


Appendix 2 - Taraika Master Plan Design Rationale



Taraika

Design Rationale Horowhenua District Council

Prepared for Horowhenua District Council

Prepared by Local Landscape Architecture Collective McIndoe Urban Ltd.

Document Issue 9th September 2020

Design Rationale

The Tariaka Master Plan is described in full in *Taraika Master Plan* and the research and analysis that informs it in *Taraika Master Plan : Background and Process*. The Master Plan is based on a set of key moves that will achieve an integrated, sustainable and high-quality urban environment. These moves are:

• Connectivity

Ensure a high level of internal and external connectivity for good local access and multi-modal movement.

• Streets for people Create a high-quality streetscape environment for pedestrians and cyclists as an attractive setting for urban life.

• Variety and choice of housing Provide for housing diversity with a range of lot sizes from small urban to large rural-residential lots, with smallest lots and highest intensity in high amenity locations closest to the centre.

• A centre for the community

Local service retail, education and recreational open space facilities as a focus of community.

- Distinctive and memorable character High streetscape quality and public space amenity to give a unique and memorable identity that assists legibility and complements but does not replicate existing urban development.
- A network of parks and open space Distributed public open spaces and recreational paths are readily accessible within all local neighbourhoods.
- Stormwater and ecology Urban ecology and environmentally sustainable stormwater management achieved by integrating wetlands and raingardens into public spaces.
- Integrated services infrastructure Connection with existing and planned services networks, and the staged roll-out of new services.
- Planning for staged implementation

Coordination of structure, space and connections with current land ownership to enable gradual release of existing land, and ensure access is possible to all landholdings and development.

Following these key design moves the Master Plan aims to create a high-quality neighbourhood with the qualities, services and facilities that will support communities and be an attractive place to live. This Design Rationale document provides a summary of the analysis and rationale behind some of the features of the Master Plan. These features are described in further detail within *Taraika Master Plan*.

Location of the neighbourhood centre

There will be a centre with local service retail, education, and recreational open space. These facilities will become a focus for neighbourhood and community.

The centre is located at the heart of the new neighbourhood at the intersection of two major cross streets. It provides for community facilities including an education site, a large area of green open space, as well as local shops and supermarket. Its central location and the fine grained network of connecting streets here makes the centre readily accessible for people on foot or on a cycle, as well as in cars, and by planned future public transport. The area around the centre is highly walkable, and the easy access to services, amenities and open space here make this an attractive place to live and a suitable location for smaller lots and more intensive housing.

Factors which influenced the location of the neighbourhood centre included:

- Its accessibility as a centre for essential local services and community hub within this new neighbourhood;
- Creating strong direct connections to the wider catchment outside of Taraika;
- The location of the O2NL Levin bypass/motorway; and
- The desired centre build date, with the intention that the earlier the centre is constructed, the better serviced the neighbourhood will be.

A number of different locations were considered, taking the above into account.

Alternative centre location considered and discounted

An alternative centre location close to the edge of SH57/Arapaepae Road was considered. This would have put the centre within the catchment of South East Levin, serving this existing residential area as well as Taraika. A neighbourhood centre and community facilities in this location would have also benefitted from movement to and along SH57/Arapaepae Road and with this existing demand base, could have been expected to be established earlier. However this potential location was discounted when NZTA chose the route of the O2NL expressway which would have severed a centre in this alternative location from the new neighbourhood it is primarily intended to serve.

Because there is no existing residential catchment to be served by the centre described in the Master Plan, that is likely to be established later and will be smaller than it might have been if close to SH57/Arapaepae Road.



Previous iteration of the master plan showing alternative centre location



Previous iteration of the master plan showing chosen centre location

Location and size of parks and reserves

A fit-for-purpose, safe and maintainable network of open space that provide a variety of recreational opportunities for the Taraika community, is readily accessible to all, and meets Council open space expectations.

- Parks and reserves are located to ensure all dwellings in the general residential areas are not more than 800m or a 10 minute walk away from a play or recreational area.
- The total area of parks and reserves is based on meeting a standard of a minimum of 2ha of useable recreational space per 1000 people. This minimum standard is applied across Levin.
- The parks and reserves are also an important part of the stormwater management plan. The size and location of these spaces has been designed to work with the natural fall across the site, and the network includes wetlands as well as integrated detention and open space areas used to detain stormwater during heavy rain events.



Interconnected street network

A high level of connectivity allows people to readily access friends and places both within and around Taraika. This provides good local access with a choice of routes, and excellent multi-modal movement including walking or cycling as well as driving. Multiple connections over the O2NL expressway are critically important.

- Connectivity within the development area and to the rest of Levin is a key priority. For this reason, the Master Plan connects to both existing major streets and to the areas around. Provision is made for future extension of primary and secondary roads to areas beyond Taraika where future long-term urban growth might occur.
- The interconnected street network provides a choice or routes and provides for excellent walkability and cycle access within Taraika. This encourages active modes of travel, provides recreational walking circuits around the neighbourhood and contributes to health and wellbeing.
- All roads and streets are to be developed with high-quality streetscape and street trees to create an environment attractive to pedestrians and cyclists, and an attractive setting for urban life. There is a hierarchy of roads streets and lanes with differing character and functions.
 - Primary roads are the widest and are primary movement routes. These are aligned to ensure easy physical connection, but also to frame views to the Tararua Ranges.
 - Secondary streets provide a roading collector function
 - Local streets are the shortest and narrowest streets, and are allow speed, high amenity setting for residential development.
 - Rear laneways are used to allow frontages to streets in medium density areas or along cycleways to not be interrupted by vehicle crossings.
- This range of street types with differing cross-sections and related but different streetscape treatments contributes visual interest, and the difference between streets assists people to understand where they are.
- Cul-de-sacs are avoided as these preclude easy and convenient connections between parts of the neighbourhood.

Cycleways

A safe and attractive walking and cycling environment is a key feature of the Master Plan and the principles that determine the cycleway network are:

- Connect to the existing and planned town-wide cycleway network
- Provide a dedicated off-road cycle paths on key routes. These connect key features includes parks and reserves, the neighbourhood centre, and the school with the outer corners of the development and to the town centre.
- Minimise kerb crossings across cycleways, using rear lane access to lots facing these cycleway wherever appropriate. This purpose of this is to avoid having these routes interrupted by vehicle crossings, reducing conflict points between vehicles and cyclists/pedestrians.
- Anticipate that cyclists will also use the network of low speed, local residential streets ensure these are an interconnected network





7m

Access Street

2.5m footpath

1.5m footpath

.8m

2.2m

Note Laneways to be shared spaces with a carriageway of 6m

+

.8m

1.5m

2.2m

Range of housing types and densities

Provide for housing diversity with a range of lot sizes from small urban to large rural -residential lots, with smallest lots and highest intensity in high amenity locations closest to the centre.

- A range of small and large lot sizes housing types provide for choice for future residents, and allow for a range of different household types and sizes.
- The highest density housing is provided for at the centre close to the amenities of the neighbourhood centre and around public parks and reserves which provide openness, recreational opportunities and high quality outlook.
- For this reason, the medium density zone has been drawn to include land within 400m of the centre, with some parts slightly extended to include land that is slightly further from the centre but near to a public park or reserve.
- Large lots are provided for at the periphery. These are beyond easy walking distance to the centre and transition to existing rural residential and rural areas beyond.



Relationship to the O2NL expressway

- The proposed O2NL expressway has the potential to sever Taraika/Gladstone Green from the rest of Levin. While decisions about the design and function of the highway are the responsibility of NZTA, the Master Plan seeks to minimise the impact of this, including providing roading connections at Tararua Road, Queen Street, and Liverpool Street, and walking and cycling overbridges between these.
- The Master Plan describes how the carriageway might be trenched and bounded by heavily planted landscaped berms to reduce or eliminate the visual and noise effects of the expressway.



Appendix 3 – Summary of Community Feedback on the Master Plan



Taraika Master Plan – Community Feedback Summary

Introduction

Throughout August 2020, Horowhenua District Council sought feedback from the community on the Draft Taraika Master Plan. Public drop-in sessions where held at Te Takeretanga o Kura-hau-pō, affected landowners were mailed information, and media releases were published in the Horowhenua Chronicle.

This feedback process was relatively informal and sought to give community members an opportunity to input into the process prior to the formal Resource Management Act process. A total of 40 provided some form of written feedback and approximately 100 people visited the drop-in sessions.

Support for the proposal

Many of the people who visited the drop-in sessions were generally supportive of the proposal. People recognised that the population is growing and that additional housing is required to support this. These people supported the planned approach of the Master Plan, as opposed to allowing growth to occur in an adhoc manner.

People who supported the Master Plan liked the mix of housing, that the development would be supported by shops, parks, and potentially a school, and that it prioritised good connectivity.

However there was a group of community members, largely comprised of neighbouring residents, who were opposed to the Master Plan. They believed that the area should either not be developed or be developed at a low density/rural lifestyle scale.

Response: Concerns about the impact of additional development in Taraika on existing residents is noted. The proposal seeks to address this by having development density reduce towards the outer edges of the development (e.g. towards Pohutukawa Drive and Tararua Road), resulting minimum site sizes of 1,000-2,000m². While this development density will still be higher than what could occur under the existing zoning, it will help to reduce the impact on these residents. Additional development in this area will likely take some time to establish and it is noted that existing landowners will be able to retain their existing character (e.g. significant plantings). The extent of development expected may also have some positive effects in that it is likely to attract facilities such as a school and a small supermarket, which will increase the services available to existing residents in this area.

It is also noted that the Council must give effect to requirements of Central Government, such as the National Policy Statement for Urban Development (NPS-UD). This requires Council to provide zoned and serviced land to meet housing demand. It also requires Council to provide opportunities for a variety of housing types (e.g. different densities) to establish. This land has been identified for some form of growth since 2008. It is located close to Levin, allowing for easy extension of reticulated infrastructure and good access to jobs, shops, and other urban amenities. As the land is flat, held in large ownership parcels (by landowners willing to develop) and is not subject to known natural hazards it presents a viable development option. There are few, if any, other options in Levin to deliver land supply for housing at this scale. If this option was not pursued, Council would likely be in breach of its obligations under the NPS-UD.

Key improvements/changes sought

Those who provided feedback had a range of suggestion about how the Master Plan could be improved. This includes:

Comment	Response
Provide more parks, including a dog park.	The parks and reserves shown on the Master Plan meet a minimum provision of 2ha per 1,000 people, a 400m walk (5 minutes) from some form of public open space and 800m walk (10 mins) from a more significant reserves space. This is consistent with current targets and balances the importance of providing reserve space without compromising the viability of the development. The function of each reserve is still being investigated. This
	will be determined when there is more clarity on factors including the speed and nature of development.
Provide equestrian facilities	Through the 2020/2021 Annual Plan process, Council committed to undertake an investigation into how and where equestrian recreation opportunities could be provided for. This is the appropriate process for this to be investigated.
Make it safe for walking and cycling	This is a key feature of the Master Plan. The Master Plan identifies key cycling/walking connections from the outskirts of the development, to the neighborhood centre and school, and across the highway into Levin. On these cycle routes, it is proposed that housing are accessed via rear access lane to avoid having vehicle crossings (driveway entrances) into cycle routes.
Prevent solid fuel heaters (wood burners) and rural burn- offs	This is outside the scope of what can be achieved through the Plan Change. The Horizons Regional Council is responsible for managing air quality.
Consider Electra powerlines	Electra have been made aware of the proposal. Council are working through agreements with Electra to address the issues of the powerlines.
Make the Master Plan flexible, especially for zoning and local roads	The location of 'local roads' is proposed to be flexible, while the location of arterial and collector roads is more fixed. The zoning boundaries are proposed to be fixed to ensure the following can be managed:
	 Logical urban form, with density reducing towards the outskirts of the development to protect rural environment Infrastructure planning requires an understanding of expected density That we know where the higher density areas will be so as to provide sufficient park and reserve space.
	While Council can consider changing the zoning for particular properties through the Plan Change process, it is difficult to comment on the appropriateness of this generally.
Reduce the density	For the reasons specified above under 'support for the proposal' this is not considered a viable option, as it would not give effect to Government direction.

Allow for 'tiny shops'	The proposed rules allow for this to happen.
Require houses to achieve a high 'Homestar' rating	This is outside the scope of the Plan Change. The Resource Management Act does not allow for such rules. The Building Act process is the primary tool for managing build quality although it is acknowledged that high Homestar ratings require a higher standard than the Building Act. As such, complying with Homestar rating will be the owner's choice.
Clarify who is paying for infrastructure	Lead infrastructure is being delivered through a range of funding mechanisms, including Crown Infrastructure Partners and Council. Mechanisms to recover the cost of Council's contribution of lead infrastructure are being investigated through processes such as the Long Term Plan. Infrastructure within individual developments will be at the cost of the developer.
Protect Waiopehu Reserve and views of Taraua Ranges	The Waiopehu Reserve is vested as a Scenic Reserve under the Reserves Act and is therefore protected under this legislation. It is managed by the Department of Conservation. The roading network of the Master Plan is drawn to enhance views towards the Tararua Ranges.
Protection of cultural sites	Council are working with local iwi to understand the most appropriate means of protecting cultural sites.
Introduce monitoring and targets for delivery of affordable housing	The Plan Change proposes to introduce maximum site areas within the medium density zone, to compel the market to provide smaller sections (and therefore houses) in certain locations. It is hoped this, along with the general increase in land supply, will help with affordability. NPS-UD requires relatively extensive monitoring of market indicators so that Councils know whether District Plans are enabling development and addressing affordability issues.
Consult with downstream properties (stormwater management)	The details of the stormwater management approach are still being finalised. The key objective is to retain stormwater onsite to the greatest extent possible. Engagement with downstream neighbours will occur.
Remove connection into Pohutukawa Drive	This connection was intended to provide for future connectivity between Taraika (and the future school, parks, shops etc.) and Pohutukawa Drive residents. As a result of community feedback, this connection has since been removed. Density adjoining Pohutukawa Drive has been changed to Greenbelt Residential (consistent with zoning of Pohutukawa Drive) to reduce impact on these residents.
Change density standard for sites adjoining Redwood Grove to lower density.	The zoning adjoining Redwood Grove has remained standard density to allow for a logical future urban form. Redwood Grove density has also changed to standard density to allow these properties to develop at the same level as neighboring properties.

The first round of feedback was an additional round of
informal feedback, ahead of the formal RMA process which is
being followed.

Support for a Structure Plan

Those who supported development in Taraika were largely supportive of using a Structure Plan to achieve integrated development. Those who did not support development at Taraika were not supportive of a Structure Plan.

Other Comments Raised

Other comments raised throughout this feedback included concerns about traffic, including speeding traffic and the capacity of outer roads (Tararua, Gladstone, and Queen) to cope with the additional traffic. There were also request for a cycle connection across Queen Street, in addition to the one shown slightly further south.

People identified a need for other facilities to support population growth, including health care and rail services and questioned whether there was sufficient infrastructure capacity (e.g. potable water and firefighting water) to service the development.

Other concerns included:

- That the development was occurring on high quality farmland;
- That the development would result in a significant increase in rates;
- The impact of noise from the O2NL highway on the new development.

Feedback was also received from Government Agencies including Ministry of Education (MOE) who advised that, a new primary school within Taraika is likely required and that the area identified as an 'education site' in the Master Plan would appear to be the most appropriate location for a potential school.

Department of Conservation (DOC) identified a number of species that may be present within the area and recommended development setbacks from freshwater areas, riparian planting, stormwater swales and gardens, effective management of stormwater wetlands, and consideration of climate change in stormwater planning.

Response: An independent traffic engineer has been commissioned to assess both the proposed roading network within the Master Plan area and the impact on outer roads. This will be used to inform upgrade programmes and to avoid future traffic issues.

Cycle connections across the highways (O2NL and SH57) are considered very important, hence they have been demonstrated on the Master Plan. However, no decisions have been made about where these should be, or how many are required. All decisions pertaining to current (SH57) and future state highways (O2NL) are the responsibility of Waka Kotahi New Zealand Transport Agency (WKNZTA).

Council is working with a range of agencies, including Ministry of Education, Ministry of Health and WKNZTA to make them aware of the growth occurring and the potential services needed to support these. While Council can advocate for new services, all decisions ultimately lie with these agencies who work across the country assessing and evaluating need for upgraded or additional services.

An infrastructure plan is being prepared to determine how the Taraika area will be serviced to ensure that there is sufficient capacity for water supply to meet levels of service, which in residential areas, includes provision for potable and firefighting supplies.

The Taraika development is not located on high quality farmland. Taraika has a land use capability class of 3 (LUC3). LUC 1-3 covers 42% of the Horowhenua District. The remaining land is hill country and coastal land. Given the extent of LUC 1-3, the current Horowhenua District Plan affords specific protection to LUC 1 and 2 only. Taraika in particular, has some constraints on usability due to presence of stony soils at the surface and is already a growth area with development of between 2,000m² to 5,000m² already establishing. Developing in less productive areas such as this protects other, more productive parts of the District.

Under the current rating policy, existing landowners will not be rated for the new water and sewer services so long as they had constructed their dwelling before these services became available (unless they later choose to connect, in which case they would be charged). It is possible that population growth will eventually ease rating increases and the costs of services are able to be spread across more people.

While the O2NL highway may have an impact on Taraika, no decisions have been made about the details of O2NL (e.g. road height, road surfacing etc) so it is difficult to determine what the effects will be. As WKNZTA have yet to lodge a notice of requirement for the new highway, it has no legal status and therefore no restrictions can be imposed on landowners through this plan change. Council are working closely with WKNZTA to achieve a good outcome. WKNZTA are aware that O2NL will be passing through an urban environment. WKNZTA have indicated their support for Taraika.

Council acknowledge and appreciate the support of the MOE and are heartened to hear that the Taraika development is likely to be supported by a primary school in the future.

Council are preparing a stormwater management approach that takes into account all the mattes raised by DOC.



Appendix 4 – Medium Density Housing Report

Mixed Density Housing - Taraika

- Objectives, Methods & Delivery

October 2020



Table of Contents

1	The C	Challenge	4
1.1		Introduction	4
1.2		Growth	5
	1.2.1	Housing, Population & Age Relationship	9
	1.2.2	Housing Price and Growth Relationship	9
1.3		Aligning Centre Planning & Housing Strategy	10
	1.3.1	Village Housing for Wider Jobs Settings	11
	1.3.2	Housing Density	14
	1.3.3	Housing for Safe Social Engagement	15
	1.3.4	Housing for Social Diversity	16
1.4		Conclusions	17
2	Taraik	a & Housing Diversity	18
2.1		Walking, Density, Streets & Sections	18
2.2		Blocks & Typologies	22
2.3		District Plan Zones - for Discussion	23
	2.3.1	Village Centre Core Zone Objectives	23
	2.3.2	Village Centre Support Zone Objectives	24
	2.3.3	Village Zone Objectives	25
3	Imple	mentation	
3.1		Levin Builder-Developer Market	26

DISCLAIMER: The information contained within this document is prepared for Horowhenua District Council. It has no binding effect of itself but is intended to assist the planning process to facilitate the development of a range of housing types in Horowhenua. Information contained in this document is provided in good faith and is believed to be correct at the time of printing. However, the statements or representation contained in it should not be accepted as statements of fact nor should it be capable of universal application. Urbacity and its employees, agents or contractors shall not be liable to any person, whether though contract, tort or any other legal or equitable obligation for any past, present or future loss or damage that may result from any implementation of or failure to implement the material set out in this document.

List of Tables & Figures

Figures

Figure 1 -	Typical Queen Street Block
Figure 2 -	Functional Layout of Village Housing Contributing to Walkability and Adaptability of Use
Figure 3 -	Traditional Village Housing Adapting to Business
Figure 4 -	Modern Village House with Home Based Business /Office (separate entry)
Figure 5 -	Housing for Social Exchange (Designed and as built)
Figure 6 -	Housing for Social Diversity (Low Cost - Hobsonville)
Figure 7 -	Rear Lane Housing
Figure 8 -	Canberra's Breakthrough Medium Density Housing Development - Otway Terrace
Figure 9 -	Village Zone (Master Plan)
Figure 10 -	Village Zone (adjusted Master Plan)
Figure 11 -	Feeding Main Street (Master Plan)
Figure 12 -	Feeding Main Street (adjusted structure)
Figure 13 -	Village Core (Master Plan)
Figure 14 -	Village Core (adjusted Master Plan)
Figure 15 -	Village Support Zone (Master Plan)
Figure 16 -	Village Support Zone (adjusted Master Plan)
Figure 17 -	Housing Density Zone (Master Plan)
Figure 18 -	Housing Density Zone (adjusted structure)
Figure 19 -	Medium Density Housing (solar access to private yard)
Figure 20 -	11.4 metre Frontage - Double Garage and Apartment Above
Figure 21 -	Building & Access Guideline Plan (BAGs)
Figure 22 -	Identical as-Built Overlaid on BAGs Plan
Figure 23 -	Duplex (Top image) & Two Houses (Bottom image)
Figure 24 -	Location of Each Building on Left

Tables

Table 1 -	Horowhenua Characteristics of Growth	5
Table 2 -	Horowhenua Housing Typologies and Age	5
Table 3 -	Horowhenua New Housing 2006-2018	6
Table 4 -	Horowhenua Growth Projections - Housing	7
Table 5 -	Horowhenua Population Growth Projections	8
Table 6 -	Relative Ages - Getting Older	9
Table 7 -	Median Household Incomes	10



The purpose of this document is to outline the need to improve housing diversity in Horowhenua generally, but more specifically in Levin and in Council's major growth area, Taraika. The first part of this document considers the condition of the market for mixed density housing in Horowhenua. The subsequent parts considers the mechanisms needed to achieve mixed density housing.

1.1 Introduction

Horowhenua is currently on a steady growth path in terms of population, housing and employment. This path is likely to continue unabated for the next 20 years and beyond. Trends in remote jobs, concerns about density and disease, already reinvigorated regions within touch of metropolitan cities, and quasi-country living are attracting people from the cities and their suburbs. Lower housing cost is also an attraction factor, but the evident growth in housing demand is reducing the housing cost gap between the regions and the cities.

The now-approved construction of the Otaki to North Levin (O2NL) motorway extension from Otaki to North Levin will bring Wellington to within than an hour's drive of Levin. This is likely to result in increased demand for Levin housing for workers in the Wellington area. The initial market will likely initially come from retirees exiting Wellington, some investors and a growing tide of workers, more likely reaching a peak after completion of O2NL.

Growth in the Horowhenua population has been static for decades until the census period to 2013. Over the same period, the District's housing market has grown incrementally as a consequence of reduced household occupancy ratios and the construction of holiday houses at the beaches.

Since 2013 however, Horowhenua has begun to grow markedly, as shown in Table 1 following.

This growth will pressure Horowhenua home builders in terms of capacity and their ability to deliver diversity of housing product. As demand for housing is heavily influenced by availability of housing product that builders bring to market, diversity of the current mix is an indicator of builder/developer product in Horowhenua.

Whilst this paper is not an in-depth study of the capacity and product diversity of Horowhenua home builders, there must be some concern over the ability of local builders to provide the volume and variety of product needed to offer existing and future Levin residents within Taraika housing suited to their diverse lifecyles and aspirations. Simultaneously, the Council will be looking to manage growth to promote a more sustainable development outcome around the District, but particularly at Taraika.

1.2 Growth

As discussed, growth has been relatively static in Levin and Horowhenua between 2001 and 2013 years as shown in Table 1 below, but has resumed between 2013 and 2018.

Horowhenua	2001	2006	2013	2018
Total Dwellings	13,395	14,208	15,048	15,780
Total Occupied Dwellings	11,535	12,027	12,633	13,302
Occupied Dwelling Ratio	86%	85%	84%	84%
Total Population	29,820	29,868	30,096	33,261
Population Growth		48	276	3,165
Growth rate % pa		0.03%	0.18%	2.1%
Household Occupancy Ratio	2.6	2.5	2.4	2.5
New All Dwellings 2001-2018				2,385
New Dwelling Annual Construction Rate		163	120	146
Median Age	40	42	46	47
Median Age NZ	35	36	38	37

Table 1 - Horowhenua Characteristics of Growth

Source: Statistics NZ

The characteristics of growth show a marginal increase in the population between 2001 and 2013, despite the increase in houses built, with many of these new houses being holiday homes. Both the occupied dwelling ratio and the household occupancy levels fell between 2001 and 2013. Since 2013 population growth has substantially increased along with an upswing in average household size. Horowhenua populations are ageing faster than those in the rest of the country, suggesting that younger residents are leaving and being replaced with older residents. However, with O2NL that may change.

Table 2 -	Horowhenua	Housing	Typologies	and Age
-----------	------------	---------	-------------------	---------

Characteristic	NZ	Horowhenua
Median Age	38	47
Household Occupancy Ratio	2.7	2.5
As % of all ages - over 50's Living in Detached Housing	26%	36%
% total residents living in Detached housing	13%	10.7%
Median House Price	\$714,747	\$416,000
Increase 2019-2020	4.4%	21.1%
Horowhenua Avg Housing Cost Relative to New Zealand		58%

Source: Statistics NZ; QV NZ

The data in the tables suggest the following:

- 1. A lack of diversity in housing stock in Horowhenua;
- 2. Substantial latent demand for multi-family housing for over 50s;
- 3. Older population likely living in unsuitable housing due to lack of choice and inability to move elsewhere (due to differences in housing values in the region)
- 4. Possible mental health issues for over 50s related to lack of choice and lack of mobility;
- 5. Housing stock is out of alignment with the household occupancy ratio;
- 6. New Zealanders generally have larger families yet living in denser housing.;
- 7. Horowhenua produced 1,000 new households between 2001 and 2013 for no meaningful increase in population;
- 8. Horowhenua has low numbers of people in the 20-50 year age cohort;
- 9. The ratio of holiday homes to permanent residential homes is increasing.

The following table records the type and ratio of housing built on Horowhenua since 2006.

Occupied Dwellings	2006	2018
Horowhenua		
Joined Housing Ratio	10.9%	10.7%
Separate House	10,080	11,799
Joined Dwelling	1,308	1,425
Percentage of Joined Dwelling Construction 2006-2018		6.8%
Levin Urban Area		
Joined Housing Ratio	18.1%	17.3%
Separate House	5,335	6,276
Joined Dwelling	1,260	1,320
Percentage of Joined Dwelling Construction 2006-2018		9%

Table 3 - Horowhenua New Housing 2006-2018

Source: Statistics NZ

An issue with the mix of housing that has been developed between 2006 and 2018 is the low level of joined housing as a percentage of new housing. Horowhenua has seen an average of five joined house builds per annum between 2006 and 2018. This data tells us a number of things:

- Only 60 joined dwellings were built in the Levin urban area in the 12 years between 2006 and 2018.
- Whilst Levin is the major urban area of the District, it has only inspired 50% of new joined housing construction across the District since 2006.
- Ohau Manakau, Waiterere and Miranui contributed 66 joined dwelling units between 2006 and 2018.

Recent growth in the District is likely representative of a longer term trend, as outlined in Counci's Draft Horowhenua Growth Strategy 2040. Its projections for growth beyond 2018 are shown in Tables 4 and 5 following.

Table 4 - Horowhenua Growth Projections - Housing

Year	2020	2030	2040
Occupied	14,018	16,221	18,157
Unoccupied	2,474	2,863	3,204
Total dwellings	16,492	19,084	21,361
Joined Dwellings to Meet NZ Average	2,145	2,480	2,775
Current Joined Dwellings	1,450*	1.450	1,450
Joined Dwellings Catchup (cumulative)	695	1,030	1,325

Source: Statistics NZ, Horowhenua District Council, * Note: This is an estimate. In the 2018 Census Horowhenua was recorded as having 1,425 joined dwellings. Horowhenua District has seen an average of 10 joined dwellings built per annum since 2006.

The notional target figure of 1,325 joined dwellings by 2040 in Table 4 is based on the New Zealand average. If we adjust for the percentage of urban populations in Horowhenua (78.2%) compared with New Zealand (87.2%), then we would need to drop the "requirement" in Horowhenua by 10%. However, the demand for joined dwellings is likely to be higher in Horowhenua due to lower household occupancy ratios and an older median age when compared with New Zealand.

For the Levin urban area, Council estimate a requirement for an additional 1,515 dwellings to 2040, split between 1,246 urban and 267 larger lot sections. Most of these will be within Taraika.

The current annual construction rate between 2006 and 2018 for "joined dwellings" is 10 and so the shift to a more diverse mix of housing will require more innovation from the District's builder/developer market.

In our view, the quality of the builder/developer market will be key to the delivery of more diverse mix of housing and in particular, higher density housing in Taraika particularly, as well as in other parts of the District. Based on our experience elsewhere, we have little doubt that higher density housing in appropriate locations within Horowhenua will sell well, but that the weakness in terms of delivery may well sit with local builder/developers. We will discuss delivery options for more diverse housing in a subsequent section of this report.

Projected growth of housing in the Levin urban area to 2040 is 1,515 and it may not be appropriate to acheive the joined housing target figure by 2040 and certainly not appropriate to contain it to Levin. The population projections take the District population from 33,261 in 2018 to 42,000 in 2040. Council's projections generally spread housing growth across all settlements in the District.

Taraika has a draft Master Plan, which seeks housing density around its proposed centre. Taraika project is probably the key Horowhenua project with ability to change market behaviours in relation to mixed density housing.

Whilst population projections and the housing projections indicate a low household occupancy rate (1.7 persons per household), this is probably a consequence of an assumption of ongoing construction of holiday homes along the coast.

Year	Population	Population (annual average growth rate)
2018	33,261	
2020	33,596	0.5%
2030	37,738	1.2%
2040	41,958	1.1%

Table 5 - Horowhenua Population Growth Projections

Source: Horowhenua District Council; Statistics NZ

The nexus for mixed density housing is either amenity (swapping private open space for quality public open space) or amenities (adjacent to retail and services).

Whilst growth will be a factor in the market on the demand side, there is ample land that is zoned for medium density around Levin town centre, which has remained largely untouched by builder developers. Many of these sections are over 1,000 square metres and easily capable (in groups) of converting to medium density. The key issue therefore is not that the regulation is wrong, but that the market on the supply side has little or no appetite to convert large sections on the fringes of Levin Town Centre to medium density housing. There may also be a price and cost equation related to land areas and project feasibility. We shall cover this issue in the strategic approach to Taraika housing toward the end of this document.

In order to test an acceptable outcome for a more intensive product within the Levin density zone we have arbitrarily selected the block on Queen Street between Rugby Street and Queenwood Road. A subdivision that fits the zone would be as shown in Figure 1. Six homes converts to eleven. In this example, only six of the 12 dwellings would be joined (one apartment above garage). The intent of the housing product is not simply to expand housing options but also establish a meaningful relationship with the street in order to promote walking. In the example below we have enhanced walkability by provding a rear lane for garages and have brought the houses forward on the block to meet the street (and people walking past).





However, this analysis raises the issue of the relationship between density and housing diversity and whether "joined" housing on its own is a fair measure of housing density and diversity.

Likely most of the housing within an easy walk of Taraika's future village centre will fit the definition o medium density but will not be "joined" housing.

Diagram by Steve Thorne

1.2.1 Housing, Population & Age Relationship

Housing numbers have increased by 2,385 since 2001 but the population remained almost constant to 2013. The population grew significantly between 2013 and 2018. Occupied houses as a percentage of total houses has also fallen slightly, reflecting an increase in holiday homes as a percentage of total stock.

Diversity of housing choice is generally regarded as the basis of strong and sustainable communities, allowing people to access a range of housing options geared to changing life circumstances. In Horowhenua some 80% of over 65 residents live in a separate house. Of these around 80% are couples or singles. The average Horowhenua house has 3 bedrooms, which means that most houses are oversized for this age group.

Research across the globe indicates that older people prefer to live within 5-10 kilometres of where they have always lived, maintaining contact with their existing networks and family. For Horowhenua, the older age group will be looking for housing with low maintenance, easy and level access and a variety of internal features relating to ease of movement and servicing.

The lack of available multi-family/joined housing in Horowhenua is constraining the District's ability to age in place. Joined housing is ideally located close to amenities, especially those found within centres.

Whilst joined housing is often suited to the older age group, it is also suited to singles and couples without children. Joined housing provides a stonger relationship between the footpath and the house and sets up the basis for a walkable neighbourhood in Taraika. However, density in the form of joined housing and urban amenity are a consequence of design - not density alone.

Age under 50 Years	1996	2001	2006	2018
New Zealand	75%	72%	71%	66%
Horowhenua	68%	64%	61%	54%

Table 6 - Relative Ages - Getting Older

The ageing ratio is more pronounced in Horowhenua relative to the New Zealand average.

In summary, there is a mismatch between Horowhenua housing types and the District's population age groups

1.2.2 Housing Price and Growth Relationship

Population growth has not been the main driver of rising house prices in Horowhenua. Falling household occupancy ratios has been driving most of the housing demand to 2013. However, falling occupancy ratios do not explain the nature and extent of the rises in house values.

Turnover or mobility of residents in Horowhenua between 2013 and 2018 Census is close to the NZ average. So, a changing population base does not explain the level of increase in Horowhenua housing values either. The clues to increased Horowhenua dwelling values appear to largely lie with the growth in values to the south and the likely value creep

northward. However, with the advent of O2NL and recent and ongoing population growth, this value rise would be expected to gather pace.

	Table 7 -	Median	Household	Incomes
--	-----------	--------	-----------	---------

Location	2013	2018
Horowhenua	\$39,200	\$47,800
New Zealand	\$63,800	\$75,700
Horowhenua / NZ Ratio	61%	63%

Source: Statistics NZ Census.

Household incomes reflect in part lower household occupancy ratios in Horowhenua. The dynamics of future growth and improved connections to Wellington metro will also likely improve household incomes looking forward.

1.3 Aligning Centre Planning & Housing Strategy

"The duty of the architect, urban planner and engineer is to give physical form to a social condition." (Joseph Rykwert 1982).

Housing strategies tend to have a supply-dominant focus, with housing diversity or demand geared to lifecyles relegated as a subservient element.

Housing within an easy walk to the centre should be differentiated in the District Plan from all other housing. The village centre in Taraika, should facilitate a responsive housing typology within walking distance of the centre and not waste the land and opportunity by the development of a house on a standard suburban section. This proposed change reinforces the traditional logic that housing adjacent to village centres should be a part of the village centre. We shall discuss mechanisms needed to align centre performance with centresupportive housing later in this report. The key planning (and design) principle is to ensure that the walking journey is at least as attractive in the motivation to walk as the destination (the centre). To achieve this outcome requires a particular housing design response.

Density and "walkable" design together will deliver the required response in relation to medium density zones proposed for Taraika. Density alone is not enough without a typology and building siting control that delivers an appropriate activity alignment with the centre and pedestrian-friendly "walkable" interface between buildings and people.

The main focus of this village housing "relationship" is a social and economic one. The village housing overlay is there to increase the desire to walk and to increase casual social exchange on the walking journey to and from the village centre. At the same time, the intent is to widen the centre-adjacent village housing zone to increase the settings for local businesses.

For a centre however, there is a proven relationship between the capacity or performance of the centre and the spatial organisation of the movement network. *The theory of the 'movement economy' was developed from the notion of 'natural movement' (Hillier et al 1993) which had arisen from studies showing that, other things being equal, movement flows in different parts of a street network were systematically influenced by the spatial configurati of the network itself.*¹

1

Professor Bill Hillier, Centrality as a Process, Accounting for Attraction Inequalities in Deformed Grids, Space Syntax

The integrity of this statement has been proven time and again by Space Syntax modelling in towns, villages and cities across the globe. Hillier further expands on the structure of centres and their need to achieve greater levels of integration within a settlement.

Locally, as centres grow, they create pressure for greater local integration of the kind described by Siksna², that is grid intensification and smaller block size to allow greater ease of movement within the centre. The greater the scale of the centre, the stronger the 'Siksna process 'will be.

The street network supporting the centre will be a key factor in its social and economic capability. It is understood that the Structure Plan (SP) will be a part of the Plan Change for the project, but adjustments outside of the SP may be needed around the centre.

1.3.1 Village Housing for Wider Jobs Settings

If we take our knowledge of the influence of structure and form of traditional towns and villages forward, we find a correlation with the current way we work. According to MBIE, 97% of all New Zealand businesses are small businesses (less than 20 employees). Many of these businesses are home-based or operate out of non-traditional business premises. Many of these businesses would like the exposure and availability of a centre nearby but are unsuited to the relatively rigid and retail-dominant spaces of centres. Many of these businesses fit easily within a house designed with a relationship with the street and close to a centre.

Changes in the way we work are having a marked effect on centres, and business formation rates in centres are well below those in the surrounding suburban environment. Outside of CBDs, centres are no longer the main focus of urban economic activity and growth. Centre planning frameworks and should steer us toward flexible workplaces and a wider range of building typologies in and around centres in order to grow economic capacity. Our ability to form and grow businesses is in part influenced by the range and settings of premises. Centres provide a narrow range of settings, but in older, traditional urban centres, there are wider settings at a wider range of price points - for rental or for purchase.



Figure 2 - Functional Layout of Village Housing Contributing to Walkability and Adaptability of Use

Diagram by Steve Thorne

2

The above diagram shows how the design of a house can establish a social and business relationship with the street and leverage off he street. The house is well forward on the

Siksna A (1997) 'The effects of block size and form in North American and Australian City Centres Urban Morphology 1, 19-33

Second International Symposium, Brasilia 1999

block and the public activities of the house are also brought forward to offer the inhabitants the opportunity of using the house for business.

The main principle is not to specify how a house is to be used, but rather to facilitate the growth of businesses outside of traditional commercial premises and adjacent to centres. This reflects how traditional villages operate, with older housing on the edges of centres used for business. These traditional houses were built to address the street and are ideal for small businesses in the 21st Century. These houses have two roles - to make walking more interesting generating higher levels of walking, and to provide adjacent-to-centre business opportunities.



Figure 3 - Traditional Village Housing Adapting to Business

The principle of village housing containing businesses is a function of building design and siting. The houses above do not represent the likely form of Taraika Village Housing but any decent architect is capable of expressing such housing in modern form. A modest home based business might take the form of the image below, shown with its front office



Figure 4 - Village House with Home Based Business (office via separate door to the right off he verandah)

House as designed by Steve Thorne

The walkable context of towns (such as Levin) and new villages (such as Taraika) needs to facilitate and encourage a more business-friendly housing typology with strong relationships between the centre and people in the street. These typologies must, by design, encourage

higher levels of walking, as walking is a major economic and social enabling mechanism of any urban environment.

With the growth of online retail and a shrinking bricks and mortar retail sector, the main focus on centres needs to shift from a functional view to an experiential view. Well performing centres today are physically interesting to pedestrians, with retailers also seeking to locate in centres that offer an enhanced experience. The utilitarian nature of online shopping has similarities to the homogeneous shopping mall but not to authentic and attractive urban centres. Regrettably, we haven't built any of these centres in New Zealand for over 100 years.

Street-front housing at the edge of centres widens the settings for business and allows businesses who would otherwise not consider an in-centre building to locate in a building adjacent to a centre thereby expanding the social and economic base of the centre. This reinforces NZ business formation characteristics outlined below.

- Most businesses created today do not need to be in centres in order to thrive;
- Bricks and mortar retail is declining and the justification of a centre to simply "get stuff" i under competitive pressure from the other "get stuff" activity internet shopping
- An urban centre is a higher performing social and economic asset than shopping centres (and online shopping);
- Existing buildings in centres are a product of an older and now mostly defunct economic model and are not universally adaptable to modern work trends;
- Business formation in centres is heavily associated with urban amenity and critical mass, and it is the quality of buildings and their relationships with the street that is most important to urban amenity (not land use);
- The economics of agglomeration in centres is diminished by communication technology;
- Retail for its own sake is not sufficient to generate optimum levels of economic and socia exchange and therefore,
- Zoning in centres is less relevant as an economic management and optimisation tool.

Mixed density housing provides an adaptable typology for a range of businesses and is an ideal transition from a centre zone to suburban neighbourhood zone.

The term "village" in older centres did not apply only to shops and businesses, but to all buildings within the village including village houses. As a consequence we find numerous businesses in these houses close to these old village centres. As the building must be designed as a house the zone has a "grain" that delivers small independent buildings. Given that the design of the building is primarily that of a house, it is not possible for business activities to compromise the integrity of the centre as all businesses in these buildings will be small businesses. The design requirement means that the supply side for business settings is expanded and enhanced. The aim is for Taraika to get more businesses in and around the centre whilst expanding the centre's walkable geography.

Housing within a centre zone overlay is doing a number of things simultaneously:

- 1. Providing wider settings for jobs and business formation;
- 2. Providing for higher density housing in a most efficient locatio
- 3. Providing for lower cost housing and lower cost living;
- 4. Providing for housing for active elderly close to the centre³;
- 5. Is designed and located in a manner that increases the desire to walk to the centre;
- 6. Delivers more people within an easy walking distance of the centre;
- 7. Delivers greater social and public health benefits by increasing levels of walking and social
- 3 The American Seniors Housing Association describe such places as "NORCs", (Naturally Occurring Retirement Communities).

exchange.

Adaptable village housing widens the physical and functional geography of a centre and therefore improves its economic and social capacity.

1.3.2 Housing Density

An accepted driver of housing density is proximity to amenity or amenities. Denser housing is an acceptable trade-off for people wanting to be close to the resources of a centre

As the earlier tables showed, Horowhenua is substantially under-provided with attached housing suited to both a young market looking for entry level housing and the retiree market seeking proximity to amenities and lower maintenance obligations. The "need" for a more diverse housing mix is to catch up with a likely market deficit, but also to develop Taraika in a more sustainable manner.

Centres need to be intimately tied to walkable neighbourhoods if they are to be socially active and economically resilient. Housing within walking distance of a centre such as Taraika should respect its functional proximity and urban context. That context requires housing to promote walking and enable a wider variety of businesses, from consulting rooms, to cafes/ restaurants, to local fashion and homewares (for instance). These fine-grained buildings have no capacity to undermine the centre by virtue of scale.

Horowhenua has a housing diversity issue as the low representation of higher density housing may be restricting its growth, as well as its social and economic capacity. Designed appropriately, higher-density housing encourages walking as it established a relationship with the street and increases the population close to centres⁴. Horowhenua's ratio of joined dwellings to separate houses was 11% in 2018 (NZ average is 15.3%). This tells us two things:

- Horowhenua may not be building housing that adapts to life cycles enabling people to remain within the community as their life circumstances change;
- Horowhenua housing development is not meeting the changing preferences of the market.⁵

Engaging nearby housing as a component of the walking journey to the centre switches on a number of things simultaneously:

- 1. Increases the capacity for housing diversity and density;
- 2. Improves the affordability of social housing due to lower land cost;
- 3. Increases levels of walking (public health & social benefit and adds to centre vibrancy);
- 4. Increases levels of social exchange (public health and economic benefit);
- 5. Expands the settings for employment adjacent to and within centres;
- 6. Increases the size of the market for the centre.

In terms of centre planning, the advent of COVID 19 has done two things:

- 1. Created an environment where personal bio-security has become a behavioural issue within the public realm (but more so within enclosed shopping centres);
- 2. Created an environment of social disconnectedness, where social exchange is discouraged, leading to increasing levels of depression, suicide and feelings of isolation;
- 4 Ewing et al. *Do Better Urban Design Qualities Lead to More Walking in Salt Lake City, Utah?* Journal of Urban De sign Volume 20, Issue 3, 2015. Pages 393-410
- 5 Surveys of housing preferences in New Zealand and Australia have indicated a mismatch between what the development industry are building and what the market prefers.

- 3. Highlighted the need for housing that is socially enabling and bio-secure;
- 4. Highlighted preferences for comfortable outdoor spaces rather than large internal spaces.

COVID is also highlighting the role of housing as a mechanism for safe social engagement. Regrettably, most modern housing built in the latter part of the 20th Century and early 21st Century is setback and often walled from the street. This increases a sense of neighbourhood isolation, reduces levels of walking and increases the potential for crime⁶.

1.3.3 Housing for Safe Social Engagement

Often our housing is designed to isolate us from others and from a relationship with the street. Housing that is close to a centre should be designed to facilitate social exchange as well as allowing for small business. Low cost housing as well as housing to cater for older people should be within walking distance of a centre. The design and placement of houses, and the potential relationship with the footpath are all subject to simple design controls.

With COVID we are recognising the need for safe, virus-free social engagement. This engagement is important to offset increased levels of isolation and depression. Social engagement leveraged around streets and centres is a simple design condition that can be expressed on a single page of design principles. To setup the condition for housing and to reinforce the performance of centres, the functional layout of the house as well as the relationship between the house and the street are important. The functional layout allows for the house to be a home or a business, but sets up a social condition.

Behavioural mapping studies have shown that for ease of social engagement the outdoor space of the house should be elevated as shown in the diagram below so that the eye line of people seated is slightly above that of people walking. When that condition is satisfied more people will sit on the verandah and engage with people walking in the street. In addition, the relative proximity of the verandah and the footpath results in a polite obligation for people in the street or on the verandah to acknowledge each other.





Diagram by Steve Thorne

The designs seek to get more residents outside and engaging safely with each other. The benefits include a stronger sense of communit , higher levels of trust and reciprocity, higher levels of community inter-dependence, increased economic opportunities, reduced government support and improved public health. Evidence shows that walking to shop for food changes our attitudes to the food we purchase and affects the supply side, with retailers responding with healthier, fresher food choices.

6

Steve Thorne & Space Syntax in association with WA Police. Urban & Building Design influences on property crime, analysis of 20,000 crimes against property in Gosnells WA between 1997 and 1999.

With these relationships established, people will identify with Taraika Village. Given the range of densities proposed across Taraika this localised identity will provide wider benefits for the District. Walking-supportive village housing requires few, if any, driveway crossovers due to access from a rear lane. Rear lanes with double or triple garages offer the opportunity for an apartment above. As the site and garage are already paid for by the house, the construction of the apartment provides a profit centre for the builder/develope.

1.3.4 Housing for Social Diversity

Price is a key indicator of social diversity. A major cost for housing is the land component. Housing within the Village Housing overlay can substantially reduce land cost, with narrow lots and reduced front yards. Being close to a village centre, such housing reduces transport costs, with everyday items and services within easy walking distance. As the village centre will also be on a public transport route, public transport will be within easy walking distance.



Figure 6 - Housing for Social Diversity (Low Cost - Hobsonville)

Figure 7 - Rear Lane Housing



The garage apartment in rear lanes (as shown above) provides an affordable housing product.

These garage apartments also often come alive at night with residents socialising along and across the lane whilst social distancing. Whilst this is an extreme example and Levin and Taraika may not yet be a market for such an intensive use of rear lanes, plans to follow in Chapter 2 show how above-garage apartments can be strategically placed on sites in Taraika and Levin to assist with affordability and security.

1.4 Conclusions

Demographic changes in society are driving a mismatch between housing types being built and housing types preferred by the market. Market surveys of housing preferences (not surveys of dwellings being sold) show that trends in lifecycles are not matched by trends in the production of housing types. In regional townships housing supply tends to be more monocultural, as shown in the statistics earlier in this report. The experience of these consultants in Canberra shows that new housing typologies should not be based on analysis of historic sales.

In Canberra three market research firms were appointed to determine the market for medium density housing. All of the research undertaken was supply-based; as in a register of what had been selling over the past decade. This rear-view mirror research purported to indicate demand for new product. The three market studies concluded that no demand existed in Canberra for medium density housing.

The Canberra developer ignored the findings and built 9 apartments (3 storey apartment building) and 12 terrace homes. The apartments all sold off p an in the first weekend of marketing and the terraces followed shortly after. The apartments and terraces (shown below) facilitated an explosion in medium density and apartment construction in the suburb and now within the wider city. Many of the terraces and adjacent apartments contain ground floor businesses and laneway garages have apartments above. The only conclusion from this lesson is that rear-facing market research has almost no bearing on housing preferences. This lesson has been confirmed and repeated universally across markets in New Zealand and Australia by housing preference studies in both countries (Grattan Institute Australia, "The Housing We'd Choose" and the same report heading for Auckland by Market Economics).



Figure 8 - Canberra's Breakthrough Medium Density Housing Development - Otway Terrace

The ground breaking Otway project is two streets back from Canberra's Gungahlin town centre and some of the terrace housing and adjacent apartments contain businesses on the ground floor, reflecting the use adaptability of the typology and the market for non-traditional business premises and settings (see 1.3.1 "Village Housing for Wider Jobs Settings").

The main issue for Council with respect to diverse housing at Taraika is to not merely enable, but to **require** a more diverse housing mix in proximity to the Taraika village centre, as without such diversity, the social and economic capacity of Taraika will diminish.

2 Taraika & Housing Diversity

2.1 Walking, Density, Streets & Sections

We now consider the Master Plan for Taraika in terms of its ability to generate the appropriate block and street structure in order to accommodate:

- High levels of housing productivity and diversity within walking distance of the Village Centre;
- The appropriate block and street structure to give optimum access to the Village Centre by all modes;
- The appropriate block and street structure to facilitate the desired variety of medium or higher density housing forms;
- The appropriate block and street structure to facilitate an extended, boutique business setting adjacent to the Village Centre Core Zone and along the edges of streets leading to the Village centre;
- A block and street structure capable of generating the most efficient and attractive pedestrian environment to access the Village centre (ideal "ped shed" plus visually interesting, functionally and socially aligned pedestrian journeys);
- An wider "village housing zone" with a diversity of higher density housing particularly suited to singles, young couples and active aged.

An objective of the Master Plan design was to balance a typology mechanism with a land use mechanism within the village centre area. In all successful and vibrant centres there is a tight partnership between land use and buildings. When density is added, the way the buildings are designed, what they look like and where they sit on the site are fundamental elements in the performance of any village or town.

The primary Principle by which building quality can be managed relates to how buildings in the zone contribute to walkability. In the same manner that standards are applied to activities that are required to deal with setbacks, parking and loading, water, wastewater, public infrastructure etc, these buildings in not meeting specified design standards should be classified as high in the planning control threshold as reasonable. The zone by which to apply walkability design principles sits across two other sub zones, which we will cover later. The same design principles will apply whether the buildings are in a commercial zone (say Village Core) or a Village Core Support Zone as the walkability principles are universal in their application irrespective of land use.

The need for a typology mechanism is to ensure that buildings work together to deliver an intimate pedestrian environment requiring visual complexity, strong vertical proportions and the dominance of solid elements⁷. The Village Zone in an idealised form from the Master Plan is shown below. In practice, the extent of the zone is influenced by the structure.

⁷ Kandel, E, 2013, *The Age of Insight*, Random House; Sussman. A & Hollander, 2015, J, *Cognitive Architecture*, Routledge
Medium Density Housing Assessment October 2020



The ability to access the village centre by walking is an issue for the structure proximate to the Village Centre. Space Syntax analysis shows that walking routes that are direct will deliver more walking than routes that are indirect. In the Master Plan, the most direct routes to the Village Core are to the west, away from the Village Core (shown as a black box in Figure 10). This means that the walkable potential within the wider Village Zone is reduced as the major destination is not well connected with direct links into the Village Zone. If we adjust the structure, walkability potential increases, as shown in Figure 11.

There is structural nexus between the ability to generate higher density housing and the placement, dimensions and connections of the streets to the main street of the Village Centre Core⁸. These connecting streets need to be capable of the following:

- Accommodating street trees to provide shade, shelter and reduce heat to improve pedestrian amenity,
- Providing parallel street parking on both sides of the street to enable a wider parking regime for the Village Core and the Village Support zones and giving greater flexibility to parking for housing and for business;
- · Connecting directly to the Village Core "main street";
- Set at block depths suited to the dimensions of multiple medium density housing sections;
- Extending an optimum length back into the community or Village Zone.

The various requirements mean that these streets need to be around 18 metres wide to accommodate a footpath, street trees and parallel parking between.

The structural connections to the Village Centre Core and "main street" generates additional land use opportunities to expand business settings for the village and widen the opportunities for density. The movement network is key to both outcomes. Figure 10 show the structure in the Master Plan and connections to the centre and its "main street". In Figure 11 we have adjusted the network to improve the feed to "main street." This adjustment has flow-on effects for business settings and density.

⁸ Leinburger, C, & Alfonso, M, 2012, *Walk this Way, The Economic Promise of Walkable Places in Metropolitan Washington D.C.* Brookings Institute

Figure 11 - Feeding Main Street (Master Plan)

GLADSTONE GREEN

In the Master Plan, east-west cross streets intervene to reduce the north-south connections to the centre. In taking these through, we irrigate the centre with north-south movement and improve the centre's walkability.



Figure 14 - Village Core (adjusted Master Plan)

Figure 12 - Feeding Main Street (adjusted structure)



The wider Village Zone is proposed to contain two sub zones. The Village Centre Core Zone and the Village Core Support Zone (shown in red above). The Village Core Zone remains the same with the two alternate structures, but is irrigated with greater movement capability in the adjusted plan.

With the adjusted structure the Support Zone can extend a block or two into the housing area and a little further along the main street. With the Master Plan structure the support zone would mostly be limited to the main street and some housing around the retail and business uses at the western end of the main street (Figures 15 & 16)...

The Village Core contains the main retail and businesses of the Village (Village Core Zone) and in the Village Support Zone, the built typology changes from a business or retail-specific typology to an adaptable or business-capable house, such as a ground floor unit, a villa or terrace house as shown in Figure 8.



Finally, the combination of the structure, the expanded settings for village businesses (outside of the Core zone) influences the level to which the centre will assist to generate demand for housing density - as shown in Figures 17 & 18.



Figure 17 - Housing Density Zone (Master Plan) Figure 18 - Housing Density Zone (adjusted structure)

Figure 17 shows the sites that are capable of higher density housing as specified in the Master Plan. The density zone is relatively small and understates the capacity of the centre with the appropriate structure to inspire a more diverse housing mix as well as possibly understating latent demand for higher density housing as outlined in the housing mix analysis in Chapter 1. The stronger structural relationship with the village centre as shown in Figure 12 offers a wider spread of mixed housing within an easy walk of the centre.

Block depths are shown in the inset diagram in Figure 18 at around 32.5 metres, with a 7 metre wide rear lane. This allows for a more walkable condition across the zone and assists with the desire to walk to the village centre. The lanes are secured by three above-garage apartments (in this example), and as shown in Figure 7, could also be used more comprehensively as affordable housing within the wider Village Zone.

An example of a house on a block with good solar penetration into the back yard (generally an east-west section) would be similar to the house in Figure 19 below.



Figure 19 - Medium Density Housing (solar access to private yard)

Diagram by Steve Thorne

Block structure (smaller rather than larger) is important for permeability/accessibility to and from the Village Centre (Core).

2.2 Blocks & Typologies

The following diagrams are representative of responses to various block sizes and frontages. Taraika and Levin are not Wellington or Auckland, and so the imposition of metropolitan densities across the area are likely inappropriate in Taraika.





Diagram by Steve Thorne

The above typology with an apartment above a garage Likely the frontage width will sit somewhere between 9 metres and 14 metres as an appropriate measure for Taraika medium density housing.

In testing the block structure and subdivision layout, the typical main street block is around 72 metres, with the frontage yielding 7 properties (as shown in Figure 18).

2.3 District Plan Zones - for Discussion

The design of buildings is much more important to social and economic performance (and public health) than land use in within the wider Village Zone but we accept that the Council may wish to add descriptive land use zones in and around this area. The recommended approach seeks to recognise the opportunity cost involved in zone-based approaches that result in a commercial zone immediately transitioning to a suburban housing zone. Traditional urban centres (different from shopping centres) do not have definitive boundaries with the ideal urban centre offering a range of business settings across a wide geography at a range of price points. This is the most effective economic strategy for centres and centre-adjacent housing as it allows for a broader range of businesses, start ups and incubators. Closely defined commercial zones with commercial-only buildings do not.

If planning for the wider Village Centre area continues to be zone-based, then there are three notional zones within the general vicinity of the village centre as follows by size of area:

The Village Centre Core Zone (small) The Village Centre Support Zone (larger) The Village Zone (largest)

As shown in Figures 9-16, the structure influences the definition and boundaries of these three zones. Following are the Master Plan's definition of each of the three zones compared with the adjusted structure plan.

2.3.1 Village Centre Core Zone Objectives

This is the zone for the major retail, commercial and community activities/uses of Taraika. In this zone one would expect the buildings to be used solely for commercial activity. The objectives / desired outcomes of the zone would include:

- To provide a consolidated location for inter-related commercial activities, with a strong focus on buildings securing the public realm by addressing streets and being entered from streets (and thereby increasing the likelihood of walking);
- · Buildings are designed to appeal to pedestrians;
- Buildings are designed to work together and appear as a series of boutique individual premises with clearly demarcated dividing walls that extend through the roof. This is in contrast to the modern development practice of a single line of shops appearing as one building, glazed floor-to-ceiling;
- Car parking is street-based and at the rear of buildings;
- The zone designed for businesses to serve the wider east Levin community for everyday goods and services including professional services;
- Public realm vibrancy is recognised as an inspirer of a wider jobs mix within and adjacent to the centre in the Village Core Support Zone;

 The appropriate street links that connect to the main street of the village seek to facilitate opportunities for a wider jobs mix in domestic-scale buildings that can be used for business or housing.

2.3.2 Village Centre Support Zone Objectives

The Village Centre Support Zone is more effective when the structure is slightly adjusted from that of the Master Plan. The walking connections from the more expansive walkable environment are balanced with parallel street parking in and around the Village Centre Core Zone and the Village Centre Support Zone. If the Village Centre Core is thriving as an urban centre, then centre parking will most certainly flow back into the illage Centre Support Zone. This reflects two dynamics common to successful urban centres

- 1. The immediate "housing" area needs to reflect a physical and functional transition to housing on larger land parcels further away from the centre;
- 2. Housing that is proximate to a centre should be adaptable for business use, given its exposure to increased movement and street parking. This has implications for siting and house/building design.

The housing typology proposed or required within the Village Centre Support Zone offsets any concerns around unbalancing the centre. Business uses in these houses will be boutique in nature and will expand on, rather than compete with the spirit of activity within the Village Centre Core. The effect is to make the illage Zone more dynamic, interesting and expand the social and economic influence of the illage Centre Core Zone.

This zone recognises that a robust urban village centre core, with high levels of amenity as a consequence of street-supportive architecture, will create demand for boutique-level businesses that are not ideally suited to the Core Zone to locate nearby. Given that most new businesses in New Zealand are small and many of these businesses are suited to an environment around a vibrant centre. These businesses are in evidence adjacent to older New Zealand centres where housing has a direct relationship with the street. The objectives of the zone would include:

Zone descriptions and objectives are as follows:

- To expand and diversify the settings for small and boutique business, reflecting modern business formation characteristics and low-cost business growth opportunities;
- To encourage the dual use of homes as businesses and residences;
- To ensure that the housing typology of the zone expands the settings for business and is complementary to the settings in the Village Centre zone;
- To encourage small businesses in adaptable housing to locate adjacent to the Village Centre with minimum planning approval requirements;
- To provide buildings brought forward on each block to have a close physical and functional relationship with people on the adjacent footpath;
- To allow any house to be fully or partially used as a business.

Note: The objective is to provide a broader range and settings for full-time **businesses in housing** close to the centre. The apparent anomaly is that the building typology is a home, but the use of the same building can be for a business and not a home. To perform optimally as a business it is essential for the building to have a strong relationship with the street and so reduced setbacks (as shown in Figure 5) will be necessary to the integrity of the zone and the desired outcomes.

Finally, the Support Zone is likely a residential zone with a more permissive range of uses allowing full-time occupation by businesses. This raises the issue of the extent of the zone or whether a subzone is needed. Assuming a more simplistic approach to the zones around the Village Centre, there are likely to be two zones.

- 1. Commercial Zone
- 2. Residential Zone with Medium Density Overlay Permissive for business

The complicating issue of the medium density overlay is that it is likely to be wider than the notional Village Centre Support Zone. This raises the issue of how precious we might want to be about businesses locating some distance from the centre. This could be dealt with in Objectives and Principles by establishing the basis for the business-permissive use. The Objective is the reinforce and support the centre. The further away from the centre, the less this Objective would apply. The other factor is the level to which market factors would apply. Businesses generally would like exposure to and a relationship with the Village Centre. As the distance from the centre increases, it is less likely that properties would be as attractive to business.

2.3.3 Village Zone Objectives

The Village Zone is a zone overlay that covers both the Village Centre Core and Village Centre Support zones and extends to cover the area intended for more intensive housing with limited boundary setbacks and within easy walking distance of the Village Centre. The intent of the overlay is to require houses to have a relationship with people walking in the street through the adoption of the principles shown in Figure 4.

Zone descriptions and objectives are as follows:

- To provide more housing and greater numbers of residents within close walking distance of the Village Centre;
- To provide a diversity of housing choice, reflecting the lack of housing diversity in Levin and Horowhenua;
- To provide housing product that matches the various lifecycle stages of residents;
- To provide entry-level housing for young people;
- To provide housing for active retirees within easy walking distance of a wide range of goods and services in the Village Centre;
- To enable older residents of Horowhenua to "age in place" and not leave the community and their support networks due to lack of housing choice;
- To enable older residents to trade down from larger and often more expensive homes and bank equity;
- By design, siting and orientation of the house on the block engenders increased levels of walking;
- By design encourage greater levels of social exchange between people in the house and people in the street;
- By design and the quality of the public and private realm interface which is designed to get people outside, improve physical and mental health.

The houses in this zone are to be diverse, with two and single storey homes on a variety of sections of various sizes. Dwelling yield per ha across the zone would expect to average out at around 22-24.



3.1 Levin Builder-Developer Market & Methods

Conflicting data exists on how to determine the capacity of the developer-builder market to actively or pro-actively embrace diverse housing product in the Village Zone. On the one hand, the Levin area has seen very little "joined" housing in the past 20 years, but even in the Village Zone and adjacent to the centre we would expect only a minor proportion of housing to be joined. What we should expect is small sections with a small front yard and narrow block (possibly between 11 and 14 metres). In addition, growth in Levin has been historically low. So demand has been driven by household occupancy changes (which have been reducing for decades, which requires more homes for the same population). Builders tend to be conservative in a low growth market and so the motivation for builders to experiment in such a market also tends to be low. Builders from outside of Levin are already active in the Horowhenua market - as they should be.

Taraika is a project of sufficient size to interest some of the larger corporate builders in New Zealand.

In looking at builders that advertise product at scale in Levin, Homestead Construction appears to have a range of typologies, good capacity and a presence in Levin. Other home builders in the area tend to be project-based, without off-the-plan typologies.

Some of the major national home builders have a presence in Palmerston North and most if not all of the others have a presence in Wellington. Given that O2NL will make Wellington less than 1 hour travel time from Levin, Wellington builders should be comfortable candidates for the Taraika home building market. The Council might consider establishing education and consultation sessions with major builders in Wellington in anticipation of Taraika and O2NL Council has regulatory options to enable an appropriate form and mix of medium density housing product with Taraika. This will require developer-builders to produce product not seen in any quantity to date in the Levin market. The level to which developer-builders engage with Taraika to deliver an appropriate mix of density and typology is subject to several factors:

- Land cost
- Build cost
- Anticipated market size by product type
- Anticipated sale prices
- Cost of producing new typologies
- Certainty and ease of approvals

Council could offset the cost of the last of these two. In projects elsewhere design processes instigated by Councils (or developers) have substantially reduced the cost of designs and sped up approval times. This gives certainty to developers and reduces their risk.

Council could (for instance) produce a detailed pre-approved plan that removes all risks of planning approval and design costs for the builder/developer. This is called a BAGs plan and an example of such a plan and the built result is shown side-by-side following.

Figure 22 - Identical as-Built Overlaid on BAGs Plan



Figure 21 - Building & Access Guideline Plan (BAGs)

The block with the duplex delivers 6 dwellings across an 80 metre block frontage. The duplex frontage is 8 metres for each, but others are 11 metres (x 2), 14 metres and 17 metres. These are similar to the scale, size and configuration of buildings that we would expect to build in the Taraika Village Zone.

TULLIMBAR VILLAGE

27

The imposition of a BAGs plan would require in-depth consultation with the builder-developer candidates and possibly also with property owners. The examples shown above are all architecturally designed to be representative of south coast NSW forms (not an appropriate style for Taraika). Design for these went through a rigorous process involving multiple architects (critically analysing each other's drawings and plans) and builders to ensure cost-effective design and construction.

The major benefit of this design and costing partnership is reductions in the risk profiles for the Council (and community) and for the builder developers, who can cost up approved plans and do not need to go backward and forward to Council with design options.

However, whilst this process gives complete certainty of delivery of all constituent objectives, other processes are less prescriptive but are less certain in outcomes. Including a BAGs plan, these would include:

- 1. BAGs Plan;
- 2. Council development entity (such as the Trust) developing a demonstration project;
- 3. Strong design controls in the District Plan;
- 4. Two-way education sessions with developer builders;
- 5. Standard District Plan Zoning provisions as seen all over NZ.

For the Village Centre, improving economic capacity will require the Council to revisit its "home occupation" controls. This proposal seeks to allow businesses to fully occupy individual houses, without the need for the building to act as a residence. The individual nature and fine-grain scale of these buildings, which are built as houses, will offset any concerns about scale and competition with activities in the Village Centre Core Zone. These are relatively small domestic buildings that widen the scope for business occupation and are intended to support the performance and enhance the robustness of the wider Village centre and act complementary to the Core Zone. The use table for this Zone should not be too restrictive but should attempt to loosen the zoning collar around the centre to encourage a wider mix of activities and more businesses in and around the centre than that which would normally be confined to the Core zone.

Following is our assessment of the efficacy and risk to the objectives held for Taraika under the five options.

Control Option	Risk to Desired Outcomes & Objectives
Building and Access Guidelines (BAGs)	Low
Council develop a demonstration project	Moderate
Strong Design Controls	Moderate to High
Two way education session with developers and builders	High
Standard DP provisions	Extreme

There are of course options to do more than one of these together. Design controls and education sessions could be packaged together and a BAGs approach inherently requires the Council to bring the developer-builders together to work through site and building designs, costs and buildability.

Strong design controls, we have assumed, would take the traditional form of a guidelines package referenced and linked by and to the District Plan. The level to which the controls are reinforced in the Plan would largely determine the level of risk, but the experience in New Zealand of Design Guidelines reinforcing District Plan provisions is not good.

The main point in this is that the Taraika project is a consequence of long term and linked together thinking by Horowhenua Council. The development of a standard New Zealand subdivision, with little housing diversity, and a shopping centre setback from the street behind a sea of parking is what the market is most likely to deliver unless it is required by regulation or exemplars to do something different. The rationale for a different design and development approach in Taraika sit within existing work undertaken by and on behalf of Council over the past few years, as well as the principles contained within this document.

It would be a shame to lose a valuable urban asset to conventional development mediocrity. The ability to require a quality path requires planning and design innovation as outlined in this report as well as political will. The Councillors will also need to see the benefits and continually reinforce the quality focus.

Taraika has the potential to be a game changing urban development project not only in Horowhenua but in New Zealand with greater capacity for improved social, economic and health outcomes if developed as outlined in this document.



Appendix 5 – Liquefaction Assessment

REPORT

Tonkin+Taylor

Horowhenua District Potential Growth Areas

Liquefaction Assessment

Prepared for Horowhenua District Council Prepared by Tonkin & Taylor Ltd Date September 2020 Job Number 1009677.v2





Exceptional thinking together www.tonkintaylor.co.nz

Document Control

Title: Horowhenua District Potential Growth Areas					
Date	Version	Description	Prepared by:	Reviewed by:	Authorised by:
28/08/2019	1	Draft for comment	DSAH/ADW	CVS	MEJ
14/09/2020	2	Final	ANRO	CVS	MEJ

Distrib	ution:

Horowhenua District Council	1 сору
Tonkin & Taylor Ltd (FILE)	1 сору

Liquefaction Assessment Summary

LIQUEFACTION ASSESSMENT SUMMARY			
This liquefaction assessment has been undertaken in general accordance with the guidance document 'Assessment of liquefaction-Induced Ground Damage to Inform Planning Processes' published by the Ministry of Business, Innovation and Employment in 2017.			
https://www.building.govt.nz/bu	ilding-code-compliance/geotechnical-education		
Client	Horowhenua District Council (HDC)		
Assessment undertaken by	Tonkin + Taylor Ltd, 2 Hunter Street, Wellington 6011		
Report date	September 2020		
Extent of the study	 HDC future growth areas: (refer Figures A1 to A10 in Appendix A) Foxton Beach Foxton Tokomaru Shannon Waitarere Beach Mangaore Levin Ohau Waikawa Beach Manakau 		
Intended RMA planning and consenting purposes	Inform HDC strategy for urban growth and identify liquefaction risks associated with identified future growth areas.		
Other intended purposes	 Inform future liquefaction assessment work required to develop future growth areas. Indicate potential strategies for liquefaction and lateral spreading mitigation during development of future growth areas. 		
Level of detail	This assessment is considered to be a Level A <i>"Basic desktop assessment" for the site assessments of all areas listed above</i> assessments, and is based on the geotechnical investigations currently available.		
Notes regarding base information	 The assessment included relevant Cone Penetration Test (CPT), Machine Borehole (BH) and Hand-Auger (HA) data within or near the study areas that were available on the NZ Geotechnical Database (NZGD) as at January 2020. Refer Appendix A and Appendix B for details on the investigations. This assessment also included relevant data (CPT, BH, HA, Scala Penetrometer and Test Pit), within or near the study areas that were provided by HDC and not available on the NZGD. Refer Appendix A and Appendix B for details on the investigations. Depth to groundwater was based on groundwater encountered within investigations, Horizons Regional Council groundwater database, and observation of surface water such as lakes and rivers. 		
Other notes			

1 Introduction

1.1 General

Tonkin & Taylor Ltd (T+T) was engaged by Horowhenua District Council (HDC) to undertake a liquefaction vulnerability assessment of ten future growth areas identified within their district. These include sites at Foxton, Foxton Beach, Tokomaru, Shannon, Waitere Beach, Mangaore, Levin, Ohau, Waikawa Beach and Manakau.

The work was undertaken in accordance with our proposal dated 15 May 2019¹, and the variation order dated 25 November 2019² detailing the inclusion of additional assessment of future growth areas. This report serves as an updated version to our initial draft assessment dated August 2019³, assessing only six future growth areas.

A geotechnical investigation has previously been undertaken at each of the sites and that data is publicly available on the New Zealand geotechnical Database (NZGD). The investigations consisted of Cone Penetration Tests (CPTs), Machine Boreholes (BH's) and Hand-Augers (HA's), which have been used in the liquefaction assessment of each site. The locations of the investigations used are presented in Figures A1 to A10 in Appendix A. A summary of the site investigation data retrieved from the NZGD is provided in Appendix B.

Additional geotechnical data from previous investigations within or near the sites, not available on the NZGD, were provided by HDC. These investigations consisted of CPT's, BH's, HA's and Scala Penetrometer Tests, which have also been used in the liquefaction assessment of each site. The locations of the investigations used are presented in Figures A1 to A10 in Appendix A. A summary of the site investigation data received from the HDC is provided in Appendix B.

Geotechnical investigations and more detailed assessments⁴ were undertaken by T&T in 2019, for two smaller areas located near the centre of the current Foxton Beach assessment area. These assessments are considered to be of Level C *"Detailed area-wide assessment"* based on Table 3.3 of the MBIE guidance⁵. As the scope of this assessment was focused on a larger area in Foxton Beach, the two refined assessments were not presented in detail, but the investigation data was utilised for this assessment.

The liquefaction analysis and assessment included the following:

- ∂ Assess likelihood and consequences of liquefaction across each site.
- ∂ Assess liquefaction for 1/25 year, 1/100 year, and 1/500 year seismic events.
- ∂ Identify liquefaction vulnerability across each site.
- ∂ Assess lateral spreading hazard across each site.
- ∂ Identify appropriate ground improvement measures and/or foundations for developments in order to mitigate the liquefaction hazard.

¹ T&T (15 May 2019). Letter of Engagement to HDC. Stage 2: Seismic Risk Assessment. *Proposal for Liquefaction Assessment, Six Potential Growth Areas, Horowhenua District Council, Proposed Rezoning*. T&T Ref: 1009677.0000. ² T&T (25 November 2019). Letter to HDC. *Growth Areas, Horowhenua District, Level A Assessment, Liquefaction*

Vulnerability, Variation Order No. 1. T&T Ref: 1009677.0000. ³ T&T (August 2019). Draft Report. *Horowhenua District, Potential Growth Areas, Liquefaction Assessment.* T&T Ref: 1009677.0000.

⁴ T&T (September 2020). Report. *HDC Property, Foxton Beach – Liquefaction Assessment*. T&T Ref: 1009677.0010; and T&T (September 2020). Report. *Soo Property, Foxton Beach – Liquefaction Assessment*. T&T Ref: 1009677.0010.

1.2 Intended purpose of assessment

This liquefaction assessment is primarily intended to inform HDC of liquefaction hazard associated with their future growth areas as part of the HDC strategy for urban growth and development.

Other intended purposes of this report are to inform future liquefaction assessment work which may be required to develop the HDC future growth areas. In addition, this report indicates potential strategies which may be used during development of future growth areas to mitigate liquefaction and lateral spreading hazard.

1.3 Assessment methodology

This liquefaction assessment has been undertaken following the recommendations of the Ministry of Business Innovation & Employment (MBIE) Planning and Engineering Guidance for Potentially liquefaction-Prone Land⁵. The assessment is based on an understanding of the geology at each of the sites, and a liquefaction analysis of the CPT investigations. Based on the density of investigations available at each site and the overall level of uncertainty in the input information, this is considered to be a Level A *"Basic desktop assessment"*. Earthquakes scenarios for return periods of 25-year, 100-year, and 500-year levels of earthquake shaking specific to each site were used. The specific outcomes of the liquefaction assessment for each site are detailed in the following sections. Technical details regarding the methodology used to undertake the liquefaction analysis, and the calculated results, are provided in Appendix C.

1.4 Liquefaction categories

Each site has been divided into liquefaction vulnerability categories as recommended by the MBIE guidance document⁵. Two levels of category have been used based on the understanding of the local geology and the density of investigations at each site. Where sufficient geotechnical investigations are available the land has been categorised as either *Liquefaction Damage Is Unlikely* or *Liquefaction Damage Is Possible*. Where insufficient investigation data is currently available to categorise the land the area has been labelled as *Liquefaction Category is Undetermined*. The liquefaction categories used are described in Table 4.4 of the MBIE guidance document⁵, which is presented in Table 1.1 below.

Changes in geology, variations in ground surface level, or variations in groundwater level over the site are expected to alter the site's liquefaction vulnerability. Any significant variations in these parameters, identified during our liquefaction assessment, have been shown on the associated Figures in Appendix A and further discussion is provided under each site's liquefaction assessment results summary section.

⁵ MBIE (September 2017) Planning and Engineering Guidance for Potentially Liquefaction-prone Land https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/planning-engineering-liquefaction-land/

Table 1.1:Performance criteria for determining the liquefaction vulnerability category (from
MBIE guidance document⁵, Table 4.4).

A liquefaction a liquefaction information	LIQUEFACTION CATEGO on vulnerability category has no on assessment has not been und to determine the appropriate ca	DRY IS UNDETERMINED t been assigned at this stage, ei bertaken for this area, or there is bregory with the required level o	ther because s not enough if confidence.
LIQUEFACTION DA There is a probability of n liquefaction-Induced o None to Minor for At this stage there is n to distinguish betwee More detailed assessme assign a more specific	MAGE IS UNLIKELY nore than 85 percent that ground damage will be 500-year shaking, ot enough information en Very Low and Low. ent would be required to liquefaction category.	LIQUEFACTION DA There is a probability of liquefaction-induced Minor to Moderate (or m At this stage there is a to distinguish betwe More detailed assessm assign a more specifie	MAGE IS POSSIBLE more than 15 percent that ground damage will be tore) for SOO-year shaking, not enough information een Medium and High. ent would be required to cliquefaction category.
Very Low Liquefaction Vulnerability There is a probability of more than 99 percent that liquefaction-induced ground damage will be None to Minor for S00-year shaking:	Low Liquefaction Vulnerability There is a probability of more than 85 percent that liquefaction-induced ground damage will be None to Minor for 500-year shaking	Medium Liquefaction Vulnerability There is a probability or more than 50 percent that liquefoccum-included ground damage will be Minor to Moderate for resal for 500-year sharing and None to Minor for UDU/year sharing	High Liquefaction Vulnerability There is a probability of more than 50 percent that liquefaction-induced ground damage will be: Moderate to Severe for 500-year shaking; and/or Minor to Moderate (or more) for 100-year shaking.

8 Levin

8.1 Site description

The site is located on the western side of the larger Levin area, and covers an area of approximately 1,766 hectares of which the majority is the main town area. Lake Horowhenua is located approximately 440 m northwest of the site, and a small stream runs south-to-north approximately 100 m to the east. Ponds/small lakes are located within the north-eastern site corner. State Highway 1 runs southwest-northwest through the site's centre. The site is occupied mostly by residential and commercial properties. Undeveloped farmland with scattered residential dwellings and structures associated with farming are located across the north-eastern and the southern areas. The foothills of the Tararua Mountain Range are located 1.2 km southeast of the site.

8.2 Ground and ground water conditions

8.2.1 Geology and topography

The published geological map of the area⁶ indicates that the site spans over a number of different geological units. In the southwest, site is underlain by Pleistocene aged, fluvial, poorly- to moderately-sorted gravel with minor sand/silt (Q2a), and marine gravel with sand (Q5b), in northeast. A small area in the north-eastern site corner is underlain by Holocene aged, alluvial gravel, sand, silt, mud and clay with local peat (Q1a). Two active folds are located approximately 150 m north of the site, but do not traverse the site area. The location of the site in the context of the regional geology is presented in Figure 8.1 below.



Figure 8.1: Levin geological setting (approximate site location outlined in red).

<u>Legend</u>

A	Approximate site boundary
Q2a F	liver deposits comprising poorly- to moderately-sorted gravel with minor sand/silt
Q5b E	Beach deposits comprising marine gravel with sand
Q1a A	Iluvial gravel, silt, mud and clay with local peat

The Tararua Range foothills lead down to the south-eastern site boundary, and the ground surface gently slopes northwest across the relatively flat site area. The ground surface across the site is intersected by multiple paleo channels which result in gentle undulations of the ground surface. Several ridges and high points are located along the northern site boundary over the marine gravel deposits, and are up to 10 m higher than the adjacent ground. The LiDAR data has been used to generate 1 m contours across the site, which is presented in Figure A7.1, in Appendix A.

8.2.2 Geotechnical model

In the west (Q2a), test pits indicate alluvial, medium dense to dense, sandy gravel to a depth of about 4.5 m. Fill material comprising medium dense to dense, gravelly sand was observed up to a depth of 4.5 m in one location indicating historical earthworks within the area. CPT's within this unit reached refusal conditions at shallow depths, likely on alluvial gravel deposits. It is expected that the remainder of the south-western half of the site (Q2a) is underlain by alluvial gravels with some sand and silt to a depth of greater than 20 m.

In the northeast (Q5b), majority of the CPT's indicate sand, loose to dense with depth, interbedded with sand mixtures, gravelly sand, silt and clay up to a depth of about 11 m, with possible local peat deposits. CPT's reached refusal at varying depths, likely on marine gravel deposits, which are expected to extend to depths greater than 20 m. Paleo channels that have incised into the underlying gravel and later filled with finer grained soils such as sand, silt, or clay are also likely to be present in varying depths across the site.

8.2.3 Groundwater

Toward the lower elevation areas in the west, two well records indicate typical groundwater levels of around RL 20.5 m (4.5 m depth) and RL 18 m (4.0 m depth). No groundwater was encountered within nearby test pits terminated at depths of around 2.7 m and 4.5 m. Within elevated areas toward the west, a well and dipped CPT's indicate a typical groundwater level around RL 28 m to RL 31 m, with depths to groundwater of 20 m near the centre, and 2.3 m to 4 m toward the north.

8.3 Liquefaction assessment

8.3.1 Results summary

The site is split into three categories, as shown on Figure A7.2 in Appendix A.

- *∂* High Elevation Area (north) Liquefaction Damage is Possible;
- *∂* Low Elevation Area (north) Liquefaction Damage is Possible; and
- *∂* Southern Area Liquefaction Damage is Unlikely.

The currently available ground information is not sufficient to categorise the site into the more precise liquefaction vulnerability categories presented in Table 1.1. However, if the general trends observed in the current data are confirmed with more detailed information, our preliminary expectation is that:

- ∂ High Elevation Area (north) might eventually be categorised as Low or Medium Liquefaction
 Vulnerability;
- ∂ Low Elevation Area (north) might eventually be categorised as High Liquefaction
 Vulnerability;
- ∂ Low Elevation Area (south-west) might eventually be categorised as Low Liquefaction
 Vulnerability;

∂ High Elevation Area (in the south-east) – might eventually be categorised as Very Low Liquefaction Vulnerability.

The variation in expected eventual liquefaction vulnerability categorisation between high and low elevation areas is due to the greater crust thickness and greater depth to groundwater in the high elevation area.

The Levin liquefaction assessment is considered to be a Level A *"Basic desktop assessment"* based on Table 3.3 of the MBIE guidance¹.

A detailed summary of the liquefaction analysis methodology and results is presented in Appendix C.

8.3.2 Lateral spreading assessment

Land within 100 m of a free face are areas assumed to be potentially susceptible to lateral spreading. This assessment is based on the simple geomorphic screening for lateral spreading presented in Section 4.4.3 of the MBIE guidance¹. Simple geomorphic screening has been completed assuming a free face height of less than 2 m. The following free face sources were identified during our lateral spreading assessment:

- ∂ Land adjacent to ponds/small lakes located in the north-eastern site corner; and
- ∂ Land adjacent to the stream located east of the site.

Land adjacent to Lake Horowhenua is also potentially susceptible to lateral spreading, considering a free face height of more than 2 m. Although this water body is located more than 200 m from the site, this possibility should be considered.

Lateral spreading is expected to occur during 500-year level shaking. Lateral spreading may occur under lower levels of seismic shaking; however, our current assessment is not sufficiently detailed to determine the likely triggering levels for lateral spreading at this site. A detailed lateral spreading risk assessment should be completed as part of any future development works for this site.

A detailed lateral spreading assessment may reduce the area that is assessed as susceptible to lateral spreading if the free face is lower that assumed, near surface liquefied layers are not continuous, or the near surface layers are not expected to liquefy. It is possible that the area assessed as susceptible to lateral spreading could increase during a detailed assessment if the free face is shown to be higher than expected or near surface liquefaction is worse than expected.

8.3.3 Key uncertainties

The key uncertainties associated with our liquefaction assessment are the variation in subsoil profile over the site, variation in groundwater level, and the height of the potential free faces.

Additional site specific geotechnical investigations comprising BH's and/or CPTs would be required to properly characterise the variation in subsoil profile over the site. A suitably detailed investigation would be expected to enable categorisation of the site into the more precise liquefaction vulnerability categories presented in the bottom row of Table 1.1.

LiDAR data indicates that a number of paleo channels are present over the site. Paleo channels may have perched groundwater tables, from water running off from surrounding higher land and soaking in, and localised pockets of soft or loose soil. A site walkover assessment by an engineering geologist and targeted geotechnical investigations to assess stratigraphy and groundwater level would reduce the uncertainty relating to paleo channels and variations in groundwater level.

Piezometers installed within borehole investigations should be used to measure the groundwater level at the site over time. CPT investigations may provide an indication of the depth to groundwater at the time the investigation was undertaken. A more detailed understanding of the variation in

groundwater level over time at the site is expected to allow for categorisation of high elevation areas into the more precise liquefaction vulnerability categories.

The height of any potential free faces has a large impact on the expected extent of lateral spreading and the magnitude of lateral spreading. An onsite assessment of free face height should be completed as part of detailed geotechnical investigation works to enable a better assessment of the potential extent and severity of lateral spreading.

12 Refinement of liquefaction categories

The liquefaction categories shown in Appendix A, Figures A1 to A10, are based on widely spaced investigations with assessment at a level of detail of "Level A". These results are likely to be sufficient to inform HDC's consideration of the relative favourability of future growth areas at the current time.

For the level of accuracy required at subdivision consent, additional investigation would be appropriate to identify whether there are any localised areas of poorer ground. To support any applications for subdivision consent a "Level C" assessment in terms of the MBIE liquefaction planning guidance should be carried out, and stand-alone geotechnical reports prepared. This work should be overseen by a Chartered Professional Engineer (CPEng) with current accreditation in the geotechnical practice field as administered by Engineering New Zealand and/or a Professional Engineering Geologist with current registration on the Engineering New Zealand PEngGeol register. The reports should include all relevant factual and interpretative geotechnical information, clearly distinguishing between fact and interpretation and providing a commentary on uncertainty (and potential consequences). The reports should address the pertinent geotechnical aspects of all natural hazards relevant to the site (including, but not limited to, liquefaction).

If areas of *High Liquefaction Vulnerability* are identified, site-specific geotechnical assessment should be undertaken for each individual lot within the area. This is in order to confirm that the ground improvement and/or foundation design is appropriate for the specific site.

13 Site development considerations

13.1 Overview

The study areas have generally been classified into areas where *liquefaction damage is unlikely* or, *liquefaction damage is possible*. In areas where liquefaction damage is possible a number of options are available for liquefaction mitigation and lateral spread mitigation. These options are grouped into:

- ∂ Enhanced Foundations (e.g. a waffle slab, enhanced lightweight foundation on timber piles, timber piles on a reinforced concrete slab, or deep piles.)
- ∂ Ground Improvement (e.g. hardfill raft, soil-cement raft, stone columns, or columns of highly compacted aggregate)

Development of the site would be appropriate subject to the options provided. Site specific assessments required for design will provide greater clarity for foundation design and ground improvement requirements for individual lots. This assessment does not remove any requirements for site specific assessment for detailed design. All normal requirements for earthworks and building design still apply (e.g. as stated in NZS 3604).

13.2 Ground improvement and foundation options

The current level of assessment allows for general ground improvement and foundation options to be presented for the areas categorised as liquefaction damage is unlikely or possible. Further distinction between areas of very low to high vulnerability should be established through a "Level C" assessment in terms of the MBIE liquefaction planning guidance, as recommended in section 8.

Generally, liquefaction mitigation on land where "*liquefaction damage is possible*" (medium or high category land) can be undertaken either on a house-by-house basis, or as part of area-wide ground improvement, depending on the level of resilience required from the development.

Liquefaction mitigation on a house-by-house basis is generally less effective and leaves a higher risk of disruption to the community in a large earthquake (e.g. due to damaged roads and services). Therefore consideration should be given to requiring area-wide ground improvement as part of subdivision construction.

Development options which could be selected for development are summarised in Table 13.1 below.

The descriptions of damage to services in Table 13.1 assume that no additional protection is provided to road networks or buried services. Additional resilience to roads and services could be provided by implementing localised ground improvement as described in Section 9.4.

Development option	Liquefaction damage is unlikely (Very Low/Low Liquefaction Category)	Liquefaction damage is possible (Medium/High Liquefaction Category)
	500-year earthquake shaking	500-year earthquake shaking
(1) Standard NZS 3604 foundation with no ground improvement	Minor to Moderate settlement of dwellings, could be expensive or not possible to repair. Damage to roads and public and private services.	Moderate to severe settlement of dwellings, may or may not be repairable. Significant to Widespread damage to roads and services.
(2) Enhanced foundation with no ground improvement ⁷	Minor to moderate settlement of dwellings, likely to be readily repairable. Damage to road and public and private services.	Minor to major settlement of dwellings, repair probably feasible but could be expensive. Significant to Widespread damage to roads and services.
(3) Enhanced foundation with ground improvement beneath dwelling footprint onlyMinor settlement of dwellings, likely to be readily repairable. Damage to roads and services apart from those adjacent to dwellings.		Minor to moderate settlement of dwellings, likely to be readily repairable. Significant to Widespread damage to roads and services.
(4) Enhanced foundation with area- wide ground improvement	Minor settlement of dwellings, and minor damage to roads and services, all likely to be readily repairable.	Minor settlement of dwellings, likely to be readily repairable. Moderate damage to roads and services.

Table 13.1: Expected performance of development options: away from lateral spreading areas

Table Legend:

Yellow shadingUnlikely to meet Building Code requirementsWhite shadingLikely to meet Building Code requirementsBlue shadingProvides additional community resilience beyond minimum Building Code requirements

The split-colour shading for some cells recognises that there remains substantial residual uncertainty in the liquefaction assessment undertaken to date. More detailed liquefaction assessment would be required to confirm foundation requirements.

⁷ For land identified as *liquefaction is possible*, enhanced foundations with no ground improvement may require a more robust foundation solution to meet Building Code requirements (e.g. piles). In this case costs will be dependent on the specific ground and building details for each property, but will likely be higher than for Medium Category.

13.3 Lateral spread mitigation options

Table 13.2 below summarises the options available for development of land at risk of lateral spreading. Refer Figures A1 to A10, in Appendix A, for the extent of land at risk of lateral spreading at each site.

Lateral spreading mitigation on a house-by-house basis is generally less effective and leaves a higher risk of disruption to the community in a large earthquake. Therefore consideration could be given to a 'Perimeter Treatment'.

A perimeter treatment would involve ground improvement of a strip of land parallel to the edge of watercourse. Such ground improvement would need to be deep enough to create a break in the otherwise continuous liquefiable layer (i.e. 4 to 6 m deep stone columns or columns of highly compacted aggregate).

Development option	Liquefaction damage is unlikely (Very Low/Low Liquefaction Category)	Liquefaction damage is possible (Medium/High Liquefaction Category)
	500-year earthquake shaking	500-year earthquake shaking
No specific mitigation; standard NZS 3604 foundations (see also Option 1 in Table 13.1)	Lateral spreading not reduced. Dwellings distorted due to ground stretching across dwelling footprint (possible collapse risk), which would be expensive or not feasible to repair. Underground services stretched or disconnected at junctions. Cracks up to 100 mm wide may form in roads and pavements.	Lateral spreading not reduced. Dwellings distorted due to ground stretching across dwelling footprint (possible collapse risk), which would be expensive or not feasible to repair. Underground services stretched or disconnected at junctions. Cracks greater than 100 mm wide may form in roads and pavements.
Enhanced foundations with no ground improvement (similar to Option 2 in Table 13.1, but with specialised deformation- tolerant foundation options)	Lateral spreading not reduced. Dwelling foundations resist stretching, reducing building damage and simplifying repair. Underground services stretched or disconnected at junctions. Cracks up to 100 mm wide in roads and pavements.	Lateral spreading not reduced. Dwellings may or may not resist stretching, may result in distortion due to ground stretching across dwelling footprint (possible collapse risk), repair may or may not be feasible. Underground services stretched or disconnected at junctions. Cracks up to or greater than 100mm may form in roads and pavements
Enhanced foundations with shallow ground improvement (see also Options 3 and 4 in Table 13.1)	Lateral spreading not reduced. Dwelling foundations resist stretching, reducing building damage and simplifying repair. Underground services stretched or disconnected at junctions. Cracks up to 100 mm wide around edges of improved areas.	Lateral spreading not reduced. Dwelling foundations resist stretching, reducing building damage and simplifying repair. Underground services stretched or disconnected at junctions. Cracks up to or greater than 100 mm wide around edges of improved areas.

Table 13.2: Expected performance of development options: within lateral spreading areas

Table 13.2 (continued)

Development option	Liquefaction damage is unlikely (Very Low/Low Liquefaction Category)	Liquefaction damage is possible (Medium/High Liquefaction Category)
	500-year earthquake shaking	500-year earthquake shaking
'Perimeter treatment' with deep ground improvement (e.g. 10 to 15 m wide, 600 m long zone of 4 to 6 m deep stone columns, between watercourse and new development)	Lateral spreading reduced (but not eliminated). Dwelling foundations, underground services, roads, and pavements subject to reduced stretching, but still subject to general liquefaction damage – refer Table 5.1 to for mitigation options.	Lateral spreading reduced (but not eliminated). Dwelling foundations resist stretching, reducing building damage and simplifying repair. Underground services stretched or disconnected at junctions. Cracks up to 100 mm wide around edges of improved areas.
Area-wide treatment with deep ground improvement (e.g. 4 m deep stone columns) (see also Option 4 in Table 5.1)	Lateral spreading and liquefaction reduced (but not eliminated). Dwelling foundations, underground services, roads, and pavements subject to reduced stretching and liquefaction-induced settlement.	Lateral spreading and liquefaction reduced (but not eliminated). Dwelling foundations, underground services, roads, and pavements subject to reduced stretching and liquefaction- induced settlement.

Table Legend:

Yellow shadingUnlikely to meet Building Code requirementsWhite shadingLikely to meet Building Code requirementsBlue shadingProvides additional community resilience beyond minimum Building Code requirements

The split-colour shading for some cells recognises that there remains substantial residual uncertainty in the liquefaction assessment undertaken to date. More detailed liquefaction assessment would be required to confirm foundation requirements.

13.4 Infrastructure protection options

If area-wide ground improvement is not undertaken (e.g. for options with enhanced foundations or ground improvement under the dwelling footprint only), then buried services and pavements outside the treated areas would be susceptible to liquefaction and lateral spreading induced damage.

The resilience of infrastructure networks could be increased by:

- ∂ Undertaking localised ground improvement along infrastructure corridors, and/or
- ∂ Using flexible pipes, flexible connections, and pressurised (rather than gravity-driven) networks

These options are expected to reduce the risk of liquefaction-induced sand boils, localised differential settlement, and reduce the impact of any settlement on the infrastructure. Overall these options improve the likelihood of infrastructure remaining functional after an earthquake. A targeted approach as outlined in Section 9.3, above, may be considered to manage the effects of lateral spreading. These options are not expected to completely protect infrastructure from liquefaction and lateral spreading induced damage. Pavements and buried services constructed using these options on medium and high risk land may still need significant repair or replacement after large earthquakes in order to meet their required levels of service.

14 Applicability

This report has been prepared for the exclusive use of our client Horowhenua District Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that this report will be used by Horowhenua District Council in undertaking its regulatory functions in connection with the identified future growth areas.

Tonkin & Taylor Ltd

Report prepared by:

Geotechnical Engineer

Authorised for Tonkin & Taylor Ltd by:

......

Project Director

ANRO

c:\users\cvs\documents\temp\hdc\reports\14092020\1009677_hdc_liquefaction assessment report_v2_draft_b.docx

Report reviewed by:

Geotechnical Engineer



Figure A7.1: LiDAR



LEGEN	ID		
Public	c Invest	igations (NZ	ZGD)
Invest	igation T	уре	
Δ c	Cone Pen	etrometer Test	t (by Opus)
CPT n Numbe ground	umbers a er (LSN) i dwater lev	s originally nus s for a 500-ye vel for the inve	umbered, Liquefaction Severity ear return period at the assumed estigation location.
Inves	tigation	data provid	ded by HDC (not on NZGD)
	Hand Aug	jer (by Aecom)
+	Groundwa	ater levels: Ho	orizons database
Lique	faction	assessmen	it details
	Approxim	nate site bound	dary (Level A Assessment)
	Site bour	idaries for futu	ure assessments
	LIQUEFA Area is a There is a induced of Minor to	ACTION DAM t low elevation a probability o ground damag Moderate (or	AGE IS POSSIBLE n relative to surrounding ground. if more than 15 percent that liquefaction- ge will be r more) for 500-year shaking.
	High Ele	vation Area	011.
	LIQUEFA Area is a There is induced g Minor to See repo	ACTION DAM t high elevatio a probability o ground damag Moderate (or rt for discussion	AGE IS POSSIBLE on relative to surrounding ground. of more than 15 percent that liquefaction- ge will be · more) for 500-year shaking. on.
	LIQUEF/ There is induced g shaking. See repo	ACTION DAM. probability of r ground damag rt for discussion	AGE IS UNLIKELY more than 85 percent that liquefaction- ge will be None to Minor for 500-year on.
	Ponds		
	Approxim	nated river/stre	eam profile
•••	Approxim	ated geologic	cal boundary
A3 S(CALE: 1.2	25 000	
0	0.25	0.5 0.75	1 1.25 (km)
1. Geo 2. Wor Geogra GIS Us	logical Bo Id Image aphics, C er Comm	oundaries GN ry Source: Esr NES/Airbus D ounity	S Science, Lower Hutt, New Zealand. ri, DigitalGlobe, GeoEye, Earthstar S, USDA, USGS, AeroGRID, IGN, and the
Created	l On:	26/11/2019	
Created	By:	ARolfe	
Approve	ed By:		
TT Proj Ref	:		Tonkin+Taylor
100967	7		TOTIKITTTAYIO
TT Map Ref	f: REF1433	463001.902	105 Carlton Gore Road, Newmarket, Auckland www.tonkintaylor.co.nz
			HDC
			LEVIN
	L	evel A Liqu	uefaction Assessment
A1.2			



Appendix 6 – Infrastructure Plan

3 Waters Infrastructure Plan Taraika Master Plan

October 2020



Preamble and Revision History

This document has been prepared by Horowhenua District Council with specialist support from GHD, for the purpose of long-term infrastructure planning and to support the Taraika Plan Change process. The specific conclusions and recommendations described in this report may evolve during the Plan Change and implementation periods.

Report Authors

Principal Project Manager (HDC)

Special Projects Engineer (HDC)

Senior Water Engineer (GHD)

allion R. B

Team Leader – Water (GHD)

Revision History

Version No.	Description	Date	Issued By
01	Issued for Plan Change submission	Oct-2020	
			1



1. Introduction

Horowhenua District Council (Council) has identified Taraika as a significant growth area in the Levin township. A Master Plan has been prepared, the *Taraika / Gladstone Green Master Plan*, that provides a comprehensive blueprint for this growth area. The Master Plan includes key design principles relating to connectivity, housing choice, character, parks and open space, and infrastructure intended to inform the District Plan rules that will apply to the area. This Infrastructure Plan gives effect to the Master Plan, detailing the infrastructure required for the Taraika development to occur.

The development of Taraika aligns with Horowhenua District Council's Growth Strategy (Horowhenua Growth Strategy 2040) and the Greater Wellington Development Framework (GWDF) which stretches from Wellington up the coast to the Horowhenua District and then on to Palmerston North. Early discussions on the GWDF indicate the desire to house an additional 20,000 people in the Horowhenua District, and Taraika is envisaged to form part of this initiative. The most likely scenario for Taraika is to supply 2,500-3,000 lots which, assuming 2.6 occupants per section, will equate to approximately 6,500 people.

In conjunction with this development, design for the Otaki to North of Levin expressway corridor (O2NL) is underway. The O2NL will ultimately traverse through the development area once constructed, just east of the existing State Highway 57. State Highway 57, also known as Arapaepae Road, also serves as the western boundary of the Taraika development area.

The proposed Taraika development area is an ideal area for development as it is adjacent to the eastern boundary of urban development for the township of Levin. This makes it fairly simple to connect to the existing infrastructure of Levin in terms of water, wastewater and roading infrastructure, while stormwater will be managed separately throughout the development and in the O2NL corridor.

The current township of Levin was engineered around the historical centre of the town which is the intersection of State Highway 1, also known as Oxford Street, with Queen Street. Queen Street runs the full width of Levin from East to West. Figure 1 below provides an overview of Levin with the Taraika extension (outlined in yellow). Existing state highways are highlighted in red.



Figure 1: Map indicating the position of Taraika with respect to Levin




2. Levin's Current Infrastructure

Levin is supplied water by the water treatment plant located to the southeast of the town on the Ohau River. Two supply mains service the town, running down Tararua Road and Queen Street respectively. A new reservoir was constructed at the water treatment plant in 2017 to provide buffer during dry periods when the river flow is low. Figure 2 provides an overview of the existing water network relative to the Taraika area (outlined in yellow).

Figure 2: Existing water supply



The wastewater is reticulated from the various homes and businesses, mainly by way of gravity sewers, to the Levin Wastewater Treatment Plant (WWTP) which is situated on the western edge of Levin township. The treated wastewater is then pumped to a 110 ha pine and native forest plantation known locally as "the Pot", which is situated approximately 5.2 kilometres west of the WWTP.



Figure 3 provides an overview of the wastewater network within the main urban area, relative to the location of Taraika (outlined in yellow).



Figure 3: Existing wastewater network

Most of the town's stormwater is managed on-site or discharged untreated to Lake Horowhenua via a reticulated network and open channels, with the exception being North East Levin where it is either pumped or drained to the intersection of Roslyn Road and Fairfield Road. Future network design allows for stormwater at this point to be attenuated in a constructed pond and then discharged to the Koputaroa Stream to the north, which ultimately flows into the Manawatū River. The Taraika catchment generally falls from the south east to the northwest towards Horowhenua Lake and the Manawatū River. Figure 4 provides an overview of the urban stormwater reticulation and open channels in relation to the Taraika development area (outlined in yellow).



Figure 4: Existing stormwater network





3. Infrastructure Required for the Development of Taraika – High Level

As stated previously, the Taraika development is in close proximity to the existing water and wastewater reticulation. This Infrastructure Plan outlines the required trunk systems required to service the development for the 3 Waters. It should be noted that the plan presented in the overarching Master Plan document includes minor reticulation mains which will be installed as development occurs to service individual subdivisions.

In order to ensure appropriate firefighting supply is provided to the development area, a new water supply main will be required which can be taken off the existing bulk main that runs along the development's eastern boundary. The water supply main will be required to be fitted with an automated pressure reduction valve (PRV) as part of HDC's Pressure Management and Water Demand Management Systems. It will also be required to be fitted with a magnetic flow meter as part of the above systems. Residences will include rainwater tanks to be plumbed into internal non-potable uses. Whilst these will reduce the annualised demand on the mains water supply in terms of volumes required they cannot be relied on to meet 100% of demand during peak summer periods when tanks may be empty and will therefore not reduce the size of the mains needed to service the development. However, this sort of arrangement has benefits in terms of stormwater management by reducing runoff volumes and peak flows, and is therefore still recommended.

In respect of wastewater services, the development is situated on the periphery of the existing sewage reticulation network. In order to add the Taraika area into the wastewater system, some upgrades to the existing network will be required to cope with the additional flow as the development progresses. These upgrades along with the three new connections will be made at Queen Street, Liverpool Street, and Tararua Road. The upgrades and trunk main connections are such that this can be carried out in a staged manner. The sewer upgrades are anticipated to be straightforward, with the subsequent connections to the development crossing State Highway 57.

Development of Taraika will result in increased stormwater volume and peak flows and result in water quality impacts to downstream areas. Since Taraika is at the top of the drainage catchment, an increase in runoff could have significant impact on the receiving stormwater systems, whether they are the piped networks, open drains, Lake Horowhenua, or the Koputaroa Stream. Water sensitive urban design (WSUD) will be required within the development area to mitigate the effect of development. Examples of WSUD devices which can be incorporated within the development to mitigate the stormwater quantity and quality impacts include rainwater tanks, soakage, permeable pavements and biofiltration. In addition to these, attenuation is to be provided throughout the development area to reduce the peak flow leaving the development area.

Further details of the servicing are provided in the following sections. The development is likely to progress in stages to enable cost effective delivery of infrastructure, so indicative budgets are presented by stage, as per the attached Staging Plan (Appendix A).



4. Water

Alternative water supply sources or supplementary water supply options are being explored to meet current peak demand and future growth. Additionally, a masterplan study for Levin Water Treatment Plant, WTP, will be performed in the near future. This would enable better planning for the future. This would potentially include sourcing supplementary water supply in a sustainable manner.

The infrastructure required for servicing Taraika with potable water is as indicated by the map shown in Figure 5. A central trunk main through the development is proposed off the 525NB Gladstone Road trunk main.

Queen St East, Gladstone Road and Tararua Road mains are in place and are sufficient to also service Taraika. An upgrade of Tararua Road (west of SH57) would be required to increase flows in Tararua industrial area, however this a separate project and does not impact on the ability to service Taraika. A future linkage of the new trunk main to the existing water main on Liverpool Street may also be incorporated to improve resiliency, however this does not impact the serviceability of Taraika.





© 2020. Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason. Data source: Data Custodian, Data Set Name/Title, Version/Date. Created by:arbaugham

Taraika Servicing Water Supply

Figure 5



5. Wastewater

The infrastructure required for servicing Taraika with wastewater reticulation and treatment is as follows:

- Three new trunk mains to connect to existing mains on Queen Street, Liverpool Street and Tararua Road.
- Upgrades of the existing sewers and pump stations downstream where "pinch points" have been identified with modelling.
- For planning purposes and enabling Council making an informed decision, a masterplan study of Levin WWTP to understand its current and future capacities and impact of growth.
- A share in the cost of upgrading the Levin Wastewater Treatment Plant rock media biofilters to plastic media to allow for extra treatment capacity.

An overview of the trunk infrastructure and downstream upgrades required to service development is provided in Figure 6.





N:\NZ\Palmerston North\Projects\51\12536997\GIS\Maps\Deliverables\12536997 Fig2 RevA 3Waters MP-Wastewater.mx

© 2020. Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map be Data source: Data Custodian, Data Set Name/Title, Version/Date. Created by:arbaugham ess or suitability for any particular purpose and cannot accept liability and responsibility of any kind

Taraika Servicing Wastewater





6. Stormwater

Stormwater from the development shall be managed to mitigate the potential for adverse impacts on the downstream receiving environment, primarily being Lake Horowhenua. It is well understood that the inflow of untreated urban and rural stormwater is a contributing factor in the ongoing and persistent water quality issues within the lake and it is the intention for Taraika to not worsen these impacts, and to improve the lake water quality whilst connecting the community to the water through integration and education to understand the importance of Te Mana o te Wai.

This shall be achieved through the implementation of a site wide integrated stormwater management strategy and the incorporation of water sensitive design principles. This includes the management of both water quality and water quantity in terms of frequent small events and large infrequent peak flows to mimic the existing water balance conditions as much as practicable.

Any stormwater discharged to Lake Horowhenua (via Queen Street drain), Koputaroa Stream (via O2NL corridor) or underlying groundwater shall be treated to reduce risks from a range of urban contaminants. This includes private on lot management of stormwater which is either soaked to ground or plumbed into dwellings to increase resilience, reduce demands on mains water (and associated carbon impacts) and increase community understanding of the value of water.

Public stormwater management shall include large scale wetland systems, daylighted streams and dry attenuation basins designed to attenuate and soak large storm events and remove a range of urban contaminants whilst increasing urban ecology, biodiversity, and public amenity. Wetlands and streams shall include extensive plantings of eco-sourced indigenous wetland plants and include flow controls to attenuate peak flows to reduce the risk of flood in the Queen Street open channel or downstream urban areas of Levin.

To support these aspirations the following shall be adopted across the development;

- Private rainwater tanks on all stand alone and duplex dwellings plumbed into internal (toilet and laundry) and external (outside taps). Tank size shall range from 2 – 5 kL dependant on roof size and number of bedrooms.
- Rainwater tanks and other private pavements shall discharge to on lot soakage devices located within accessible positions on properties (driveways). Soakage devices shall be sized to accommodate up to the 10% AEP stormwater volume for the connected roof. These shall be based on a standardised design suited to efficient inspection and cleanout to support long term functionality.
- Stormwater from roads shall be collected and conveyed in a standard reticulated network in accordance with HDC standards and sized for the 10% AEP flows. Where possible streetscape planting shall support passive irrigation through connections with kerb and channel. Distributed public streetscape raingardens (bioretention) may be located at high trafficked intersections in the town centre but shall not be implemented throughout the road corridors. Where possible the road corridor stormwater will be directed to soakage devices sized to accommodate up to the 10% AEP stormwater volume.
- Large private car parks (> 10 vehicles), service stations and commercial roofs (over 500 m²) shall provide their own water quality treatment to be approved by HDC and supported by appropriate maintenance contracts. Stormwater will be directed to soakage devices sized to accommodate up to the 10% AEP stormwater volume.
- Stormwater from roads (and lots without private rainwater tanks and/or soakage) shall be conveyed to centralised constructed wetlands for treatment. These wetlands shall primarily



be located along the landscape buffer between O2NL and the development. Dedicated constructed wetland treatment areas shall be sized based on the final area of untreated stormwater from the development. Wetlands shall broadly be aligned to flow south to north and discharge treated flows outside of the development area to Koputaroa Stream along the future O2NL corridor (to be confirmed) and shall be designed with the inclusion of high-low bypass integrated into the adjacent landscaped areas. Where feasible, wetlands can be integrated with stormwater discharging from O2NL assuming inlets are compatible (in terms of levels and position) and wetland function will not be compromised. Where feasible areas of soakage (for treated stormwater) shall be included in the integrated wetland design.

- Flood detention of flows up to the 1% AEP events shall be included within the buffer wetland area including temporary storage above the operating level of the wetlands and within the adjacent landscaped area ensuring this does not impact essential shared paths or create public safety issues. Further flood detention shall be provided within public green spaces within the development through subtle contouring of parks to create shallow dry detention basins which is only engaged in events greater than 10% AEP events and is free draining immediately following.
- Overland flow paths shall be maintained within public road corridors and comply with relevant New Zealand Building Code standards (Austroads or similar). Flow paths shall converge on the main east-west connector roads which shall be designed with a cross section to accommodate these up to the 1% AEP peak flowrates. Overland flow paths shall discharge into the wetland buffer and be managed as part of site wide flood detention.

It is noted that the infrastructure required for servicing Taraika with stormwater services are still in the concept stage, with an in principle agreement having been reached with NZTA that Horowhenua District Council and NZTA will work together in treating stormwater in the road reserve of the new SH1.



LEGEND Proposed Stormwater Paper Size A3 HOROWHENUA DISTRICT COUNCIL **Existing Stormwater** Master Plan Layout 0 45 90 180 270 360 Trunk Main Pipe Existing Parcel Boundaries Proposed SW ----- Existing Open Channel Metres Attenuation Areas Map Projection: Transverse Mercator Horizontal Datum: NZGD 2000 Taraika Growth Area Grid: NZGD 2000 New Zealand Transverse Mercator

\\ghdnet\ghd\NZ\Palmerston North\Projects\51\12536997\GIS\Maps\Deliverables\12536997_Fig3_RevA_3Waters_MP-Stormwater.mxd

© 2020. Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tot or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason. Data source: Data Custodian, Data Set Name/Title, Version/Date. Created by:arbaugham

3 Waters Infrastructure Plan Taraika Master Plan

Revision Date

A 06 Oct 2020

Taraika Servicing Stormwater





7. Summary and Recommendations

In summary, the Taraika Development area is able to be serviced by reticulated water and wastewater infrastructure, subject to the extension of water and wastewater mains and, as the development progresses, upgrades to both the Levin Water Treatment Plan and the Levin Wastewater Treatment Plant would be determined after completion of Masterplans of both Levin WTP and WWTP. Stormwater. Stormwater will be treated and disposed of via a combination of onsite methods, including ultimate disposal through the O2NL expressway corridor northeast to Koputaroa Stream.

The development is likely to progress in stages to enable cost effect delivery of infrastructure. The expected staging plan is attached.

Stages 1 and 2

Stage 1 can be serviced almost immediately, utilising existing budgets. As indicated above, there is already a water main along Queen Street which can service portions of the development. Council also have funding identified in the Long Term Plan 2018-2038 to construct a sewer main on Queen Street to service the first stages of development. This is planned to be constructed in November 2020, concurrent with NZTA's planned upgrade to the Queen Street/State Highway 57 intersection upgrade. Once this sewer main is in place, capacity will be provided for approximately 900 lots. Plant upgrades would not be required for this stage.

Stage 2 will require an upgrade of the existing wastewater main along Queen Street west of SH57 in order to service the full build out of this stage.

Stages 3 through 5

Stages 3 through 5 will require more extensive extensions to the existing networks, network upgrades and plant upgrades. These work are to be funded through Council long term plan and \$25M grant and loan funding from Crown Infrastructure Partners announced in August as part of government's response to Covid-19.

The following recommendations are made:

- Stage 1 of the development can be serviced for 3 waters by already planned works, utilising existing budgets.
- Stages 2 through 5 require works which, along with revenue from developers, are to be budgeted in Council's next Long Term Plan and will be accelerated as part of the Crown Infrastructure Partners enabling infrastructure programme.



Appendix A – 3 Waters Infrastructure Staging Plan



Appendix 7 – Independent Traffic Review (to provided)



Appendix 8 - Statement from HDC Roading Services Manager

Statement of Support Taraika District Plan Change

Purpose

The purpose of this document is to provide a statement of support for Plan Change 4 in relation to the transportation aspects of the Taraika Master Plan and to summarize the rationale of this support. This statement is provided by Council's Roading Services Manager, James Wallace.

The Taraika Masterplan forms the basis to guide development in the Taraika area to achieve the following outcomes:

- a connected and integrated future-proof development that represents good urban design and provides a high level of residential amenity;
- encourages a variety in housing choice, including higher density options;
- a development that utilises low impact, sustainable servicing solutions and encourages walking and cycling;
- a development which provides facilities and open space to meet the needs of the community;
- a development that maintains and enhances cultural, heritage, and ecological values of the area.

Key Transportation Considerations

There are two key transportation considerations in the Taraika Master Plan: connectivity within the Taraika area, and connectivity between Taraika and Levin and other key connections outside Levin. In order for the Taraika Master Plan to achieve the above outcomes, both of these key transportation considerations must achieve the following transport criteria:

- Safety- transport infrastructure must be designed to reduce the probability and severity of crashes
- Accessibility transport infrastructure must be fit for purpose to enable efficient transport to an acceptable level of service for the foreseeable future
- Transport Choice transport infrastructure must provide safe and accessible facilities for pedestrians and cyclists of all abilities and allow for the potential future introduction of public transport

These criteria may be achieved either by direct provision through the Masterplan, or enabled through other processes within Council's purview. These criteria have been assessed by Council's Roading Services Manager. Certain criteria require expert assistance for which the Integrated Transport Assessment for the draft Taraika Master Plan is referenced.

Connectivity within Taraika

Safety

The Taraika Masterplan prescribes a layout and cross-sectional concept design of primary and secondary roads while local roads are shown indicatively. The layout of the primary and secondary roads within Taraika has been designed to provide an attractive level of connectivity, so as to direct traffic onto roads designed with appropriate safety features including separated cycleways, limited numbers of intersections, safe intersection treatments and limited private vehicle entrances. It is outside the scope of the Masterplan to directly prescribe these features, as they are delivered at the detailed design phase, however these outcomes are ensured through Council's rigorous development engineering processes through the resource consent process, these process are the key mechanism for ensuring the layout and design of roads are safe and fit for purpose.

Accessibility

Taraika will be fit for purpose for accessibility, providing acceptable connectivity levels of service throughout. There is only one intersection within Taraika that could conceivable present an unacceptable level of service, the intersection between the internal primary roads. This intersection has been assessed in the ITA - *"For visual inspection of the initial (beg-October 2020) link flows this intersection (site S2) does not have much motor vehicle traffic so it is assumed that signals (or a roundabout) will perform adequately."*

Transport Choice

Active transport is a key consideration for Taraika, with dedicate pedestrian and cycling facilities prescribed where appropriate. Council's resource consenting processes also have strong mechanisms for ensure safe active transport infrastructure is delivered by developers.

At the time of the plan change, public transport is not active outside the CBD area of Levin, however the Taraika Masterplan has been designed with consideration to Public Transport. Special consideration has been taken to ensure the layout will be useable for public transport if/when it is introduced to Taraika.

Connectivity between Taraika and Levin and other key connections outside Levin

There are there key connections which connect Taraika to Levin and outside Levin which require consideration. These are the intersections with Arapaepae Road (State Highway 57) and Queen Street, Liverpool Street and Tararua Road. In the ITA, these three connections have been assessed for the three transport criteria. To summarize the ITA assessments at these intersections, all there intersections can be considered feasible, as long as the intersection treatment for all three are Roundabouts. The ITA goes into detail in recommended detailed design aspects which may be considered when these projects reach the detailed design stage.

For the purpose of this Plan Change, the transport criteria can be considered achieved, as there are confirmed plans for the implementation of roundabout treatments for each intersection. NZTA are currently implementing a roundabout treatment at Queen Street / Arapaepae Road intersection. Council will be implementing the Tararua / Arapaepae Road intersection by June 2022, and the Liverpool / Arapaepae Road intersection by June 2024.

Summary

Transport considerations relevant to the Taraika Masterplan have been briefly listed and assessed to be acceptable. The Taraika masterplan adequately satisfies all relevant transport requirements for aspects which a masterplan is able to prescribe. Aspects outside the master planning process are delivered through Council's internal processes, identified forwards works plans, resource consenting processes and detailed design processes. Therefore the desired transport outcomes of the Taraika Masterplan will be comprehensively delivered alongside work undertaken within the larger framework of Council's purview.

Signature Date

Authored by James Wallace - Horowhenua District Council Roading Services Manager.



Appendix 9 – Proposed Plan Change 4 (Chapter 6A Objectives and Policies, Chapter 15A Rules, Structure Plan 13, District Planning Maps)

6A. TARAIKA MULTI ZONE PRECINCT

The following objectives and policies are to be read in conjunction with the objectives and policies contained within Chapters 1-14 of the Horowhenua District Plan. In the event there is conflict between the objectives and policies in this chapter and those contained within the remainder of the District Plan, the objectives and policies contained within this chapter (Chapter 6A – Taraika) shall apply.

Taraika is a large greenfield site located to the east of the existing urban area of Levin, with the Tararua Ranges forming an impressive backdrop to the area. The Taraika Development Area (Taraika) totals 470ha and has been master planned to provide a range of housing options and other supportive non-residential activities such as commercial and education activities. The area is expected to accommodate approximately 2,500 residential dwellings and will be home to more than 5,000 people. Some of the surrounding environment has already been developed for rural lifestyle purposes.

The land has been identified as a growth area for the Horowhenua District since the Horowhenua Development Plan was prepared in 2008. The land was subsequently rezoned to Greenbelt Residential Deferred with an associated Structure Plan to guide development introduced to the District Plan. Since this time, growth projections for the District have changed significantly with the District's population now expected to grow rapidly. This prompted the decision to consider Taraika for a greater density of development than what could occur under a Greenbelt Residential Zoning.

Taraika was considered suitable for additional residential capacity due to a range of factors including:

- The site is very flat and relatively unconstrained in term of risk from natural hazards;
- The site is close to the existing urban area of Levin;
- The site has already been identified as a growth area and has had a level of rural lifestyle development occur under the existing zoning. As such, additional development in this area does not result in a significant loss of rural production land.

As such, the area has been master planned and the land consequently rezoned to enable a variety of different residential and non-residential activities to establish.

Taraika is made up of the following zones:

- Commercial Zone (Taraika Precinct)
- Open Space Zone (Taraika Precinct)
- Residential Zone (Taraika Precinct)
- Greenbelt Zone (Taraika Precinct)

Each zone has individual objectives, policies, and rules to ensure development achieves the desired objectives and principles for the area. There are also objectives and policies that apply to all zones within Taraika. In addition, the relevant objectives, policies and rules from the existing District Plan chapters and zones will apply. In the case where there are duplicate provisions, the more specific provision (i.e. Taraika specific provisions) will apply in place of the more general provisions.

ISSUE 6A.1 OVERALL PRINCIPLES FOR DEVELOPMENT IN TARAIKA

Through the Horowhenua Growth Strategy 2040, Council identified that the existing zoning and structure plan for the area previously known just as " was unlikely to accommodate the level of growth anticipated in the District, or deliver the outcomes desired for the area. Furthermore, the resource consent process was considered unlikely to provide sufficient opportunity to deliver an integrated and co-ordinated development at the scale anticipated. As a result, the Taraika Master Plan was prepared in order to guide and enable residential and other development to ensure that this happens in an integrated and co-ordinated way. This master plan is the basis of the Structure Plan 013 and the following objectives and policies.

ISSUE DISCUSSION

Taraika is anticipated to become high amenity residential development. However, there is also a risk development could adversely affect the environmental quality of the area due to effects arising from increased built form, traffic, and demand for infrastructure and services.

State Highway 57 separates Taraika from the rest of the urban area of Levin. The preferred corridor for the Otaki to North of Levin highway is also located in Taraika (near to existing State Highway 57), creating a risk of severance between Taraika and the rest of Levin.

Due to the alignment of future and existing state highways, there is a risk that Taraika will develop in way that is disconnected from the urban area of Levin and associated services. Unless addressed, this will have a negative impact on the amenity of the resulting development and the well-being of residents.

As a large greenfield site, Taraika represents a 'blank' canvas. This presents an opportunity to establish a unique character. However, this also means there is no existing pattern of urban development to follow (for example, lot design and layout, street trees and provision for open space). Without an established urban pattern from adjoining areas to replicate, there is a risk that an incoherent urban form and disconnected structure will follow. This could result inadequate dwelling interaction with the street, adhoc section sizes that affects character and amenity, or establishment of a commercial area in an inappropriate location. It is also possible that future development will not sufficiently consider or prioritise the amenity or functionality of the public realm, resulting in poor quality urban form, inadequate or inappropriate use of street trees and a lack of quality, functional reserve space. The master plan seeks to respond to these risks.

Master planned greenfield development at Taraika therefore presents an opportunity to achieve the following:

- a connected and integrated future-proof development that represents good urban design and provides a high level of residential amenity;
- encourages a variety in housing choice, including higher density options;
- a development that utilises low impact, sustainable servicing solutions and encourages walking and cycling;
- a development which provides facilities and open space to meet the needs of the community;
- a development that maintains and enhances cultural, heritage, and ecological values of the area.

To achieve the above, it is important that subdivision, development, and land use activities are coordinated to occur in locations and at densities that enable sustainable and efficient use of land and delivery of infrastructure and contribute to a high amenity environment.

It is also important that development at Taraika is resilient to the effects of climate change and natural hazards and minimises effects on the natural environment. Both of these considerations require careful stormwater design.

The following objectives and policies seek to respond to the above issue and opportunity.

Objectives & Policies

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Policy 6A.1.1

Subdivision, infrastructure and land development in Taraika must be consistent with Structure Plan 013. Subdivision and land development that deviates from the current or future implementation of the Structure Plan will only be considered where an alternative is proposed that will achieve the following:

- The same or similar level of connectivity within Taraika;
- The same or similar level of connectivity between the Taraika and the existing urban area of Levin;
- Protection of opportunities for land adjacent to Taraika to be connected to Taraika in the future;
- Public recreation space of an equivalent functionality as that shown on the Structure Plan and that is within walking distance of a similar number of properties as shown on the Structure Plan;
- A streetscape that maintains an appropriate expression of street hierarchy and consistency of treatment along any arterial or collector street;

Policy 6A.1.2

Subdivision and land development in Taraika will acknowledge, protect, and celebrate cultural values, cultural history and local identity in the following ways:

- Use of both Māori and non-Māori names for streets and reserves;
- Protection of culturally significant sites;
- Prioritise use of indigenous plants in street and reserve planting
- Tikanga observed during site works.

Policy 6A.1.3

Require development to be designed in a manner that enables passive surveillance of public places (such as parks and roads) from private properties using techniques such as good site layout, restricting fence heights, and landscape treatments that will not obscure key sightlines.

Policy 6A.1.4

Provide for non-residential activities, such as community, recreational, educational and commercial activities, which support the day to day needs of the local community, while avoiding any such non-residential activities of a nature and scale that compete with the Levin Town Centre.

Policy 6A.1.5

Require subdivision layout to ensure street design enables the safe and efficient movement of people and traffic, provides a high level of safety and amenity for pedestrians and cyclists, and contributes positively to the public realm.

Objective 6A.2

Efficient delivery of infrastructure within Taraika will enable development while protecting environmental values and achieving a high level of residential amenity.

Policy 6A2.1

Make provision within the Taraika for housing yield of 2,500-3,000 houses.

Policy 6A2.2

Require subdivision and development to be managed, designed and staged to align with the coordinated provision and upgrading of the infrastructure network (including roading network), public open space, streetscape and local service facilities within the Taraika, as illustrated on Structure Plan 013.

Policy 6A2.3

Avoid subdivision and development that compromises the ability to provide efficient and effective infrastructure networks for the wider Taraika.

Objective 6A.3

Stormwater management in Taraika will be resilient and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- Water sensitive design;
- Minimise adverse effects from changes in the nature (including quality and quantity) of

natural flows on downstream ecosystems.

Policy 6A.3.1

Require an integrated approach to managing stormwater from Taraika to ensure the quality and quantity of runoff does not have an adverse effect on Lake Horowhenua.

Policy 6A.3.2

Recognise the significance to iwi of the Taraika environment and its connection to Lake Horowhenua by working with iwi to manage stormwater quality and quantity.

Policy 6A.3.3

Require rainwater collection tanks to be provided on all new residential allotments to capture and reuse runoff to mimic, as much as practicable, pre-developed hydrological conditions for the site.

Explanation and Principal Reasons

Large scale greenfield development has the potential to lead to adverse environmental outcomes, particularly when the land is owned by multiple different parties. Without a strong framework to guide growth and development in this area, there is potential for individual subdivisions to progress in a fragmented and disconnected manner. Furthermore, there is a risk that no individual application will make provision for facilities such as open space, supportive commercial activities, or educational activities. Further, individual subdivision applications progressing in an adhoc manner are likely to result in inefficient delivery of infrastructure and limit opportunities for connectivity.

The Structure Plan for the Taraika is based on the Taraika Master Plan. It provides a comprehensive framework to manage growth and development in the Taraika, including infrastructure, roads and open space. Subdivision and development is required to be undertaken in accordance with the Structure Plan to ensure efficient use of the land and physical resources. It is important the principles of this Structure Plan are adhered to in order to achieve the development outcomes anticipated for this area.

Ensuring subdivision and development is aligned with the Structure Plan will help to deliver a quality living environment that is supported by necessary non-residential activities, amenities, and services.

It is also important to recognise cultural history and identity in this area. One way to achieve this is to ensure that streets and reserve names include Māori names chosen by Tangata Whenua.

ISSUE 6A.2 RESIDENTIAL ZONES (TARAIKA PRECINCT)

The character of the Residential Zone of Taraika is likely to be different to the wider Levin area due to the era of development, housing density expected, integrated master planning approach to development, and the detail of the design principles identified for this area.

It is important Taraika complements and integrates with the existing residential areas of Levin while providing a different offering (for example, more housing variety).

ISSUE DISCUSSION

The Taraika residential area needs to develop in a manner that reflects good urban design and form to achieve a high amenity living environment that contributes to the wellbeing of its residents.

At present, there is limited variation in residential housing types available within the District. The predominant housing type available is 'family sized' standalone dwellings on relatively large residential sections, ranging from 400m²-800m². However, this uniformity of housing type does not fully satisfy the diverse needs of the Horowhenua community. Taraika offers an opportunity to respond to this by encouraging more variety and improving housing affordability and small lots suitable for smaller dwellings. The following objectives and policies seek to respond to this.

Objectives & Policies

Objective 6A.4

Achieve a high amenity, walkable residential environment with a range of section sizes and housing types, including affordable housing options, in Taraika.

Policy 6A.4.1

Optimise walkability and encourage choice and a variety of housing types, by providing for higher density residential development near to commercial and community facilities and lower density residential development at the outer edge of Taraika.

Policy 6A.4.2

Enable and encourage a range of housing types and section sizes in Taraika to meet the variety of needs and preferences in our community, while ensuring a high level of residential amenity.

Policy 6A.4.3

Use both minimum and maximum density standards to encourage housing variety and to ensure development occurs at a scale and density consistent with the amenity expected for that particular area.

Explanation and Principal Reasons

Management of the residential environment generally focuses on providing for ongoing use and development in a way that maintains and enhances their character and amenity values. In the case of Taraika, the early stages of development will not have an established residential character or amenity to be informed by. Both the Taraika Master Plan and Structure Plan 013 outline some of the characteristics of urban form and design that will lead to the creation of a residential character and amenity that is considered appropriate within this particular context. The above objectives and policies, supported by District Plan rules, seek to achieve these outcomes to build and establish a high amenity residential character for Taraika.

ISSUE 6A.3 COMMERCIAL ZONE (TARAIKA PRECINCT)

Given the anticipated population of Taraika and the proximity of Taraika to existing residential areas on the eastern side of Levin, the area will likely be supported by a commercial centre in

the future. It is important that this is located in the appropriate location to maximise accessibility for the community served, support viability and consequently maximise the benefits this will offer the community. In addition, it is important that the nature and scale of this centre is controlled so as to ensure it offers a high amenity 'focal point' for the community, while not conflicting with the existing Levin town centre.

Issue Discussion

It is important that commercial development in Taraika agglomerates in a highly accessible, central location. If commercial activities and community services establish in an adhoc or sprawling manner, the vibrancy and vitality of the neighbourhood centre will be reduced, limiting the opportunity for it to act as a central point for the community.

The commercial centre will provide an important service to the community, through meeting the daily or weekly needs of the local catchment. This can reduce the need to travel across town and improves the overall experience of living within an area that, due to the distance from the commercial area of Levin and the presence of a State Highway (State Highway 57 in the short term and the Otaki to North of Levin highway in the longer term), would otherwise be underserviced by convenience facilities.

The design and layout of commercial development is important to ensuring a vibrant and attractive centre that the community will want to spend time in. Important considerations include the design of building frontages and the location of carparks. An attractive commercial centre that demonstrates good urban design can also support other types of land uses. This is because quality commercial development can act as an 'attractor' for land uses such as medium density development. This is considered an important relationship to acknowledge and enhance in order to encourage housing variety, as well as to achieve an attractive commercial centre.

In addition to the above, it is important that the Taraika commercial centre does not compete with the Levin town centre, particularly given the proximity of the Taraika commercial centre to both existing and proposed State Highways. Therefore, it is important that the nature and scale of this centre is controlled in order to protect the primacy of the Levin town centre.

Objectives & Policies

Objective 6A.5

Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.

Policy 6A.5.1

Provide for supermarket and/or convenience retail facilities at a scale suitable for the area.

Policy 6A.5.2

Provide for service based commercial activities that support the daily or weekly needs of the local community, so long as nature and scale does not compete with the Levin Town Centre.

Policy 6A.5.3

Ensure of the design, nature, and scale of commercial activities contributes positively to the image and overall amenity of the commercial area of Taraika.

Policy 6A.5.4

Ensure the development in the commercial zone contributes positively to the amenity of public places (including footpaths and roads) by:

- (a) avoiding blank walls facing the roads;
- (b) providing level access for pedestrians into shops;
- (c) ensuring fascia boards and associated signage are of a consistent size and height;
- (d) avoiding freestanding signs;
- (e) maximising outlook onto streets and public places;
- (f) providing weather protection for pedestrians along the road frontages;
- (g) providing service access, car parking and staff parking away from the frontages;

Policy 6A.5.5

Avoid establishing commercial activities that are of a nature and scale that would detract from the vibrancy and vitality of the Levin Town Centre. Examples of such activities include but are not limited to entertainment activities, hotel/motel accommodation, large format retail and other activities of a type and scale that will compete with the Levin Town Centre.

Explanation and Principal Reasons

Given the anticipated population of Taraika, it is both likely and desirable for a range of small scale commercial activities to establish.

Commercial centres fulfil both a functional need for residents, thus reducing their need to travel into Levin or other surrounding areas to meet their daily and weekly convenience needs and provide a focal point for the community. This is important as it provides a place for people to meet and interact with both their neighbours and the wider community. This contributes to feelings of safety, social connectedness and wellbeing, which ultimately improves the overall quality and amenity of the surrounding residential environment. However, it is important that the commercial area of Taraika does not compete with the vibrancy and vitality of the Levin Town Centre.

In order to achieve these outcomes, the above objectives and policies (and supporting rules in Chapter 15A of the District Plan) seek to control the design of signs and buildings and the nature and scale of residential activities in ensure a high amenity environment that encourages walking, cycling through quality of experience. Controls on the scale and nature of commercial activities allowed to establish within Taraika will also avoid conflict with adjoining land uses and ensure that Levin's town centre remains the primary commercial centre in the District.

ISSUE 6A.4 OPEN SPACE ZONE (TARAIKA PRECINCT)

ISSUE DISCUSSION

Given the size of Taraika and the number of lots it will accommodate, the development will require open space provision. It is important that the reserve space is provided in the appropriate location and that it is of a functional size and shape.

Objectives & Policies

Objective 6A.6

To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.

Policy 6A.6.1

Ensure public parks or reserves are distributed through Taraika to be easily accessible to all residential lots by requiring all subdivision and development to comply with Structure Plan 013.

Policy 6A.6.2

Ensure public parks and reserves are of a size, shape and type that enables a functional, recreational use by requiring all subdivision and development to comply with Structure Plan 013.

Policy 6A.6.3s

Enable education facilities to establish at a scale that supports the needs of the local community, with limits on scale to protect the amenity of the surrounding environment.

Explanation and Principal Reasons

Open space that can be used for a range of recreational purposes is an important asset for both the wider community and the Taraika community. Furthermore, recreation space contributes positively to residential amenity. In addition, recreation space provides opportunity to manage stormwater during heavy rain events and to contributes to the ecology of an area.

It is important that Taraika is serviced by quality reserve space. As a large greenfield site, there is opportunity to secure land for recreation space early in the land development process, to ensure it is functional, accessible, and of high amenity. The above objectives and policies (and supporting rules in Chapter 15A of the District Plan) seek to secure this outcome.

Methods for Issues and Objectives in Taraika

District Plan

- A range of zones, supported by a 'Taraika Precinct', will be identified on the planning maps.
- Taraika precinct specific rules will be applied, in addition to general zoning rules, to specify how subdivision and development will be managed in order to achieve the above objectives and policies.
- A structure plan will guide subdivision and development in the Taraika area in order to achieve the above objectives and policies.
- The resource consent process will provide opportunity for appropriate subdivision and development proposals that are not permitted, either because of non-compliance with environmental standards or because of the nature of the non-residential land uses.
- Conditions on resource consents will control the effects of subdivision and

development.

Standards expressed as District Plan rules are considered to be the most appropriate and effective method of maintaining minimum standards for the matters over which the Council has jurisdiction. Rules provide certainty for resource users and for neighbours which is important for community understanding of what environmental quality is expected. The use of a Design Guide is effective in providing guidance on the matters and outcomes for achieving quality medium density developments.

Taraika Master Plan

The Taraika Master Plan formed the basis of the above objectives and policies and Structure Plan. The Master Plan provides further detail, assessment, and information that justify the outcomes sought for the Taraika area.

Long Term Plan/Annual Plan

- Council will undertake amenity improvement work including street planting and traffic management schemes within residential areas. Council will co-ordinate the provision of appropriate infrastructure to support residential development.
- Council will continue to maintain the landscape of streets (berms and sealed surfaces) and areas of public open space throughout the settlements.
- Council will require developers to contribute to the costs of new infrastructure and upgrading, reserves provision, community and recreational facilities and amenity improvements in residential areas.
- Council will require developers to contribute to the costs of new infrastructure and upgrading, reserves provision, community and recreational facilities and amenity improvements through its Development Contributions Policy.

There are a range of non-District Plan methods available to promote a good standard of residential design and development, particularly through the use of Codes and Guidelines, and through Council funded initiatives for community and residential amenities. Development Contributions from residential development will be used in the upgrading and expansion of the District's roads, reserves and other civic amenities and facilities.

Other

- Council will work with iwi, particularly in regard to stormwater design, reserve design, planting, and street and reserve naming.
- Contractors will be briefed on the tikanga requirements.

15A. TARAIKA MULTI-ZONE PRECINCT

A 'multi-zone precinct' is a tool set out in the National Planning Standards. The National Planning Standards define a 'precinct' as follows:

A precinct spatially identifies and manages an area where additional placebased provisions apply to modify or refine aspects of the policy approach or outcomes anticipated in the underlying zone(s).

Taraika contains a number of different zones, including Residential, Greenbelt Residential, Open Space, and Commercial. The majority of the current rules and standards contained within these existing zone will apply within Taraika. However, there are some instances where different rules and standards will be required within Taraika. Therefore, the respective zone chapter provisions will apply within Taraika, except as modified by the provisions contained within Chapter 15A. If there is conflict between chapters, the provisions of Chapter 15A will override.

15A.1 PERMITTED ACTIVITIES

The following activities are permitted activities provided activities comply with all relevant conditions in Rule 15A.6 and Chapters 21, 22, 23 and 24.

Note: The permitted activity conditions within the relevant zone chapter for the relevant activity type also apply. Where there is conflict between provisions, the more specific provision (i.e. the provisions of this chapter) apply.

15A.1.1 All Zones

15A.1.1.1 Activities permitted by the underlying zone chapters

- (a) Within the Residential Zone of the Taraika Precinct, activities listed as a permitted activity in Chapter 15 are a permitted activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Greenbelt Residential Zone of the Taraika Precinct, activities listed as a permitted activity in Chapter 18 are a permitted activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (c) Within the Open Space Zone of the Taraika Precinct, activities listed as a permitted activity in Chapter 20 are a permitted activity, provided activities comply with all relevant conditions contained within Chapter 20.

15A.1.2 Commercial Zone

In the Commercial Zone, the only permitted activities are:

- (a) Commercial (excluding entertainment activities) up to 250m²
- (b) Retail up to 250m²

15A RULES: TARAIKA MULTI-ZONE PRECINCT

- (c) Community activities
- (d) Recreation facilities
- (e) Public conveniences
- (f) Open space
- (g) Residential activities above ground floor (i.e. 1st floor or above), or at ground level only where the residential activity does not directly front onto the road boundary (i.e. they are located to the rear of a commercial activity).
- (h) The following types of signs
 - (i) Advertising signs, including public facility or information signs identifying a building, property or business.
 - (ii) Official signs.
 - (iii) Temporary signs.
 - (iv) Signs advertising sale or auction of land or premises.
 - (v) Health and safety signs.
- (i) The following network utilities and energy activities:
 - (i) The construction, operation, maintenance and upgrading of network utilities.
 - (ii) Domestic scale renewable energy devices.
- (j) Temporary activities

15A.2 CONTROLLED ACTIVITIES

The following activities are controlled activities provided activities comply with all relevant conditions in Rules 15A.6 and Chapters 21, 22, 23 and 24. In addition, refer to the relevant zone chapters for matters of control and conditions for controlled activities:

Note: The matters of control contained within the relevant zone chapter for the relevant activity type also apply.

15A.2.1 All Zones

- (a) Within the Residential Zone of the Taraika Precinct, activities listed as a controlled activity in Chapter 15 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Commercial Zone of the Taraika Precinct, activities listed as a controlled activity in Chapter 17 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 17.

- (c) Within the Greenbelt Residential Zone of the Taraika Precinct, activities listed as a controlled activity in Chapter 18 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (d) Within the Open Space Zone of the Taraika Precinct, activities listed as a controlled activity in Chapter 20 are a controlled activity, provided activities comply with all relevant conditions contained within Chapter 20.

15A.3 RESTRICTED DISCRETIONARY ACTIVITIES

The following activities are restricted discretionary activities provided activities comply with all relevant conditions in Rule 15A.7. Refer to Rules 15A.8.1, 15A.8.2 and 15A.8.3 for matters of discretion and conditions for restricted discretionary activities.

Note: The matters of discretion and conditions for restricted discretionary activities contained within the relevant zone chapter for the relevant activity type also apply.

Note: Refer to Chapter 25 for Assessment Criteria as a guide for preparing an assessment of environmental effects to accompany a resource consent application for any of the above activities.

15A.3.1 All Zones

- (a) The subdivision of land.
- (b) Within the Residential Zone of the Taraika Precinct, activities listed as a restricted discretionary activity in Chapter 15 are a restricted discretionary activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (c) Within the Commercial Zone of the Taraika Precinct, activities listed as a restricted discretionary activity in Chapter 17 are a restricted discretionary activity, provided activities comply with all relevant conditions contained within Chapter 17.
- (d) Within the Greenbelt Residential Zone of the Taraika Precinct, activities listed as a restricted discretionary activity in Chapter 18 are a restricted discretionary, provided activities comply with all relevant conditions contained within Chapter 18.
- (e) Within the Open Space Zone of the Taraika Precinct, activities listed as a restricted discretionary activity in Chapter 20 are a restricted discretionary, provided activities comply with all relevant conditions contained within Chapter 20.

15A.3.2 Residential Zone

(a) Any development within the Arapaepae Road Special Treatment Overlay noted on Structure Plan 013

15A.3.3 Commercial Zone

(a) Development of new buildings and additions or external alterations to building frontages. (Refer Rule 15A.8.2.1).

15A RULES: TARAIKA MULTI-ZONE PRECINCT

- (b) Supermarkets (Refer Rule 15A.8.2.2).
- (c) Drive-through restaurants. (Refer Rule 15A.8.2.3).

15A.4 DISCRETIONARY ACTIVITIES

The following activities are discretionary activities.

Note: Refer to Chapter 25 for Assessment Criteria as a guide for preparing an assessment of environmental effects to accompany a resource consent application for any of the above activities.

15A.4.1 All Zones

- (a) Within the Residential Zone of the Taraika Precinct, activities listed as a discretionary activity in Chapter 15 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Commercial Zone of the Taraika Precinct, activities listed as a discretionary activity in Chapter 17 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 17.
- (c) Within the Greenbelt Residential Zone of the Taraika Precinct, activities listed as a discretionary activity in Chapter 18 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (d) Within the Open Space Zone of the Taraika Precinct, activities listed as a discretionary activity in Chapter 20 are a discretionary activity, provided activities comply with all relevant conditions contained within Chapter 20.
- (e) Any activity not otherwise specified.

15A.4.2 Residential Zones

(a) Any subdivision that does not comply with the restricted discretionary activity conditions (Refer Rule 15A.8.1.1), except where the subdivision is a non-complying activity in accordance with Rule 15A.5.1(a) and/or Rule 15A.5.1(f).

15A.4.3 Commercial Zone

- (a) Commercial activities that do not comply with floor area limits.
- (b) Development of a new building, or additions and/or alterations to existing building frontages that do comply with the conditions for Restricted Discretionary Activities in Rule 15A.8.2.1

15A.5 NON-COMPLYING ACTIVITIES

The following activities are non-complying activities.

15A RULES: TARAIKA MULTI-ZONE PRECINCT

Note: Refer to Chapter 25 for Assessment Criteria as a guide for preparing an assessment of environmental effects to accompany a resource consent application for any of the above activities.

15A.5.1 All Zones

- (a) Within the Residential Zone of the Taraika Precinct, activities listed as a noncomplying activity in Chapter 15 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 15.
- (b) Within the Commercial Zone of the Taraika Precinct, activities listed as a noncomplying activity in Chapter 17 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 17.
- (c) Within the Greenbelt Residential Zone of the Taraika Precinct, activities listed as a non-complying activity in Chapter 18 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 18.
- (d) Within the Open Space Zone of the Taraika Precinct, activities listed as a noncomplying activity in Chapter 20 are a non-complying activity, provided activities comply with all relevant conditions contained within Chapter 20.
- (e) Subdivision or land use activities that are not consistent with Structure Plan 013.
- (f) Subdivision that do not comply with Rule 15A.8.1.2(b)(ii), 15A.8.2.4(b)(ii), 15A.8.3.1(b)(ii), or 15A.8.4.1(b)(ii).
- (g) Any activity that does not comply with Rule 15A.6.1.1 Vehicle Access into Strategic Cycleways.
- (h) Industrial Activities.
- (i) Large Format Retailing.

15A.6 CONDITIONS FOR PERMITTED ACTIVITIES

Note: The permitted activity conditions within the relevant zone chapter for the relevant activity type also apply. Where there is conflict between provisions, the more specific provision (i.e. the provisions of this chapter) apply.

The following conditions shall apply to all permitted activities:

15A.6.1 All Zones

15A.6.1.1 Vehicle Access into Strategic Cycleways

(a) No vehicle crossings shall cross a strategic cycleway shown on Structure Plan 013 will be permitted. In such cases, vehicle access to the site shall be via the rear access lanes shown on Structure Plan 013

15A.6.2 Residential Zones

15A.6.2.1 Rainwater Tanks

- (a) All dwellings shall have a stormwater collection tank permanently connected to internal and external non-potable reuse including toilet flushing, laundry, and outdoor taps. Rainwater tanks must:
 - (i) Size of tank:
 - Roof area of 75m² or less 2,000 litre capacity
 - Roof area of 75m² to 200m² 3,000 litre capacity
 - Roof area of more than 200m² 5,000 litre capacity
 - (ii) The roof area to be connected will be the total footprint of the building (excluding freestanding accessory buildings) and 90% of this must be able to freely drain to the tank.
 - (iii) The rainwater tank, plumbing and pump system must be maintained in working condition of the life of the dwelling.
 - (iv) The public potable water supply shall be adequately protected by installation of a non-return valve.

15A.6.2.2 Maximum Building Height

(a) In the medium density area the maximum height shall be 10 metres.

15A.6.2.3 Integral Garages

(a) Integral garages shall account for no more than 50% of the front façade of the dwelling unless the garage component is recessed back from the main pedestrian entrance to the dwelling by at least 1 metre

15A.6.2.4 Building Setback from Boundaries

Front/Road Boundary

(a) No building shall be located closer than 2 metres from any road boundary, except that a 5 metre long vehicle standing space shall be provided between the road boundary and any structure housing a vehicle where the vehicle takes direct access to the structure from the road.

15A.6.2.5 Daylight Access

(b) Where two dwellings are joined, there shall be no daylight access standard along the shared boundary.

15A.6.2.6 Fencing

(a) Front Road Boundary

15A RULES: TARAIKA MULTI-ZONE PRECINCT

- (i) Local Roads
 - The maximum height of a fence or wall sited on the boundary or within 2 metres of the boundary shall be no greater than 1.2 metre high.
- (ii) Collector and Arterial Roads
 - The maximum height of a fence or wall sited on the boundary or within 2 metres from the boundary is 1.5m high
- (b) Boundaries adjoining a public reserve or cycle way
 - The maximum height of a closed style fence or wall sited on the boundary or within 1.2 metre from the boundary is 1m high

Or

- The maximum height of an open pool style or trellis fence or wall sited on the boundary or within 1 metre from the boundary is 1.8m high
- (c) Other Boundaries
 - The maximum height of a fence or wall sited on the boundary or within 1 metre from the boundary shall not exceed 2 metres.
 - Fences perpendicular to the road shall taper downwards towards the road boundary. The taper should commence at least 1.5m from the road boundary and the maximum height of the fence where it meets the road boundary shall be 1m high if the road is a local road, or 1.5m high if it is an arterial or collector road.

15A.6.3 Commercial

15A.6.3.1 Signs

- (a) A maximum of 2 signs will be permitted per frontage in any 2 of the following preferred locations:
 - Building façade;
 - Verandah fascia;
 - Under verandah;
 - Side wall;
 - Inside the display window.

15A RULES: TARAIKA MULTI-ZONE PRECINCT

(b) Signs in the shall be limited to the following sizes

Table 15A-1: Sign Dimensions

Sign Type	Maximum Dimensions
Building Façade	Maximum area 1.2m ² .
Verandah Fascia	Must not extend beyond the fascia.
Under Veranda	Must have a least 2.5m clearance above the ground.
Side Wall	Maximum 8m ² and set back at least 0.5m from corner.
Inside the Display Window	Depth of sign must be no greater than 0.3m and must be either above 2m high or below 0.8m high in relation to ground.

(c) There shall be no remote signage

15A.7 MATTERS OF CONTROL AND CONDITIONS FOR CONTROLLED ACTIVITIES

There are no Taraika Precinct specific Matters of Control. The matters of control and conditions for controlled activities contained within the relevant zone chapter for the relevant activity type apply.

15A.8 MATTERS OF DISCRETION AND CONDITIONS FOR RESTRICTED DISCRETIONARY ACTIVITIES

Note: The matters of discretion and conditions for restricted discretionary activities contained within the relevant zone chapter for the relevant activity type also apply.

The matters over which Council has restricted its discretion for each restricted discretionary activity, and the conditions for each activity, are detailed below:

15A.8.1 Residential Zones

15A.8.1.1 Development within the Arapaepae Road Special Treatment Overlay (Refer to Rule 15A.3.2(a))

(a) Matters of Discretion
- (i) Reverse sensitivity effects, including:
 - Noise
 - Vibration
 - Visual
 - Traffic
- (ii) Compatibility with surrounding and anticipated land uses.
- (iii) Safe and efficient access
- (b) Conditions
 - (i) New buildings or alterations to existing buildings containing noise sensitive activities must be design, constructed and maintained to achieve the indoor design noise levels from Arapaepae Road/State Highway 57 traffic set out in Table 15A-2 below (excludes area not deemed to be habitable spaces as defined by Schedule 1 of the Building Regulations 1992:

Building Type	Occupancy/Activity	Maximum Indoor Design Noise Level L _{Aeq(24h)}
Residential	Living spaces, sleeping spaces (including visitor accommodation and retirement accommodation)	40dB
Education	Assembly halls	35dB
	Conference rooms, drama studios	40dB
	Lecture rooms and theatres, music studios	35dB
	Libraries	45dB
	Sleeping areas in educational facilities	40dB
	Teaching areas	40dB
Health	Overnight medical care, wards	40dB
	Clinics, consulting rooms, theatres, nurses' stations	45dB
Cultural Buildings	Places of worship, marae	35dB

Note: This table is informed by NZTAs guidance material on managing State Highway noise. The purpose of this table is simply to specify the noise level standards for different types of activities. It should not be taken as an indication of what types of activities will more broadly be considered acceptable in this location.

- (ii) If windows must be closed to achieve the design noise levels in (i), the building must be designed, constructed and maintained with a ventilation and cooling system. For habitable spaces a ventilation cooling system must achieve the following:
 - Ventilation must be provided to meet clause G4 of the New Zealand Building Code. Noise from the system must not exceed 30 dB LAeq(30s) when measured 1 m away from any grille or diffuser.
 - The occupant must be able to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour. Noise from the system must not exceed 30 dB LAeq(30s) when measured 1 m away from any grille or diffuser.
 - The system must provide cooling controllable by the occupant that can maintain the temperature at no greater than 25°C. Noise from the system must not exceed 30 dB LAeq(30s) when measured 1 m away from any grille or diffuser.
- (iii) A design report prepared by a suitably qualified and experienced acoustics specialist must be submitted with the building consent application for construction or alteration of any building containing a noise sensitive activity in or partly in the Arapaepae Road Special Treatment Overlay.

(c) Non-Notification

- (i) Under section 77D of the RMA, an activity requiring resource consent under Rule 15.7.1 shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)

15A.8.1.2 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.
 - (ii) For subdivisions within the medium density area, consistency with the Medium Density Residential Development Design Guide.
 - (iii) The design and layout of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision).

- (iv) Whether the subdivision contains a variety of lot sizes suitable for the area it is located within.
- (v) Whether the subdivision and likely future development will represent good urban design and will result in the level of amenity anticipated for the area.
- (vi) Provision of land for publically accessibly open space and recreation that is appropriately located and of a practicable size and shape, in accordance with Structure Plan 013.
- (vii) The provision of practicable street plantings.
- (viii) The provision of any new roads, cycleways, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (ix) The provision of access to sites, including passing bays, car parking and manoeuvring areas, and any necessary easements.
- (x) The management of traffic generated and potential adverse effects on the safety and efficiency of the street network.
- (xi) Minimise use of cul-de-sacs, particularly cul-de-sacs that are long or have poor visibility to or from the street they connect to.
- (xii) Consideration of Crime Prevention through Environmental Design Principles.
- (xiii) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, telecommunications, gas and electricity.
- (xiv) Effects on significant sites and features, including natural, cultural, archaeological and historical sites.
- (xv) Avoidance or mitigation of natural hazards.
- (xvi) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control.
- (xvii) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xviii) The staging of development and timing of works.
- (xix) Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).

- (xx) The potential effects of the development on the safe and efficient operation, upgrading, maintenance and replacement of existing lawfully established network utilities.
- (b) Conditions
 - (i) Minimum Allotment Area and Shape

Each allotment shall comply with the following site area and shape factor standards for each settlement set out in Table 15A-3 below.

Table 13A-3. Standards Applying to Suburvision and Residential Dwenning Onits	Table 15A-3: Standards	Applying to Subdivision a	nd Residential Dwelling Units
---	------------------------	---------------------------	-------------------------------

Residential Zone	Minimum Net Site Area	Maximum Net Site Area/Maximum Density	Minimum Shape Factor	Other Requirements	Road Frontage
Medium Density	Attached Units: 150m ²	450m ²	7m	Maximum street block length: 200m	
				Must include building siting plan.*	
	Detached Units: 225m ^{2*}	450m ^{2*}	10m	Maximum block length: 200m	All sites must have road
				Must include building siting plan.*	frontage for at least 7m
Standard Residential	330m ²	-	13m	Maximum block length: 200m	
Low Density Residential	1000m ²	-	18m	N/A	

*The siting plan shall show the location, pedestrian entrances, and outdoor living areas for all future dwellings. Although the dwellings do not need to be built prior to s224 being issued, a condition will be imposed on the subdivision requiring the siting plan to be complied with at the time the site is developed. This outcome will be secured by consent notice.

- (ii) Structure Plan
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.

- A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.
- (iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

15A.8.1.3 Non-Compliance with requirements for Rainwater Tank (Refer Rule 15A.6.2.1)

- (a) Matters of Discretion
 - (i) The potential for increased volume stormwater discharge from the site.
 - (ii) The proposed methods of managing the quality and quantity of storm water discharge from the site.

15A.8.1.4 Non-Compliance with Integral Garages (Refer Rule 15A.6.2.3)

- (a) Matters of Discretion
 - (i) The extent to which the integral garage obscures the dwelling from view.
 - (ii) The extent to which the integral garage reduces the opportunity for passive surveillance between the dwelling and the streetscape.
 - (iii) The extent to which the integral garage detracts from the dwelling as the primary feature on the site.
 - (iv) The effect of the integral garage's position on streetscape character and residential amenity.

15A.8.1.5 Non-Compliance with Fencing (Refer to Rule 15A.6.2.6)

(a) Matters of Discretion

(i) The extent to which the fence reduces the opportunity for passive surveillance and social interaction between public and private space.

15A.8.2 Commercial Zone

15A.8.2.1 New Buildings and Additions/Alterations to Building Frontage (Refer Rule 15A.3.3(a))

- (a) Matters of Discretion
 - (i) Building design and façade treatment should create a high amenity commercial environment that contributes positively to the public realm and enhances pedestrian experience by providing opportunity for interaction between shops front and the street. This includes but is not limited to:
 - Locating main building façades to address the primary street frontage.
 - Providing an interesting and varied building frontage that is not dominated by either featureless facades or glazing.
 - Including horizontal and/or vertical articulation design elements to add visual interest.
 - Designing building frontages that complement any existing adjoining buildings.
 - Locating doorways and entrances to buildings so they are easily identifiable.
 - (ii) The building and site design and layout should prioritise pedestrians over vehicles. This includes but is not limited to:
 - Pedestrian entrances to shops are built right up to the footpath.
 - Any onsite carparking, services areas, and storage areas should be located the rear of the building. They should not be located between the street and the pedestrian entrance to the building.
 - If carparks, services areas, and storage areas are visible from the street, they should be well screened from the street by landscaping or similar.
 - (iii) The provision of verandah that:
 - Provide weather protection to pedestrians
 - Contribute to the overall appearance and pleasantness of the street

- (iv) The application of Crime Prevention through Environmental Design (CPTED) Principles, including:
 - Building design and layout.
 - Use of appropriate planting and landscaping.
- (v) Proposed methods of managing the quality and quantity of stormwater.

(b) Conditions

- (i) All buildings in the Commercial Zone (Taraika Precinct) must comply with the following:
 - No part of any building shall exceed a height of 15 metres.
 - All buildings shall be built to the front road boundary of the site.
 - All building shall be built up to the side boundaries (the boundary which is perpendicular to the primary road frontage).
 - All buildings shall have display windows along the ground floor road frontage. At least 50% of ground floor facade surface shall be display space or transparent window or doors. The minimum window area shall be kept clear and not be boarded up, painted or covered by signage.
 - No building shall have a continuous featureless façade/blank wall on the ground floor road frontage wider than 4 metres. A featureless façade or blank wall is a flat or curved wall surface without any openings, glazing or columns, recesses, niches or other architectural detailing
 - All buildings shall have a maximum ground floor road frontage width for individual tenancies of 15 metres.
 - All building frontages shall have a minimum height of 6 metres.
 - The above standards do not apply to service lane frontages.
- (ii) All buildings in the Commercial Zone (Taraika Precinct) must contain a verandah and the verandah must comply with the following:
 - A minimum clearance of 2.5 metres directly above the footpath or formed ground surface.
 - A maximum clearance of 4 metres (measured at the base of the verandah fascia) directly above the footpath or from ground surface.
 - Extend for the full length of the building.
 - Extend outwards from the front of the building to the far side of the kerbing less than 450mm, or the verandah extends out 3 metres whichever is the lesser.

• Provide continuous shelter with any adjoining verandah or pedestrian shelter.

15A.8.2.2 Supermarkets (Refer to Rule 15A.3.3(b))

- (a) Matters of Discretion
 - (i) Whether parking areas, vehicle access and servicing arrangements are designed and located in a manner that protects the visual amenity of the streetscape and pedestrian safety, including the use of landscaping, planting and lighting.
 - (ii) Whether the design and layout of the site and buildings protects the visual amenity of the streetscape and pedestrian safety. For example:
 - The extent of featureless facades.
 - The extent of glazing.
 - The extent of signage.
 - The extent of window displays that prevent visibility into the store from the street.
 - (iii) Whether effects arising from operation (for example, hours, location of service areas, waste disposal) will be compatible with any nearby residential zones.
- (b) Conditions
 - (i) Car parking (as required by Chapter 21) must be provided to the rear of the building.
 - (ii) The main pedestrian entrance to the supermarket must front the street.

15A.8.2.3 Drive-Through Restaurants (Refer to Rule15A.3.3(c))

- (a) Matters of Discretion
 - (i) Whether the design and layout of the site and buildings protects the visual amenity of the streetscape and pedestrian safety. For example:
 - The extent of featureless facades.
 - The extent of glazing.
 - The extent of signage.
 - The extent of window displays that prevent visibility into the store from the street.
 - Screening and/or landscaping of equipment, parking and service areas.
 - Whether the location of the drive-through detracts from pedestrian experience by creating a barrier between the building and the footpath.

- (ii) Whether operating effects are compatible with surrounding land uses (particular residential areas). For example:
 - Whether the activity, including parking areas and storage and servicing facilities, is adequately screened to protect the visual amenity of surrounding land uses.
 - Whether the activity, including parking areas and storage and servicing facilities, are located, designed and managed to avoid nuisance effects such as noise and odour on surrounding land uses.
 - The impact of adverse effects arising from the numbers of people and/or vehicles using the site.
 - The effects of the activity's operation on the existing and expected future amenity values of the surrounding area and any mitigation measures proposed.
- (iii) Whether the site is located, designed and laid out in a manner that avoids adverse effects on the safe and effective operation of the roading network, including pedestrians. For example:
 - Whether the nature and scale of vehicle movements associated with the activity will have an adverse effect on road users.
 - Whether the drive through is positioned to provide sufficient off-road queuing space during peak times.
 - Whether the site is designed to allow a free flow of traffic from the road into the parking area.
 - Whether the activity is designed in such a manner that vehicles can manoeuvre on-site in a safe and efficient manner.
 - Whether sufficient vehicle (including service vehicles) and pedestrian access is provided to the site to minimise conflict between pedestrians and vehicles.

(b) Conditions

- (i) The main pedestrian entrance to the restaurant must front the street.
- (ii) Car parking (as required by Chapter 21) must be provided to the rear of the building.

15A.8.2.4 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.

- (ii) The design and layout of the subdivision, including the size, shape and position of any lot, including the future land use and development of each lot. In addition, the location of building sites, separation distances, orientation of buildings, and screening/landscape treatment.
- (iii) The amalgamation of any proposed allotments or balance areas to existing titles of land.
- (iv) The provision of any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (v) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, streetlighting, telecommunications and electricity and, where applicable gas.
- (vi) Provision of reserves, esplanade reserves, esplanade strips and access strips, including connections to existing and future reserves.
- (vii) Effects on significant sites and features, including natural, ecological, cultural, archaeological and historical sites.
- (viii) Site contamination remediation measures and works.
- (ix) Avoidance or mitigation of natural hazards.
- (x) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control.
- (xi) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xii) Staging of the subdivision.
- (xiii) Compliance with the Councils Subdivision and Development Principles and Requirements (Version: July 2014).
- (xiv) Those matters described in Sections 108 and 220 of the RMA.

(b) Conditions

- (i) All lots shall demonstrate compliance with the relevant permitted activity conditions, except no minimum lot area requirement applies.
- (ii) Structure Plan

- A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.
- A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.
- (iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

- (c) Non-Notification
 - (i) Under section 77D of the RMA, an activity requiring resource consent under Rule 15.7.1 shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)

15A.8.3 Open Space Zone

15A.8.3.1 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.
 - (ii) The design and layout of the subdivision, including the size, shape and position of any lot, including the future land use and development of each lot. In addition, the location of building sites, separation distances, orientation of buildings, and screening/landscape treatment.
 - (iii) The amalgamation of any proposed allotments or balance areas to existing titles of land.

- (iv) The provision of any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (v) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, street lighting, telecommunications and electricity and, where applicable gas.
- (vi) Provision of reserves, esplanade reserves, esplanade strips and access strips, including connections to existing and future reserves.
- (vii) Effects on significant sites and features, including natural, ecological, cultural, archaeological and historical sites.
- (viii) Site contamination remediation measures and works.
- (ix) Avoidance or mitigation of natural hazards. (Note: Refer to the "Risks and Responsibilities: Report of the Manawatu-Wanganui Regional Lifelines Project" (No. 2005/EXT/622) prepared by the Manawatu-Wanganui CDEM Group for information about natural hazards that may be relevant to the subject site).
- (x) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control.
- (xi) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xii) Staging of the subdivision.
- (xiii) Compliance with the Councils Subdivision and Development Principles and Requirements (Version: July 2014).
- (xiv) Those matters described in Sections 108 and 220 of the RMA.

(b) Conditions

- (i) All lots shall demonstrate compliance with the relevant permitted activity conditions, except no minimum lot area requirement applies.
- (ii) Structure Plan
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.

- A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.
- (iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

- (c) Non-Notification
 - (i) Under section 77D of the RMA, an activity requiring resource consent under Rule 15.7.1 shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)

15A.8.4 Greenbelt Residential

15A.8.4.1 Subdivision (Refer to Rule 15A.3.1(a))

- (a) Matters of Discretion
 - (i) Consistency with Structure Plan 013.
 - (ii) The design and layout of the subdivision, including the size, shape and position of any lot, as well as the future land use and development of each lot. In addition, connectivity and linkages (both within and beyond the subdivision).
 - (iii) Whether the subdivision contains a variety of lot sizes suitable for the area it is located within.
 - (iv) Whether the subdivision and likely future development will represent good urban design and will result in the level of amenity anticipated for the area.
 - (v) Provision of land for publically accessibly open space and recreation that is appropriately located and of a practicable size and shape.
 - (vi) The provision of practicable street plantings.

- (vii) The provision of any new roads, cycleways, footpaths, provision of linkages to existing roads, access over or under railway lines, the diversion or alteration of any existing roads, the provision of access, passing bays, parking and manoeuvring areas, and any necessary easements.
- (viii) The provision of access to sites, including passing bays, car parking and manoeuvring areas, and any necessary easements.
- (ix) The management of traffic generated and potential adverse effects on the safety and efficiency of the street network.
- Minimise use of cul-de-sacs, particularly cul-de-sacs that are long or have poor visibility.
- (xi) Consideration of Crime Prevention through Environmental Design Principles.
- (xii) The provision of servicing, including water supply, wastewater systems, stormwater management and disposal, telecommunications, gas and electricity.
- (xiii) Effects on significant sites and features, including natural, cultural, archaeological and historical sites.
- (xiv) The protection and enhancement of any natural habitat of indigenous species within the subdivision
- (xv) Avoidance or mitigation of natural hazards.
- (xvi) Management of construction effects, including traffic movements, hours of operation, noise, earthworks and erosion and sediment control.
- (xvii) Whether tikanga and cultural protocols will be following during the construction phase, particularly when undertaking earthworks.
- (xviii) The staging of development and timing of works
- (xix) Compliance with the Council's Subdivision and Development Principles and Requirements (Version: July 2014).
- (xx) The potential effects of the development on the safe and efficient operation, upgrading, maintenance and replacement of existing lawfully established network utilities.
- (b) Conditions
 - (i) Minimum Allotment Area and Shape
 - Each allotment shall comply with the following site area and shape factor standards in Table 15A-4

Type of Allotment, or Minimum Area Per Subdivision Allotment/Site		Minimum Shape Factor	
Greenbelt Residential General Serviced	2000 square metres	20 metres diameter	
Greenbelt Residential General Unserviced	5000 square metres	20 metres diameter	

Table 15A-4: Standards Applying to Subdivision and Residential Dwelling Units

- (ii) Structure Plan
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site that contains an infrastructure asset as indicated by Structure Plan 013 requiring the infrastructure asset to be constructed and vested with Council to the full extent indicated on the Structure Plan.
 - A condition will be imposed on the resource consent of any subdivision that creates additional allotments and involves a site/part of a site containing a park or reserve as shown on Structure Plan 013, requiring the site/part of the site containing the reserve to be vested within Council.
- (iii) Water Supply, Wastewater and Other Services

All subdivisions shall comply with the requirements as specified set out in Chapter 24.

(iv) Roads and Access

All subdivisions shall comply with the requirements as specified in Chapter 21.

(v) Network Utilities

There shall be no minimum site area requirements for lots for network utility purposes.

- (c) Non-Notification
 - (i) Under section 77D of the RMA, an activity requiring resource consent under Rule 15.7.1 shall not be publicly notified or limited notified, except where:
 - The Council decides special circumstances exist (pursuant to Section 95A(9); or
 - The applicant requests public notification (pursuant to Section 95A(3)(a)



Appendix 10 – Horowhenua Growth Projections – Sense Partners – June 2020



Horowhenua Socio-Economic projections

Summary and methods

Projections update report, May 2020





Summary of projections

This update report presents long term population and economic projections for Horowhenua District.

Strong growth expected

Horowhenua's population is projected to grow:

- by 1.8% per year, over the next 10 years
- more quickly than the national population (1.2% per year)
- more quickly than the average of the past 10 years (1.5% per year)
- more slowly than the average of the past 6 years (2.1% per year).
- substantially more quickly than in our previous projections (0.5% per year).

TABLE 1: POPULATION PROJECTIONS¹

Population

		5th percentile	25th percentile	50th percentile	75th percentile	95th percentile
20)19	34,956	34,956	34,956	34,956	34,956
20)29	39,983	41,022	41,896	42,941	44,968
20)39	40,822	44,138	47,006	50,913	59,010
20)49	39,542	45,188	51,862	59,250	79,243
20)59	37,741	45,443	55,626	69,501	105,044
20	068	35,301	45,185	59,172	78,168	131,741

Population growth, compound annual average growth rate

	5th percentile	25th percentile	50th percentile	75th percentile	95th percentile
2019			·		·
2029	1.4%	1.6%	1.8%	2.1%	2.6%
2039	0.2%	0.7%	1.2%	1.7%	2.8%
2049	-0.3%	0.2%	1.0%	1.5%	3.0%
2059	-0.5%	0.1%	0.7%	1.6%	2.9%
2068	-0.7%	-0.1%	0.6%	1.2%	2.3%

¹ The percentiles presented in Table 1, and elsewhere in the report, are calculated by simulating population change while varying the main drivers of population growth, such as immigration rates. These simulations are calibrated based on historical variations. This produces a range of results which is summarised by ranking the projections and presenting them according to their ranking or percentile.



Growth driven by strong domestic immigration

Horowhenua's strong population growth is driven by a continued substantial inflow of migrants from other parts of New Zealand.

We are forecasting a net inflow of 650 domestic migrants per year over the next 10 year. This is a substantial upward revision, from 270 migrants per year in our 2019 forecasts.

In our 2019 forecasts we noted that

"it appears that domestic migration into Horowhenua has been higher than we or other experts, such as Statistics New Zealand, would have predicted three or four years ago. This is likely to be due to a combination of factors including:

- *improved accessibility from the expressways that have been built to the south of the District*
- *increased costs of living, especially house price inflation, in most urban centres including Palmerston North and Wellington*

We also noted that we did not yet have sufficient up-to-date data, such as from the census, to account for observed increases in domestic migration.

Since the 2018 census data has become available and estimates of Horowhenua's population have been revised up yet again, it has become even more apparent that we needed to revise our projection methods and so we have done this.²

Our forecasts of Horowhenua's population growth are also affected by assumptions about the effects of border closures on outward international migration. An extended period of border closures is expected to boost Horowhenua's population growth as fewer people leave the district to move overseas.

COVID-19 brings new sources of uncertainty

While our previous projections were subject to several significant sources of uncertainty, such as policy change and a deficit of data³, these 2020 projections must contend with the effects of a global pandemic.

Our forecasts assume the following effects from COVID-19:

² The census led to substantial increase in estimates of Horowhenua's population. Although, ironically, our new projections of domestic migration are only partly based on census data. The census data on internal migration has been rated as "very poor", after the question relating to prior address was dropped from the census in favour of linking data between censuses.

³ At the time of our previous update (July 2019) problems with the 2018 census meant that data from the census was not yet available. Even now, a substantial amount of census data has not been publicly released, even though it has been more than 2 years since the census. This means that estimates and forecasts of the following variables should be considered provisional and subject to revisions once census data is available: households (number and type), labour force status (i.e. labour force participation and unemployment status), household incomes.



- international borders closed to migrants for the 12 months to March 2021⁴
- a sharp but reasonably short-lived economic shock, based on the New Zealand Treasury's Budget Economic and Fiscal Update (May 2020), where:
 - the national unemployment rate rises to 8.3% in June 2020, from 4.0% in 2019, and then falls to 7.6% in the June quarter 2021
 - real GDP growth falls 4.6% in the year to June 2020 and -1.0% in the year to June 2021 before recovering in 2022

We tend to the view that these economic assumptions are optimistic. However, as they are Budget numbers, they provide a useful benchmark – especially at a time when forecasters are revising their views daily.

These economic shocks are expected to cause average household incomes to decline, on average, over the next 10 years.

TABLE 1' GROW/TH	IN AVERAGE	HOUSEHOLD	INCOMES	AFTER INFI	ATION
TADLE I. GILO WITH	IN AVENAGE	HOUSEHOLD	INCOMES,		-VIION

	<u> </u>				
	5th percentile	25th percentile	50th percentile	75th percentile	95th percentile
2019					
2029	-1.5%	-0.8%	-0.4%	-0.1%	0.5%
2039	0.7%	0.9%	1.0%	1.1%	1.2%
2049	0.1%	0.3%	0.4%	0.4%	0.4%
2059	0.7%	1.0%	1.0%	0.7%	1.1%
2068	0.5%	0.2%	0.4%	0.7%	0.6%

Annual average growth between dates

It is quite possible that these COVID-related economic shocks, or larger ones, could cause a significant shift in population growth dynamics in Horowhenua and throughout New Zealand. Importantly, the uncertainty ranges in our projections do not account for the possibility of such shifts. That being so, the level of uncertainty quantified in our near-term projections is under-stated.

Given this unquantified uncertainty it would be unwise to speculate about potential further positive effects on population growth from transport projects (such as Transmission Gully and the Otaki to Levin link) – as was done in our previous projections.

That said, our revised projections are higher than previous forecasts that accounted for the effects of transport projects. Recent population growth in Horowhenua has, at least partly, results from increased accessibility due to roading projects. This lift in attraction to Horowhenua is now factored directly into the population growth forecasts.

⁴ We assume closure to 95% of all migrant flows i.e. immigrants to New Zealand and emigrants from New Zealand.



HOROWHENUA SOCIO-ECONOMIC PROJECTIONS SUMMARY AND METHODS

Our 2020 forecasts for Horowhenua will feed into the development of scenarios for future growth and economic development. These scenarios, which are yet to be produced, will consider the potential for alternative futures for Horowhenua based on economic trends and the potential for positive or negative economic shocks.



Comparisons against Statistics New Zealand projections

The population projections presented in this report are higher than Statistics New Zealand projections for the Horowhenua released in 2017. The differences are summarized in Table 5.

TABLE 5: COMPARISON WITH STATISTICS NEW ZEALAND PROJECTIONS POPULATION PROJECTIONS ('MEDIUM' SCENARIOS)

	Year	Age: 0-14	Age:15-39	Age:40-64	Age:65+	All ages
Statistics New Zealand	2013	6,020	7,490	10,380	7,280	31,170
	2018	5,900	8,060	10,250	8,050	32,260
	2023	5,800	8,050	9,660	8,920	32,430
	2028	5,680	7,940	8,950	10,000	32,570
	2033	5,580	7,320	8,660	10,860	32,420
	2038	5,310	6,850	8,580	11,310	32 <i>,</i> 050
	2043	4,990	6,630	8,520	11,350	31,490
Sense Partners	2013	6,020	7,490	10,380	7,280	31,170
	2018	6,300	8,500	11,000	8,500	34,300
	2023	7,270	10,045	11,306	9,319	37,940
	2028	8,298	11,002	11,536	10,437	41,273
	2033	9,088	11,395	12,288	11,441	44,211
	2038	9,169	11,966	13,116	12,333	46,583
	2043	9,045	12,874	14,143	12,868	48,929

ANNUAL AVERAGE GROWTH RATES

	5 Years to:	Age: 0-14	Age:15-39	Age:40-64	Age:65+	All ages
Statistics New Zealand	2018	-0.4%	1.5%	-0.3%	2.0%	0.7%
	2023	-0.3%	0.0%	-1.2%	2.1%	0.1%
	2028	-0.4%	-0.3%	-1.5%	2.3%	0.1%
	2033	-0.4%	-1.6%	-0.7%	1.7%	-0.1%
	2038	-1.0%	-1.3%	-0.2%	0.8%	-0.2%
	2043	-1.2%	-0.7%	-0.1%	0.1%	-0.4%
Sense Partners	2018	1.0%	2.5%	1.1%	3.1%	1.9%
	2023	3.0%	3.3%	0.5%	1.8%	2.0%
	2028	2.6%	1.9%	0.4%	2.3%	1.7%
	2033	1.9%	0.7%	1.4%	1.9%	1.4%
	2038	0.2%	1.0%	1.3%	1.5%	1.1%
	2043	-0.4%	1.5%	1.5%	1.0%	1.0%

The difference between Sense projections and Statistics New Zealand's projections are differences in views about international migration and different assumptions regarding rates of domestic migration into Horowhenua. Our assumptions about fertility and mortality rates are very similar.



Method

These projections should be interpreted as potentials. The projections do not, for example, take account of national or local policy changes which can affect actual population and economic growth.

Demographics

The method used to produce the population projections is a conventional population projection model, with a few relatively novel aspects.

The model simulates populations by age, by sex by District.

Fertility and mortality rates are projected using the same methods that Statistics New Zealand uses to project age- and sex-specific mortality rates.^{5, 6}

International migration is predicted at the national level using a model of migration which accounts for trends and patterns in growth in arrivals from different types of countries in conjunction with changes in outward migration and economic conditions in New Zealand and Australia (unemployment rates and real exchange rates).⁷

Ages of migrants and domestic destinations of international migrants are determined based on observed historical probabilities that migrants are of a given age and the propensities these migrants must move to particular parts of New Zealand (in this case Districts).

Internal domestic migration is based on age- and origin- and destination-specific probabilities of observed migration in each of the censuses from 2001 to 2013⁸ and experimental origin-destination domestic migration data for the period 2013-2017. So, each District's inward domestic migration reflects the size and age distribution of other Districts from which it traditionally sources migrants.

At the household level, living arrangements are based on methods used by Statistics New Zealand. Each age and gender has an observed historical (Census-based) probability of residing in a different household type. The probabilities used here are national-level probabilities.⁹

⁵ Demography package for R, by Rob J Hyndman with contributions from Heather Booth, Leonie Tickle and John Maindonald.

⁶ Actual data on age-specific rates at the district level are limited and so these are inferred using splines to interpolate between ages where age-group data is available.

⁷ To be precise, the model is a mean of forecasts from 3 different types of models: a set of univariate time series model, a vector-autoregression, and a vector-error correction model with economic components. The latter includes cluster analysis of arrivals from different countries which allows grouping of countries into 4 different groups which tend to move together.

⁸ The number of observations here is limited but the probabilities have proved to remain remarkably stable over time.

⁹ Except that, in the national context, projections for Auckland include adjustments to reflect the large numbers of multi-family households in Auckland This overall approach, using national 'living arrangement



HOROWHENUA SOCIO-ECONOMIC PROJECTIONS SUMMARY AND METHODS

Economic projections

The economic projections are based on a 'growth accounting' method, whereby growth is predicted based on growth in the working age population, labour force participation rates, unemployment rates, and productivity.

Here labour force participation rates are modelled at the national level and district rates are estimated based on typical age-specific deviations from national rates.¹⁰

Unemployment rates are also modelled at the national level and age-specific deviations from national rates are used to model persistent differences in unemployment rates at different ages in different districts.

The model used to predict unemployment rates at the national level takes account of changes in labour force growth and other economic factors on unemployment rates. It also includes a measure of labour productivity.¹¹ Predictions of productivity growth come from this model.

There is no attempt to model district-level productivity growth, rather districts are assumed to face random fluctuations in productivity which move around the national average.

Industry projections are based on a model of trends in industry shares of GDP. At the district level, industry output is then projected using historical correlations between movements in national output and district output. So, the district's fortunes are attached to national trends, but also reflect local cycles and comparative advantages.

Randomness

To run simulations and produce ranges for projections we use the observed errors in our models and underlying variation in the variables we are modelling to produce 'prediction intervals'. In each simulation, we draw randomly from these prediction intervals.

Not all variables are subject to this randomness directly¹² and some variables do not fluctuate a great deal. The most volatile components of the projections are: migration, productivity, and industry GDP growth shares.

type rates' is a weakness in this modelling method but is accepted for the time being in the absence of better data to discriminate 'living arrangement type rates' by district.

¹⁰ The national rates are modelled using logistic growth curves which help to capture the rising, but ultimately limited, rates of participation of older age groups.

¹¹ The national model of unemployment rates is a vector auto-regression of unemployment, CPI, labour force, interest rates, and earnings per hour ('labour productivity). The use of vector auto-regressions helps ensure that we extract underlying trends in variables and means that the model can capture the effects of economic cycles over a 1- to 2-year horizon. After that the model reverts to trends. Although randomness is added to reflect uncertainty, there are no economic cycles in the model beyond the first 1 to 2 years.

¹² All age-specific probabilities used in the model are fixed, for example.







Appendix 11 - Proposed Plan Change Provision Assessment Reference Table



Assessment of Plan Change Objectives and Provisions – s32 Report Reference Table

Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report
Objective 6A.1	Objective	Well-Functioning Urban Environments, Iwi and Cultural Considerations, and Cohesive, Logical Urban Form and Layout	6.4.1 - Overarching Plan Change Objective
Policy 6A.1.1	Policy	Cohesive, Logical Urban Form and Layout	6.5.3.1 - Structure Plan
Policy 6A.1.2	Policy	Iwi and Cultural Considerations	6.5.4.1 - Cultural Acknowledgement and Referencing and Environmental Outcomes
Policy 6A.1.3	Policy	Well-Functioning Urban Environments	6.5.1.3 - Residential Amenity
Policy 6A.1.4	Policy	Well-Functioning Urban Environments	6.5.1.4 - Non-Residential Activities
Policy 6A.1.5	Policy	Well-Functioning Urban Environments	6.5.1.2 - Transport and 6.5.1.3 - Residential Amenity
Objective 6A.2	Objective	Efficient and Sustainable Infrastructure and Servicing	6.4.3 - Efficient and Sustainable Infrastructure and Servicing
Policy 6A2.1	Policy	Well-Functioning Urban Environments	6.5.1.1 Housing Yield and Choice
Policy 6A2.2	Policy	Efficient and Sustainable Infrastructure and Servicing	6.5.2.1 - Integrated Stormwater Management and Water Supply &



Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report
			Waste Water, 6.5.3.1 - Structure Plan and Zoning
Policy 6A2.3	Policy	Efficient and Sustainable Infrastructure and Servicing	6.5.2.1 - Integrated Stormwater Management and Water Supply & Waste Water, 6.5.3.1 - Structure Plan and Zoning
Objective 6A.3	Objective	Efficient and Sustainable Infrastructure and Servicing	6.4.3 - Efficient and Sustainable Infrastructure and Servicing
Policy 6A.3.1	Policy	Iwi and Cultural Considerations, Efficient and Sustainable Infrastructure and Servicing	6.5.4.1 - Cultural Acknowledgement and Referencing and Environmental Outcomes, 6.5.2.1 Integrated Stormwater Management and Water Supply & Waste water
Policy 6A.3.2	Policy	Iwi and Cultural Considerations, Efficient and Sustainable Infrastructure and Servicing	6.5.4.1 - Cultural Acknowledgement and Referencing and Environmental Outcomes, 6.5.2.1 Integrated Stormwater Management and Water Supply & Waste water



Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report	
Policy 6A.3.3	Policy	Efficient and Sustainable Infrastructure and Servicing	6.5.2.1 Integrated Stormwater Management and Water Supply & Waste water	
Objective 6A.4	Objective	Efficient and Sustainable Infrastructure and Servicing	6.4.2 - Well-Functioning Urban Environments and Cohesive, Logical Urban Form and Layout	
Policy 6A.4.1	Policy	Cohesive, Logical Urban Form and Layout Cohesive, Logical Urban Form and Layout, Well- Functioning Urban Environments	6.5.3.1 - Structure Plan and Zoning	
Policy 6A.4.2	Policy		6.5.3.1 - Structure Plan and Zoning, 6.5.1.1 Housing Yield and Choice	
Policy 6A.4.3	Policy	Cohesive, Logical Urban Form and Layout, Well- Functioning Urban Environments	6.5.3.1 - Structure Plan and Zoning, 6.5.1.1 Housing Yield and Choice	
Objective 6A.5	Objective	Well-Functioning Urban Environments and Cohesive, Logical Urban Form	6.4.2 - Well-Functioning Urban Environments and Cohesive, Logical Urban Form and Layout	
Policy 6A.5.1	Policy	Well-Functioning Urban Environments	6.5.1.4 - Non-Residential Activities	
Policy 6A.5.2	Policy	Well-Functioning Urban Environments	6.5.1.4 - Non-Residential Activities	
Policy 6A.5.3 Policy Well-Functioning Urban Environments		6.5.1.4 - Non-Residential Activities		



Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report	
Policy 6A.5.4	Policy	Well-Functioning Urban Environments	6.5.1.4 - Non-Residential Activities	
Policy 6A.5.5	Policy	Well-Functioning Urban EnvironmentsWell-Functioning Urban Environments and Cohesive, Logical Urban Form	 6.5.1.4 - Non-Residential Activities 6.4.2 - Well-Functioning Urban Environments and Cohesive, Logical Urban Form and Layout 	
Objective 6A.6	Objective			
Policy 6A.6.1	Policy	Cohesive, Logical Urban Form and Layout, Well- Functioning Urban Environments	6.5.3.1 - Structure Plan and Zoning	
Policy 6A.6.2	Policy	Cohesive, Logical Urban Form and Layout, Well- Functioning Urban Environments Cohesive, Logical Urban Form and Layout, Well- Functioning Urban Environments	6.5.3.1 - Structure Plan and Zoning	
Policy 6A.6.3	Policy Cohesive, Logical Urban Form and Layout, Well-Functioning Urban Environments Rule Permitted activities in all zones		6.5.3.1 - Structure Plan and Zoning, 6.5.1.4 - Non-Residential Activities	
15A.1.1 (and subparts)		Existing District Plan provisions, no further assessment required		
15A.1.2 (and subparts)	Rule	Permitted activities in commercial zone	6.5.1.4 - Non-Residential Activities	
15A.2 (and subparts)	Rule	Controlled activities in all zones	Existing District Plan provisions, no further assessment required	



Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report
15A.3.1(a)	Rule	Subdivision of land as a restricted discretionary activity	6.5.1.1 - Housing Yield and Choice
15A.3.1(b)-(e)	Rule	Other restricted discretionary activities (not subdivision) in all zones	Existing District Plan provisions, no further assessment required
15A.3.2(a)	Rule	Arapaepae Road special treatment overlay	6.5.1.3 - Residential Amenity
15A.3.3(a)	Rule	New commercial buildings and external additions/alterations to commercial buildings as a restricted discretionary activity	6.5.1.4 - Non-Residential Activities
15A.3.3(b)	Rule	Supermarkets as a restricted discretionary activity	6.5.1.4 - Non-Residential Activities
15A.3.3(c)	Rule	Drive-through restaurants as a restricted discretionary activity	6.5.1.4 - Non-Residential Activities
15A.4.1 (and subparts)	Rule	Discretionary activities in all zones	Existing District Plan provisions, no further assessment required
15A.4.2(a)	Rule	Subdivision of land that does not comply with minimum or maximum site areas as a discretionary activity	6.5.1.1 - Housing Yield and Choice
15A.4.3(a)	Rule	Commercial activities that do not comply with floor area limits	6.5.1.4 - Non-Residential Activities
15A.4.3(b)	Rule	New commercial buildings and external additions/alterations to commercial buildings that	6.5.1.4 - Non-Residential Activities



Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report	
		do not comply with restricted discretionary conditions as a discretionary activity		
15A.5.1(a)-(d)	Rule	Non-complying activities in all zones	Existing District Plan provisions, no further assessment required	
15A.5.1(e)-(f)	Rule	Non-compliance with structure plan or structure plan rules as a non-complying activity	6.5.3.1 - Structure Plan and Zoning	
15A.5.1(g)		Non-compliance with strategic cycle ways as a non-complying activity	6.5.1.2 - Transport6.5.1.4 - Non-Residential Activities	
15A.5.1(h)-(i)	Rule	Industrial and large format retailing activities as a non-complying activity		
15A.6.1.1	Permitted Activity Condition	Vehicle access in strategic cycleway	6.5.1.2 Transport	
15A.6.2.2- 15A.6.2.6	Permitted Activity Condition	Residential amenity, bulk and location	6.5.1.3 Residential Amenity	
15A.6.3.1	Permitted Activity Condition	Signs in commercial zone	6.5.1.4 Non-Residential Activities	
15.7	Matter of Control	-	Existing District Plan provisions, no further assessment required	
15A.8.1.1	Matters of Discretion and Conditions for Restricted Discretionary Activity	Development within Arapaepae Road special treatment overlay	6.5.1.3 - Residential Amenity	



Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report
15A.8.1.2	Matters of Discretion and Conditions for Restricted Discretionary Activity	Subdivision in residential zone	6.5.1.1 - Housing Yield and Choice
15A.8.1.3	Matters of Discretion and Conditions for Restricted Discretionary Activity	Non-compliance with rainwater tank requirement	6.5.2.1 - Well-Functioning Urban Environments and Cohesive, Logical Urban Form and Layout
15A.8.1.4- 15A.8.1.5	Matters of Discretion and Conditions for Restricted Discretionary Activity	Non-compliance with residential amenity, bulk, and location standards	6.5.1.3 - Residential Amenity
15A.8.2.1	Matters of Discretion and Conditions for Restricted Discretionary Activity	New buildings and external additions and alterations to buildings in commercial zone	6.5.1.4 - Non-Residential Activities
15A.8.2.2	Matters of Discretion and Conditions for Restricted Discretionary Activity	Supermarkets	6.5.1.4 - Non-Residential Activities
15A.8.2.3	Matters of Discretion and Conditions for Restricted Discretionary Activity	Drive-through restaurants	6.5.1.4 - Non-Residential Activities
15A.8.2.4	Matters of Discretion and Conditions for Restricted Discretionary Activity	Subdivision in commercial zone	6.5.1.1 - Housing Yield and Choice



Provision Number	Provision Type	Provision Description	Assessment Location in s32 Report
15A.8.3.1	Matters of Discretion and Conditions for Restricted Discretionary Activity	Subdivision in open space zone	6.5.1.1 - Housing Yield and Choice
15A.8.3.1	Matters of Discretion and Conditions for Restricted Discretionary Activity	Subdivision in greenbelt residential zone	6.5.1.1 - Housing Yield and Choice



Horowhenua District Plan Change

Section 32 Report

Proposed Plan Change 4

Taraika Growth Area

October 2020



Table of Contents

1	Exe	ecutive Summary	3
2	Intr	roduction and Problem Definition	3
2	2.1	Growth in Horowhenua	3
	2.2	Ōtaki to North of Levin (O2NL)	4
	2.3	History of Taraika/Gladstone Green as Growth Area	5
3	Re	gulatory and Policy Context	5
	3.1	Legislative and National Policy Context	6
;	3.2	Regional Policy Context	10
;	3.3	Local Policies, Plans and Strategies	12
;	3.4	Taraika Context	15
;	3.5	Resource Management Issues and Desired Outcomes	18
	3.6	Supporting Information	20
4	Co	nsultation	21
	4.1	Consultation	21
5	Pro	oposed Plan Change 4	24
4	5.1	Scope of proposed amendments to the District Plan	24
6	Eva	aluation	27
	6.1	Scale and Significance of the proposed Plan Change	
	6.2	Quantification of Benefits and Costs	
	6.3	Proposed Plan Change Approach – Option Analysis	
(6.4	Whether the stated objectives are the most appropriate way to achieve the p of the RMA	ourpose 35
(6.5	Evaluation of appropriateness of provisions in achieving objectives	47
7	Ris	sk of Acting or Not Acting	74
8	Co	nclusion	84


1 Executive Summary

Since 2013, the Horowhenua District has been experiencing rapid population growth which is expected to continue. In response to this, the Horowhenua District Council (HDC or the Council) prepared a growth strategy, titled Horowhenua Growth Strategy 2040. This identified the District's projected housing and business land requirements out to the year 2040. Included in this Strategy was growth area Levin South 6 (LS6), the area now known as 'Taraika' and the subject of this Plan Change.

The Taraika Development Area is a 420ha piece of land located immediately east of Levin. It is bordered by State Highway 57 (Arapaepae Road), Queen Street East, Gladstone Road and Tararua Road. Council, alongside key landowners, developed a Master Plan for this area. This Master Plan is the basis for this Plan Change (Proposed Plan Change 4).

This area was formerly known as Gladstone Green, but through the development of the Master Plan and Plan Change process, was gifted the name 'Taraika' by the Muaūpoko Tribal Authority. From here forward, the area will be referred to as Taraika.

The primary issues driving this Plan Change are a need to provide land to meet housing demand and to give effect to the National Policy Statement on Urban Development (NPS-UD) which requires Council's to provide for well-functioning urban environments and provide sufficient development capacity to meet the needs of people and communities.

2 Introduction and Problem Definition

This report contains the section 32 evaluation of Proposed Plan Change 4 (PC4 or plan change) that seeks to provide for future greenfield development in Taraika.

2.1 Growth in Horowhenua

The Horowhenua population is growing rapidly, increasing by an average of 2% per year between 2013 and 2018. Statistics New Zealand estimated that as of June 2019, the Horowhenua population was 35,000. This is an increase of nearly 5,000 people since 2013^{1,2}.

Early in June 2020, Sense Partners were commissioned to provide updated population projections for the District. Due to this work being completed post COVID-19 lockdown level 4 this work was able to take into account the potential impact of COVID19. These projections show that this growth rate is expected to continue long term. Based on recent growth being much faster than previously anticipated, Council have since adopted the 95th percentile growth rate set out in this report for its long term planning, which means significant and ongoing demand for housing, as indicated by the table below. Refer to Appendix 10 of this report for the full Sense Partners Growth Projections report.

Table 1: Additional Dwellings Required Per Year to Support LTP 2021-2041 Population Assumptions

Average Number of	Average Number of	Average Number of
Additional Dwellings per	Additional Dwellings per	Additional Dwellings per
Year 2021-2031	Year 2031-2041	Year 2041-2051

¹ <u>https://www.stats.govt.nz/information-releases/national-population-estimates-at-31-march-2020-infoshare-tables</u>

² <u>https://www.stats.govt.nz/tools/2018-census-place-summaries/manawatu-whanganui-region#more-data-and-information</u>



434 686	984
---------	-----

A large portion of this projected growth is attributed to the Wellington Northern Corridor roading project (Transmission Gully, Mackays Crossing to Peka Peka, Peka Peka to Otaki and Otaki to North of Levin) improving accessibility to Wellington. However, other factors are believed to have contributed to population growth in the District, including high housing costs in metropolitan areas.

If not enough houses are built to accommodate the people moving to the Horowhenua, housing costs will continue to increase. The average house price in Horowhenua has already increased from \$354,134 in 2019 to \$421,000 in 2020 (Horowhenua Growth Dashboard, September 2020³). The Horowhenua Community Drive Housing Action Plan states that as of 2018, the median house price was 7.4 times median household income⁴, which puts Horowhenua housing into the 'severely unaffordable' category based on 15th Annual Demographia International Housing Affordability Survey⁵.

An assessment of the District's greenfield land supply identified in the Horowhenua Growth Strategy 2040 is set out in Section 3.4.6 of this report and shows that there are limited opportunities in Levin for large scale land development.

2.2 Ōtaki to North of Levin (O2NL)

The preferred corridor for the O2NL highway is located within the development area, running almost parallel to State Highway 57 near the western extent of the development area. Early on in the Taraika Master Plan process described in Section 2.3 of this report, Waka Kotahi New Zealand Transport Agency (WKNZTA) were considering four different options for the O2NL. The selection of a preferred corridor, being the N4 corridor which runs almost parallel to Arapaepae Road/State Highway 57 through Taraika, has enabled planning to move forward. However, it has the potential to have a relatively significant impact on Taraika given that the identified corridor it is currently 300m in width and passes through the development area.

At the time of writing this report, WKNZTA had an identified 80-100m 'technically preferred alignment' within this 300m corridor and were undertaking community engagement on this. However, WKNZTA have yet to make any decisions about the alignment. WKNZTA have advised they will not make any such decisions until the end of 2021. WKNZTA expect to lodge the required resource consents and notice of requirement applications in 2022⁶. The exact nature and scale of effects cannot be determined until the final alignment has been selected and decisions made regarding matters such as road height and surfacing material, interchange locations, and local road connections.

Given the amount of uncertainty regarding the detail of O2NL, and that in the absence of any notice of requirements/consent applications or decisions the project has limited legal status, the highway does not feature strongly in Proposed PC4 as it is considered neither fair, reasonable, nor justifiable to impose associated restrictions at this juncture. As such, the Structure Plan that forms part of the plan change shows the O2NL corridor as an overlay, but with no specific accompanying rules associated.

³ <u>https://www.horowhenua.govt.nz/Growth/How-do-we-monitor-growth</u>

⁴ <u>https://www.horowhenua.govt.nz/files/assets/public/council-projects/housing-action-plan-web.pdf</u>

⁵ <u>http://www.demographia.com/dhi2019.pdf</u>

⁶ <u>https://www.nzta.govt.nz/projects/wellington-northern-corridor/otaki-to-north-of-levin/</u>



Despite the above, it is very important that the highway and development in Taraika progress in a manner that results in a good outcome for both. For this reason, HDC have been working closely with WKNZTA to ensure they are aware of the plans for Taraika and plan on the basis that the proposed O2NL highway will pass through an urban development. WKNZTA have indicated their support for Taraika to HDC officers.

2.3 History of Taraika/Gladstone Green as Growth Area

Taraika has been identified as a growth area since the 2008 Horowhenua Development Plan. At this time, the District's population was expected to be relatively stagnant but with some additional demand for housing (largely associated with decreasing household size and demand for holiday homes).

Following this, Taraika (then known as Gladstone Green) was rezoned to 'Greenbelt Residential Deferred' via Plan Change 21 to the first generation Horowhenua District Plan, with the plan change becoming operative in May 2013. This zoning type enables residential development of a minimum lot size of 2,000m² where reticulated sewerage is available, or 5,000m² where onsite servicing (e.g. septic tank) is required⁷. Structure Plan 13 was introduced to the District Plan as part of the rezoning. The zoning was deferred, as the required infrastructure was not in place.

More recently, the District has begun to experience rapid population growth. This prompted HDC to prepare the Horowhenua Growth Strategy 2040 to replace the Horowhenua Development Plan 2008. The Strategy guides how, and where to accommodate growth in the District out to the year 2040 and was adopted by the Council in November 2018.

The Horowhenua Growth Strategy 2040 identifies Gladstone Green as a growth area (LS6) and anticipates it being 'upzoned' to a more urban or residential zone to allow residential development at an urban density⁸.

HDC are currently reviewing the Growth Strategy. Key reasons for this are that the population has grown faster than was expected at the time the Strategy was developed and that the location of the O2NL highway being unknown at that time.

Following the identification of LS6 in the Growth Strategy, several landowners approached HDC to discuss their development plans for this area. It was clear that the existing Greenbelt Residential Deferred zoning would not enable the scale of housing anticipated by the Growth Strategy. With the agreement of key landowners, HDC worked alongside these landowners to prepare the Taraika Master Plan to guide development in this area (refer section 4.1.1 of this report), based on a goal of achieving an urban environment with a range of housing densities and supporting commercial and community activities.

3 Regulatory and Policy Context

This section identifies the regulatory and policy context relating to Proposed PC4, including relevant legislation and national and regional level policies.

⁷ https://www.horowhenua.govt.nz/files/assets/public/districtplan2015/horowhenua-district-plan-2015-chapter-18-greenbelt-residential-zone.pdf

⁸ https://www.horowhenua.govt.nz/files/assets/public/council-documents/policies/horowhenua-growthstrategy.pdf



3.1 Legislative and National Policy Context

3.1.1 Resource Management Act 1991

Part 2 of the RMA sets out its purpose and principles. District Plans, including Plan Changes, must give effect to Part 2 of the RMA.

Section 5 states that the purpose of RMA is 'to promote the sustainable management of natural and physical resources'.

Sustainable management means "the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while:

- a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations;
- b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment."

Land and other resources (including soil and water) required for residential development are finite resources. As such, it is important to safeguard these for future generations, whilst ensuring there is sufficient residential land supply available to enable people and communities to meet their own needs.

Section 6 of the RMA identifies seven matters of national importance that need to be recognised and provided for in policies and plans. Of these, section 6(b) and 6 (h) are the most relevant to this proposed plan change as they require "the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development" and "the management of significant risks from natural hazards".

Section 7 of the RMA requires particular regard to be given to a range of 'other matters'. Of the matters identified, the most relevant to this proposed plan change are the following:

- (b) the efficient use and development of natural and physical resources;
- (c) the maintenance and enhancement of amenity values;
- (f) maintenance and enhancement of the quality of the environment;
- (g) any finite characteristics of natural and physical resources;
- (i) the effects of climate change

Section 8 of the RMA requires that in managing the use, development, and protection of natural and physical resources the principles of the Treaty of Waitangi are to be taken into account.

In addition to the above sections of the RMA Council must, in preparing a District Plan (or Plan Change), fulfil a number of additional statutory requirements set down in the RMA, including:

- Section 31 Functions of Territorial Authorities;
- Section 32 Duty to consider alternatives, assess benefits and costs;
- Section 72 Purpose of district plans;
- Section 73 Preparation and change of district plans;
- Section 74 Matters to be considered by territorial authorities; and



• Section 75 - Contents of district plans.

Of particular note is the functional requirement under s.31(1)(aa) for Council to establish, implement and review objectives, policies and methods to ensure there is sufficient land for residential and business development capacity to meet expected demand.

3.1.2 Resource Management Amendment Act 2020

In June 2020 the Resource Management Amendment Act received Royal Assent, with sections coming into force on a range of dates. There are no significant changes in this Amendment Act which impact on Proposed PC4.

3.1.3 National Policy Statement Urban Development

Under Section 75(3)(a) of the RMA a District Plan must also give effect to any National Policy Statement (NPS) that has been issued. Of the five NPS's currently in place, the only one of relevance to proposed PC4 is the National Policy Statement on Urban Development (NPS-UD). The NPS-UD took effect from 20 August 2020, and replaced the National Policy Statement on Urban Development Capacity.

The NPS-UD seeks to ensure there is sufficient development capacity to meet the needs of people and communities and recognises the significance of well-functioning urban environments that contribute to community wellbeing and safety. This is extremely relevant to PC4, being the foundation behind what is proposed.

Horowhenua District Council is a Tier 3 Local Authority as it contains an urban environment (population over 10,000) that is not specified as either Tier 1 or 2. The objectives and policies that apply to Horowhenua District Council and Proposed PC4 are listed below.

Objective 1: New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.

Objective 2: Planning decisions improve housing affordability by supporting competitive land and development markets.

Objective 3: Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:

- (a) the area is in or near a centre zone or other area with many employment opportunities
- (b) the area is well-serviced by existing or planned public transport there is high demand for housing or for business land in
- (c) the area, relative to other areas within the urban environment.

Objective 4: New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations.

Objective 5: Planning decisions relating to urban environments, and FDSs, take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Objective 6: Local authority decisions on urban development that affect urban environments are:



- (a) integrated with infrastructure planning and funding decisions; and
- (b) strategic over the medium term and long term; and
- (c) responsive, particularly in relation to proposals that would supply significant development capacity.

Objective 7: Local authorities have robust and frequently updated information about their urban environments and use it to inform planning decisions.

Objective 8: New Zealand's urban environments:

- (a) support reductions in greenhouse gas emissions; and
- (b) are resilient to the current and future effects of climate change.

Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:

- (a) have or enable a *variety* of homes that:
 - *i.* meet the needs, in terms of type, price, and location, of different households; and
 - ii. enable Māori to express their cultural traditions and norms; and
- (b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and
- (c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and
- (d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and
- (e) support reductions in greenhouse gas emissions; and
- (f) are resilient to the likely current and future effects of climate change.

Policy 2: Tier 1, 2, and 3 local authorities, at all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term.

Policy 5: Regional policy statements and district plans applying to tier 2 and 3 urban environments enable heights and density of urban form commensurate with the greater of: the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or relative demand for housing and business use in that location.

Policy 10: Tier 1, 2, and 3 local authorities:

- (a) that share jurisdiction over urban environments work together when implementing this National Policy Statement; and
- (b) engage with providers of development infrastructure and additional infrastructure to achieve integrated land use and infrastructure planning; and
- (c) engage with the development sector to identify significant opportunities for urban development.



Policy 11: In relation to car parking:

- (a) the district plans of tier 1, 2, and 3 territorial authorities do not set minimum car parking rate requirements, other than for accessible car parks; and
- (b) tier 1, 2, and 3 local authorities are strongly encouraged to manage effects associated with the supply and demand of car parking through comprehensive parking management plans

3.1.4 Proposed National Policy Statement Highly Productive Land

In addition to the above NPS, it is worth commenting on the Proposed National Policy Statement for Highly Productive Land (PNPS-HPL) which proposes to protect highly productive land from inappropriate development. Under the current proposal highly productive land defaults to being any land with a land use capability class of 1-3 until such time as Regional Councils undertake an assessment to specifically classify such land within their regions. Taraika has a land use capability class of 3 (LUC3). In spite of this, it is considered appropriate to consider this land for rezoning because:

- Despite being LUC 3, the land has constraints on its usability due to presence of stony soils at the surface;
- LUC 1-3 covers 42% of the Horowhenua District, with the remaining area comprising hill country and coastal land;
- The current Horowhenua District Plan affords specific protection to LUC 1 and 2 only;
- The land has been identified since 2008 (and again in 2018) as a growth area through a strategic planning exercise and a degree of development has already occurred;
- There are few other opportunities in the District that compare in terms of size and proximity to an urban area, and that are relatively easy to development from a servicing, topography, and natural hazards perspective;
- The PNPS-HPL has not been gazetted and has no legal status. It is also possible that if it is gazetted in the future, the content could have changed significantly in response to public submissions on the proposal or changing political direction.

3.1.5 National Planning Standards

Central Government has introduced National Planning Standards to ensure Council plans are easier to prepare, understand and comply with. The first set of National Planning Standards came into force on 3 May 2019 and Horowhenua District Council has five years to adopt the standards. The Standards set out a range of requirements aimed at standardising the way plans are structured, including the use of standard zones, spatial layers, mapping and definitions.

Proposed PC4 has been drafted to be as consistent as possible with the national planning standards (use of zone names and use of multi-zone precinct) while still being consistent with the existing structure of the Horowhenua District Plan. This is to preserve the District Plan's usability. The full Horowhenua District Plan as a whole will be aligned with the National Planning Standards by 2024, as required by the legislation.



3.2 Regional Policy Context

3.2.1 Horizons Regional Council One Plan

Under Section 75(3)(c) of the RMA, a District Plan must give effect to any Regional Policy Statement which, in this instance, is the Horizons Regional Council's 'One Plan' (which comprises a combined Regional Policy Statement and Regional Plan).

Chapter 1 of the One Plan sets out the 'Big Four' environmental issues for the region. These include:

Big Four Issues	Relevance to Proposed Plan Change
Surface water quality degradation	 Relevant in terms of managing surface water from the development area
Increasing water demand	 Relevant in terms of the demand for water generated by the development
Unsustainable hill country land use	 Not relevant to the proposed plan change
Threatened biological diversity	 Relevant in terms of the stands of native bush within the proposed plan change area

Other chapters of the One Plan that are particularly relevant to the plan change include Chapter 3 (Infrastructure, Energy, Waste, Hazardous Substances, and Contaminated Land) and Chapter 4 (Water).

Key One Plan Objectives & Policies	Relevance to Proposed Plan Change
Objective 3-3: The strategic integration of infrastructure with land use	The Taraika growth area has been identified in a strategic level planning document which considered land needs
Urban development occurs in a strategically planned manner which allows for the adequate	across the District (Horowhenua Growth Strategy 2040).
and timely supply of land and associated infrastructure.	The Taraika Master Plan and Proposed Plan Change is supported by an
Policy 3-4: The strategic integration of infrastructure with land use	infrastructure plan to ensure that the rezoning and following development occurs alongside the provision of
Territorial Authorities must proactively develop and implement appropriate land use strategies to manage urban growth, and they should align their infrastructure asset management planning with those strategies, to ensure the efficient and effective provision of associated infrastructure.	enabling infrastructure. Therefore, the Proposed Plan Change is considered consistent with these One Plan objectives and policies.
Objective 5-2: Water Quality	The Taraika Plan Change includes a stormwater management plan that



a. Surface water quality is managed to ensure that:

i. water quality is maintained in those rivers and lakes where the existing water quality is at a level sufficient to support the Values in <u>Schedule B</u>

- ii. water quality is enhanced in those rivers and lakes where the existing water quality is not at a level sufficient to support the Values in **Schedule B**
- accelerated eutrophication and sedimentation of lakes in the Region is prevented or minimised
- iv. the special values of rivers protected by water conservation orders are maintained.
- b. Groundwater quality is managed to ensure that existing groundwater quality is maintained or where it is degraded/over allocated as a result of human activity, groundwater quality is enhanced.

Objective 5-3: Water quantity and allocation

Water quantity is managed to enable people, industry and agriculture to take and use water to meet their reasonable needs while ensuring that:

- a. For surface water:
 - i. minimum flows and allocation regimes are set for the purpose of maintaining or enhancing (where degraded) the existing life-supporting capacity of rivers and their beds and providing for the other Values in <u>Schedule B</u> as appropriate
 - ii. takes and flow regimes for existing hydroelectricity are provided for before setting minimum flow and allocation regimes for other uses
 - iii. in times of water shortage, takes are restricted to those that are essential to the health or safety of people and communities, or

seeks to manage both the quality and quantity of stormwater.

Water supply to Taraika will be provided via the existing Levin water take. The infrastructure plan supporting the plan change details how this can occur, but includes steps such as use of rainwater tanks (plumbed into greywater sources), pressures management and leak identification.

Therefore, the Proposed Plan Change is considered consistent with these One Plan objectives and policies.



iv.	drinking water for animals, and other takes are ceased the amount of water taken from lakes does not compromise their existing life-supporting capacity	
V.	the requirements of water	
vi.	the instream geomorphological components of natural character are provided for.	

3.3 Local Policies, Plans and Strategies

3.3.1 Growth Planning

Horowhenua Development Plan

HDC prepared the Horowhenua Development Plan 2006/2007 and adopted it in 2008. The purpose of the Development Plan 2008 was to manage the nature, location and structure of development across the District for 20 years and beyond. This Plan informed a number of substantial Plan Changes in 2009-2011 to the 1999 version of the District Plan and helped guide the review of the 1999 District Plan and development of the current District Plan (made operative in 2015).

Horowhenua Growth Strategy 2040

HDC commenced a review of the Development Plan in 2016. The main purpose of the review was to ensure that revised population projections and the effects of improved connectivity to Wellington were taken into account. This review resulted in the development of the Horowhenua Growth Strategy 2040, which Council adopted in November 2018, replacing the Development Plan 2008.

The purpose of the Growth Strategy 2040 is to establish clear, effective direction for the integrated management of the district's growth over time so that:

- Council demonstrates leadership on growth management on behalf of the community.
- There is a strategy to guide the development of existing settlements, new subdivisions and the rural environment.
- Infrastructure is provided in an efficient, affordable and timely manner.
- The social cohesion and cultural diversity of communities are strengthened.
- The quality of the natural and built environments is maintained and/or improved.
- The economy is sustained and encouraged to thrive by the proactive enablement of growth.

The growth strategy identifies areas where residential and industrial growth might occur and will guide decisions about where and how to accommodate growth out to 2040. As referenced above, Taraika is identified in the Growth Strategy as area LS6.

Growth Management Principles

The Growth Strategy 2040 sets out a number of Growth Management Principles. Those relevant to Proposed PC4 are listed below:



Settlement Principles

- Plan for settlement growth at key nodes (such as existing settlements) on transport routes including public transport networks.
- Provide housing choice range of lot sizes/densities. Higher densities around centres (e.g. 25-50dw/ha) and larger lots at edges.
- Recognise and provide affordable housing choices for people with a low income.
- Ensure neighbourhoods have a focal point or 'heart' which is a people friendly place.

Street and Movement Principles

- Provide safe and comfortable streets for walkers, cyclists, cars and other transport.
- Provide for 'walkability' and cycling as healthy, sustainable and affordable ways of moving around.
- Ensure streets are interconnected to assist with efficient movements, walk-ability and way finding.
- Improve the use of street trees to provide scale, shade, visual amenity and definition of street hierarchy.
- Establish clear hierarchies in street design of arterial roads (e.g. State Highway), distributor roads, local traffic to collector roads and residential traffic to neighbourhood streets.
- Encourage the transport system to provide adequately for the community's long term transport needs.
- Recognise the influence of State Highways economically to the settlements and of the railway for movement of people and goods for the future.
- Encourage through urban development areas increased viability for public transport.

Open Space Principles

- Provide for the formal and informal recreational needs of people in towns sports and casual use.
- Provide for definition to the neighbourhoods by local parks and linkages, such as along waterways.
- Maintain a low density of development and thus more open landscape around towns to define the urban/rural boundary and to protect the versatility of productive rural land.
- Provide a linked network of open space for alternative movement network for walkers, recreational use, and ecological corridors.
- Recognise the natural values in the hills, plains and coastal environments and the recreational opportunities in these.
- Ensure that public open space is safe and comfortable for public use.

Infrastructure Principles

• Provide water, sewer, stormwater to an adequate standard to reflect Council strategies.



- Plan and develop infrastructure which minimises energy use, discourages emissions, and reduces waste.
- Minimise stormwater and over flow management by environmental design, especially in sensitive catchments (Lake Horowhenua, Lake Papaitonga and Manawatu River Estuary).
- In non-reticulated areas, adopt best practice solutions for on-site disposal of wastewater and the supply of portable water.

Taraika Master Plan

As referenced above, HDC has prepared a Master Plan to guide development in Taraika. In this context it acts as:

"a 'blueprint' for landowners within the development area to follow. It leaves enough flexibility and scope for each landowner/developer to create their own, individual development, but makes sure the important elements such as roads join up with each other and adequate provision is made for features such as parks and reserves"

The Master Plan includes a vision, design principles, and a spatial plan. This has been used to draft Proposed PC4 and the associated Structure Plan. The full master plan is attached as Appendix 1 of this report and summarised below:

Vision

Taraika will transform into a thriving part of a growing Levin. It will provide the community with a choice of house types and living options, with excellent connections to Levin's town centre and the region's attractions. A network of leafy green streets and shared paths will provide residents with easy access to local facilities such as shops, parks, and education services at the centre of the community.

Key Moves

Move	Explanation
Connectivity	Ensure a high level of internal and external connectivity for good local access and multi-modal movement.
Streets for people	Create a high-quality streetscape environment for pedestrians and cyclists as an attractive setting for urban life.
Variety and choice in housing	Provide for housing diversity with a range of lot sizes from small urban to large rural-residential lots, with smallest lots and highest intensity in high amenity locations closest to the centre.
A centre for the community	Local service retail, education and recreational open space facilities as a focus of community.
Distinctive and memorable character	High streetscape quality and public space amenity to give a unique and memorable identity that assists legibility and complements but does not replicate existing urban development.
A network of parks and open space	Distributed public open spaces and recreational paths are readily accessible within all local neighbourhoods.
Stormwater and ecology	Urban ecology and environmentally sustainable stormwater management achieved by integrating wetlands and raingardens into public spaces.



Integrated services infrastructure	Connection with existing and planned services networks, and the staged roll-out of new services.
Planning for staged implementation	Coordination of structure, space and connections with current land ownership to enable gradual release of existing land, and ensure access is possible to all landholdings and development.

3.4 Taraika Context

3.4.1 Operative District Plan

A full review of the former District Plan (1999) was undertaken between 2009 and 2013, with the Council making its second generation District Plan (the Plan) operative on 1 July 2015. Since this time, HDC have adopted two plan changes:

- Plan Change 1: incorporated additional heritage buildings, structures and sites into Schedule 2 of the District Plan. This plan change became operative from 1 November 2018.
- Plan Change 2: amended a limited number of provisions related to residential development, specifically for infill and medium density development. This plan change became operative from 1 November 2018.

The Taraika area is currently zoned Greenbelt Residential Deferred and is subject to a Structure Plan (Structure Plan 13). This zoning enables a minimum lot size of 2,000m² in the part of the Structure Plan area expected to be serviced via reticulated sewerage and 5,000m² outside of this area. The trigger for uplifting the deferral is the passing of a Council resolution that there is adequate capacity in a local-authority operated reticulated infrastructure to service the particular area of land.



Figure 1 - Structure Plan 13



The Horowhenua District Plan Maps show that the National Grid Corridor (high voltage transmission lines) located in the area. However, these have since been sold to Electra and no longer form part of the National Grid.



Figure 2 - Planning Map 30



Figure 3 - Planning Map 31



3.4.2 Existing Development

There are several pockets of existing development within the Taraika area which reflect a typical Greenbelt Residential character, with section sizes around 5,000m². These include:

- Redwood Grove
- Pohutukawa Drive
- Arete Lane
- South-eastern corner of Tararua and Gladstone Road.

3.4.3 Cultural and Natural Features

Other notable features on the site include 'Prouse House', which was constructed circa 1891 and may have heritage value although is not currently listed in the District Plan or with Heritage New Zealand. As the dwelling was constructed pre-1900, it is an archaeological site under the Heritage New Zealand Pouhere Taonga Act.

The Waiopehu Bush is located at the north eastern extent of the development area. This is vested under the Reserves Act as a Scenic Reserve and as such, will remain as reserve/bush.

Also located within the development area are two sites of particular cultural significance; the Maunu Wahine refuge and the Waihau watering hole.

3.4.4 Infrastructure

The area is not currently serviced for reticulated sewerage. Some properties are on a trickle feed water supply, while others have onsite water sources. In order to support the level of development proposed, Council reticulated water and sewerage will need to be extended to the development area. An integrated approach to managing stormwater will also be required. The proposed infrastructure plan is attached as Appendix 6 of this report.

3.4.5 Growth and population projections

The Horowhenua District has historically had a static population which was expected to experience slow decline, however, of the past few years has experienced significant growth.

Refer to Section 2.1 or Appendix 10 of this report for further information.

3.4.6 Land supply

Although the Horowhenua Growth Strategy 2040 only identifies a small shortfall of residential land in Levin out to 2040, the rezoning of land at Taraika for residential purposes is considered appropriate for the following reasons:

- The majority of the land identified as 'available' in the Horowhenua Growth Strategy 2040 is already in the process of being developed, has already been developed, or has constraints on its development feasibility:
 - The land has obtained subdivision consent since the Growth Strategy was prepared; or
 - The land is not serviced by infrastructure and/or is still zoned Deferred Residential; or
 - o The land contains an established community asset; or
 - The land forms part of a Treaty Settlement Landbank; or
 - The landowner has advised Council that they have no plans to develop.



- Therefore, land availability in Levin may be lower than the Growth Strategy anticipated. In particular, this means there is minimal residential zoned 'greenfield' land available in Levin.
- The Growth Strategy used historic building consent data to determine where new households will be located (rural zone, residential zone, Levin, Foxton, etc.). Based on historic building consent data, the Growth Strategy assumes 37% of new households will be in the Rural Zone. However, the Growth Strategy also identifies that while this may occur in the short term, it may not be appropriate or sustainable in the longer term. Further, current rural subdivision rules (and the PNPS-HPL) may prevent this historic trend from continuing long term. Therefore, additional residential land may be required in order to accommodate growth.
- The Growth Strategy included Taraika as 'available land' in determining the residential land shortfall for Levin, albeit for Greenbelt Residential purposes., However, the area was assumed to provide fewer lots than could occur under this proposal.
- The Growth Strategy relied on a median growth rate of 1.1%. However, population growth has been much higher than this in the last five years, averaging 2% per annum. Therefore, demand for land may be greater than anticipated in the Growth Strategy.
- Targeting the majority of Levin's greenfield growth to specifically identified areas enables more efficient and affordable delivery of infrastructure. In particular, the existing zoning of Taraika anticipated reticulated infrastructure being installed. 'Upzoning' the area improves per lot affordability.
- Ensuring sufficient land means growth can happen in a planned and co-ordinated way. As well as improving urban design outcomes, this reduces pressure on productive land to accommodate ad hoc growth.
- National direction requires Council to provide sufficient zoned and serviced land to meet demand. Based on recent and projected population growth set out in the Sense Partners Growth Projections Report (Appendix 10 of this report) and the shortfall already identified in the Horowhenua Growth Strategy 2040, there will be significant demand for residential and business land.

3.5 Resource Management Issues and Desired Outcomes

3.5.1 Well-Functioning Urban Environments

The NPS-UD seeks to achieve well-functioning urban environments. A well-functioning urban environment is made up of several different components including:

- Sufficient housing and business land
- A variety of housing choice.
- Supported by good transport links (including walking and cycling).



- Supported by appropriate community and commercial facilities and activities that, in the case of Taraika, do not undermine the primacy of the Levin town centre.
- A high amenity urban environment, although recognising that amenity can change over time.

In response, Proposed PC4 seeks to provide zoned, serviced land to meet the short to medium term demand for housing and business activities in the district.

At present, there is limited variation in residential housing type within the Horowhenua District. By far the predominant housing type available is 'family sized' standalone dwellings on relatively large residential sections, ranging from 600-900m². However, this uniformity of housing type does not fully satisfy the diverse needs of the wider Horowhenua community.

The portion of single person households and retirees living in Horowhenua is already above the national average and growth forecasts indicate this will continue to grow. Therefore, it is likely that there is demand in Horowhenua for smaller dwellings and smaller sections (for example, medium density or town house development).

Being a large greenfield area that is separated from the existing urban area of Levin by State Highway 57 and by the proposed O2NL highway, there is a risk that Taraika could develop with poor connections into Levin, the Horowhenua's primary urban centre. This would be detrimental to the overall functioning of the wider Levin urban environment. It also requires a careful planning response, as well as provision for commercial and community activities that will help to support Taraika, while not undermining the Levin Town Centre.

The desired outcome for Taraika is a well-functioning urban environment that:

- Offers unique, diverse amenity that helps to create strong connected neighbourhoods;
- Is supported by complementary commercial and community activities;
- Provides a high quality public realm that contributes to the health and wellbeing as residents;
- Is well connected to Levin.

3.5.2 Efficient and Sustainable Infrastructure and Servicing

In order for development in Taraika to meet demand for housing and business land, it is important that land use planning is integrated with infrastructure planning. This includes water supply, reticulated sewerage, an integrated approach to managing stormwater and a fit for purpose transport network that supports a range of transport methods.

The desired outcome for Taraika is a co-ordinated approach to the provision of water, wastewater, and transport infrastructure across the plan change area as development progresses and an integrated, low impact stormwater management approach that will minimise environmental and cultural effects associated with runoff entering the Lake Horowhenua.

This proposed infrastructure plan (including stormwater approach) is attached in Appendix 6 of this report.

3.5.3 Cohesive, Logical Urban Form and Layout

When inadequately managed, large scale greenfield development can result in both poor outcomes within the development area and adverse effects outside of it. Examples include:



- Inappropriate ratio and distribution of zoning types (e.g. residential zones in relation to commercial zones);
- Insufficient or inappropriate provision and distribution of open space;
- Inefficient transport network that does not promote and require connectivity within the development area and beyond;
- Establishment of a commercial area in an inappropriate location that will not deliver associated benefits (including increased housing density in the vicinity).

The District Plan currently manages greenfield development in growth areas through Structure Plans. The existing structure plan for this area (Structure Plan 13) was prepared on the premise that the area would be zoned Greenbelt Residential and developed at a relatively low residential density. However, given new growth projections and priorities, development in Taraika is likely to exceed the volume anticipated within the area covered by Structure Plan 13.

The Taraika master plan contains a number of design principles that have informed the desired outcome for the area. These include:

- Taraika will have a variety of zones allowing for residential development at varying densities as well as zones that enable non-residential activities to service local residents, such as commercial and open space.
- Taraika will be have a series of well integrated and connected neighbourhoods, as opposed to a series of ad hoc standalone developments;
- Taraika will have a high level of connectivity and will be serviced by a safe and efficient transport network that makes provision for walking and cycling as a mode of transport;
- Functional, attractive, and conveniently located open space is central to providing a high level of residential amenity and opportunities for low impact stormwater disposal.

3.5.4 Iwi and Cultural Considerations

The NPS-UD clearly expresses that planning decisions that contribute to well-functioning urban environments must enable Māori to express their cultural traditions, while the RMA more generally recognises an important role for Tangata Whenua in the planning process, including in Part 2 and Clause 3B of the RMA.

In the case of Taraika, there are opportunities to work in partnership with iwi to celebrate their culture, histories, and association with this area.

A desired outcome for Taraika is to continue the custom of Take Taunaha in the naming of streets and reserves, and recognise and support cultural traditions through requiring tikanga protocol to be followed during siteworks. HDC will also work with iwi to protect cultural sites, develop and implement an integrated approach to managing stormwater, and prioritise use of indigenous plants in street and reserve planting.

3.6 Supporting Information

The following information has been considered when drafting this report:

- Taraika Master Plan and supporting information
- Community feedback on the Master Plan
- Muaūpoko Tribal Authority Cultural Values Report (confidential document)



- O2NL technical reports
- Horowhenua Growth Strategy 2040
- Liquefaction Assessment, prepared by Tonkin & Taylor
- Infrastructure Plan, prepared by HDC Infrastructure Group and GHD Group
- Horowhenua Long Term Plan 2018-2038
- Growth Projections, prepared by Sense Partners
- Independent Traffic Review by David Wanty of Wanty Transportation Consultancy Ltd
- Horowhenua Community Led Housing Action Plan.

There are some instances where the supporting technical information contains personal opinions. For the purposes of this evaluation report, supporting information has been used in its technical capacity only.

4 Consultation

4.1 Consultation

4.1.1 Master Plan and Plan Change Development

Iwi

HDC has engaged closely with the Muaūpoko Tribal Authority, the mandated iwi authority for Muaūpoko, through the development of the Master Plan and Plan Change process. The Muaūpoko Tribal Authority subsequently gifted the name 'Taraika' over the area. Further information about this engagement is included in Section 4.1.2 of this report below. HDC has also made a number of approaches to Tamarangi Hapū but have yet to receive any input or comments on the Master Plan and Plan and Plan Change documents.

HDC also provided pre-notification notices to Ngāti Raukawa ki te Tonga and have yet to receive a response.

Statutory pre-notification in accordance with RMA requirements to iwi occurred in August 2020, with follow up in September 2020.

• Informal Community Consultation

The proposal to 'upzone' Taraika to an urban residential zone was initially consulted on using an informal process as part of the Horowhenua Growth Strategy 2040 in 2018. The Draft Master Plan itself was presented to the community for feedback throughout August 2020. This included drop-in information sessions, online information, and a mail out to affected landowners.

This resulted in approximately 100 people visiting drop-in sessions and approximately 40 submissions. Feedback was generally positive, with the community seeing the need for more housing land and supported a proactive, planned approach. A summary of the feedback received is included as Appendix 3 to this report. Key concerns raised through this process included:

- Impact on the character and amenity of existing Greenbelt Residential neighbours associated with additional development;
- o Apprehension about urban growth occurring on farmland;



- o Insufficient infrastructure capacity, specifically water.
- Landowners

A group of key landowners who own large parts of the developable land within Taraika have been closely involved in the development of the Master Plan, participating in numerous workshops with the design team throughout 2018 and 2019. These landowners largely support the process followed and the resulting Master Plan.

• WKNZTA

HDC have worked closely with WKNZTA throughout developing the plans for Taraika and its progression. WKNZTA have expressed their support for Taraika and a desire to work collaboratively to ensure a good outcome for both Taraika and the proposed O2NL highway.

• Ministry of Education

HDC have engaged with the Ministry of Education to make them aware of the growth pressures in Horowhenua and the potential impact on local education facilities. The Taraika Master Plan identified that a primary school would likely be required to support the new community, with the Taraika spatial plan (and associated proposed Structure Plan) identifying a location for a future primary school. In response the Ministry of Education provided the following comments:

- Overall, it is supportive of the Taraika Master Plan and appreciates the considerable work and pro-active communications from Horowhenua District Council on the Master Plan
- When considering the existing school network in the surrounding area and the population growth anticipated, a new primary school within Taraika is likely to be required to service this growth;
- Within Taraika, the area identified as an 'education site' in the Master Plan would appear to be the most appropriate location for a potential school. It is located centrally within the master plan area, with well-planned transport links and complementary services and land uses surrounding it;
- The process for establishing a new school within Taraika would likely be through a designation. However, it will still be important to carefully consider provisions for educational facilities (activity status and accompanying standards for example) and surrounding areas in the future plan change;
- The Ministry looks forwards to continued conversations with Horowhenua District Council and Muaūpoko Tribal Authority as Crown partners to discuss the requirement, location and form of a future new primary school site within Taraika.
- Horizons Regional Council

HDC have engaged with the Horizons Regional Council about Taraika. No significant concerns have been raised.

4.1.2 Clause 3B of Schedule 1 of the RMA



As outlined above letters, including a copy of the draft Plan Change were sent to lwi Authorities in accordance with Clause 3(b) of Schedule 1 of the RMA outlining the nature and scope of the proposed change and inviting comment.

Iwi Authorities were initially given one month to provide feedback (in addition to earlier engagement). Specific contact made included Muaūpoko Tribal Authority, Tamarangi Hapū and Ngāti Raukawa ki te Tonga.

In addition to the above formal process, the Muaūpoko Tribal Authority has had a number of earlier conversations with HDC on this project. The following is a summary of these conversations which took place over a series of hui and conversations between 2018 and 2020.

Feedback/Recommendation	How this has been given effect to/why
Maunga ki to Moana Pathway (Queen Street)	The Queen Street Design Toolkit project (separate to PC4) is a key component to delivering this. A range of PGF funded projects and the new roundabout at the Queen St/Arapaepae intersection provide the starting point for delivering this on the ground. Work underway between Council and MTA artist.
Naming of the development area, streets, and reserves to recognise and celebrate Muaūpoko history	Development area is named Taraika. Work underway on Street Naming Policy to provide greater opportunities for iwi input. Within the proposed plan change, Objective 6A.1, Policy 6A.1.2 and 'other methods' in the Chapter 6A reference this.
 Stormwater Management to avoid further degradation to Lake Horowhenua, with a forward plan to improve water quality in Lake Horowhenua. Includes: Cultural Health Attributes Framework to assess water quality improvements Key role in freshwater planning Use of indigenous plants in riparian areas 	 Taraika Plan will include a stormwater management plan to manage stormwater from the from the development area. Key strategies include requiring rainwater tanks, investigating an O2NL/Taraika integrated solution, network of parks, reserves, and street planting to treat and attenuate stormwater. Policy 6A.3.1 and Policy 6A3.2 specifically reference this. Wider Levin Stormwater project underway – this also provides opportunity for Muaūpoko. Horizons Regional Council are lead agency in freshwater planning, but note focus of new national direction likely to increase opportunities for Muaūpoko.
Create opportunities for partnership and for Muaūpoko to be involved at decision-making levels. This can be included during design phases (concept and detailed design)	Muaūpoko Tribal Authority input into Master Plan values/design principles. Ongoing opportunity to input at design level over components such as stormwater management, reserve



	-
	design, and street planting. Further work needed to make this an efficient approach.
Protect heritage and culturally significant sites through robust accidental discovery protocol (ADP), tikanga followed by all site contractors, and by reaffirming whakapapa by ensuring the development reflects cultural values (e.g. Muaūpoko input in plantings, street arts etc)	Specific ADP requirements included in Plan Change in Policy 6A.1.1 and in the matters of discretion for subdivision. Muaūpoko to provide guidance on how to ensure tikanga is understood and followed by all site contractors.
	As referenced above, ongoing opportunity to input at design level over components such as stormwater management, reserve design, and street planting.
Pursue capacity building outcomes for rangatahi through the establishment of an educational scholarship that promotes ecological and archaeological training for Muaūpoko members	Outside of Plan Change process. Suggest ongoing conversations between MTA and HDC to understand and explore options.
 Incorporate in business, social and education enterprise and commercial ventures, including but not limited to: Plant supply, landscape design, riparian planting and plant maintenance; Capacity building of kaitiaki to undertake cultural monitoring, archaeological surveying, ecological monitoring; Growing rongoā plants (for local or commercial use). 	Outside of Plan Change process. Suggest ongoing conversations between MTA and HDC to understand and explore options.
Enable and provide for affordable housing	While not referenced in the Cultural Values Report we understand that provision of affordable housing is a priority. While Council is somewhat limited in its ability to secure this outcome, the proposed plan change proposes to introduce a maximum site area in the Medium Density Residential area. This helps to ensure that higher density housing is delivered, which may help to increase variety and result in more affordable options (smaller houses on smaller sections) being provided.

5 Proposed Plan Change 4

5.1 Scope of Proposed Amendments to the District Plan

Proposed PC4 seeks to rezone land contained within the area covered by the Taraika Master Plan. This involves introducing a new structure plan and new objectives, policies, and rules that apply specifically to Taraika. This Plan Change also seeks to ensure that the



resulting development is consistent with the vision and design outcomes sought by the Master Plan.

The proposed plan change consists of the following:

- Removal of Structure Plan 13 from the District Plan.
- Introduce a new 'Taraika Multi-Zone Precinct' Chapter to the District Plan with a supporting structure plan (013) and associated objectives, policies, and rules
- Rezone land within the Taraika Master Plan Area from Greenbelt Residential Deferred to Greenbelt Residential, Low Density Residential, Standard Residential, Medium Density Residential, Commercial and Open Space.
- Introduce new area specific subdivision rules;
- Introduce some new bulk and location rules relevant to the area;
- Introduce new rules relating to commercial activities in the area.

A summary of the key elements of the proposed change are outlined below.

Taraika Multi-Zone Precinct

The Taraika Multi-Zone Precinct is based on the National Planning Standards and was selected to ensure the approach was as consistent as possible with the National Planning Standards (which the entire District Plan will align with by 2024) while remaining consistent with the existing structure of the Horowhenua District Plan. While some area specific provisions that seek to achieve particular outcomes within the precinct will be introduced, the underlying zone provisions will generally apply. Therefore, the following assessments will focus only on the proposed new objectives, policies, and rules. Existing District Plan provisions will not be assessed further.

Taraika specific provisions will therefore be contained in two chapters; Taraika Multi-Zone Precinct Objectives and Policies and Taraika Multi-Zone Precinct Rules. All other relevant chapters of the District Plan will apply (e.g. Residential Zone, Subdivision and Development). Where there is any conflict between provisions, the Taraika Multi-Zone Precinct provisions will prevail.

5.1.1 Objectives and Policies

Refer to Chapter 6A Objectives/Policies: Taraika Multi-Zone Precinct contained within Appendix 9 of this report for a complete version of the proposed objectives and policies. The below is a summary of the intent behind the proposed objectives and policies.

General

- Taraika will be a well-connected development that reflects cultural values and local identity, represents good urban design, is supported by a roading network that enables a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents.
- To ensure the above is achieved, all development must be consistent with the structure plan, or propose an alternative that will deliver the same outcome.
- Recognise Māori heritage and values associated with the area through street and reserve naming and design.
- Taraika will be resilient and environmentally sustainable, by following water sensitive design and managing and treating stormwater effectively.



Residential Zones

- Taraika will have a high amenity residential environment with a range of section sizes and housing types, including affordable housing options.
- Optimise walkability and encourage choice and a variety of housing types, by providing for higher density residential development near commercial and community facilities and lower density residential development at the outer edge of Taraika.

Commercial Zone

- Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.
- Ensure the design, nature, and scale of commercial activities contributes positively to the image and overall amenity of Taraika.

Open Space Zone

• To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.

5.1.2 Rules

Refer to Chapter 15A Rules: Taraika Multi-Zone Precinct contained within Appendix 9 of this report for a complete version of the proposed rules.

- Structure Plan both land use and subdivision activities will need to be consistent with the Structure Plan, with any activities that are inconsistent rendered a Non-Complying Activity.
- Subdivision maximum lot size in medium density area, all complying subdivision is a Restricted Discretionary Activity (non-notified), and additional matters of discretion incorporated.
- Strategic Cycle Links no vehicle entrances allowed in roads with strategic cycle links. Instead, houses must front the street with access provided via a rear access lane.
- Stormwater all dwellings are to provide onsite rainwater tanks plumbed into household grey water (e.g. toilets), and an integrated approach to managing stormwater quality and quantity is proposed, involving O2NL corridor, reserves, and the street network.
- Fences front fences are to be limited to 1.2m in height, unless they are set back from the road boundary.
- Front Yard Setbacks dwellings to be permitted within 2m of front boundary, with accessory buildings (including integral garage) permitted within 4-5m of a front boundary depending on whether vehicle access to the building is directly from the street.
- Commercial Activities floor area limit of 250m2 is to be introduced, with activities such as supermarkets and drive-through restaurants provided for as Restricted Discretionary Activity and Large Format Retail a non-complying activity.



• Signage – no 'remote' signage (signs must be located on the same site as the activity being advertised is occurring) is to be erected on a site, with further limitations proposed on the number (2) and size of signs.

5.1.3 Schedules

The Plan Change seeks to introduce a new structure plan which development must be consistent with. Refer to Appendix 9 of this report.

5.1.4 Maps

The plan changes updates planning maps 30 & 31. Refer to Appendix 9 of this report.

6 Evaluation

Section 32 sets out the requirements for preparing and publishing plan change evaluation reports. In particular, a proposed plan change needs to be evaluated in terms of whether:

- The stated objectives are the most appropriate way to achieve the purpose of the RMA.
- The proposed provisions are the most appropriate way to achieve the objectives by:
 - Identifying other reasonably practicable options for achieving the objectives.
 - Assessing the efficiency and effectiveness of the provisions in achieving the objectives, including identifying and assessing the benefits and costs of the environmental, economic, social and cultural effects anticipated and any opportunities for economic growth and employment (and whether these are anticipated to be provided or reduced by the change).
 - Summarising the reasons for deciding on the provisions.

6.1 Scale and Significance of the Proposed Plan Change

Under s32(1)(c) of the RMA, this evaluation report needs to:

'Contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal'.

The level of detail undertaken for this evaluation has been determined by an assessment of the scale and significance of the environmental, economic, social and cultural effects anticipated through introducing and implementing the proposed provisions. Key considerations that informed this assessment included whether the provisions:

- Involve a matter of national importance;
- Are the subject of a NPS or other form of national direction;
- Are consistent with national or regional direction in the Horizons One Plan and/or other relevant plans, strategies or guidance;
- Are required to resolve an issue or problem that could result in adverse environmental effects or adversely affect economic, social or cultural well-being;
- Are applicable to a very localised area or across the district as a whole;
- Involve a minor or major change to the current provisions;
- Are controversial and /or will affect iwi, groups with specific interests or a large number of residents;
- Will significantly reduce development opportunities or land use options; and
- Are likely to have a major financial impact on landowners / developers due to compliance and or administrative costs.



Based on this assessment the scale and significance of the proposed provisions are considered to be low - moderate for the following reasons:

- The proposed plan change is a response to both national direction (NPS-UD) and local resource management issues (refer section 3.5) that are closely linked (population growth driving demand for housing and associated development). While the proposed plan change represents a relatively significant change for the Taraika area the impact of the plan change is localised (including existing Greenbelt Residential development) and will largely increase development opportunities within this area.
- The provisions seek to give effect to national direction and resolve an issue (insufficient housing land) that, if left unresolved, would impact on economic, social, and cultural wellbeing.
- The provisions seek to set out clear direction on the outcomes sought for the Taraika area.
- The provisions do not directly impinge on a matter contained within Section 6 of the RMA.

Consequently, a high level evaluation of these provisions has been identified as appropriate for the purposes of this report.

6.2 Quantification of Benefits and Costs

Section 32(2)(b) requires that, where practicable, the benefits and costs of a proposal are to be quantified.

Given the assessment of the scale and significance of the proposal, specific quantification of the benefits and costs in this report is considered neither necessary, beneficial nor practicable in relation to PC4. Instead, this report identifies more generally where any additional costs or cost may lie.



6.3 Proposed Plan Change Approach – Option Analysis

As a basis for approaching development of the planning framework for Proposed PC4 four options were considered as follows :

- 1. Maintain the status quo (i.e. uplift deferral, retain existing structure plan)
- 2. Rezone the Taraika area to residential (i.e no replacement structure plan and no Taraika specific provisions)
- 3. Rezone the Taraika area to a mix of zones (residential and business) and introduce a replacement structure plan
- 4. Rezone the Taraika area to a mix of residential and business zones, and introduce a Taraika Multi-Zone Precinct with Taraika specific provisions and a replacement structure plan

Each of these options is assessed below.

Table 2: Assessment of Options

Options	Costs	Benefits	Efficiency	Effectiveness
Option 1 – Status Quo (Uplift deferral, retaining Greenbelt Residential Zoning and Structure Plan 13).	The area will be unable to accommodate the level of growth anticipated. This may put pressure on other less suitable areas, such as the rural environment. The area would be developed through a series of individual resource consent applications, potentially resulting in fragmented decision making and inconsistent environmental outcomes	No financial cost associated with preparing and implementing a proposed plan change. Maintenance of existing/expected semi- rural character of the area.	Could result in the Council receiving multiple resource consent applications and/or private plan changes to develop or rezone land in the area. This will not allow development to be assessed in a co- ordinated and integrated manner. Reduced efficiency of service provision (e.g. wastewater, roads, and parks) due to lower lot yield.	Would not give effect to the Horowhenua Growth Strategy 2040 or make sufficient land available for projected residential and business development in the district. Would be inconsistent with the Master Plan prepared for this area and neither enable or encourage the development outcomes anticipated by the plan.



Options	Costs	Benefits	Efficiency	Effectiveness
	 (e.g. reduced connectivity or access to parks and reserves). Would be unresponsive to projected growth demand in the district and exert pressure on opening up new 'greenfield' areas in the district. Potential administrative and compliance costs associated with processing multiple resource consent applications and/or private plan changes to develop or rezone land in the area. Limits diversity of potential housing flexibility and choice, and reduces opportunities to achieve a wider range of affordable housing offerings. 		Would be inconsistent with the Master Plan prepared for the area in partnership with the landowners and various experts. As such, it would not represent an efficient use of the time and resource involved in developing the master plan.	Ad hoc development may occur, potentially resulting in greater adverse effects on the environment arising from uncoordinated development and inefficient use of natural and physical resources (including land and water). Fails to satisfy the requirements of the NPSUD as it would not enable a variety of housing types to be provided or contribute to a well-functioning urban environment.



Options	Costs	Benefits	Efficiency	Effectiveness
Option 2 – Rezone land to residential only (no Taraika specific provisions and no replacement structure plan).	Cost of preparing the plan change. Higher cost of providing and maintaining infrastructure and amenities to the area (e.g. water services, roads, parks and reserves.), particularly where no clear provision for these is currently made. Potential that the development will not have the necessary level of connectivity as the existing Structure Plan was not designed to support an increased level of residential density. This could compromise connectivity both within the development and with the existing urban area of Levin, resulting in sub- optimal environmental outcomes.	Enables a higher density of development than Option 1, and would more closely align with the Horowhenua Growth Strategy 2040 and the NPS-UD. Simpler and less costly to implement relative to Options 3 and 4. Consistent with the approach applied to managing residential areas elsewhere in the district.	Reduced efficiency of service provision (e.g. wastewater, roads, and parks), particularly in relation to managing the staging and funding of future development. Would be inconsistent with the Master Plan prepared for the area in partnership with the landowners and various experts and unlikely to deliver on agreed design outcomes. As such, it would not represent an efficient use of the time and resource involved in developing the Master Plan. Preparing and processing resource consents would be more complex and uncertain given the lack of clear guidance in the District Plan regarding	Would not be effective in delivering the development outcomes for this area anticipated by the Master Plan. Development would be unlikely to occur in a comprehensive and co- ordinated manner without specific guidance in the District Plan. Ad hoc development may occur, potentially resulting in greater adverse effects on the environment, including conflicting land uses adjoining each other or insufficient provision for community assets and commercial services. Existing residential provisions in the District Plan may not be insufficient to manage greenfield development of this scale. This approach will make it more difficult to co-



Options	Costs	Benefits	Efficiency	Effectiveness
	Desirable non-residential activities may not to establish due to perceived Plan barriers or may seek to establish via resource consent is inappropriate locations. Potential that connections beyond Taraika would not be provided, limiting future development potential. Higher cost and difficulty in securing amenities such as parks and schools in the future, once the population reaches the point where these are expected as they may need to be retrofitted into the development, rather than planned for and secured early on in the development process. Lost opportunity to secure the development outcomes unique to		anticipated outcomes for the area. It is likely that demand for commercial and recreation land will arise as the population of Taraika grows. If land is not zoned for these purposes uncertainty is likely to arise about their future location, potentially resulting in unnecessarily complex resource consent processes.	ordinate infrastructure delivery, meaning there could be delays which would slow delivery. Ad hoc development may occur, potentially resulting in greater adverse effects on the environment (such as poor road connectivity) and inefficient use of natural and physical resources (including land and water).



Options	Costs	Benefits	Efficiency	Effectiveness
	Taraika (including commercial zone, education site, and sufficient open space), resulting in reduced environmental outcomes.			
Option 3 – Rezone for residential and business purpose purposes with replacement structure plan, but with no Taraika specific provisions.	Cost of preparing the plan change. Cost of providing and maintaining infrastructure and amenities to the area (e.g. water services, roads, parks and reserves.)	Enables a higher density of development than Option 1 & 2, and more closely aligns with expectations in the Horowhenua Growth Strategy 2040 and the NPS-UD. Simpler and less costly to implement relative to Options 4.	Preparing and processing resource consents will be more complex and uncertain given the lack of clear guidance in the District Plan regarding anticipated outcomes for the area. This would perpetuate implementation issues associated with the existing Structure Plans (e.g. lack of clarity about what is sought and why). Has the potential to be inconsistent with the master plan prepared for the area in partnership with the landowners and various experts, and is unlikely to deliver on agreed design outcomes.	Without specific provisions relating to the specific outcomes sought for Taraika, it is unlikely that the environmental outcomes anticipated (including housing variety, safe walking/cycling environment, scale limits on commercial activities) would be achieved. This could potentially result in poor environmental outcomes.



Options	Costs	Benefits	Efficiency	Effectiveness
			As such, it would not represent an efficient use of the time and resource involved in developing the master plan.	
Option 4 – Rezone to a mix of residential and business zones, with a replacement structure plan, and Taraika specific provisions contained within a Taraika Multi- Zone Precinct.	Cost of preparing the plan change. Cost of providing and maintaining infrastructure and amenities to the area (e.g. water services, roads, parks and reserves.) Cost of implementing and complying with the plan change.	Maximises the development capacity of the site and provides certainty about the anticipated outcomes sought. Would give effect to the Horowhenua Growth Strategy 2040 and NPS- UD. Would provide greater flexibility, choice, and opportunities to provide varied housing types, including more affordable options. Promotes integrated, connected development that delivers the high quality environmental and design outcomes	The requirements for this specific area are clearly set out in the District Plan, providing greater certainty for the Council, developers and landowners about what is expected through the subdivision and development process. Development of infrastructure would be guided by a Structure Plan to ensure efficient delivery.	This approach will give effect to the Horowhenua Growth Strategy 2040 and will make land available for residential and business development. Co-ordinated and integrated development would occur, reducing the potential for adverse effects on the environment and inefficient use of natural and physical resources (including land and water). Would be highly effective in delivering the development outcomes for this area anticipated by the Master Plan, such



Options	Costs	Benefits	Efficiency	Effectiveness
		envisioned by the master plan. Connections to land beyond Taraika will be provided, protecting future development potential. Provision and maintenance of infrastructure and amenities to the area can occur in a cost-effective and equitable manner.		as achieving a variety of housing types and securing key connections and civic assets. Would enable complementary commercial and community activities to establish easily.

Based on the assessment conducted in Table 2 above, **Option 4** is the preferred option. The reasons for this are summarised below:

- Maximises the development capacity of the site and provides certainty about the anticipated outcomes sought.
- Promotes integrated, connected development that delivers the high quality environmental and design outcomes sought by the Master Plan.
- The requirements for this specific area will be clearly set out in the District Plan, providing greater certainty for the Council, developers and landowners about what is expected through the subdivision and development process
- Would be highly effective in delivering the development outcomes for this area anticipated by the Master Plan, such as achieving a variety of housing types and securing key connections and civic assets.

6.4 Proposed Plan Change 4 Objectives Evaluation

This section of the report evaluates the objectives of the proposal to determine whether they are the most appropriate to achieve the purpose of the RMA.



For the purposes of this evaluation the following criteria form the basis for assessing the appropriateness of the proposed objectives:

- 1. Relevance and Usefulness
- 2. Reasonableness and Achievability

6.4.1 Overarching Proposed Plan Change Objective

The following objective is the overarching plan change objective that address each of the resource management issues and desired environment outcomes identified in Section 3.5 of this report.

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design



Relevance & Usefulness				Reasonableness & A	chievability
Achieves purpose of the Act/Addresses Resource Management Issue	Gives effect to higher order planning documents and non-statutory planning documents (e.g. National Policy Statements)	Efficiency and Effectiveness of Objective of Responding to Issue/Desired Outcome	Assists the Council to undertake its functions under s31	Will not impose unjustifiably high costs on the community/parts of the community and provide and acceptable level of certainty/clarity of intent	Consistency with identified Tangata Whenua and Community Outcomes
Achieves the purpose of the Act in that it seeks provide opportunities for strong, resilient and healthy neighbourhoods to establish. Ensuring housing land to meet demand is critical to provision of quality housing which is closely linked with social, cultural, and economic well-being. This objective better achieves the purpose of the Act than the alternative (status quo) in that it supports an upzoning of land. This not only uses existing resources (growth areas) more efficiently thereby	This objective gives effect to higher order planning documents, including the NPS-UD in that it is focused on achieving a well- functioning urban environment. This is because it directs Taraika is have a range of housing choices, supported by community assets, local-scale commercial activities and transport infrastructure. It also gives effect to One Plan objectives that relate to integration of land use and infrastructure planning.	 This objective seeks to manage potential adverse effects associated with large scale greenfield development including: Ensuring good connectivity within the development area and into Levin; By ensuring sufficient provision for amenities, infrastructure, and services; Protection of cultural heritage and culturally significant sites. The objective provides clear direction on the outcomes sought for Taraika. While this may reduce some opportunities for flexibility, 	The objective assists Council with fulfilling its functions under s31 of RMA, in particular: - The establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district - The establishment,	The objective provides a high degree of clarity and certainty about the expectations for the developers in this area (i.e. that the structure plan is followed) and a high degree of planning has already been undertaken. The obligation to comply and therefore the costs of doing so (e.g. constructing roads) lies with the developer rather than the wider community.	The objective is consistent with the following community outcomes identified in the Long Term Plan 2018-2038. <i>Thriving Communities</i> The objectives seek to create a high quality urban environment that is integrated and connected. High quality living environments contribute to health and well-



reducing pressure on	This objective gives	it establishes clear	implementation,	being, which
rural land from urban	effects to the Taraika	baselines to secure good	and review of	assists with
sprawl, thus	Master Plan.	outcomes within the area	objectives,	building thriving,
preserving the land		and reduces resource	policies, and	resilient
resource for future		consent complexity by	methods to	communities
generations, but also		reducing uncertainty	ensure that	communities.
provides greater		about what is sought.	there is	
opportunity to manage			sufficient	Enabling
effects associated			development	Infrastructure
with residential			capacity in	
development through			respect of	The objectives
integrated, well			housing and	promote efficient
planned servicing			business land	dolivory of
solutions.			to meet the	
			expected	
Address identified			demands of the	This enables
resource			district	infrastructure to
management issues,				be delivered in a
including:			The objectives are	cost effective
			able to be	way
- Well			implemented through	way.
functioning			District Plan provisions	
urban			and the resource	Stunning
environments;			consent process.	Environment
- Efficient and				
sustainable				The objective
infrastructure				seeks to protect
- Cohesive,				the natural
logical urban				
form				environment,
 Iwi and cultural 				including
considerations.				environmental
				and amenity
It addresses the				values, from the
above resource				


management issues			effects of land
in the following ways:			development.
- Provides for a			
range of			Doute out of the with
activities that			
support the			Tangata
needs of future			Whenua
residents (e.g.			Decemitien of
housing			Recognition of
variety open			IWI history
space			through naming
commercial			and protection of
activities)			culturally
Brovides for			significant sites.
- Flovides for			
Drovideo for			
- Provides for			
activities to be			
located in			
appropriate			
locations,			
supported by			
infrastructure			
(including			
community			
infrastructure)			
- Recognises			
that iwi and			
cultural values			
and histories			
should be			
protected and			
celebrated in			
the			



development			
area.			



6.4.2 Well-Functioning Urban Environments and Cohesive, Logical Urban Form and Layout

Objective 6A.4

Achieve a high amenity residential environment with a range of section sizes and housing types, including affordable housing options, in Taraika.

Objective 6A.5

Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.

Objective 6A.6

To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.



Relevance & Usefulness			Reasonableness	& Achievability	
Achieves purpose of the Act/Addresses Resource Management Issue	Gives effect to higher order planning documents (e.g. National Policy Statements)	Efficiency and Effectiveness of Objective of Responding to Issue/Desired Outcome	Assists the Council to undertake its functions under s31	Will not impose unjustifiably high costs on the community/parts of the community and provide and acceptable level of certainty/clarity of intent	Consistency with identified Tangata Whenua and Community Outcomes
As with the above objective, this objective achieves the purpose of the Act by enabling a greater degree of housing choice than is offered by the status quo. Provision of housing at a range of densities, as well as supporting commercial activities, provides greater opportunity for people and communities to provide for their wellbeing through accessing quality housing and business opportunities.	The objectives assist the Council with giving effect to the objectives of the NPS-UD, as they provide opportunities for land to be developed in a way that enables and encourages a range of housing types and makes provision for business activities that support the local community to establish, while protecting the primacy of the Levin Town Centre.	 The above objectives address the following resource management issues: Lack a variety in housing type available within the District leading to affordability issues; The need for medium density development near to the proposed commercial area transitioning to lower density development towards the outer extent of the development; Offers protection to the Levin Town Centre from inappropriate 	The objective assists Council with fulfilling its functions under s31 of RMA, in particular: - The establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district	The objectives underpin the zoning and structure plan approach set out in the plan change. This is an expected cost for comprehensive, large scale development of this nature and assists with achieving the optimal built form and the efficient provision of infrastructure	The Horowhenua Community Led Housing Action Plan identified insufficient housing variety as challenge that needs to be addressed. As such, there is some degree of community acceptance that greater housing density should be enabled, at least in some locations. The objectives are consistent with the following community outcomes identified



The objectives address and identified resource management issue (well-functioning urban environments and coherent, logical urban form) in that they require development to occur in a manner that will result in a high quality and coherent urban environment. This will minimise adverse effects on the environment associated with land development to opple and communities to provide for their wellbeing.Insufficient housing supply has led to a dramatic increat in Horowhenua, which has had negative impact on the community's ability to access housing.The objective requires development to be provide for their wellbeing.Insufficient housing supply has led to a dramatic increat in Horowhenua, which has had negative impact on the community's ability to access housing.The objective requires development to be provide for their wellbeing.Insufficient housing supply has led to a dramatic increat in Horowhenua, which has had negative impact on the community's ability to access housing.The objective requires development to be provide for their wellbeing.Insufficient housing supply has led to a dramatic increat in Horowhenua, which has had negative impact on the community's ability to access housing.The objective requires development to be provide for theirInsufficient housing supply has led to a dramatic increat in Horowhenua, sociated with land development, while also enabling growth pressure and housing demand.	 competition at Taraika. This is considered very important, given Taraika's proximity to the O2NL highway. Specifically planning for density enables efficient delivery of infrastructure, that enables as opposed to restricts future development. Achieve a high quality and coherent urban form; Ensures that the built environment promotes health and wellbeing; Achieve a high amenity and vibrant urban environment, including public area (parks, reserves, roads, footpaths etc.). 	 The establishment, implementation, and review of objectives, policies, and methods to ensure that there is sufficient development capacity in respect of housing and business land to meet the expected demands of the district The objectives are able to be implemented through District Plan provisions and the resource consent process. 	in the Long Term Plan 2018-2038. <i>Thriving</i> <i>Communities</i> The objectives seek to create a high quality urban environment that provides a variety of housing types to meet the needs of the community. High quality living environments contribute to health and well-being, which assists with building thriving, resilient communities.
The objective requires and housing development to be supported by quality public open space that supports the variety of needs	 including public area (parks, reserves, roads, footpaths etc.). Ensure the size and location for different zones within the development area are appropriate (i.e. 		



present within the community. Access to public open space that can be used for both active and passive recreation is linked to health, safety and wellbeing.	 commercial area is of a sufficient size and in an appropriate location); Manage the impact new commercial areas could have on the vibrancy of the existing town centre. 		
	The above objectives ensure a high quality urban form that creates a clear sense of place and contributes to the overall health and wellbeing of those who will live in and visit the area.		



6.4.3 Efficient and Sustainable Infrastructure and Servicing

Objective 6A.2

Efficient delivery of infrastructure within Taraika will enable development while protecting environmental values and achieving a high level of residential amenity.

Objective 6A.3

Stormwater management in Taraika will be resilient and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- Water sensitive design;
- Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems.

Relevance & Usefulness			Reasonableness	s & Achievability	
Achieves purpose of the Act/Addresses Resource Management Issue	Gives effect to higher order planning documents (e.g. National Policy Statements)	Efficiency and Effectiveness of Objective of Responding to Issue/Desired Outcome	Assists the Council to undertake its functions under s31	Will not impose unjustifiably high costs on the community/parts of the community and provide and acceptable level of certainty/clarity of intent	identified Tangata Whenua and Community Outcomes
The objectives achieve the purpose of the Act by seeking to reduce the impact of residential development on the natural environment (for	The NPS-UD requires sufficient zoned and serviced land to meet demand for housing (and business). A challenge facing existing zoned	The objective address by desired environmental outcome by ensuring efficient delivery of infrastructure, that enables as opposed to restricts future development.	The objective assists Council with fulfilling its functions under s31 of RMA, in particular: - the control of any actual or potential effects of the	As with the previous two tables, the objectives support a robust structure planning process, giving a high degree of clarity and certainty about the expectations for the	The objectives are consistent with the following community outcomes identified in the Long Term Plan 2018-2038.



example, water	residential land	Ensuring development	use.	developers in this	Thriving
quality) by	within the District	occurs in an integrated and	development.	area. The obligation	Communities
requiring an	is a lack of	connected way helps to	or protection	to comply and	
integrated	supporting	mitigate adverse effects of	of land.	therefore the costs of	The chiestings coold
stormwater	infrastructure. As	land development because		doing so (e.g.	The objectives seek
management	such, this	doing so provides	The objectives are	constructing roads)	to create a high
approach and by	objective gives	opportunity to use natural	able to be	lies with the	quality urban
requiring delivery	effect to the NPS-	resources more efficiently	implemented	developer rather than	environment that is
of reticulated	UD by integrated	as well as result in a higher	through District Plan	the wider community.	integrated and
infrastructure	land use and	level of residential amenity.	provisions and the		connected. High
which provides	infrastructure		resource consent	This is an expected	quality living
greater	planning, but also		process.	cost for	anvironmente
opportunity to	addresses an			comprehensive, large	
manage adverse	existing issue with			scale development of	contribute to health
effects when	the Horowhenua			this nature and	and well-being,
compared with a	District Plan (in			assists with achieving	which assists with
reliance on onsite	relation to Taraika			the optimal built form	building thriving,
systems (e.g.	only).			and the efficient	resilient
septic tank).				provision of	communities
	The objectives			infrastructure	
The objectives	also give effect to				Frankling
addresses the	One Plan				Enabling
identified resource	objectives and				Infrastructure
management	policies relating to				
issue of 'efficient	water quality and				The objectives
and sustainable	quantity by				promote efficient
infrastructure and	direction an				delivery of
servicing' by	integrated				infrastructure
detailing the	stormwater				
environmental	management				
outcomes	approach and				
expected from the	water sensitive				
proposed	design.				
servicing					
approach.					



6.5 Proposed PC4 Policies and Rules Assessment

This section of the report assesses the proposed policies and rules relevant to the associated objectives evaluated in section 6.4 above.

Issues/Opportunities

The proposed plan change objectives set out the desired outcomes for Taraika. These objectives primarily seek to give effect to the NPS-UD focus on achieving well-functioning urban environments. This includes:

- Increased variety in housing type/density when compared to the rest of Levin
- Improved walking and cycling opportunities
- High level of urban amenity
- Residential activities supported by community and commercial activities at an appropriate scale
- Protection of the Levin Town Centre.

In addition, the proposed plan change seeks to enable development that:

- Is serviced by enabling, sustainable infrastructure (including stormwater management)
- Has a cohesive, logical urban form that is well connected both within the development area and to the rest of Levin
- Acknowledges, celebrates and protects cultural history, values, and sites.

Existing District Plan Provisions

All relevant operative District Plan provisions (including policies and rules) apply in Taraika, except where there is conflict between the 'standard' provision and what is contained in the Taraika specific plan chapters, in which case the Taraika specific provisions will override. Given the zones and associated provisions used within Taraika reflect those applied elsewhere in the District no further justification of these provisions is considered necessary.

Evaluation of Proposed and Alternative Policies and Rules

For the purposes of this assessment two reasonably practicable options have been identified:

Option 1: Proposed Plan Change

• Appendix 11 of this report contains a table which sets out the proposed plan change provision reference and where it has been assessed in the below assessment tables.



Option 2: Status Quo

• The status quo in the following assessments refers to the package of conditions contained within the Operative Horowhenua District Plan that are relevant to the Residential Zone (Chapter 6 and Chapter 15). This on the basis that the earlier assessment undertaken in section 6.3 of this report which concluded that the existing District Plan Zone for the Taraika area (being Greenbelt Residential Deferred), was not an appropriate means to achieving the proposed plan change objectives or the purpose of the Act. The status quo assessment that follows in this section of the report should be read in conjunction with the assessments of 'option 1' and 'option 2' in section 6.3 of this report. The following assessments focus on where the status quo and the proposed plan change differ.

For both of these options an evaluation has been undertaken relating to the costs, benefits and the certainty and sufficiency of information in order to determine the effectiveness and efficiency of the approach, and whether it is the most appropriate way to achieve the relevant objective(s). This evaluation is contained in the sections that follow.

The proposed plan change provisions have been grouped into themes to enable more efficient assessment. Each assessment examines the 'bundle' of provisions relating to the particular theme, including policies and associated rules/standards.

Option 1: Proposed Plan Change Assessment

6.5.1 Well-functioning Urban Environments

The following assessment tables contained within 6.5.1 relate to the proposed plan change objectives set out below:

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;



• Environmentally sensitive design

Objective 6A.5

Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.

Objective 6A.6

To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.

6.5.1.1 Housing Yield and Choice

Provisions	Efficiency and Effectiveness	Costs	Benefits
Complying subdivision as a	Increasing the activity status of	Environmental	Environmental
restricted discretionary activity	complying subdivision to		
(with no public or limited	restricted discretionary (from	The environmental costs of this	The benefits of this proposed
notification) and a discretionary	controlled elsewhere in the	approach are considered to be	activity status approach include
activity where site controls (size,	District) provides a greater	limited, as the proposal seeks to	the ability to decline poor
shape factor etc.) are not met.	opportunity to enforce key	introduce additional assessment	subdivision that would undermine
Maximum site area in Medium	features of the Structure Plan	matters compared with the status	the delivery and implementation
Density Residential Zone	(e.g. key transport connections)	quo, improving the opportunity to	of the Structure Plan and, as a
Additional matters of discretion	and therefore achieve the	achieve quality environmental	result, the Master Plan. As
for subdivision (all zones)	intended plan change outcomes.	outcomes.	referenced already, this
	This, combined with the		addresses existing District Plan
	additional matters of discretion,	Social	issue
	will give an opportunity to secure		
	roading connections across	Having defined areas where	Social
	ownership boundaries even	medium density housing must	
	when slight variations in road	occur does reduce flexibility to	The proposed maximum site
	location occur. This is considered	deliver a varied social	area will deliver increased
	important, as it is conceivable	environment across the	housing variety – specifically
	that even roads 'fixed' by the	development as a whole	medium density, which may
	Structure Plan may need to shift	although this is offset somewhat	result in more affordable housing
	slightly due to site features. It is	by setting the maximum site area	options being available. Directing
	important that there is a		medium density housing to a



mechanism to ensure that	quite high in the context of	particularly area gives
subsequent subdivisions on	medium density.	developers certainty about where
adjoining properties 'follow the		this sort of housing is anticipated
leader' and connect to	Economic	and means that this increased
existing/approved roads. This		housing density is able to be
approach addresses and existing	Both the increased activity	supported by the necessary
District Plan issue.	statuses and additional matters	services and amenities (e.g.
	of discretion may result in	open space).
Introducing a maximum site area	increased resource consent	
in the Medium Density	costs due to additional	Economic
Residential zone, supported by a	processing and assessment time.	
Discretionary Activity status	although these are likely to be	Directing medium density
where this is not complied with.	marginal and lessen over time as	housing to be provided in certain
compels a greater variety of	familiarity with the provisions	locations may also help to
housing type across the	increases (for both applicants	address latent demand for
development area. This seeks to	and HDC).	medium density housing, as the
address an existing issue in the		market is not currently
District (being a relatively	The increased activity status may	addressing this gap.
homogenised housing stock) and	increase uncertainty for	
aligns with the NPS-UD which	developers due to ability to	Cultural
seeks to achieve a variety of	decline consent. However, this is	
housing types to meet the	offset somewhere by preclusion	Cultural benefits of this bundle of
diverse housing needs present	of even limited notification. It is	provisions includes specific
within communities. Use of a	noted that very few non-notified	reference to the observation of
maximum site area is a clear and	resource consent applications	tikanga during site works
effective means of achieving and	are declined	inanga danng oko wonto.
monitoring the level of housing		
variety likely and able to be	The proposed change to activity	
delivered	statuses and the introduction of a	
	maximum site area in the	
The additional matters of	Medium Density Residential zone	
discretion largely seek to support	differ to the current District Plan	
the additional rules outlined	approach and therefore may	
above and master plan	increase Plan complexity	
objectives. This is considered an		
objectives. This is considered all		



effi imp and ma for ass deg	ficient and effective way of aplementing the master plan and plan change objectives as atters of discretion are a trigger r consideration and esessment, but offer a high egree of flexibility.	The introduction of a maximum site area will compel higher density housing to a certain area. However, it is acknowledge that this housing type is relatively untested within the District, particularly at scale. Therefore, this is some market risk in requiring this housing type in one location.	
		Cultural	
		There are unlikely to be cultural costs associated with this bundle of provisions, as the proposal seeks to introduce additional assessment matters compared with the status quo.	

6.5.1.2 Transport

Provisions	Efficiency and Effectiveness	Costs	Benefits
Strategic cycleways – properties	This provision is focused on	Environmental & Social	Environmental & Social
that front a road with a strategic	achieving a safe cycling		
cycleway must be accessed via	environment by reducing conflict	As this provision seeks to enable	This provision will result in
rear access lane (pedestrian	points between cars and cyclists	safe, active (non-motorised	significant benefits for Taraika
entrances still to front the road).	associated with vehicle crossings	vehicle transport) there are no	developers and residents in that
	(entry/exit point between private	identified environmental or social	it will provide a safe cycling
	property and public road), which	costs.	options to key features of the
	is a key plan change outcome.		development (e.g. primary
		Economic	school, commercial centre).
	This approach is considered a		These benefits include:
	very effective way of achieving	Under the current development	 Sections more desirable
	this outcome. Identification of	funding approach, the costs of	
	strategic cycle routes on the	this will be borne by individual	



	1	
structure plan allows investment	developers. The costs of this are	- Health and wellbeing
in this initiastructure to be	largely related to additional	benefits associated with
directed where it will deliver the	construction costs associated	cycling
most benefits. This approach is	with having a construct a rear	- Environmental benefits
clear and easy to implement.	access lane as well as a public	associated with reduced
	road with cycleway. These costs	vehicle use.
	are likely to be relatively	
	significant for individual	Economic
	developers.	
		Economic benefits for future
	Cultural	residents associated with less
		reliance on motorised vehicles.
	There is unlikely to be any	
	cultural cost associated with this	Cultural
	provision.	
		There is unlikely to be any
		cultural benefit associated with
		this provision.

6.5.1.3 <u>Residential Amenity</u>

Provisions	Efficiency and Effectiveness	Costs	Benefits
Arapaepae Road special	The Araepaepae Road special	Environmental	Environmental
treatment overlay	treatment overlay seeks to		
	respond to the unique constraints	May limit or delay the range of	Mitigation of noise impacts from
	for the land located between	activities able to establish,	SH57 on new residential
	State Highway 57 (Arapaepae	meaning the entry to Taraika	activities will be mitigated by
	Road) and the proposed O2NL	may remain vacant for some	using WKNZTA updated
	corridor. There is some	time.	guidance material, providing a
	uncertainty about the future of		higher degree of protection than
	State Highway 57; once O2NL is	Social	current District Plan provisions.
	completed, the State Highway		
	status will likely be revoked and	There are no identified social	Social
	the state highway status	costs.	
	removed.		Opportunity to consider aspects
		Economic	such as safe access and



	As State Highway 57 is a limited access road, development of this land is currently limited due to access constraints. In addition, this land is proposed to be subject to WKNZTA's updated noise, ventilation, and vibration standards which seek to mitigate reverse sensitivity effects associated with the operation of State Highway 57. In addition, the land area is relatively narrow due to the location of the O2NL corridor. Based on the above, a bespoke approach for managing effects associated with developing this land is considered both effective and efficient. Specifying that development is a Restricted Discretionary activity and limiting matters of discretion to reverse sensitivity, access, and compatibility with surrounding land uses it offers a high degree of flexibility for the market to propose a suitable land use that address the known constraints.	Both the activity statuses and matters of discretion may result in increased resource consent costs due to additional processing and assessment time (compared with the remainder of the development area). The activity status may increase uncertainty for developers due to ability to the ability to decline consent. <i>Cultural</i> There is unlikely to be any cultural cost associated with this provision.	compatible land use activities (e.g. minimise reverse sensitivity effects). <i>Economic</i> Balance between providing flexibility and opportunities, while managing adverse effects. <i>Cultural</i> There is unlikely to be any cultural benefit associated with this provision.
	propose a suitable land use that address the known constraints.		
Increased maximum building height (in Medium Density	A key objective of both the plan change and the NPS-UD is to	Environmental & Social	Environmental & Social
Residential Zone)	enable growth both up and out and to deliver a variety of housing types. To achieve this,	Environmental and social costs includes those associated with more intensive built form.	The primary benefit of this provision is that it enables additional development height



Integral garages	the maximum building height is set to allow up to three storeys in the medium density area (compared with two elsewhere in the District). This is considered an efficient and effective way of enabling upwards growth while still managing effects such as shading on neighbouring properties. This approach is more enabling and more aligned with the NPS- UD than the current District Plan approach (which effectively limits development to two storeys). Removing height limits entirely is not considered an efficient or effective option as this would require quite an extensive change to other provisions to manage adverse effects associated with shading and loss of privacy on neighbouring properties. Such an approach would have been significant different to the current District Plan approach and would introduce considerable complexity.	However, these anticipated by the NPS-UD which directs Council's to increase maximum building heights in certain scenarios. <i>Economic</i> There are no direct economic costs associated with this provision. Existing daylight setback provisions would continue to apply (which would require three storey buildings to be located further from boundaries than one and two storey buildings) meaning that the potential for shading/loss of privacy on neighbouring properties will be no greater than the rest of the residential environment. <i>Cultural</i> There is unlikely to be any cultural cost associated with this provision.	within the medium density area and therefore enables improved housing variety. This is in line with the NPS-UD. <i>Economic</i> There is an economic benefit associated with fewer regulatory barriers that may otherwise discourage or present risk to developers wanting deliver varied building forms (e.g. multi-story living). <i>Cultural</i> There is unlikely to be any cultural benefit associated with this provision.
------------------	---	--	---



Building setbacks (for front	The plan change proposes to	Could result in a more	The proposed garage provisions
boundary)	introduce controls for integral	homogenise environment.	more effectively deliver the
Daylight access (for conjoined	garages to avoid integral garages		intended outcome of the current
dwellings)	from dominating residential	Social	provision than the current
Fencing	frontages. This is an extension of		approach.
	the existing District Plan	Could present constraints for	
	approach, which limits the size,	people who need higher fences	Incentivises/enables better use of
	and location of accessory	(e.g. their front fences would	backyard areas (private outdoor
	buildings (which are defined as	need to be setback from front	living space) as well as
	'detached' buildings) for this	boundary.	encourages dwellings to address
	same purpose. Extending the		the street, contributing the
	approach to integral garages is	Economic	residential amenity.
	considered an efficient and		
	effective way of achieving the	Extending control to include	Social
	intended outcome as it is	integral garages may result in a	
	currently possible for integral	lack of flexibility for landowners	Reduced front boundary fence
	garages to dominate the	and could have higher design	heights promotes safer
	residential frontage, thus	and construction costs.	communities by offering greater
	undermine the intended		personal security for pedestrians,
	outcome.	In regard to front boundary	cyclists, and residents. This also
		setbacks, there are no additional	helps to create an attractive and
	It is proposed to allow dwellings	costs when compared with the	walkable residential streetscape
	(but not accessory buildings) to	existing District Plan approach as	
	be built closer to the front	this provision is more permissive.	Economic
	boundary in Taraika when		
	compared with the rest of the	There are no costs associated	The proposed provisions enable
	residential environment (from 4m	with removing the daylight	greater flexibility in site design
	to 2m. This encourages dwellings	setback standard for conjoined	and better use of the site.
	to be the primary feature of the	dwellings as it reduces the	
	street and discourages garages	chance of inadvertently triggering	Cultural
	from being built in front of the	unnecessary resource consents.	
	dwelling helping to create an		I here is unlikely to be any
	active street frontage. This has	Fencing requirements may result	cultural benefit associated with
	positive crime prevention through	in a lack of flexibility for	this provision.
	environmental design (CPTED)	landowners and could have	



and urban design outcomes and	higher design and construction	
supports other bulk and location	COSTS.	
standards (including integral	Culture	
garage and rencing	Cultural	
requirements). This allows	The section we like the transmission	
encourage more efficient use of	I nere is unlikely to be any	
iot area and may result in		
improved private outdoor living	provision.	
space at the real (of side of the		
dweiling).		
Explicitly stating that conjoined		
dwellings do not need to comply		
with the daylight setback		
envelope on internal boundaries		
addresses and existing District		
Plan interpretation issue. It is		
considered efficient and effective		
to make this explicit in Taraika		
(noting that the issue will remain		
for the rest of the residential		
environment) due to the scale of		
conjoined development that		
could occur.		
Tall, solid front fences on public		
boundaries (roads and reserves)		
can create poor urban design		
outcomes and detract from		
streetscape quality. Lower front		
tence heights have the potential		
to result in CPTED for both		
pedestrians and residents due to		
eyes on the street providing		
passive surveillance and informal		



security. In addition, reduced fence heights on public boundaries contribute to a fe of openness. These factors b walkability.	eling oost
Therefore, it is considered effective and efficient for a here restriction standard to apply to fences located on public boundaries to prevent these issues from arising. Taller fer are still enabled on side and boundaries or setback from f boundaries to ensure safety the likes of pets and children	eight o nces rear ront or
As a whole, the standards provide certainty of outcomes through use of a base standa	s ırd.

6.5.1.4 Non-Residential Activities

Provisions	Efficiency and Effectiveness	Costs	Benefits
Limits on nature and scale of non-residential activities	The proposed approach to enabling commercial activities	Environmental & Social	Environmental & Social
	largely reflects the current District Plan approach, in that it lists a range of commercial activities that are permitted. However, some commercial activities permitted elsewhere in the commercial environment are	Risk that activities that would be complementary to Taraika are not permitted, either trigger unnecessary resource consents or deterring activity from establishing.	Encourages a range of complementary business activities that will contribute to a well-functioning urban environment. This is consistent with the NPS-UD.
	excluded from Taraika. This is to reflect the 'neighbourhood' centre purpose of this area. This means	Economic	The approach is relatively flexible due to broad definitions for commercial and retail activities



some activities, including those that are not conducive to a pedestrian friendly environment (e.g. service station) are not permitted with the Taraika commercial area. While a wide range of commercial activities are permitted in Taraika, a limit on scale is proposed. This upholds the Master Plan and Plan Change objective of encourage a neighbourhood centre, by preserving the ability for a true centre to establish (by ensuring the zone is not taken up by one or two activities). The proposed maximum gross floor area is based on neighbourhood scale commercial zones in other parts of New Zealand. Limiting the nature and scale of commercial activities (for example, activities such as movie theatres or large retail stores) seeks to preserve the primacy of the Levin Town Centre. The approach to managing other non-residential activities is consistent with the current	Increased compliance and administration costs for developers. <i>Cultural</i> There is unlikely to be any cultural cost associated with this provision.	Economic Provides clear scope for a range of appropriately scaled activities to establish. Cultural There is unlikely to be any cultural benefit associated with this provision.
The approach to managing other non-residential activities is consistent with the current District Plan. For example, community activities (including		



	education) are provided for as a restricted discretionary activity in the open space zone. Within Taraika, this is supported by enabling policy direction. This approach is considered effective for the reasons above. It is also considered efficient as it is relatively easily enforced.		
Building frontage controls	The approach to managing	Environmental & Social	Environmental & Social
Signage controls	building frontages in the Taraika commercial area is based on the permitted activity conditions that apply in the Levin Town Centre	Potential that alternative design options that do deliver high quality environmental outcomes	Controls building bulk as viewed from the street.
	considered appropriate given the similar objectives sought.	are seen to be discouraged.	Enhances the streetscape of the pedestrian areas and establishes an attractive commercial character.
	These standards help to create a high amenity environment where streets are sheltered, comfortable and interesting. In this case, locating all buildings on	The costs of obtaining resource consent for activities that are expected and anticipated within the zone.	Consistent with approach for other pedestrian focused areas set out in the District Plan.
	the front boundary, providing a verandah, a high proportion of glazing, maximum frontage wide, and design details, means a continuous, attractive and vibrant	Requirements may result in a lack of flexibility for landowners and could have higher design and construction costs.	<i>Economic</i> Ensures attractive, continuous building frontages and verandahs. This contributes to
	focused areas. This encourages walkability and creates a centre that attracts people to spend	There is unlikely to be any cultural cost associated with this	therefore likely to boost vibrancy and vitality of activity.
	ume.	provision.	Guiturai



	Where the proposed approach for Taraika differs to the Levin Town Centre Pedestrian Overlay is that new buildings and external alterations to buildings are expressly provided for as a restricted discretionary activity. This is considered an effective and efficient way of achieving the outcomes sought, given the extent of complexity of the standards. It is also proposed to introduce provisions to limit the number and scale of signs within Taraika (including no remote signage). This is considered appropriate given the Taraika commercial area is expected to be of a neighbourhood scale and therefore significantly smaller than Levin Town Centre		There is unlikely to be any cultural benefit associated with this provision.
Supermarkets and drive-through	A supermarket of appropriate	Environmental & Social	Environmental
discretionary activity	within Taraika as it will help to achieve a well-functioning urban environment. However, due to the scale limits proposed for commercial and retail activities	If the resource consent process deters these activities, they may not establish in the area.	Provides opportunity to manage specific effects, while still providing clear pathway for these activities to establish.
	would not comply.	Cost of obtaining resource	Providing for activities such as
	Both supermarkets and drive- through restaurants have specific	consents may be a deterrent.	to travel.
	effects that needs to be managed	Cultural	Social



	(for example traffic, loading areas, and potential for conflict with adjoining residential activities). However, in both cases the effects of these activities can likely be managed. Therefore, it is efficient and effective to provide for these activities a restricted discretionary.	There is unlikely to be any cultural cost associated with this provision.	Provides for supermarket type activities that will support local community. <i>Economic</i> Clear opportunities for supportive commercial activities to establish. <i>Cultural</i> There is unlikely to be any cultural benefit associated with this provision.
Industrial and Large Format Retailing as a non-complying activity	There is potential that activities of this nature may seek to establish in Taraika due to the location (near potential O2NL interchange) and lack of capacity elsewhere, particularly for large format retail activities. However, as these activities are very large scale, vehicle dominant and often result in operating effects that are incompatible with residential neighbourhoods they are not considered appropriate in Taraika. Such activities could undermine the Master Plan and proposed plan change objectives. Therefore, the	 Environmental & Social Such activities can provide jobs and meet the community's needs for good and services. If these activities cannot establish, these potential benefits may be lost. Economic Limits opportunities for a full range of activities to establish. Cultural There is unlikely to be any cultural cost associated with this provision. 	 Environmental & Social Maintains and enhances the levels of amenity in commercial areas. Economic Makes clear that this type of activity is unlikely to be appropriate. Cultural There is unlikely to be any cultural benefit associated with this provision.



proposed approach is considered efficient and effective.		
--	--	--

6.5.2 Efficient and Sustainable Infrastructure and Servicing

The following assessments relate to the proposed plan change objectives set out below:

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Objective 6A.2

Efficient delivery of infrastructure within Taraika will enable development while protecting environmental values and achieving a high level of residential amenity.

Objective 6A.3

Stormwater management in Taraika will be resilient and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- Water sensitive design;
- Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems.



Provisions	Efficiency and Effectiveness	Costs	Benefits
Rainwater tanks	Requiring individual lots to have a rainwater tank is considered an	Environmental & Social	Environmental & Social
	efficient and effective means of	Environmental costs associated	Improved stormwater
	supporting the wider storm water	with the visual appearance of	management resulting in some
	management approach.	rainwater tanks, especially on	improvement of Lake
		small sites. Cost of maintaining	Horowhenua water quality.
	The expectations for each lot are	tanks, particular where shared	Although the individual lot
	clear and easily enforceable and built on the premise that each	arrangements are used.	improvement may be marginal there will be a cumulative benefit
	individual lot should take small	Economic	resulting from the reuse of water
	steps to deliver a collective		and reduction in discharge to
	benefit.	Costs associated with the tank	ground via soakpit.
		when compared with the rest of	
		the residential environment.	Reduces reliance on mains water
			supply.
		Cultural	
			Economic
		There is unlikely to be any	
		cultural cost associated with this	As tanks would be required at
		provision.	building consent stage (as
			opposed to subdivision stage),
			that costs of subdividing are
			met only when the house is
			constructed
			Cultural
			Cultural benefits associated with
			improved environmental
			outcomes associated with less
			stormwater being discharged to
			ground via soak put.

6.5.2.1 Integrated Stormwater Management and Water Supply & Waste Water



	· · · · · · · · ·		
Requirement to construct and	This requirement is considered a	Environmental & Social	Environmental & Social
vest infrastructure	more explicit version of the		
	current District Plan approach,	Environmental and social costs	Clear infrastructure requirements
	which requires developers to	associated with additional	helps to enable timely and
	construct and vest infrastructure.	infrastructure to maintain.	efficient delivery of infrastructure,
	The current approach outlines		enabling housing to be built.
	that this may require	Economic	Environmental and social
	infrastructure over and above		benefits associated with more
	what is required for their	Under the current approach,	timely and consistent supply of
	individual development and that	costs over and above what is	housing.
	HDC may (emphasis added)	required for an individual	
	contribute to the additional costs.	development will be primarily	Economic
		borne by the developer, which	
	This is considered and efficient	may deter development.	Under the current approach,
	and effective approach to		costs are borne by developers
	ensuring infrastructure is	Cultural	and not ratepayers.
	constructed and made available		
	as the development progresses.	There is unlikely to be any	Infrastructure will be in place to
	It is noted that this may result in	cultural cost associated with this	enable further development.
	significant costs of developer	provision.	
	(refer to next column) however,		Expectation a clear, potentially
	these can be addressed outside		leading to more expedient
	of the plan change approach (for		resource consent processes.
	example, as part of the Long		
	Term Plan process to determine		Cultural
	who/how to fund growth related		
	infrastructure).		There is unlikely to be any
			cultural benefit associated with
			this provision.

6.5.3 Cohesive, Logical Layout & Urban Form

The following assessments relate to the proposed plan change objectives set out below:

Objective 6A.1



To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Objective 6A.4

Achieve a high amenity residential environment with a range of section sizes and housing types, including affordable housing options, in Taraika.

Objective 6A.5

Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.

Objective 6A.6

To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.

6.5.3.1 <u>Structure Plan and Zoning</u>

Provisions	Efficiency and Effectiveness	Costs	Benefits
Structure Plan	The structure plan is proposed to apply to both subdivision and	Environmental	Environmental
	land use activities. It defines key movement networks that link important features of the	There is some risk of implementation issues resulting from inconsistent interpretation of	Use of Structure Plan (and the requirement to be 'consistent'



development (e.g. school site, commercial centre), the extent and size of different land use zones and ensures provision is made for civic assets (e.g. parks and reserves).what the Structure Plan requires activities to be tonsistent interpretation.What the Structure Plan approach of managing significant greenfield development in identified growth areas.The Structure Plan is a key method for implementing the Master Plan.Non-complying activity status may be a barrier to proposing alternative developmentThe use of a Structure Plan (and the content of the Structure Plan).This is considered an efficient and effective approach in that:SocialThis approach will ensure coordinated and compatible development are will likely to be last to develop as the activities provided for in this area will depend on population to easing attenial roads) are largely fixed and less significant group at the key features (e.g. education site and ommercial centre are sized/located appropriately. Refer to Appendix 2 of this report for Master Plan design rationale document).SocialThis approach helps to coordinate infrastructure provision and other services across land parcels in different ownership.The approach allows for some degree of flexibility in that key features (e.g. local roads have a higher degree of flexibility.EconomicZone use is consistent with the existing District Plan approach. Costin and and consets of parks and reserves.Zone use is consistent with the existing District Plan approach. Costin at the asset price plan and plan change objectives.Provides clarity on what is expected.The Structure Plan may results in espected.			
Non-complying activity status method for implementing the Master Plan.Non-complying activity status maternative development scenarios that do uphold the Structure Plan.The use of a Structure Plan (and the Structure Plan) helps to manage complex issues in an integrated way.This is considered an efficient and effective approach in that:SocialThis approach will ensure coordinated and compatible development are will likely to be last to develop as the activities provided for in this area will depend on population to establish. This means that it might take some time for the desired urban form to establish.The use of a Structure Plan (and the Structure Plan) helps to manage complex issues in an integrated way.The approach allows for some degree of flexibility in that key features (e.g. arterial roads) are largely fixed and less significant features (e.g. local roads) have a higher degree of flexibility.SocialThis approach helps to coordinate infrastructure provision and other services across land parcels in different ownership.Devices best chance of upholding Structure Plan and plan change objectives.Provides best chance of upholding Structure Plan and plan change objectives.	development (e.g. school site, commercial centre), the extent and size of different land use zones and ensures provision is made for civic assets (e.g. parks and reserves).	what the Structure Plan requires. This plan requires activities to be 'consistent' with the Structure Plan. This term could be open to inconsistent interpretation.	with is aligned with the current District Plan approach of managing significant greenfield development in identified growth areas.
This is considered an efficient and effective approach in that:SocialThis approach will ensure coordinated and compatible development (e.g. transport network, land use intensity) across parcels of land in different ownershipIt ensures key features (e.g. education site and sized/located appropriately. Refer to Appendix 2 of this report for Master Plan design rationale document).SocialThis approach will ensure coordinated and compatible development are will likely to be last to develop as the activities provided for in this area will depend on population to establish. This means that it might take some time for the desired urban form to establish.This approach will ensure coordinated and compatible development (e.g. transport network, land use intensity) across parcels of land in different ownershipThe approach allows for some degree of flexibility in that key features (e.g. arterial roads) are largely fixed and less significant features (e.g. local roads) have a higher degree of flexibility.SocialThis approach will ensure coordinated and compatible development (e.g. transport network, land use intensity) across parcels of land in different ownershipThe approach allows for some degree of flexibility fixed and less significant 	The Structure Plan is a key method for implementing the Master Plan.	Non-complying activity status may be a barrier to proposing alternative development scenarios that do uphold the Structure Plan.	The use of a Structure Plan (and the content of the Structure Plan) helps to manage complex issues in an integrated way.
 Manages effects and demands of land 	 This is considered an efficient and effective approach in that: It ensures key features (e.g. education site and commercial centre are sized/located appropriately. Refer to Appendix 2 of this report for Master Plan design rationale document). The approach allows for some degree of flexibility in that key features (e.g. arterial roads) are largely fixed and less significant features (e.g. local roads) have a higher degree of flexibility. Provides clarity on what is expected. Manages effects and demands of land 	Social Land located at the centre of development are will likely to be last to develop as the activities provided for in this area will depend on population to establish. This means that it might take some time for the desired urban form to establish. <i>Economic</i> The approach may increase construction costs in that is requires construction of roads and cycle lanes and provision of parks and reserves. The Structure Plan may results in less flexibility for landowners.	This approach will ensure coordinated and compatible development (e.g. transport network, land use intensity) across parcels of land in different ownership. This approach helps to coordinate infrastructure provision and other services across land parcels in different ownership. Zone use is consistent with the existing District Plan approach. <i>Social</i> Provides best chance of upholding Structure Plan and plan change objectives.



	development held in multiple ownership in an integrated way and in support of a well- functioning urban environment.	Cost of resource consent for a non-complying activity for activities that do not comply with the Structure Plan. It is likely that future plan change will be required to rationalise zone boundaries with lot	Ensures good urban form by secures suitable land provision for activities that support a well- functioning urban environment (school, commercial) but would typically establish in the later stages of development and may therefore be relegated to less
Inconsistency with Structure Plan	Achieves desired Structure Plan	boundaries.	desirable locations.
as a non-complying activity	oucome	Cultural	Economic
	Non-complying activity status adds further layer of assessment when compared with other activity status (e.g. gateway test). This is considered an efficient and activity way of upholding the Structure Plan and plan change objectives, both preserving the outcomes sought for the area and protecting the investment made into developing the Master Plan.	There is unlikely to be any cultural cost associated with this provision.	This approach provides certainty to developers, HDC, key stakeholders and the wider public about the intended development outcome. Provides a clear signal non- compliance is generally not appropriate. <i>Cultural</i>
Location and size of zones	The zone approach is justified in the Master Plan Design Rationale document included as Appendix 2 of this report and summarised below:		There is unlikely to be any cultural benefit associated with this provision.
	Commercial Zone - Other locations considered but location of O2NL highway meant that the proposed location		



	 was most suitable/desirable as it is central to the development area. The commercial centre is co-located with the likely future primary school. These two features create a true 'neighbourhood centre' and therefore uphold the Master Plan and plan change objectives. 	
	lupption Site	
Ed	The education site is	
	sized based on other	
	similar primary schools	
	that have recently been	
	constructed.	
	- It is located at the centre of	
	the development were it is	
	well serviced by key	
	transport routes (Including	
	easily accessible.	
	- It is co-located with	
	primary reserve space to	
	allow for shared use.	
	en Snace Zone	
Ομ	- The open space areas	
	are based upon meeting	
	a minimum provision of	
	2ha per 1,000 people, a	



	400m walk (5 minutes) from some form of public open space and 800m walk (10 mins) from a more significant reserves space.		
	 Residential Zones (densities) Is designed to provide a variety of housing types and densities. Highest density is provided for at the centre, where houses will be well serviced by supporting amenities, transitioning outwards to lowest density at the edge of the development as it transitions to a more rural environment. 		
O2NL corridor	The O2NL corridor has been identified as a spatial feature/overlay on the Structure Plan, but with no specific land use rules associated with it. Land underneath this feature is zoned residential, consistent with the zoning approach discussed above. The helps to identify how O2NL has been considered in the Master Plan process, including	 Environmental & Social The O2NL overlay impacts a larger area of land than will be ultimately be impacted on the notice of requirement, meaning a later plan change may be required. Economic Identification of the highway may affect opportunities for the land. 	<i>Environmental & Social</i> Provides information about a future major feature, helps to justify key features (e.g. connections over highway), and enables better planning for the interface between O2NL and Taraika. <i>Economic</i> As there are no rules and the



severance and land use	Cultural	zoned residential, it does not
compatibility effects that need to		unduly constrain landowners.
be considered, including through	There is unlikely to be any	
the O2NL notice of requirement	cultural cost associated with this	Cultural
process. This will help to identify	provision.	
and support mitigation options.		There is unlikely to be any
		cultural benefit associated with
This is considered an efficient		this provision.
and effective approach in that:		
- O2NL has no legal RMA		
status in that no notice of		
requirement has been		
lodged (and will not be		
until 2022).		
- No design decision have		
been made (e.g. road		
surface road height		
interchange locations		
local roads connections)		
and therefore the exact		
nature of effects is not yet		
known		
It would pose an undue		
- It would pose all undue		
te impege rules relating to		
CONL given the leak of		
OZINE given the lack of		
legal status and		
uncertainty about final		
design and timing.		

6.5.4 Iwi and Cultural Considerations

The following assessments relate to the proposed plan change objectives set out below:



Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Objective 6A.2

Efficient delivery of infrastructure within Taraika will enable development while protecting environmental values and achieving a high level of residential amenity.

Objective 6A.3

Stormwater management in Taraika will be resilient and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- Water sensitive design;
- Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems.

Provisions	Efficiency and Effectiveness	Costs	Benefits
Cultural acknowledgement and	The Taraika policy framework	Environmental & Social	Environmental & Social
referencing in development	specifically references naming as a means of acknowledging		Consistent with NPS-UD.



	cultural history and values (both Māori and non-Māori) The policy framework also prioritises use of indigenous plants in reserves and streets. While the above are referenced in the policy framework there are no specific rules related to this, as rules are not considered a suitable means of achieving this outcome. This results in some constraints on effectiveness. However, as HDC plays a key role in approving street names and in naming and planting reserves there are non-statutory methods to achieve this. This includes: - Street naming policy (HDC had made a commitment to reviewing this to provide greater role for iwi) - Reserves planning.	Less opportunity for landowners to select street names. <i>Economic</i> Additional and assessment costs associated with identifying and selecting appropriate names. <i>Cultural</i> There is unlikely to be any cultural cost associated with this provision.	Recognition of both Māori and non-Māori culture through use of both Māori and English place names. Potential biodiversity benefits through use and prioritisation of indigenous plants. <i>Economic</i> There is unlikely to be an economic benefits associated with this provision. <i>Cultural</i> Recognition of cultural values and history within an urban environment.
Observation of tikanga during site works	Observation of tikanga during site works is a relevant matter of discretion for subdivision, meaning that relevant conditions can be imposed on resource consents to achieve this outcome.	Environmental & Social There is unlikely to be an environmental or social costs associated with this provision. Economic	<i>Environmental & Social</i> Consistent with Part 2 of the RMA. <i>Economic</i>



	As a matter of discretion, there is flexibility in how this is applied so that conditions reflect the scale and significance of each individual development. This is considered an efficient and effective method of helping to ensure tikanga is observed, with recourse options available if it is not.	Costs for developers associated with being educated on and then following of tikanga. <i>Cultural</i> Capacity of iwi.	Benefits associated with training and development opportunities. <i>Cultural</i> Recognises and values tikanga.
Stormwater management	The Taraika policy framework specifically references working with iwi to develop the wider stormwater management system (e.g. the system over and above what is provided on individual sites) While the above are referenced in the policy framework there are no specific rules related to this, as rules are not considered a suitable means of achieving this outcome. This results in some constraints on effectiveness. However, as HDC plays a key role in this. Therefore, this policy demonstrates a commitment to achieving this outcome.	<i>Environmental & Social</i> There is unlikely to be an environmental or social costs associated with this provision. <i>Economic</i> Costs associated with development and maintaining the proposed stormwater management approach. <i>Cultural</i> Capacity of iwi.	 Environmental & Social Improved environmental outcomes Economic Opportunity for capacity building of iwi members in stormwater management. Cultural Opportunity for contractors and those with technical backgrounds to learn about Te Ao Māori, improving future cultural and environmental outcomes.



Option 2: Status Quo

6.5.5 Well-functioning Urban Environments

The following assessment table relates to the proposed plan change objectives set out below:

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Objective 6A.5

Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.

Objective 6A.6

To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.

Provisions	Efficiency and Effectiveness	Costs	Benefits
Subdivision as a Controlled	As a controlled activity consent	Environmental & Social	Environmental & Social
Activity, with existing matters of	must be granted. This means		
control only, and with only	there is limited scope to enforce	Lost opportunity to deliver the	The resulting outcome will be
minimum lot sizes (no maximum)	assessment matters, such as	environmental and social	very similar to what already
	connectivity. In the case of	outcomes sought by the Master	occurs within the District,


	Taraika, this could result instances were subdivisions adjoining each other must be approved even if they risk undermining each other (for example, if a slight deviation to a road network is proposed on one site there is no scope to require this to be followed on the adjoining property). With only minimum lot sizes, there will be limited opportunity to require higher density housing to be provide in Taraika. This would undermine the objective of the Master Plan (to provide housing variety) and would be inconsistent with the NPS-UD which seeks to achieve variety.	Plan. In particular, connectivity and housing variety outcomes may not be realised. Approach could be inconsistent with the NPS-UD. <i>Economic</i> There are few economic costs associated with this option, given the approach would be the same as what applies elsewhere in the District's residential environment. Although it is noted that the investment made in the Master Plan process may not be realised. <i>Cultural</i> There is unlikely to be cultural costs associated with this option.	meaning the resulting character and amenity will be relatively known. <i>Economic</i> Costs and risks associated of developing in this area will be the same as elsewhere in the District. <i>Cultural</i> There is unlikely to be cultural benefits associated with this option
	Therefore, these provisions are not considered an efficient or effective way of achieving the objectives of the Plan Change	costs associated with this option.	
Existing bulk, location, and fencing rules	Under current rules, dwellings are required to be setback from the front boundary by 4m. Current accessory building rules require freestanding garages to be setback from the street further than dwellings, but this rule does not apply to integral garages. Front fences area to be 2m high where the top 0.5m is at least		



	FOO(the memory and find the last of		
	50% transparent, or 1.5m high if		
	the entire tence is "closed" style		
	This can result in situations where residential sites are dominated by garaging or fencing. This can discourage walking and cycling as visibility between private and public space is reduced. This does not achieve objective and creating a safe and attractive walking and cycling environment.		
	The existing bundle of provisions can also result in private outdoor living space at the rear of dwellings being reduced by the need to provide front yard setbacks, resulting in less efficient use of the site.		
	Therefore, these provisions are not considered the most efficient		
	and effective way of achieving		
Commercial activity scale and	The current District Plan	Environmental & Social	Environmental & Social
type only controlled through floor	commercial rules could allow		
area limit of 1,000m ² outside of	large scale commercial activities	Activities that are of a size and	Potential that unanticipated or
the Large Format Retail overlay,	that could compete with the Levin	scale that is incompatible with	newly emerging activities that
with no specific requirements for	Town Centre (for example, movie	the Taraika commercial area	may benefit Taraika could
drive-through restaurants and	theatre). They also would not	could establish, with no ability to	establish easily.
supermarkets	provide scope to manage the	control effects (e.g. traffic)	
	specific effects (e.g. traffic)		Economic



	arising from activities (such as supermarkets and drive through restaurants) that may seek to establish in the area. This could compromise walkability in Taraika. Therefore, the existing rules are not considered an efficient or effective way to achieve the proposed objectives.	<i>Economic</i> Risk that activities may establish in Taraika that could have a negatives impact on the viability of the Levin Town Centre. <i>Cultural</i> There is unlikely to be cultural costs associated with this option.	Flexibility for activities to establish and low consenting costs. <i>Cultural</i> There is unlikely to be cultural benefits associated with this option.
'Remote' signage allowed in commercial zone (e.g. electronic billboard on Oxford Street, Levin). More permissive limits on size and number of signs.	These signage rules allow very large signs that can be distracting to motorists and detract from an attractive urban environment. Given the 'village' scale commercial environment proposed for Taraika, such large scale signage is not considered an efficient or effective way of upholding the objectives.	 Environmental & Social Existing issues associated with large scale signage (e.g. impact on amenity of commercial areas and potential distraction to drivers) will continue. Economic There is unlikely to be economic costs associated with this option. Cultural There is unlikely to be cultural costs associated with this option. 	 Environmental & Social Residents/passers-by will be aware of activities in their vicinity. Economic Gives commercial landowners revenue option (associated with accommodating remote signage on their signs) Cultural There is unlikely to be cultural benefits associated with this option.

6.5.6 Efficient and Sustainable Infrastructure and Servicing

The following assessment table relates to the proposed plan change objectives set out below:



Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Provisions	Efficiency and Effectiveness	Costs	Benefits
No specific requirement to	Without specific requirements	Environmental & Social	Environmental & Social
provide cycle lanes or rear	about where to provide cycle		
access lanes	lanes, there is limited ability to	If a safe cycling environment is	Outcomes of current approach
	implement this outcome. Options	not provide, opportunity cost in	are known, hence unknown or
	would be to either negotiate an outcome with a developer on a	that benefits such as those below will be lost:	unanticipated outcomes will be avoided.
	case by case basis, or retrofit at	- Health and wellbeing	
	a later date. Neither of these options is considered an efficient	benefits associated with cycling	Economic
	or effective way of achieving the	- Environmental	Costs for developers remain the
	plan change objectives.	benefits associated	same as elsewhere in the
		with reduced vehicle	District.
		use.	Cultural
		Economic	
			There is unlikely to be cultural
		Cost of retrofitting cycle ways at	benefits associated with this
		a later stage.	option



In the absence of safe cycling options, reliance on cars will likely remain.
Cultural
There is unlikely to be cultural costs associated with this option.

6.5.7 Cohesive, Logical Layout & Urban Form

The following assessment table relates to the proposed plan change objectives set out below:

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Objective 6A.4

Achieve a high amenity residential environment with a range of section sizes and housing types, including affordable housing options, in Taraika.

Objective 6A.5



Encourage development of a sustainable and attractive local commercial centre that accommodates a variety of compatible land use activities, while protecting the vitality of the Levin Town Centre.

Objective 6A.6

Efficiency and Effectiveness **Provisions** Benefits Costs Structure Plan applies only to This approach is not considered Environmental & Social Environmental & Social subdivision activity (not land use) efficient or effective. There have There is unlikely to be been previous instances where High chance that the outcomes land use activities have of set out by the Plan Change environmental or social benefits objectives and secured by the associated with the Structure compromised the ability for the Structure Plan will be Structure Plan to be delivered Plan applying to subdivision only (e.g. buildings where roads were undermined by land use (compared with the option of it anticipated) and other activities, potentially precluding applying to both subdivision and implementation issues with critical elements from being land use). secured. This includes key road integrity of the Structure Plan not being upheld by Discretionary connections and public open Economic Activity status due to lack of space. 'gateway' test for Discretionary Economic benefit for developers in that they could establish land Activities. Economic use activities ahead of subdivision as a means of Investment into the Master Plan and Structure Plan process could circumventing the Structure Plan requirements and as a result, be undermined. Costs of avoid having to provide critical securing alternative key connections/public open space features such as roads and could be much higher later on (if public open space. even possible). Cultural Cultural There is unlikely to be cultural There is unlikely to be cultural benefits associated with this costs associated with this option. option.

To provide high quality public open space that is accessible and can be used for a variety of purposes, including stormwater management.



6.5.8 Iwi and Cultural Considerations

The following assessment table relates to the proposed plan change objectives set out below:

Objective 6A.1

To achieve an integrated and connected development that reflects cultural values and local identity, represents good urban design, is supported by a well connected roading network that supports a range of transport modes and has the facilities, infrastructure, and amenities necessary to contribute to the health, safety, and wellbeing of residents. This includes:

- Encourage housing at a range of densities;
- Provision for a local-scale commercial centre;
- Access to quality public open space;
- Safe and efficient walking and cycling options;
- Well connected, safe and efficient roading network;
- Design that reflects cultural values and local history and identity;
- Protection of culturally significant sites;
- Environmentally sensitive design

Objective 6A.2

Efficient delivery of infrastructure within Taraika will enable development while protecting environmental values and achieving a high level of residential amenity.

Objective 6A.3

Stormwater management in Taraika will be resilient and environmentally sustainable, including:

- Resilient to natural hazards and the likely effects of climate change;
- Water sensitive design;
- Minimise adverse effects from changes in the nature (including quality and quantity) of natural flows on downstream ecosystems.

Provisions	Efficiency and Effectiveness	Costs	Benefits
No specific provisions.	The current District Plan does not	Environmental & Social	Environmental & Social
	include specific consideration of		



	-	-
iwi and cultural matters during	Existing issues associated with	There is unlikely to be
subdivision and development	the potential disturbance of	environmental or social benefits
within urban areas. Therefore,	cultural sites will continue.	associated with this approach.
scope to manage effects arising		
from this is limited. For this	Economic	Economic
reason, the existing District Plan		
approach is not considered	There is unlikely to be economic	There would be no additional
efficient or effect to achieving the	costs associated with this option.	costs to developers associated
proposed objectives.		with observing tikanga.
	Cultural	
		Cultural
	Existing issues of concern for iwi	
	(e.g. tikanga not being observed	There is unlikely to be cultural
	during site works) will continue.	benefits associated with this
		approach

Conclusion of Policies and Rules Assessment

Based on the above assessments, that Option 1 (proposed plan change) is a more efficient and effective way than Option 2 (Status Quo) to give effect to the proposed plan change objectives. This is because:

- It has been informed by the Taraika Master Plan;
- It better upholds the Structure Plan and therefore will better achieve cohesive, connected urban form and layout;
- It better directs a variety of housing types and seeks specifically to achieve a well-functioning urban environment and is therefore more aligned to the NPS-UD;
- It includes specific reference to iwi and cultural matters;
- Includes measures to better control storwmater;
- Responds to the specific resource management issues and outcomes sought for greenfield development of this scale.



7 Risk of Acting or Not Acting

It is considered that there is certain and sufficient information on which to base the proposed provisions as all the issues discussed above are well understood, affect limited and defined areas, and have been considered extensively. Additionally, guidance has been taken from stakeholders and technical experts to fully understand the issues. Therefore, the degree of uncertainty and risk of acting is considered unlikely to outweigh the risk of not acting. Conversely, there are significant risks in not acting, including:

- The ability to meet projected demand for housing and to provide a range of housing choice in the district will not be met; and
- The Plan would not give effect to the NPS-UD.



8 Conclusion

This evaluation has been undertaken in accordance with Section 32 of the RMA in order to identify the benefits and costs arising from proposed plan change 4 (Taraika Growth Area) and the appropriateness of the proposed objectives, policies, rules and methods in achieving the purpose of the Act.

The proposed plan change seeks to enable development in accordance with the Taraika Master Plan, address a shortage of housing land, and give effect to the NPS-UD. This is proposed to be achieved through using existing District Plan zones coupled with a structure plan and a multi-zone precinct to alter provisions where appropriate to achieve the particular outcomes sought for this area.

The evaluation demonstrates that this proposal is the most appropriate option as it:

- Maximises the development capacity of the site and provides certainty about the anticipated outcomes sought.
- Promotes integrated, connected development that delivers the high quality environmental and design outcomes sought by the Master Plan.
- The requirements for this specific area will be clearly set out in the District Plan, providing greater certainty for the Council, developers and landowners about what is expected through the subdivision and development process.
- Is highly effective in delivering the development outcomes for this area anticipated by the Master Plan, such as achieving a variety of housing types and securing key connections and civic assets.
- Aligns with key higher order planning documents including the NPS-UD.



Appendix 1 - Taraika Master Plan

Appendix 2 - Taraika Master Plan Design Rationale

Appendix 3 – Summary of Community Feedback on the Master Plan

Appendix 4 – Medium Density Housing Report (to be provided)

Appendix 5 – Liquefaction Assessment

Appendix 6 – Infrastructure Plan

Appendix 7 – Independent Traffic Review (to provided)

Appendix 8 - Statement from HDC Roading Services Manager

Appendix 9 – Proposed Plan Change 4 (Chapter 6A Objectives and Policies, Chapter 15A Rules, Structure Plan 13, District Planning Maps)

Appendix 10 – Horowhenua Growth Projections – Sense Partners – June 2020

Appendix 11 - Proposed Plan Change Provision Assessment Reference Table