

The Strategy



Applying the Principles across the District

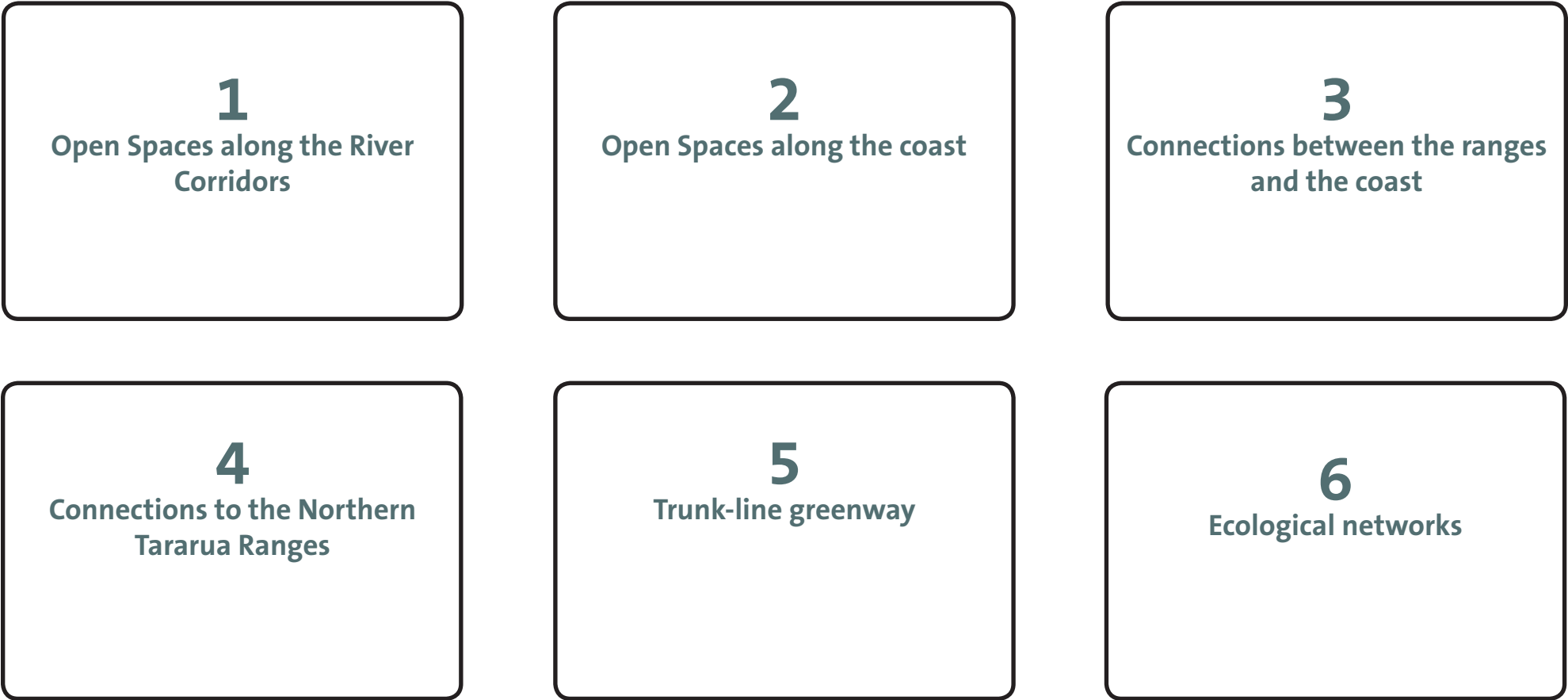
District wide strategies

The following section of the Strategy applies the principles at a district wide level.

These district wide strategies have a strong focus on creating a safe, clearly understandable and well regarded Open Space network across the district. They also indicate opportunities for improving / strengthening ecological corridors, identifying locations for resting spots and establishing or reinforcing specific areas that focus on sports and recreation (recreation hub).

Each strategy can be implemented individually or in combination with other initiatives. Due to the scale and complexity of some of these strategies, it is important to note that outcomes may not be realised and appreciated for many years. However, this Open Space Strategy provides a framework and guide to which all the community can work toward. The drawings, plans and images are intended to provide a starting point. Further investigation and consultation will occur where necessary as these strategies are implemented.

The district wide strategies are:



1: Open Spaces along river corridors

The river corridors provide a significant opportunity to create a recreational and ecological network spine that connects the Tararua Ranges to the coast.

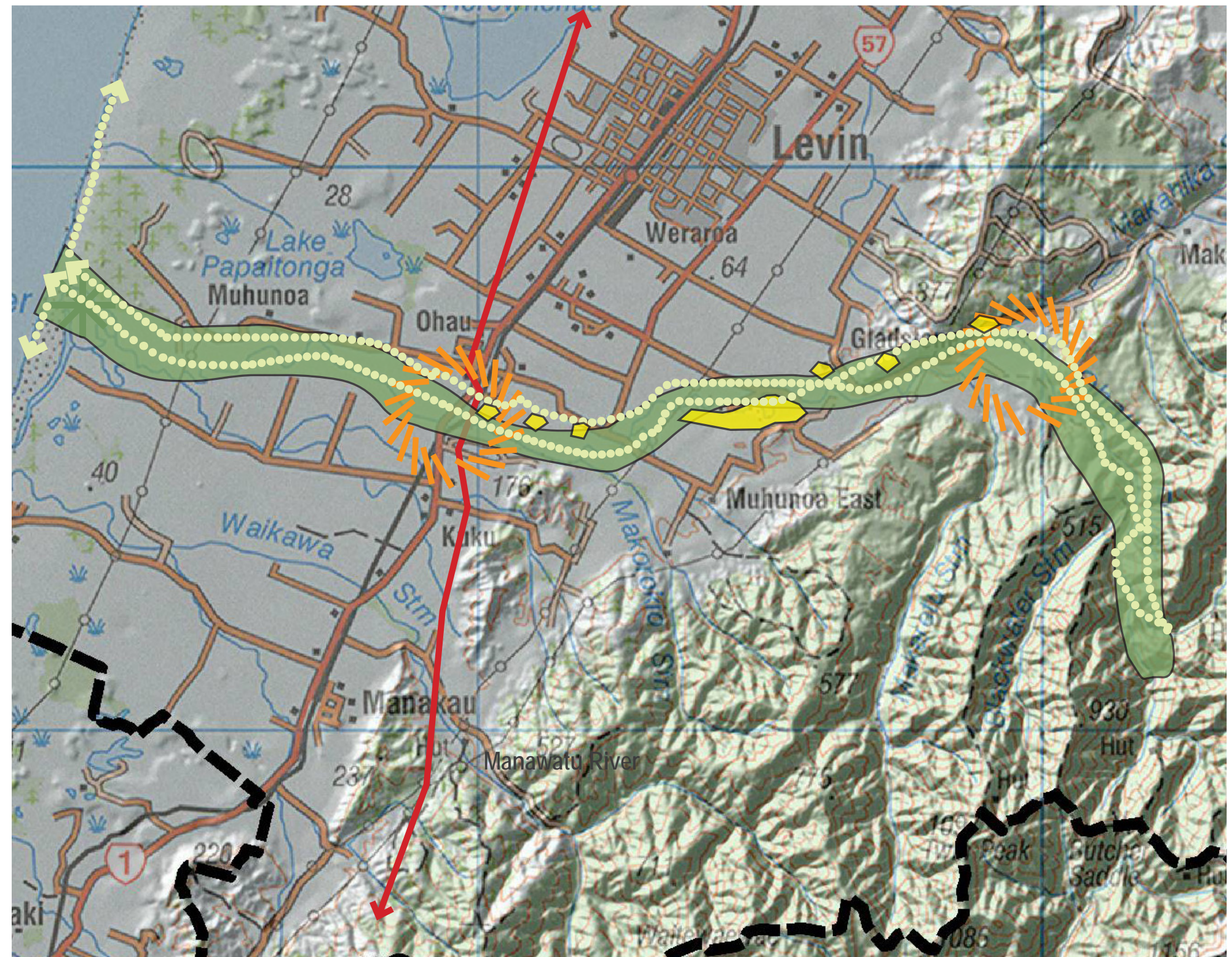
The rivers form natural corridors across the district and are currently valued for their ecological, recreational, cultural and amenity value. The Open Space Strategy proposed to enhance these values of the river corridors so that they are made attractive destinations and places for walking, cycling, swimming, fishing and boating. Enhancements could include walkways and cycleways extending along the full length or particular sections to connect with the road network and local community facilities. A number of picnic areas could be provided where people can stop, which could be accessible by car, walking/ cycling and/or boat.

Riparian planting along the river corridor using native species can help to create ecological corridors between larger patches of native vegetation.

The Manawatu and Ohau Rivers have the greatest opportunity where the river corridors can be enhanced due to their nature, size and existing reserves and facilities. On the Manawatu River these opportunities include forming a cycle trail along the stopbank connecting Foxton Beach > Foxton > Moutoa > Shannon. On the Ohau River, opportunities included forming a continuous network of Parikawau Reserve land from Tararua Forest park, Poas Road, Gladstone Reserve, Levin WTP, Kimberley Reserve, Muhunua East Reserve, Water Treatment Plant and Parikawau Reserve, with recreational (predominately walking) and ecological opportunities.



Example of a recreational and ecological river network in Foxton Beach.



Open Spaces along the Ohau River

2: Open Spaces along the coast

The Horowhenua coast provides a significant area of open space. However, in places connections from the wider district to the coast are unclear. The proposed Open Space Strategy intends to strengthen these physical and visual connections along the coast.

Pedestrian and cycle connections along the Manawatu River corridor between Foxton Beach and the coast will be enhanced, as will the walkway/cycleway along the Foxton River loop which provides a relatively easy loop track opportunity for residents and visitors to Foxton.

Extending north of Foxton Beach is the opportunity for a pedestrian walkway through private farmland. This follows along the edge of a small stream towards the dune lakes and out to the beach creating a loop walkway.

Without means of getting across the mouth of the Manawatu River (such as a boat, ferry or a new bridge) pedestrians and cyclists will follow the banks of the Manawatu until reaching the State Highway 1 bridge.

Main vehicular routes to the four coastal settlements (Waikawa Beach, Hokio Beach, Waitarere and Foxton Beach) are clearly and sympathetically enhanced at key points so that it becomes obvious that they are access points onto the Horowhenua Coast. In addition to strengthening these road connections pedestrian/cycle connections are also enhanced.

Along the edge of Hokio Stream which leads from Lake Horowhenua a walkway/cycleway leads to the beach. This walkway extends beyond Lake Horowhenua, through Levin to the Tararua Ranges, thus creating a walkway from the ranges to the coast.

A choice of connections are maintained between Ohau and the coast. One route takes pedestrians via Lake Papaitonga, Waiwiri Stream. The other follows the Ohau River from the coast.

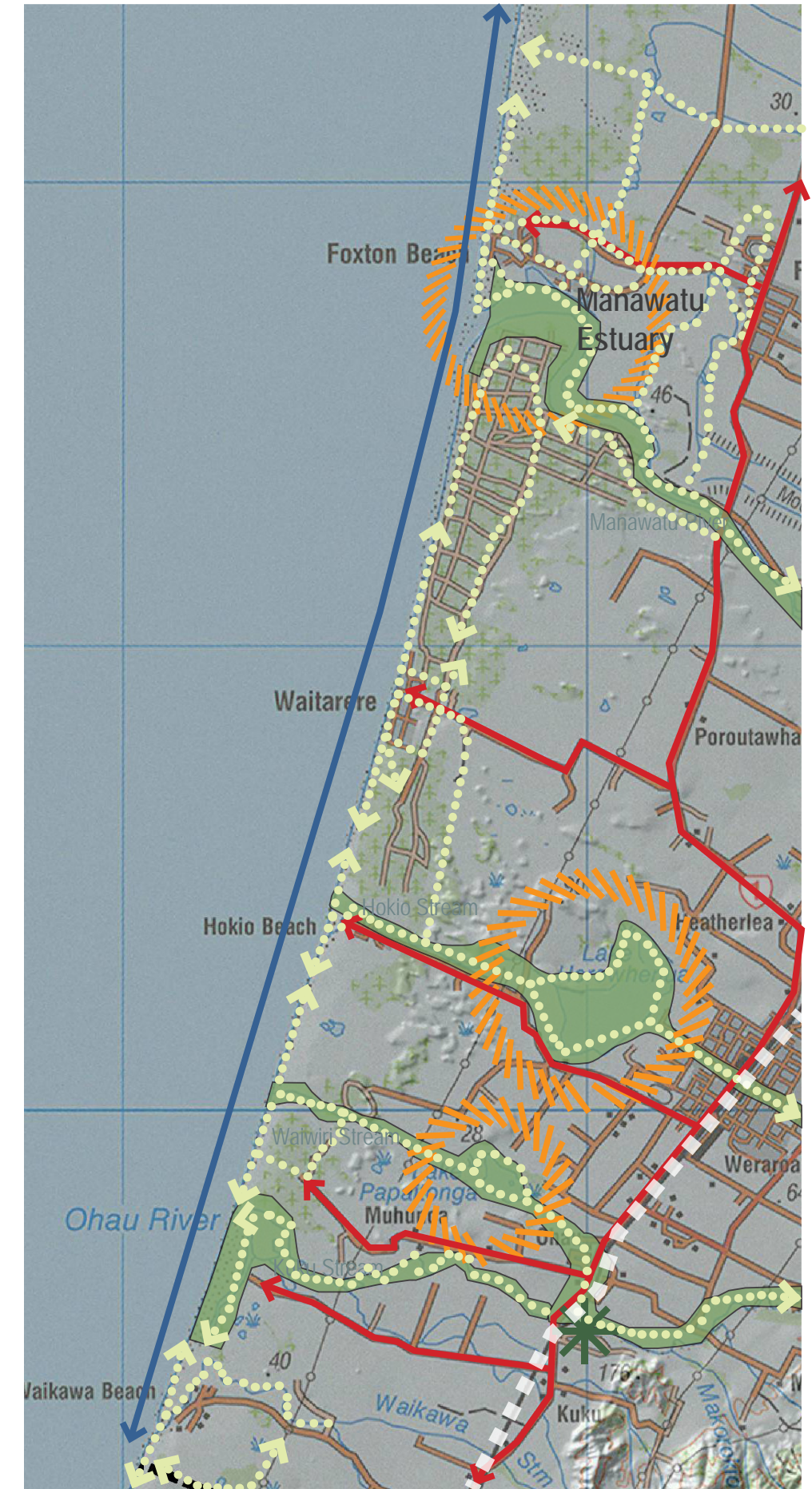
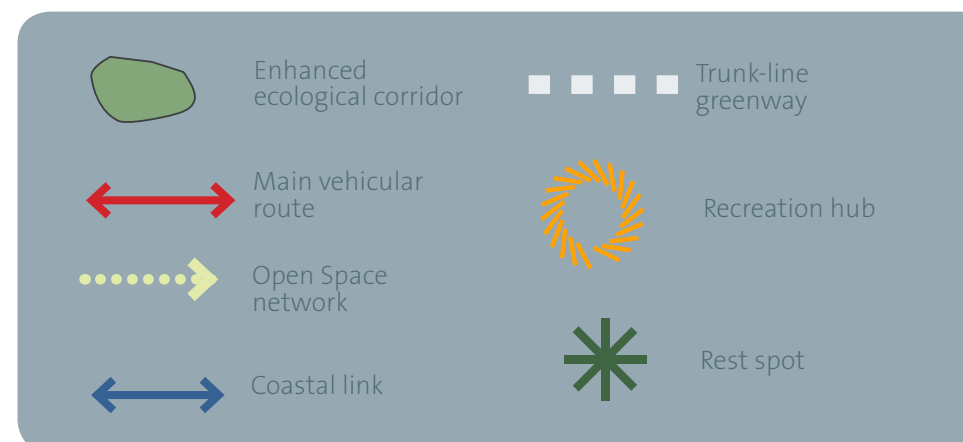
A linkage between Waitarere and Hokio Beach is created through farmland and exotic pine plantation that strengthens the connections between these two settlements. It also creates an opportunity for tracks for more ambitious walkers or mountain bikers.



Strong connections to the coast at Waitarere Beach settlement.



Image of Moors Valley Country Park, Hampshire, UK. Example of a recreation hub set with a pine forest.



Open Spaces along the Coast

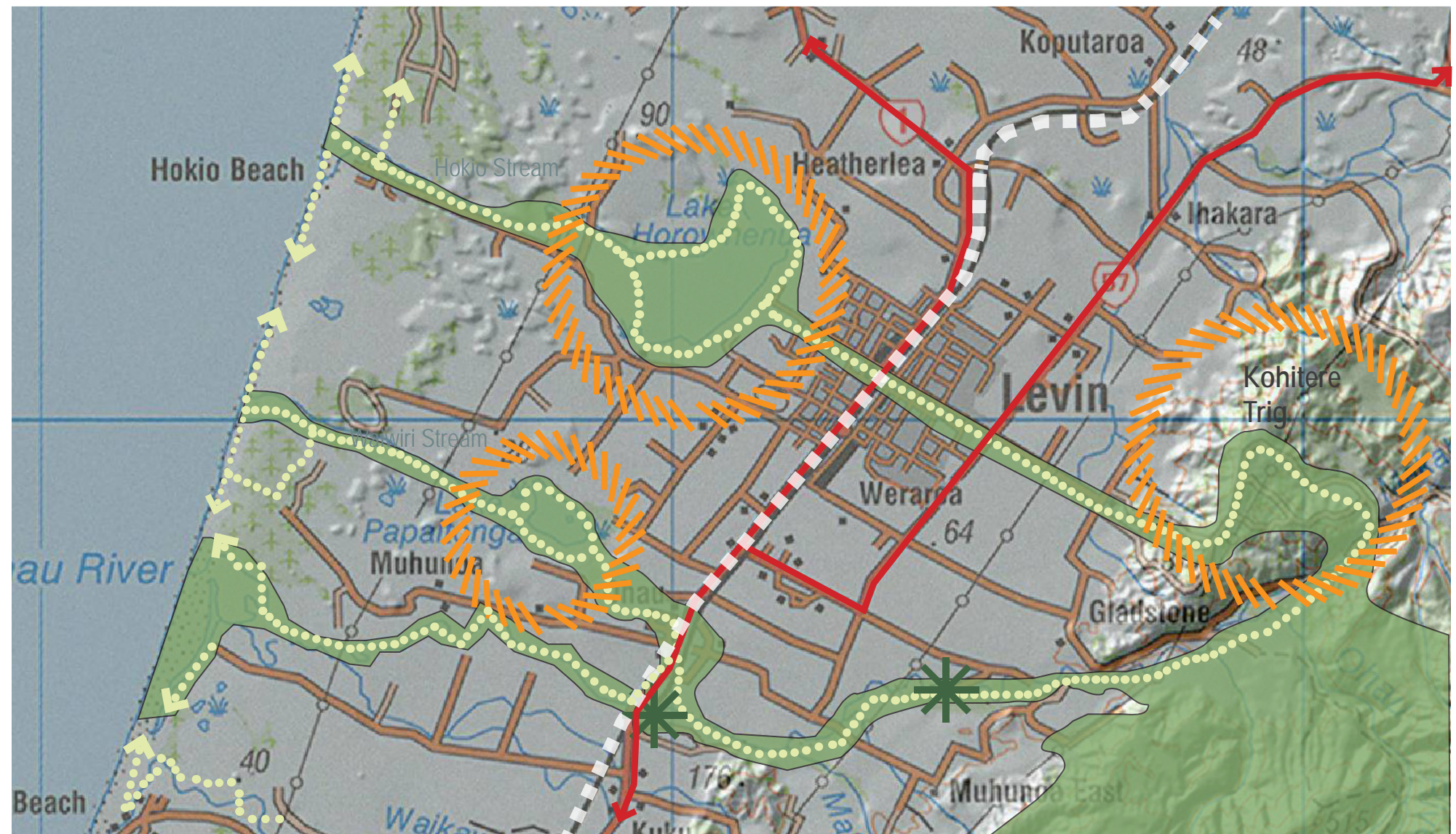
3: Connections between the ranges and the coast

The Tararua Ranges and the Horowhenua Coast are areas of open space that provide local residents and visitors with an opportunity to enjoy two very different landscapes within close proximity to each other.

Other than the existing road network, there is no accessible and continuous connection of open space between the ranges and the coast. While there are patches of open space along the Ohau River and around Lake Papaitonga and Lake Horowhenua these are poorly connected to each other. A network of open space that connects the ranges to the coast would allow for recreational and ecological opportunities and broadens accessibility to these two fundamental assets that inform the broader landscape characteristics of the Horowhenua. These recreational and ecological corridors are accessed and intersected at key locations along the route such as settlements and recreation hubs.

A pedestrian/cycle connection linking Kohitere (Trig) and the Tararua Ranges to Levin along Queen Street is a key part of this strategy. Queen Street will become a significant 'spine' connecting the lake to the ranges. This spine continues beyond Lake Horowhenua and along Hokio Stream to Hokio Beach. Loop tracks are created around Lake Horowhenua to provide shorter day walks for residents and visitors of Levin.

Rest spots along the Ohau River provide for places to stop or starting / finishing locations for shorter trips. A walking track around Lake Papaitonga would be of a length that can be walked by families and those wanting a loop walk of several hours.



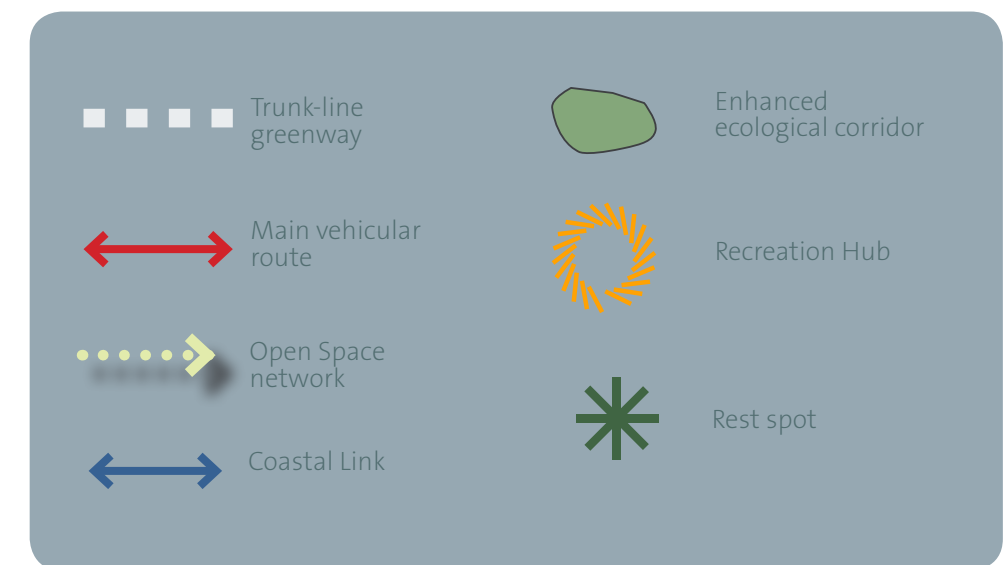
Connections between the ranges and the coast



Ohau River at Kimberley Reserve



Example of an estuary walkway at Waikawa beach.



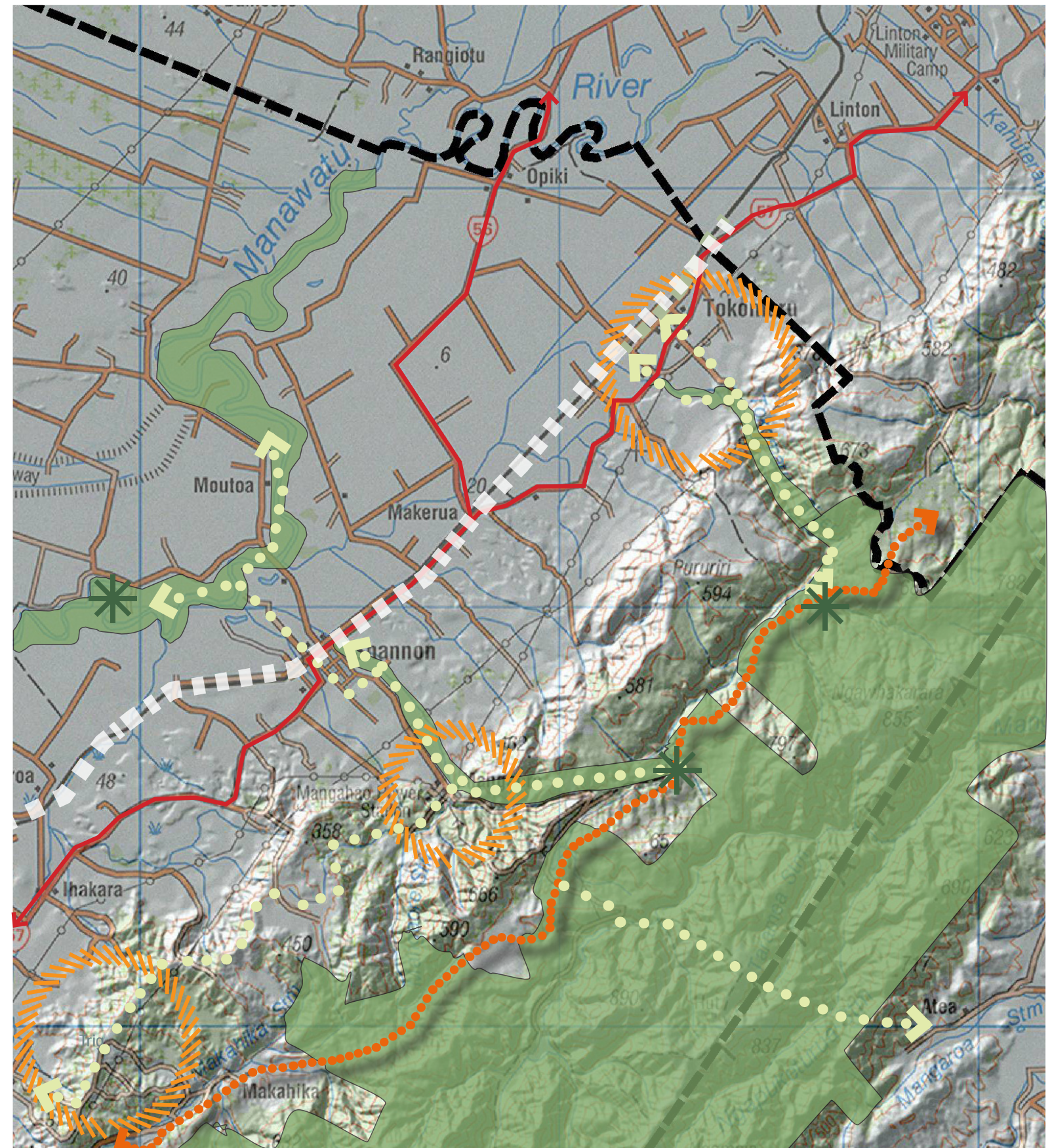
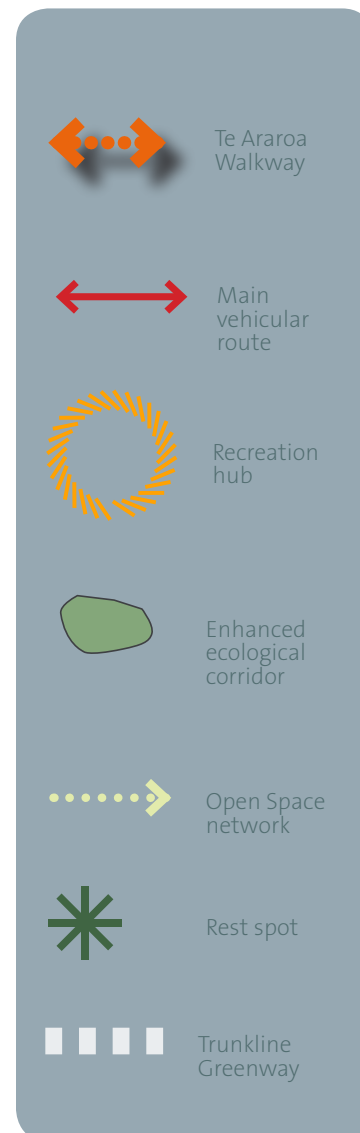
4: Connections to the Northern Tararua Ranges

There are several significant open spaces around the north-eastern corner of the district. The most significant of these are the Tararua Ranges which provide a visual backdrop to the entire district and is a popular place to visit for walkers and trampers from within the district and further afield. Te Araroa walkway, a walking track which links Bluff to Cape Reinga, spans the length of the Tararuas and there are various points within the district where this trail can be accessed, allowing shorter walks from within the district.

In addition to the Tararua Ranges there are several other notable open spaces, including Horseshoe Bend, which is a popular swimming hole in the summer, the white water kayaking facility at Mangahao and Kohitere Trig. The Open Space Strategy proposes to better connect these areas to each other via a series of cycleways, walkways and ecological corridors.

The ecological corridor along Tokomaru River will be enhanced creating a stronger connection between Horseshoe Bend and Tokomaru township, which provides ecological benefits as well as a pleasant walking or cycling route for local people to access the swimming hole. A walkway will be developed to connect Horseshoe Bend to Te Araroa walkway and the Tararua Ranges allowing local people access to the forest park.

A cycleway along the road corridor from Shannon towards Mangaore will be enhanced. This will provide and encourage easier access to mountain biking areas in and around Mangaore. From the power station at Mangaore, walkways will be developed connecting to the Te Araroa Walkway. A key route has been proposed that would cross the Tararuas and connect to Eketahuna in the Wairarapa. This walkway and cycleway has the potential to be developed and operated in collaboration with local businesses including those in Wairarapa.



The Tararua Ranges: Image source: www.findability.org

5: Trunk-line Greenway

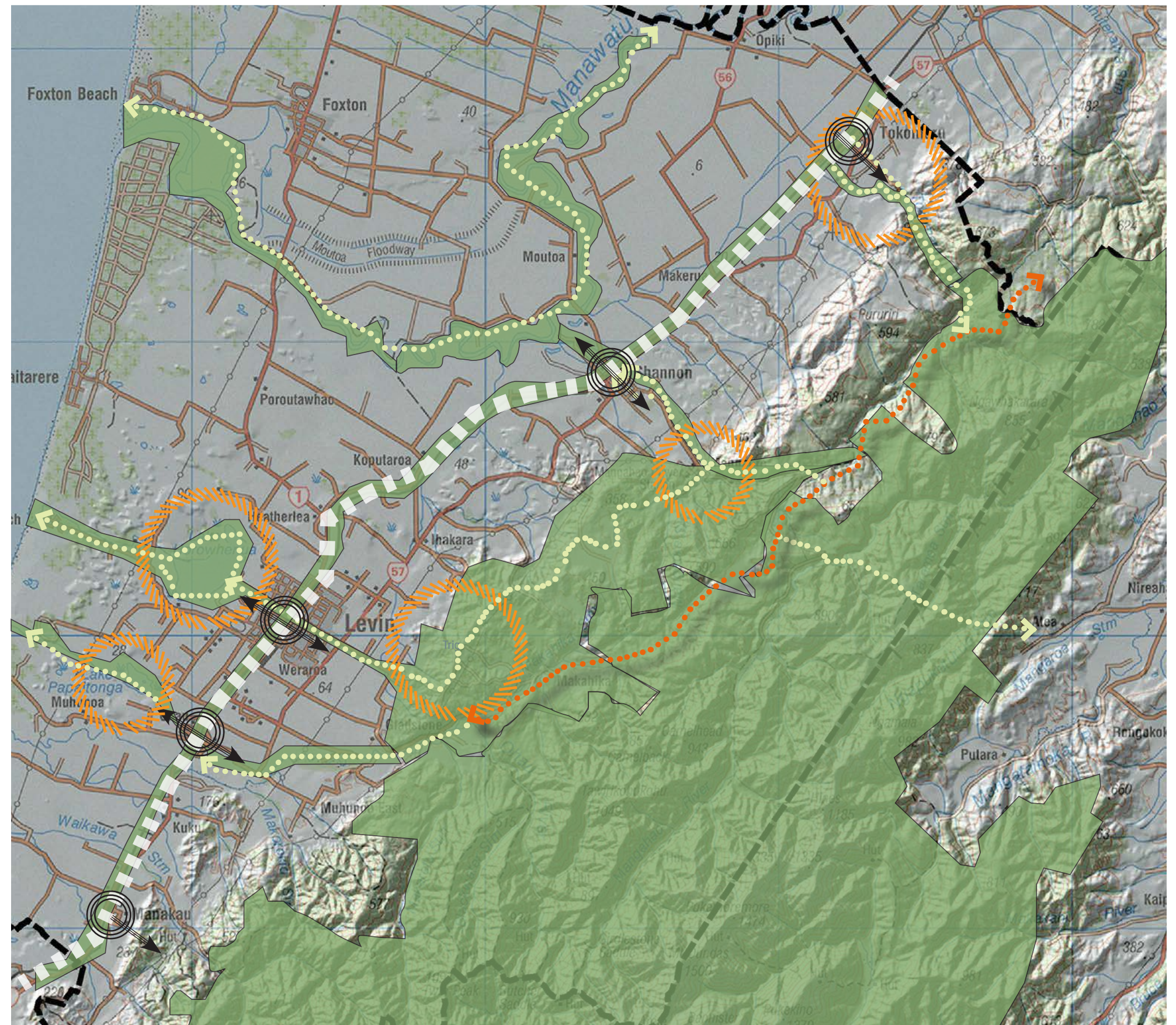
The main railway line between Wellington and Auckland runs the length of the Horowhenua District. Manakau, Ohau, Levin, Shannon and Tokomaru are positioned along this route with the trunk-line generally bisecting these settlements.

Typically the trunk-line corridor is 10 metres wide from edge to edge, creating a significant physical and visual barrier through the settlements. However this corridor provides an opportunity to create a cycling and walking corridor through the district that is separate from the main road and connects the settlements to each other. This type of approach can already be seen in Levin with cycleways being installed next to the railway lines.

Nodes along the Greenway appear where there are key intersections within the open space network and are generally close to elements such as activities hubs (e.g. Lake Horowhenua), settlements (e.g. Ohau) and other corridors (e.g. Manawatu River).

This corridor can be planted with a continuous length of native vegetation, creating an ecological corridor that will encourage birds and other wildlife along the plains.

The challenges will be adhering to safety requirements and looking at intersections and junctions with other vehicles. However the strategy is that the trunk-line corridor is utilised to provide a multi-purpose corridor stretching the full length of the district.



Trunk-line Greenway



Trunk-line
Greenway



Greenway node



Enhanced
ecological corridor



Te Araroa Walkway



Open Space
network



Recreation hub

6: Ecological networks

In addition to the other district wide strategies, areas with important ecological values have the potential to make a positive contribution to maintaining and enhancing the open space within the district. In particular, the coastal dune lakes and wetlands are recognised as an important contributor to open space in the coastal environment, with opportunities to network these areas for ecological reasons, as well as for other purposes (e.g. recreation) outlined in the other district wide strategies.

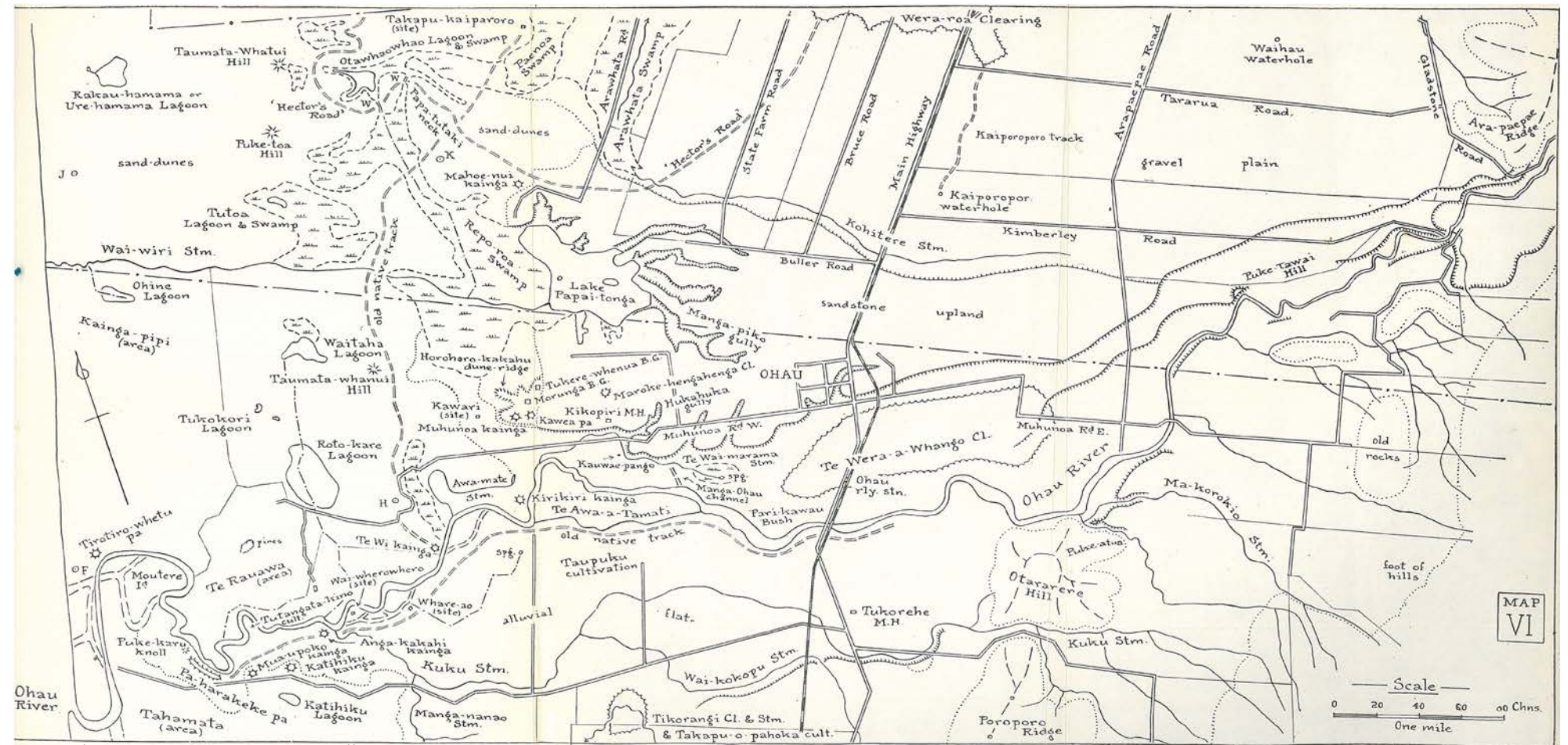
As outlined earlier, a specific Coastal Dune Lakes and Wetlands Strategy was to be prepared (jointly funded by the Department of Conservation 'Biodiversity Advice Fund' and Horowhenua District Council), which has now been incorporated into the Open Space Strategy (OSS). This section of the OSS contains much of the background information and context that would have been contained in the separate Strategy, including information and management options for landowners of these sites.

The ecological significance of the Horowhenua Dune Lakes and Wetlands

The long strip of Holocene sand dune country that makes up the Foxton Ecological District with its associated wetlands, lagoons and estuaries form the most extensive sand dune system in New Zealand (McEwen, 1987).

Prior to human occupation, the Foxton ecological district would have mostly been forested, with shrubs and trees dominating inland of the coast. A great part of the ecological district would have had swamp forest dominated by kahikatea and pukatea with plentiful rimu and swamp maire (Ravine, 1992). There were also a number of coastal dune lakes and wetlands with connections to rivers and streams (Refer to image on this page, Adkin 1948, showing Maori place names) These original forests and wetlands are now reduced to several small remnants, of which the remaining Horowhenua dune lakes and wetlands form an important part. According to the Foxton Protected Natural Areas report (Ravine, 1992), less than 5% of the surface area now has predominantly indigenous vegetation (Ravine, 1992). In the Manawatu-Wanganui region around 97% of the original wetland habitat has been lost since human settlement, predominantly through the development of farmland (Maseyk 2007)

Large-scale historical drainage works carried out as part of land clearance for farming and land development have had a major effect on these lakes, particularly the shallower basin lakes (Ravine,



Maori Place Names: Image source: Adkin, 1948

1992). Even where lakes have not been directly drained, the effects of surrounding land drainage has in many cases lowered lake levels, and the dune lakes and wetlands present today account for only a small part of what would have been predominantly dune lakes and peat swamps. Lake levels vary considerably (up to 1.5m) from season to season and from year to year.

Under the Government's National Priorities for Protecting Rare and Threatened Indigenous Biodiversity Strategy, National Priority 1 is: "To protect indigenous vegetation associated with land environments (defined by Land Environments of New Zealand at Level IV), that have 20% or less remaining in indigenous cover". Nearly all of the Foxton Ecological District is considered to be Acutely Threatened because there is less than 10% of indigenous cover remaining within the Land Environments (LENZ) that occur in these Ecological Districts (Leathwick et al. 2003a; Leathwick et al. 2003b). Therefore, the entire land area surrounding the Horowhenua dune lakes and wetlands are the most threatened environments in the Ecological District and the environments that are critically under protected. These are the areas that were first settled and which are now the most intensively farmed and drained and heavily urbanised.

The ecological values of the remaining Horowhenua coastal dune lakes and wetlands have been studied on numerous occasions and there have been a number of ecological inventories prepared outlining the ecological values of each. Most recently, Horizons Regional Council has mapped the vegetation classes of each area and provided detailed habitat descriptions of flora and fauna, key threats and land use information. Horizons Regional Council has also ranked the wetlands based on this ecological information. This background ecological information has formed the basis for this part of the OSS and has allowed the characterisation of wetlands.

Hydrological connections and condition is an important consideration with the networking of these areas. James and Joy (2008) have undertaken an inventory of a number of the Horowhenua dune lakes and wetlands and associated outlet streams which can inform the opportunities to network these areas and waterbodies. James and Joy noted that the quality of the source lake or wetland was a better determinant for restoration than the stream outlet and that there is limited value to improve the condition of an outlet stream in terms

of water quality and fish diversity if the source lake or wetland is in poor ecological condition. In addition, riparian fencing and planting may have limited impact on water quality where there are significant inputs from tributaries and linkages with groundwater.

Future development within each of these Networks will need to ensure current water levels are maintained or improved and that the seasonal fluctuations which may provide seasonal habitat for rare plant and bird species are taken into consideration.

Networking of the Coastal Dune lakes, wetlands, waterbodies and valued habitat

There is potential to maintain and enhance the ecological, hydrological and open space values of the existing coastal dune lakes and wetlands of the District through networking these areas. Across the district, the opportunities and constraints to networking these areas varies, depending on specific ecological, hydrological and open spaces of each area, their proximity to other areas, surrounding land uses, landownership and a range of other factors. Therefore, priority areas were identified where the potential for networks were considered to offer the greatest benefits.

In consultation with officers from Horizons Regional Council and Department of Conservation, a range of potential ecological networks were developed based on the underlying ecological values, including wetlands, dune lakes, indigenous vegetation and waterbodies (streams, drains and rivers). Information on existing environmental initiatives being undertaken formed part of this process (e.g. riparian planting, fencing or wetland restoration projects). This process identified the following five priority ecological networks of dune lakes, wetlands, remnants and waterbodies:

1. Ohau River Dune Lakes and Ohau Estuary Network
2. Lake Papaitonga – Waiwiri Stream Network
3. Lake Horowhenua – Hokio Beach Network
4. Waitarere Beach –Wairarawa Stream Network
5. Manawatu River Estuary – Koputara Lakes Network

A description and opportunities for these five priority ecological networks of dune lakes, wetlands, remnants and waterbodies are contained in the next section of the OSS in relation to their closest settlement (i.e. the 'Ohau River Dune Lakes and Ohau Estuary Network' forms part of the Ohau Settlement section).

In addition to having good ecological potential, these networks would also contribute to the other district wide open space strategies,

and overlap in many places (e.g. Lake Horowhenua – Hokio Beach Network overlaps with part of the 'Connections between the Ranges and the Coast' district-wide strategy). Outside of these five areas, the remaining dune lakes and wetlands in the District are considered to be isolated, with limited potential for ecological or hydrological linkages. However, each of these wetlands and dune lakes still have some high ecological values in their own right.

Once these priority networks were identified, each of the landowners of the larger dune lakes and wetlands within each of these networks was contacted to discuss their future aspirations for the area as well as the aspirations of the OSS. Overall, the majority landowners recognised the importance of the ecological features on their properties and most supported the aspirations of the OSS consistent with their long-term desire to maintain and protect these areas. Most landowners supported Council's objective to recognise the ecological values of these areas and the potential for them to be networked in some form. However, this support was subject to the OSS not constraining the ongoing operation of their properties and not leading to open public access through their properties.

In the long-term, networking each of these ecological areas is expected to lead to improvements in ecological health. Actions such as fencing, riparian planting and ensuring greater consideration of the impacts of groundwater changes, drainage, stock access and land conversion on the areas of ecological value within each Network should maintain and enhance the current ecological values.

In line with the ecological values and role of each of the Networks in maintaining and enhancing wider habitat connections (e.g. fish spawning, seasonal habitat for wildlife etc.), a number of the coastal dune lakes and wetlands have been the subject of joint restoration initiatives between landowners and other agencies (Department of Conservation, Horizons Regional Council, Horowhenua District Council, QEII Trust and Nga Whenua Rahui). Some of these initiatives have been ongoing for a number of years.

This section of the Strategy will be used to inform Horowhenua District Council of the opportunities and to guide the preparation of District Plan provisions and decisions on consent applications. Given landowner cooperation and/or participation is crucial to the success of any riparian restoration efforts and the long term success of each of these Networks, this OSS also provides information and management options for landowners of these sites to assist in achieving desired ecological outcomes (refer to Appendix).

In addition, this Strategy will assist in providing direction on if and when land is subdivided that contains or adjacent to the coastal dune lakes or wetland, and whether the coastal dune lakes or wetland should become a Council reserve or some other form of public ownership and/or management. This question would be assessed on a case-by-case basis for each subdivision through the resource consent process, using the criteria in the HDC Parks and Reserves Management Plans - General Policy document, as well as the Development Contributions policy. There would be higher priority for vesting as reserve with Council or another public body and networking the coastal dune lakes or wetlands within the five priority ecological networks, compared to lakes and wetlands outside these priority areas. Alternatively, other mechanisms for protecting (e.g. covenants and fencing/planting) and networking with public access (e.g. rights of way easement) could be used, with the coastal dune lakes and wetlands being retained in private ownership.