Horowhenua
DISTRICT COUNCIL

SUBMISSIONS on the Draft Reserve Management Plans for – the Combined Waitarere Beach Reserves, the Waitarere Beach Foreshore Reserve and the Ohau River Reserves

Hearing of Submissions: 15 August 2017

Contents:

Reserve Management Plans

Submission date: 1/20/2017 12:26:32 PM

Receipt number: 4

Question	Response
Contact Details	
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Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	
Enter your comments for the Waitarere Beach Reserves:	
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	I dont think cars should be allowed on the beach. Or at least not near the flags where children swim. It is annoying having cars parked between the flags when this is really the only place children can swim safely.
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the Ohau River Reserves your below comments relate to.	
Enter your comments for the Ohau River Reserves:	
Additional Information	
Attachments:	
Declaration	
Signature:	Link to signature - Chris Wright
Date:	20/01/2017
Council Use Only	
Date Received:	
Submission No:	

Reserve Management Plans

Submission date: 1/20/2017 2:16:47 PM

Receipt number: 7

Question	Response
Contact Details	
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Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	Holmwood Park
Enter your comments for the Waitarere Beach Reserves:	I think erecting an information sign on the Hydrabad shipwreck at Holmwood Park should have a higher priority. My partner and I did not know that the park is named after the captain of the Hydrabad until we read the Draft Reserves Management Plan and we were interested to discover this. Others may also not know of this connection and be interested to learn about it.
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the Ohau River Reserves your below comments relate to.	
Enter your comments for the Ohau River Reserves:	
Additional Information	
Attachments:	
Declaration	
Signature:	Link to signature - Patricia Hayward
Date:	20/01/2017
Council Use Only	

Reserve Management Plans

Submission date: 1/24/2017 10:40:45 AM

Receipt number: 9

Question	Response
Contact Details	
Full Name:	Margaret Jeune
Name of Organisation (if on behalf of an Organisation)	
Address for Service:	22 Seddon Street,Levin
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Mobile:	0275121281
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Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	
Enter your comments for the Waitarere Beach Reserves:	
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the Ohau River Reserves your below comments relate to.	Gladstone Reserve,Kimberley Reserve,Kirkcaldies Reserve,Access way off Muhunoa East Road,Parikawau Reserve
Enter your comments for the Ohau River Reserves:	Gladstone Reserve 3.1.1: I support the development of a pathway along the northern edge of the Ohau River from Lot 1DP10440 through part lots 1,3 and 5 DP2127 with the proviso that the Levin water extraction area is protected. 3.3: I support gazetting Gladstone Reserve as a Recreation Reserve. I support the suggestion of a shared pathway network along the Ohau River in conjunction with the other Ohau reserves. Kimberley Reserve I support 4.1.1: the suggestion that reserve users are provided with access to facilities outside of the summer period.I support weed and pest control as long as the habitat of the native snail is protected. Parikawa Reserve, Muhunoa East Road Reserve and Kirkaldies Reserve: I support signage to encourage more people to use these reserves.

	Muhunoa East Reserve: This reserve should be made more accessible to the public. Kirkaldies Reserve: I support clearing the weed plants and replanting the riparian strips with more suitable plants.
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council hearing for the Draft Reserve Management Plans?	No
Do you wish to speak in support of your submission at the hearing?	No
Additional Information	
Attachments:	
Declaration	
Signature:	Link to signature - Margaret Jeune
Date:	24/01/2017
Council Use Only	
Date Received:	
Submission No:	

Horowhenua DISTRICT COUNCIL

Council Use Only
Date Received: ...../...../.....
Submission No: .....

SUBMISSION FORM - Reserve Management Plans

Horowhenua District Council is currently reviewing its Reserve Management Plans for the following reserves:

- Waitarere Domain, Holmwood Park and Wairarawa Stream Reserve (which are covered by the Draft Combined Waitarere Beach Reserves Management Plan);
- Waitarere Beach Foreshore Reserve; and
- Gladstone Reserve, Kimberley Reserve, Kirkcaldies Reserve, an access way off Muhunoa East Road and Parikawau Reserve (which are covered by the Draft Ohau River Reserves Management Plan).

Draft Reserve Management Plans have been prepared for the above reserves and Council is now seeking feedback/comments in the form of submissions from the public on what they think about one or more of these Draft Reserve Management Plans.

RECEIVED 24 JAN 2017 HOROWHENUA DISTRICT COUNCIL

Submissions can be:

Delivered to: Horowhenua District Council Offices, 126 Oxford Street, Levin

Posted to: Horowhenua District Council, Private Bag 4002, Levin 5540

Faxed to: (06) 366 0983

Emailed to: reservemanagementplans@horowhenua.govt.nz

Feedback must be provided to Council by no later than **5:00pm on Friday, 17 March 2017**

RECEIVED 25 JAN 2017 Horowhenua District Council

Contact Details

Full Name: Margaret Jenne

Name of Organisation: *(If on behalf of an Organisation)*.....

Address for Service: 22 Seddon Street

Levin Post code: 5510

Telephone (Day time): 06 367-0656 Mobile: 027 512 1281

Email: jennes@xtra.co.nz

Section 3: Draft OHAU RIVER Reserves Management Plan

Please tick one or more of the below boxes to confirm which of the Ohau River Reserves your below comments relate to.

☑ Gladstone Reserve ☑ Kimberley Reserve ☐ Kirkcaldies Reserve

☑ Access way off Muhunoa East Road ☑ Parikawau Reserve

3.3 I support gazetting Gladstone Reserve as a Recreation Reserve.

3.1.1 I support the development of a pathway along the northern edge of the Ohau River, with the proviso that the Levin Water extraction area is protected. I support a shared pathway network along the Ohau River, in conjunction with the other Ohau River Reserves.

4.1.1 I support providing Kimberley Reserve users with access to facilities outside of the Summer period. I support weed control and pest control as long as the protected native snail still has a habitat in Kimberley Reserve. I support signage to encourage more people to use Parikaka Reserve, the reserve off Muhunoa East Road and Kirkcaldies Reserve. I support clearing weed plants and replanting riparian strips with more suitable plants in Kirkcaldies Reserve.

(Continue on a separate sheet if necessary)

Section 4: Reserve Management Plan Hearing

Do you wish to attend a Council hearing for the Draft Reserve Management Plans?
Yes ☐ No ☑

Do you wish to speak in support of your submission at the hearing? Yes ☐ No ☑

Signature: M.a.gene. **Date:** 24.1.17

(Or person authorised to sign on behalf of submitter)

Further Information

If you require further information about this process then please visit the Council's website (www.horowhenua.govt.nz/rmp). If you have any questions then email them to reservemanagementplans@horowhenua.govt.nz or call us on (06) 366 0999 and ask to speak to Tiffany Williams.

Privacy Act 1993

Please note that any feedback provided is public information. Information on this form including your name and comments may be accessible to the media and public as part of the decision making process. Your contact details will only be used for the purpose of the Reserve Management Plan Review process. The information will be held by the Horowhenua District Council, 126 Oxford Street, Levin. You have the right to access the information and request its correction.

Reserve Management Plans

Submission date: 3/6/2017

Receipt number: 10

Question	Response
Contact Details	
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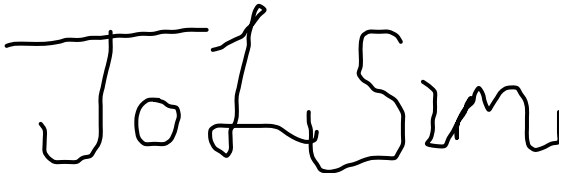
Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	
Enter your comments for the Waitarere Beach Reserves:	
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the	Gladstone Reserve,Kimberley Reserve,Kirkcaldies Reserve,Access way off Muhunoa East Road,Parikawau Reserve

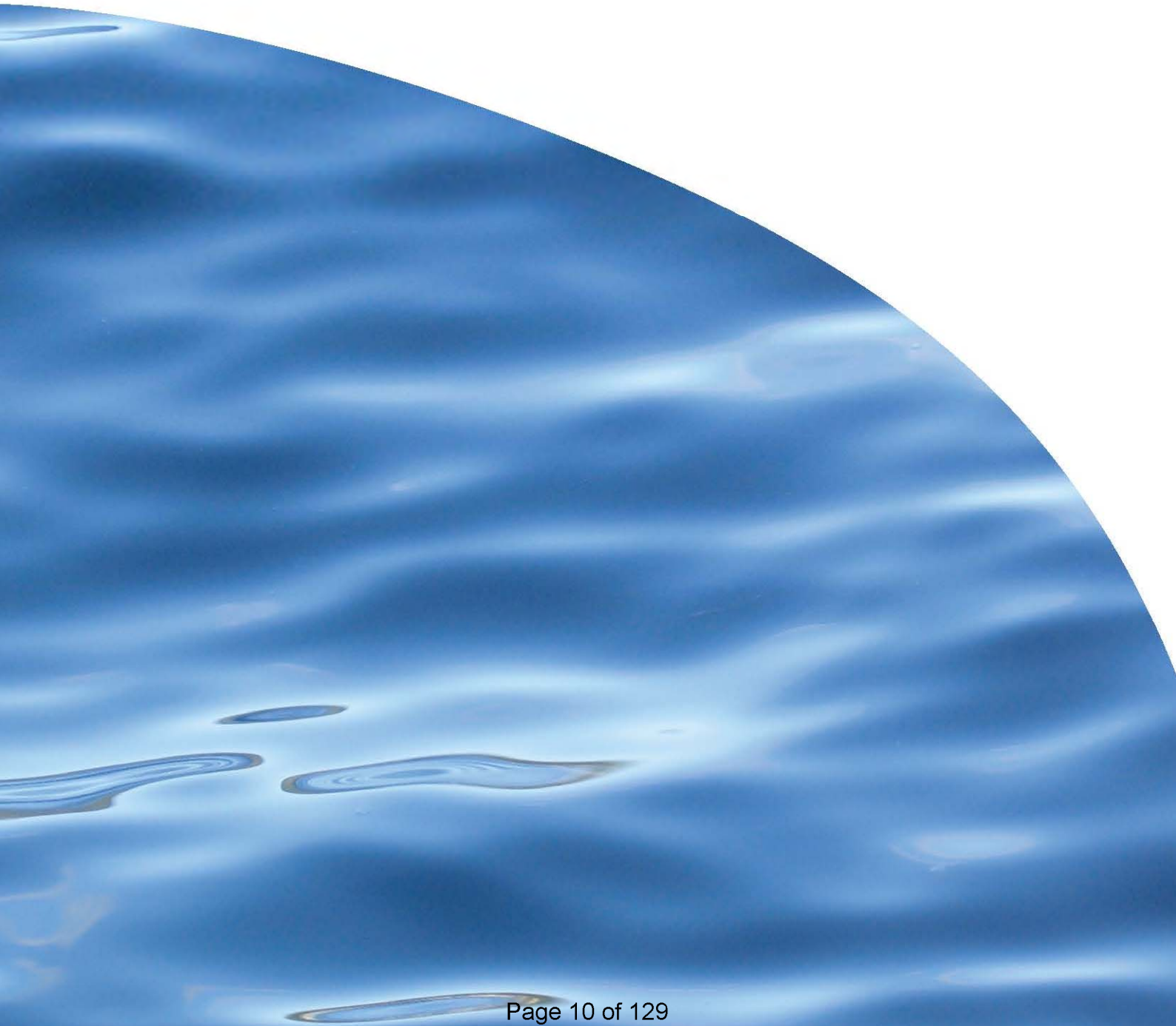
Question	Response
Ohau River Reserves your below comments relate to.	
Enter your comments for the Ohau River Reserves:	I think these are all great reserves and areas for the Horowhenua. Cattle & all other livestock need to be kept out of the Ohau River. Any grazing needs to be well back and riparian planting upstream. I think more riparian planting of native species should be undertaken where needed but with consideration that the Ohau is a braided river. Therefore willows should not be planted as it will change the integrity of the river. I think the mass planting of willows at Kimberley Reserve is a mistake and these should be removed while still small trees. Kirkaldies Reserve would benefit from native tree planting in the current grassy weedy area south of the pinic area. Unfortunately litter is a problem at most of these reserves so maybe more bins should be provided and serviced regulary. I note that Parikawau often has alcohol bottles and house rubbish dumped here. They are awesome reserves and an asset to the region - well worth looking after properly by the councils and public.
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council hearing for the Draft Reserve Management Plans?	Yes
Do you wish to speak in support of your submission at the hearing?	No
Additional Information	
Attachments:	effects-of-willow-removal-on-australian-and-nz-stream-ecosystems.pdf
Declaration	
Signature:	Name of signatory: Joanna Sim Link to signature
Date:	06/03/2017
Council Use Only	
Date Received:	
Submission No:	



CAWTHRON INSTITUTE

REPORT NO. 2315

EFFECTS OF WILLOW REMOVAL ON AUSTRALIAN AND NEW ZEALAND STREAM ECOSYSTEMS — A LITERATURE REVIEW OF THE POTENTIAL RISKS AND BENEFITS



EFFECTS OF WILLOW REMOVAL ON AUSTRALIAN AND NEW ZEALAND STREAM ECOSYSTEMS — A LITERATURE REVIEW OF THE POTENTIAL RISKS AND BENEFITS

ANNIKA WAGENHOFF, ROGER YOUNG

Prepared for MBIE Project C01X1002:Maintenance and Rehabilitation of Aquatic Ecosystems

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EXECUTIVE SUMMARY

Willows (*Salix* spp.) are exotic to New Zealand and Australia, but dominate many riparian habitats because they have been widely planted to control streambank erosion in degraded agricultural catchments, and because some species have become invasive.

Negative effects of willows on stream ecosystems include: 1) increased flooding and reduced land drainage due to the willow roots and branches reducing channel volume and increasing hydraulic roughness, 2) consequential erosion and channel migration, and 3) further spread and loss of biodiversity through replacement of the native vegetation. These issues have raised concern amongst resource managers and the community and in response, some resource management authorities throughout New Zealand and in south eastern Australia have started to implement reach-scale willow control and removal operations.

The destructive removal process and the associated potential risks to stream ecosystems have sometimes caused a public outcry; prompting the need for managers to consider whether the benefits outweigh the risks. This literature review presents the potential risks and benefits to inform resource managers whether reach-scale willow removal and subsequent re-establishment of native riparian vegetation may be an effective rehabilitation measure to increase stream health and the biodiversity of instream and riparian communities.

Very few scientific studies on willow removal effects have been conducted and documentation of such rehabilitation projects is equally scarce. Hence potential benefits are inferred from studies on the mitigation of adverse effects of willows on stream and riparian ecosystems reported in the literature. Potential risks of willow removal are based on knowledge of the ability of willows to retain large amounts of fine sediment and organic matter, and to influence geomorphology and flow patterns. Further potential risks are associated with the loss of the functions that riparian vegetation fulfils.

A key finding of this review is that willow management is complex and context-dependent. The expected ecological benefits as well as potential risks are likely highly dependent on stream size, geomorphology, hydrology, catchment land use and associated stressors, and the extent of willow growth and the taxa involved. Setting management goals tempered by the spatial and temporal limitations to recovery will guide the cost-benefit analysis of intended operations and will be crucial to successful rehabilitation projects. Given the potential ecological risks and negative consequences that are involved with willow removal, this report provides management recommendations for when not to remove willows and for selecting streams where rehabilitation efforts are likely to be most efficient.

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1. INTRODUCTION

1.1. Background

1.1.1. Introduction of willows to New Zealand and Australia

Willows (*Salix* spp.) comprise ca. 450 species and their native distribution is mainly in the arctic, boreal and temperate regions of the Northern Hemisphere (Argus 1997). Willows were introduced to New Zealand and Australia in the 1800s for the purposes of streambank stabilisation in degraded pastoral systems and as shelter and supplementary fodder for livestock amongst others (Wilkinson 1999; Doody & Benyon 2011). Extensive willow plantings for erosion control, however, took place in the 1950s to 1970s in Australia (Holland-Clift & Davies 2007) and in the 1970s to early 1980s in New Zealand (Wilkinson 1999). Erosion control by means of riparian willow plantings have a long history in Europe (Evette *et al.* 2009). Preferences for willows are related to their easy vegetative propagation of rooted and unrooted cuttings, tolerance to flooding and periodically saturated soils, fast growth and formation of extensive fine-fibrous root systems capable of binding sediments (Wilkinson 1999).

1.1.2. Willow invasion

The same characteristics that made willow plantings so successful also provided potential for willows to become invasive. Rapid vegetative reproduction occurs through detached branches that are transported in the water and root on wet bare river margins downstream (Doody *et al.* 2011). Branches of crack willows (*S. fragilis*) are very brittle, hence this species and its hybrids are particularly prone to spreading this way (Cremer 2003). The potential for willows to spread more widely (up to a distance of 100 km) than within a river system is exacerbated via seed reproduction (Cremer 2003). Previously, it was believed that the production of viable seeds could be prevented by introducing only one gender of each species, but the possibility of hybridisation had been overlooked (Cremer *et al.* 1995). In New Zealand, 11 species and five hybrids have become naturalised, and three of these are considered the main problem taxa: crack willow (*S. fragilis*), grey willow (*S. cinerea*), and pussy willow (*S. x reichhardtii*) (Collier 1994). As a consequence of both vegetative and sexual reproduction (including those that were intentionally planted), willows today dominate many riparian habitats in New Zealand and Australia. For example, crack willows are the dominant marginal vegetation along New Zealand's Waikato River, but grey willows and weeping willows (*S. babylonica* and hybrids) are also widespread along and throughout the catchment (Champion & Clayton 2010). The two species, weeping and crack willow are prevalent in over a third of the River Murray's 830 km course below the Darling junction in South Australia (Schulze & Walker 1997; Doody *et al.* 2011). A national estimate of the total riparian area covered by willows in Australia is 21,015 ha with the main distribution in the south-eastern regions (Doody *et al.* 2011). No recent estimate is available for New Zealand, but a 1962 survey estimated that the total area of willows was about 41,000 ha, and that willows were the second most

common exotic trees after pine trees (Van Kraayenoord *et al.* 1995). Success of willows in spreading and out-competing native riparian vegetation may also be partly due to previous environmental change such as flow regulation (Poff *et al.* 1997; Schulze & Walker 1997) and to having less natural enemies and diseases than the natives (Cremer 2003). Even so, willows have acquired pest species along the way. For example, the larva of a voracious willow sawfly (*Nematus oligospilus*), first discovered in New Zealand in 1997 and in Australia in 2004, is known to defoliate several willow types (Ede 2006).

While most willows are reliant on wet bare ground for regeneration from seed and hence are confined to riparian habitat, grey willow is known to also establish on undisturbed sites and tolerate a range of soil conditions. This has extended its spread to National Parks and wet forests in Australia and large wetland areas in New Zealand (Cremer 2003; Beard 2010), where it is considered to be one of the top 10 environmental weeds in several Department of Conservation conservancies (Froude 2002). Furthermore, since willows are extremely tolerant to standing water and resistant to shear stresses during floods (Evette *et al.* 2009), willows are not confined to streambanks. They also encroach into shallow permanently-inundated streambeds (Doody *et al.* 2011) by layering of branches and toppling mature live stems taking root again (Cremer 2003). These willows can eventually block the stream channel and divert floods potentially causing erosion of floodplains, roads and bridges, and channel migration (Cremer 2003).

1.1.3. Willow management

Concerns about flooding, streambank erosion, damage to infrastructure, and willow invasions associated with potential impacts on biodiversity and ecosystem function prompted the listing of *S. fragilis* and *S. cinerea* as 'unwanted organisms' under the New Zealand Biosecurity Act 1993 in the National Pest Plant Accord (NPPA). The NPPA is an agreement between the Nursery and Garden Industry Association, regional councils and government departments banning sale, propagation and distribution of these plants in New Zealand. In addition, resource management agencies started to remove so-called 'problem willows' from invaded areas or earlier plantings in the 1980s.

However, willows other than the two NPPA-listed species and varieties believed to be non-invasive and sterile, have been and are still commonly used for soil conservation and streambank stabilisation by resource managers and land owners throughout New Zealand (Phillips & Daly 2009). Considerable effort has gone into research and breeding programmes of willow varieties that were specifically selected for their suitability in New Zealand river management since 1969 (http://www.poplarandwillow.org.nz/pages/breeding-&-research/; accessed March 2013). Important selection criteria were male sex to prevent seeding, rapid growth

rate, strong root system with many fibrous roots, and resistance to disease (Slui 1991).

Willows are seen as the most cost-effective vegetation for the front-line defense in reaches of higher-order streams modified by levees (stopbanks) and where active erosion is likely to undercut banks to a steep and unstable slope of more than 2 m high (Marden *et al.* 2005; Phillips & Daly 2009). In these rivers, the effectiveness of riparian restoration with New Zealand native plants, without prior installation of structural protection, is likely to be less effective due to their relatively shallow root systems (Marden *et al.* 2005). On the other hand, New Zealand natives have shown to be efficient in stabilising banks of lower-order streams (Marden *et al.* 2005), and are increasingly being used in streamside vegetation programmes. The driver for these programmes, however, generally is the need to increase biodiversity rather than streambank stabilisation (Phillips & Daly 2009). At the same time, willow planting on farms is still being promoted on some Regional Council websites for specific purposes: drought fodder and shelter for livestock, soil conservation in hill country, and also for streambank stabilisation (*e.g.* National Poplar and Willow Users Group 2007). This is despite some native species being known to provide good protection from erosion in a variety of settings (Slui 1991). The governmental Sustainable Land Management Hill Country Erosion funding scheme has recently supported a 'Poplar and Willow Breeding Programme' (Willow and Poplar Research Collective & Plant and Food Research 2009) aiming to breed new varieties that are suitable for erosion control and more robust to diseases such as the willow sawfly. The willow sawfly (*Nematus oligospilus*) has posed serious threats to willows providing important riverbank protection in New Zealand's Hawke's Bay region. This damage has resulted in multi-million dollar remediation works (Ede 2006).

Willow management is complex because it is taxon-specific and because there is a suite of arguments both for and against removal of certain willows. Both implementing willow removal programmes and promoting willow plantings by resource management authorities is certainly confusing to the public. This confusion may be resolved if:

- willow removal involved invasive taxa that constrict channel capacity or threaten other ecosystems by further invasions
- non-invasive willows were planted in places where they can provide an important erosion-control function that is unlikely being fulfilled by native vegetation, or where they provide other specific functions.

By contrast, it is not a consistent management strategy to:

- remove willows for ecological reasons, or promote any willow removal operation as being of ecological benefit
- widely promote willow planting, where native vegetation could also fulfill similar functions.

In contrast to New Zealand, willow management in Australia has undergone a paradigm shift. All *Salix* spp. except *S. babylonica*, *S. x calodendron*, and *S. x reichardtii* were listed as 'Weeds of National Significance' in 1999, which is a government initiative providing national strategic management for weed control. Development of a national strategic plan (ARMCANZ *et al.* 2001) involved assessment of the current spread and the invasiveness of the most common willow varieties, and publication of willow management guidelines (Holland-Clift & Davies 2007). Willow planting is not being encouraged anymore by Australian management authorities, most species are illegal to trade or distribute in all states and territories and control of certain species is legally required in some areas.

Willow removal techniques are manifold and range from hand pulling or use of machinery to stem injection or foliar spraying with herbicides (Holland-Clift & Davies 2007). Biological control measures have also been investigated, but have not yet been applied in New Zealand or Australia (Harman 2004; Adair *et al.* 2006; Holland-Clift & Davies 2007; Caron *et al.* 2011). The recommended removal technique depends on tree/shrub size, extent and location of invasion, potential environmental impacts on the site and downstream sites and on social impact (Holland-Clift & Davies 2007).

There is broad support for reach-scale willow removal by government agencies in Australia and New Zealand for social, economic and environmental reasons (ARMCANZ *et al.* 2001; Holland-Clift & Davies 2007; Phillips & Daly 2009). Resource managers need to know about costs and benefits incorporating social, economic and environmental values of stream and riparian ecosystems in order to make the most effective decisions. Whether the benefits outweigh the costs is largely dependent on the management goals of a specific project. Reach-scale willow removal and re-establishment of native vegetation has been suggested and implemented as a management action to improve stream health and the biodiversity of both instream and riparian communities. Here, knowledge of whether the ecological benefits outweigh the ecological costs is central although the effects on the socio-economic values also need to be considered. Particularly little is known about the ecological costs and benefits of such willow removal operations. Few scientific studies address the effects of willows on riparian and stream ecosystems and even less studies investigate the ecological effects of willow removal. Willow removal operations are underway but monitoring and reporting of their ecological effects are sparse (but see McInerney *et al.* 2010).

1.1.4. Controversy over willow removal

While the negative effects of certain willows and the need for control seem to be widely recognised (ARMCANZ *et al.* 2001), the removal of willows is very controversial (*e.g.* Tane 2010). In particular, reach-scale willow removal operations from along streams and rivers seem to be conflicting with the notion of conserving

riparian vegetation for its multiple important functions (Collier *et al.* 1995). Community concerns arise from people who believe that willows are crucial for good streambank protection, or those who do not want to see willows removed that have become part of the Australian and New Zealand landscape and possess aesthetic or heritage value (*e.g.* weeping willows, *S. babylonica*) and provide important nutrition for bees (Harman 2004; Holland-Clift & Davies 2007; Tane 2010). Willow removal is often criticised by anglers who believe that willows create habitat for trout and eel to thrive in (Caruso 2006; Leaman 2012; Mirfin 2012). But anglers and other recreationists such as kayakers, may also be in support of removal, as willows can obstruct both access to the river and the channel itself (Holland-Clift & Davies 2007; Phillips & Daly 2009). Conflicting opinions can also arise within the farming community. While generally farmers value willows as provision for stock feed during drought, others, in particular in the dry regions of Australia, would like to have them removed anticipating a net gain in irrigation water since willows remove large quantities of water (Holland-Clift & Davies 2007; Doody *et al.* 2011). In New Zealand, however, the removal of water through high evapotranspiration rates of willows has been valued for easing management issues in wet areas (Willow and Poplar Research Collective & Plant and Food Research 2009). And finally concerns arise because some willow management has gone wrong in the past due to the lack of re-vegetation, fencing or follow-up control measures (Holland-Clift & Davies 2007).

1.2. Aims

This report provides a review of the literature on the ecological effects of reach-scale willow removal incorporating knowledge from scientific studies and case studies with a view to informing resource management about the potential ecological benefits of such operations and the risks involved. Potential ecological benefits of willow removal are a result of mitigating their negative effects on streams and riparian zones; hence in Section 2, we review the effects of willows on these ecosystems. Section 3 is a review of the potential ecological effects of willow removal with a special focus on the risks involved. More specifically, this report aims at guiding management in formulating ecological management goals for willow removal programmes and to assess and minimise the potential ecological risks involved. This literature review also highlights the environmental variables and biological indicators that will be useful to include in monitoring programmes (pre- and post-willow removal) in order to evaluate rehabilitation success but also with a view to improving future resource management.

2. EFFECTS OF WILLOWS ON INSTREAM AND RIPARIAN ECOSYSTEMS

2.1. Overview

Willows can affect instream and riparian ecosystems because they possess several functional traits different from those of most native riparian plants in New Zealand and Australia. When compared with most native shrubs and trees, willows:

- are deciduous, thus provide dense shade during the growing season and less shade in autumn and winter, as well as provide potentially larger pulsed inputs of leaf litter of different quality to streams in autumn compared to evergreens, which may provide a more continuous energy input throughout the year
- have underwater roots providing instream cover, modifying banks and substratum, and affecting stream flow
- have high evapotranspiration rates, thus can considerably reduce stream flow
- have light wood that decays quickly and is more likely to be carried downstream resulting in lower quantities of resident large woody debris (LWD)
- are exotic and may be a poor link in the food chain (Cremer 2003; Holland-Clift & Davies 2007).

Shading and leaf litter input are well-known properties of riparian vegetation to have strong influences on stream communities and functioning (Allan & Castillo 2007). Shading typically lowers water temperature and hence increases oxygen content benefitting sensitive taxa, but it can also reduce instream primary and secondary production, since less food is available for macroinvertebrates that feed on algae, with further bottom-up effects on fish. Maintenance of cooler temperatures through shading also avoids direct thermal stress on sensitive species of invertebrates (such as larvae of mayflies and stoneflies) and fish (such as banded kokopu) (Quinn *et al.* 1994; Richardson *et al.* 1994). Leaf litter, on the other hand, is an important energy source to the stream food web, but timing and quality of the input are important determinants of availability to higher trophic levels. Leaf litter also serves as habitat but can reduce oxygen content when large amounts decompose in slow-moving water. The combined action of these factors and their relative importance, which is likely dependent on the nature of the willow stands (extent, density, species, age), stream size, geomorphology and catchment land use, will ultimately govern the impacts that loss of native riparian vegetation and replacement by willows have on biodiversity and stream ecosystem functioning at the local and regional level.

2.2. Instream effects of willows *vs.* native riparian vegetation

Few scientific studies have investigated the ecological impacts of willows in relation to the native riparian vegetation in New Zealand or Australia. Lester *et al*. (1994a) found lower macroinvertebrate densities in willowed (*S. fragilis*) compared to open tussock reaches in two small, 3 to 5 m wide, Central Otago streams in New Zealand. Because there was no evidence that shading by the trees reduced primary production and hence food resources, the authors concluded that lower macroinvertebrate densities were most likely related to a decrease in interstitial habitat as these spaces were filled by willow roots and fine sediment trapped within them. This assumption was supported by further investigation into the effects of differences in substrate and shade on macroinvertebrate communities in one of the study streams, but it also revealed that another, undetermined factor associated with willows must have contributed to the faunal differences (Lester *et al.* 1996). Lester *et al.* (1996) proposed that exudates from willow roots may have inhibited macroinvertebrate feeding. The increased amount of leaf litter input in autumn seemed to have no effect on shredder abundance (Lester *et al.* 1994a), although a stable carbon isotope study revealed that insect shredders derived over half, and their predators up to nearly half, of their total body carbon from willows at the willow-shaded sites. This indicates that willows can contribute considerably to the energy flow in stream food webs (Lester *et al.* 1995). Palatability of willow leaves was supported by a food preference experiment showing that detritivore larvae of *Olinga feredayi* (Trichoptera) preferred willow leaves (*S. fragilis*) over periphyton, but only after incubation in the stream for 56 days (not for 7 or 28 days) (Lester *et al.* 1994b). Similar periods of incubation (41 and 58 days) in two other New Zealand streams were reported for when willow leaves (*S. babylonica*) seemed most palatable as leaf bags were most densely colonised by invertebrates at that stage (Collier & Winterbourn 1986).

The majority of studies were conducted in Australia focusing on the effects of willows *vs*. the native riparian tree vegetation, most notably eucalypts. Willow leaves were palatable as shown by preference experiments with three common detritivore macroinvertebrate species (trichopteran *Notalina* sp., ephemeropteran *Koorrnonga* sp., and mollusc *Physastra gibbosa*) from south eastern Tasmania which preferred willow (*S. fragilis*) over eucalypt leaves (Yeates & Barmuta 1999). Two of these species also showed higher growth rates when being solely fed on willow leaves compared to being solely fed on eucalypt leaves. By contrast, shrimp *Paratya australiensis* slightly preferred native eucalypt over willow leaves (*S. babylonica*) (Schulze & Walker 1997).

A field experiment in the South Australian Murray River also showed that the soft willow leaves (*S. babylonica*) decomposed significantly faster than those of the native eucalypts, and this was independent of whether leaves were submersed in reaches lined with willows or eucalypts (Schulze & Walker 1997). In this study, however, macroinvertebrates did not play a major role overall in the breakdown process and

macroinvertebrate community structure did not differ between willow- and eucalypt-lined reaches. Perhaps, loss of native vegetation and replacement by willows exerts less of an impact on instream communities in larger rivers where the riparian vegetation is expected to be less influential than in smaller rivers or streams (Vannote *et al.* 1980). However, the authors note that this may be an underestimation of the impacts of willows since the River Murray, even though it has native eucalypt stands, did not provide a reference condition free of any other anthropogenic modification.

A similar field experiment in a small third-order stream lined by eucalypts found willow leaves to decompose considerably faster than eucalypt leaves (Pidgeon & Cairns 1981). Here, macroinvertebrates played a significant role in the breakdown process suggesting that abundance and community structure of macroinvertebrates in these streams may be altered as a consequence of changes in food quality and perhaps timing of when food becomes available. The authors note that even though willow leaves are palatable and can be easily assimilated by the native macroinvertebrate fauna, riparian willows on their own appeared unable to enhance secondary production relative to native evergreens because willow leaves are shed in autumn and are processed quickly, therefore available for too short an amount of time during the year (Pidgeon & Cairns 1981) and possibly during the wrong time of the year.

To investigate this assumption and consider factors contributing to potential impacts of willows on stream macroinvertebrate communities other than just leaf palatability, Read & Barmuta (1999) focused on the continuity of food resources and habitat alterations. They compared reaches lined with willows (*S. fragilis*) or native eucalpyt-dominated vegetation in nine small- to medium-sized (ranging from 2 to 15 m in width) south eastern Tasmanian streams and rivers in spring, summer and autumn. The most pronounced dissimilarities in macroinvertebrate communities between the two vegetation types were found in summer, when the fauna seemed to respond to differences in habitat and water quality. Total macroinvertebrate densities and taxon richness were lower in willowed reaches corresponding with reduced dissolved oxygen levels and increased levels of deposited fine sediment. Reduced oxygen levels and increased fines were likely a result of the willow root mats invading the streambed, slowing the flow and reducing it to nearly isolated pools. By contrast, riffles in native reaches mainly stayed intact despite low summer flows. Macroinvertebrate communities sampled from willow-root riffles and riffles free of willow roots in willow reaches, however, were similar. In autumn, willow reaches had higher densities and increased dominance of shredders and filterers relative to reaches lined with native vegetation likely reflecting the higher standing stocks of course and fine particulate organic matter, but the faunal response was not marked. In spring, however, no differences in macroinvertebrate communities were detected between the two vegetation types despite higher epilithic biomass and stream temperature in willow reaches. Read & Barmuta (1999) speculated that the effects of willows on streams smaller than the study streams are likely to be more pronounced changing the macroinvertebrate community structure permanently as increased spring

and autumn discharges may not offset the negative impacts willows have on water and habitat quality. And even smaller creeks may experience the largest impacts, turning into 'willow swamps' (Collier 1994) or drying out completely (Holland-Clift & Davies 2007) in the most extreme case, as willows can considerably reduce water flow via high evapotranspiration rates and via clogging of the channel with their thick roots that also trap sediment (Doody *et al.* 2011).

Wilson (2001) investigated organic carbon dynamics in willow-dominated (mainly *S. fragilis*) and native eucalypt stream reaches in Victoria, Australia, and found no significant differences in the timing as well as the amount of annual input of organic matter (litter-dominated) between the two vegetation types. Even though litterfall overall for willows and natives was greatest in summer and autumn, all streams received peak inputs in autumn when flow increased and mobilised accumulated leaves alongside the channel. Hence, Wilson (2001) suggested that timing of organic matter input may not be as an important difference between deciduous willow and native evergreen vegetation (as is typically believed), and that leaf quality is a potentially important factor driving changes in the instream fauna and stream metabolic processes. Another important factor may be the much larger amount of benthic organic matter retained in willow streams, which he noted as the most striking difference between the two riparian vegetation types. Benthic organic matter was retained by willow root mats but the mats themselves contributed largely to the standing stock. However, willow-lined reaches had half the amount of LWD than the eucalpyt reaches (Wilson 2006). The light willow wood decomposes quickly and is also more likely to be carried downstream resulting in lower quantities of LWD in willow-lined sections (Holland-Clift & Davies 2007), and higher quantities in native sections where eucalypt limbs sink, decompose slowly and provide structure (Schulze & Walker 1997). Considering the structural role of LWD in streams (Gurnell *et al.* 1995), loss of native riparian trees and replacement by willows may have significant effects on instream biota but no such samples were taken in Wilson's (2001) study.

2.3. Instream effects of willows *vs.* pasture

Because willows have been and, in New Zealand, are still being planted to stabilise the banks of degraded agricultural streams, it is also relevant investigating the ecological effects of willows relative to pasture sites. Streambank stabilisation and vegetation can be beneficial to benthic macroinvertebrate and fish communities via a decrease in fine sediment loads, increased input of leaf litter providing habitat and food resources, and shading of the streambed associated with control of temperature and algal proliferation (Tabacchi *et al.* 1998; Johnson *et al.* 2007). Glova & Sagar (1994) found higher standing stocks of brown trout, but not native fish, in moderately-willowed (*Salix* spp.) reaches compared with pasture reaches in small New Zealand streams. This is possibly because the former had deeper channels, overhead shelter and larger amounts of brown trout's preferred prey (Ephemeroptera) (Sagar & Glova

1995). The same study also reported higher benthic macroinvertebrate biomass and diversity associated with cooler water temperatures and reduced growth of filamentous green algae in the willowed reaches. This supports the conclusion that riparian willows at moderate density are beneficial to trout and benthic macroinvertebrates compared to their pastoral counterparts (Glova & Sagar 1994). Streams lined by dense willow stands, however, seemed to sustain lower densities and biomass of invertebrates than both the moderately-dense willow and the pasture sites, however definite conclusions cannot be drawn because the densely-willowed treatment was not replicated (Glova & Sagar 1994). Broad *et al.* (2002) found that the mean total length of longfin eels were largest in pasture, intermediate in pasture lined with willows, and smallest in native tussock reaches of Lee Stream (a 4th-order tributary of the Taieri River in New Zealand); but longfin eel condition or density were not influenced. Larger eel size in stream reaches lined with pastoral land, compared to reaches lined with native tussock grassland, was likely related to the elevated nutrient levels and boosted stream productivity. The smaller sized eels in reaches lined with willows compared to the pastoral reaches may tentatively be explained by increased shading (Broad *et al.* 2002).

Even though planted willows may have improved the stream ecological condition when compared to streams lined by pasture, the mitigating effects may over time be outweighed by new bank erosion, which occurs when further willow growth and regeneration causes channel constriction. In small rivers, willows can encroach into the streambed where their roots trap sediment and organic matter, reducing the channel's capacity to transport water. In this instance, during high-flow events, it forces the river to cut new channels and eventually create a shallower but wider braided river system with willow islands (Holland-Clift & Davies 2007; Pope *et al.* 2007). In bigger rivers, willows cannot encroach into the centre, but instead they trap coarse material, narrowing the channel and thereby increasing the likelihood and frequency of flooding and erosion (Holland-Clift & Davies 2007; Rutherfurd 2007). In most cases, where infrastructure is at risk, further river engineering work will be required. For this reason, willows can be considered invasive ecosystem engineers (Crooks 2002) that not only affect stream ecosystems locally due to differences in shading and food supply amongst others, but also have hydrogeomorphic impacts often facilitating further willow invasions (Crooks 2002) with broader-scale consequences on stream ecosystem structure and functioning (Tabacchi *et al.* 1998). The ecosystem engineering properties and predominance of willows in floodplain habitats, however, are not confined to Australia and New Zealand, but also prevail in areas where willows are native (Gurnell *et al.* 2001; Karrenberg *et al.* 2002).

2.4. Riparian effects of willows *vs.* native riparian vegetation

Willows change the riparian habitat, potentially affecting plants and animals native to that ecotone. The dense canopy of willows during the growing season allows less light to penetrate than the sparse and open canopy of native eucalypts in Australia, inhibiting native vegetation such as littoral macrophytes and terrestrial plant species, which are more diverse in the understorey of eucalypts (Schulze & Walker 1997). Bare banks underneath willows provide a limited amount of protection for frogs, lizards, snakes and water rats in Australia (Holland-Clift & Davies 2007), but no detailed studies of willow impacts on their populations were found. However, in two extensive surveys along a south eastern Australian stream, habitat structure, arthropod fauna and bird assemblages were compared between sections dominated by the invasive white-crack willow (*S.* x *rubens*) and sections with native vegetation (Greenwood *et al.* 2004; Holland-Clift *et al.* 2011). Generally, the native sections comprised a greater diversity of plants, were structurally more complex and had a richer terrestrial arthropod fauna as well as a richer avifauna (Holland-Clift *et al.* 2011). Willow-dominated sections hosted only approximately a sixth of the number of canopy arthropod taxa and a third or less of the total individuals that were hosted by the non-willowed sections; there was no difference found in the numbers of flying arthropods between 'willowed' and native sections (Greenwood *et al.* 2004). The depauperate arthropod fauna in willow-invaded areas may be explained by 1) the physical and biological simplification of the vegetation, 2) the specialist fauna of willows observed in their native ranges having been 'left behind', and 3) the native Australian fauna not having adapted to the exotic trees (Holland-Clift *et al.* 2011). Differences in the arthropod fauna, *i.e.* less food resources available to higher trophic levels, coupled with differences in habitat structure such as less numbers of logs and dead trees and lower percentage cover of shrubs and coarse litter in willow-invaded sections have likely contributed to lower records of birds, bird species and foraging guilds compared to those in the native vegetation sections (Holland-Clift *et al.* 2011). A reduction in terrestrial arthropod food resources may also affect instream food webs, which received, at least in one season, considerably less arthropods in the willow-invaded compared to the native sections (Greenwood *et al.* 2004).

Similar patterns emerged from a New Zealand study (Stanley & Ward 2003). Riparian willows (*S. fragilis*) had less abundant invertebrates and very different invertebrate communities than native riparian kanuka trees, independent of whether willows were surrounded by native forest or pasture. Willows also hosted fewer birds, less bird species and a higher percentage of exotic species in the community than kanuka trees. Fewer birds were observed foraging in willow trees across all seasons, consistent with less invertebrate food resources being available. In contrast to invertebrates, birds also responded at larger scales, with less native and endemic species found on kanuka trees surrounded by pasture than on those surrounded by native forest suggesting that native forest patches larger than riparian zones are needed to sustain rich and abundant native bird communities (Stanley & Ward 2003).

In his review, Collier (1994) summarised information from technical publications and personal communications with staff from New Zealand's Department of Conservation. This suggested that willows (particularly *S. fragilis*) have detrimental impacts on specialised bird-life of braided rivers in the Waitaki and Ahuriri catchments of the South Island, by decreasing nesting and feeding habitat for riverbed birds such as the banded dotterel and wrybill. Instead, willows on braided riverbeds favoured birds like waterfowl that prefer overhead cover and that can use willows for nesting, moulting and roosting (Collier 1994). In the lower Waikato, dense crack willow forest has been observed to provide nesting sites for shags, grey teal and the New Zealand shoveler as well as roosting sites for these and other bird species (Champion & Clayton 2010). Invasion of wetlands by grey willows (*S. cinerea*) in New Zealand resulted in higher terrestrial beetle abundance and species richness compared to native wetland vegetation (Watts *et al.* 2012); however, beetle communities of willow-dominated wetlands had an altered trophic structure and a lower proportion of native taxa compared to the native wetland vegetation.

Finally, platypus foraging activity in Australia was negatively related to the number of willow trees growing on the bank and the presence of willow roots and silt in the channel substrate although the substrate seemed not to be related to different densities of macroinvertebrates, the platypus' main prey (Serena *et al.* 2001). Overall, few studies look at willow effects on terrestrial consumers, but they consistently support that exotic willows are likely a poor link in the native food chain.

3. EFFECTS OF REACH-SCALE WILLOW REMOVAL ON STREAM ECOSYSTEMS

3.1. Overview

The expected ecological benefits of willow removal and subsequent re-establishment of native riparian vegetation are the reduction of the negative impacts of willows outlined in Section 2. However, the specific benefits to incorporate into a cost-benefit analysis would largely be dependent on the management goals. The majority of ecological benefits are likely to take effect in the longer term, because it takes time for the native vegetation to mature. The time for many New Zealand riparian shrub and tree species to provide an effective canopy is dependent on the environmental conditions and can take 7–10 years, but longer at high altitudes (Marden *et al.* 2005). In the shorter term, the destructive process of willow removal poses a risk to the instream ecological condition and values that management wants to protect. Resource managers need to know whether the risks and negative effects associated with reach-scale removal of willows are outweighed by the expected benefits following re-establishment of native riparian vegetation. Willow removal without the re-establishment of vegetation is widely accepted to be a poor management option (Holland-Clift & Davies 2007). One exception is willow removal on braided river systems where the reference condition is sparsely or non-vegetated shingle (see Section 3.3.3).

The effects of willows on stream ecosystems are complex, but more complex is the prediction of the potential effects of willow removal and re-establishment of vegetation (Zukowski & Gawne 2006). Complexity arises because:

1. There will be both short- and long-term effects
2. Reach-scale operations will change shading and the inputs of organic matter, nutrients and sediment, all being interacting factors important to the instream fauna and stream ecosystem functioning at, as well as downstream of, the removal site
3. Effects will depend on stream size, geomorphology, hydrology, catchment land use and associated stressors
4. Willows are ecosystem engineers and their removal can change hydrologic and geomorphic processes
5. Effects will depend on the removal strategy (timing, whether working from upstream to downstream or vice versa) and technique (mechanical, chemical), as well as the willow species involved
6. Effects will depend on the success of the re-established vegetation.

We are aware of only one Australian study (see section 3.3.1, Becker & Robson 2009) that has specifically investigated the effects of riparian restoration involving willow removal and re-established vegetation to support the potential effects they may have on water quality, geomorphology, as well as fish and benthic macroinvertebrates reviewed for the Australian stream environment elsewhere (Zukowski & Gawne 2006).

3.2. Risks of willow removal

Willow removal is a destructive process and will cause short- to medium-term effects that potentially pose risks to stream ecosystems. Some of the risks may be reduced by best management practices but others are inevitable. Risks are associated with 1) the removal of willows that have retained large amounts of fine sediment and organic matter, 2) the removal of willows that have modified their environment as ecosystem engineers, 3) the loss of important functions that riparian vegetation fulfils (Naiman *et al.* 2005) until the native vegetation is re-established, and 4) the removal process itself.

3.2.1. Mobilisation of fine sediment and organic matter

Willows have been planted for their ability to stabilise degraded streambanks and retain sediments. Hence, a major concern following willow removal is the mobilisation of fine sediment and organic matter, and of the nutrients contained within, when willow roots retaining these materials rot away (Wilson 2006). This process is predicted to last for at least five years (Holland-Clift & Davies 2007; Rutherfurd 2007). The negative impacts of fine sediment deposition and nutrient enrichment on stream ecosystems are well-known (Wood & Armitage 1997; Allan 2004). We are not aware of any studies that have quantified sediment and nutrient loads released after willow removal, but the volumes of material, particularly from agricultural streams, may be large and degrade downstream ecosystems (Wilson 2006).

3.2.2. Geomorphic modification

In Section 2, we described how willows are able to change original channel morphology and flow patterns, hence the reason they can be called ‘ecosystem engineers’. Prevention of these changes is, in some cases, the major driver for their removal. However, in other cases well-established willows may have already significantly modified their environment, so that their removal may cause morphological changes that are now considered undesirable. This is because they can be associated with streambank erosion (Rutherfurd 2010) and threaten pool-riffle sequences (Boyer 2003; Wilson 2006), with consequences for the stream ecosystem, but also for the surrounding land and human infrastructure. For example, willow removal is expected to threaten pool-riffle sequences along the highly modified (gold-mining history, engineering works and urbanisation) Yarrowee River, Victoria, where willow root mats (in contrast to roots of the native vegetation) were found to bind

sediment into erosion-resistant 'weirs', which defined the downstream edge of pools (Boyer 2003). In another example, actual willow removal in combination with heavy grazing pressure caused Weminuche Creek, Colorado, to change from a stable, meandering, single-thread stream to a braided stream within a 2-year period (Rosgen 2009). After further channel succession and within a 12-year period, the original stream type (defined by entrenchment, width/depth ratio and sinuosity) was re-established, with obvious sedimentological, morphological and hydraulic changes to the original stream. This also resulted in severe losses of land and macroinvertebrate and fish habitat. More specifically, degradation of fish habitat was a result of; 1) excess sediment deposition and smaller particle sizes in the substrate, 2) decreased water depths and consequently reduced instream cover and pool quality, increased water temperature and predation from birds and terrestrial animals, and 3) reduced overhead cover provided by grasses compared to the willows (Rosgen 2009). Willow removal, however, will not always cause these drastic geomorphological changes as the sensitivity of streams to change in riparian vegetation is strongly dependent on stream type (Rosgen 2009). On the other hand, if re-establishment of a more natural, pre-willow stream geomorphology is one of the aims of willow removal, geomorphic modification is not actually a risk but rather the desirable outcome.

3.2.3. Loss of the functions riparian vegetation fulfils

Risks also arise because reach-scale removal of willows means loss of important functions of riparian vegetation to the instream biotic communities and ecosystem processes. These functions include provision of shade, organic matter, shelter (overhanging vegetation, undercut banks), and a buffer against agricultural runoff. In particular for small streams, canopy removal considerably reduces shade and litter input. Shade reduction leads to increased water temperatures (Rutherford *et al.* 1997), with maximum summer temperatures potentially exceeding upper thermal tolerances of sensitive invertebrate and fish species (Quinn *et al.* 1994; Richardson *et al.* 1994). An increase in water temperature is also associated with reduced levels of dissolved oxygen concentrations. Increased light levels, in particular coupled with elevated nutrient concentrations, can also increase primary production (Quinn *et al.* 1997) and change the periphyton community structure from palatable unicellular algae to prolific filamentous green algae and macrophytes (Bunn *et al.* 1999). Eutrophication is also associated with potentially toxin-producing cyanobacteria and reduced dissolved oxygen levels with negative consequences for macroinvertebrates and fish (Camargo & Alonso 2006). The risk of secondary invasions of aquatic weeds facilitated by clearance of willows, which has been shown for an invasive aquatic grass in south-eastern Australia (Loo *et al.* 2009), should also be considered.

Reduction in detrital food sources likely affects the instream fauna and stream metabolic processes (Bunn *et al.* 1999). Wilson (2006) expects the stream food web in low-order streams to shift from being reliant on external (allochthony) to being reliant on internal energy sources (autochthony). Fine sediment and nutrient loads can

initially increase because the newly-established riparian vegetation is likely to be less effective in buffering streams from agricultural run-off (Tabacchi *et al.* 2000), in particular because willows are efficient in the uptake of nutrients (Elowson 1999).

Finally, loss of overhanging vegetation and undercut banks can reduce suitable habitat for fish (Pusey & Arthington 2003). Willows have been observed to provide good fish habitat. For example, dense crack willow forests along the Waikato River banks provide cover and deep holes for New Zealand's longfin eels and introduced brown trout (Champion & Clayton 2010); undercut banks under willows along a creek in Victoria, Australia, were the major day-time refuge for River Blackfish, a nocturnal ambush predator (Khan *et al.* 2004); and willow growth in the Upper Taieri River had restricted channel capacity that led to seasonal lagoons and oxbows being permanently connected to the river, which provided a broad, shallow and productive environment for trout to thrive (Dons *et al.* 1988). Hence, willow removal has created commercial and recreational fisheries issues in New Zealand (Leaman 2012; Mirfin 2012). However, not much is known about the factors (or combination of factors) that caused the issues in these specific cases, and whether these issues could have been minimized using best management practices or will be resolved once the native vegetation has become established.

The relative importance of these factors and the risks involved, however, depend on each specific stream or river system. The risk of channel degradation is likely to be higher when willows are removed from larger rivers where flow can undercut banks to a steep and unstable slope, although smaller but high-energy streams are also at high risk to get further incised. Willow removal from larger rivers, where canopy cover provided by willows was less extensive, may have relatively less consequences for stream metabolic processes than removal from smaller streams, where willows can provide full canopy cover. Loss of overhanging vegetation, however, may adversely affect the local fish population in both large and small rivers.

Recovery from loss of the functions that riparian vegetation provides following the removal of willows is highly dependent on success of the re-establishment of vegetation, either through natural regeneration or re-vegetation. Hence, the risks and costs involved with vegetation re-establishment and the measures to minimize them, need to be considered. Overall, in higher-order streams that have been modified by flood banks and where flow likely undercuts the streambanks to a steep (~2 m) and unstable slope, New Zealand native riparian vegetation on its own is unlikely to provide the required streambank stabilisation (Marden *et al.* 2005). Here, additional structural materials at the toe of the bank and below the streambed, such as gabion baskets or riprap, may be needed to prevent erosion and protect the native vegetation (Marden *et al.* 2005). Native vegetation in lower-order streams, on the other hand, can be effective in providing streambank stabilisation, especially where channel form and slope, and hydraulic conditions resemble the unmodified condition before forest

clearance (Marden *et al.* 2005). Here, the selection of species is crucial to successful re-establishment of vegetation and the most important characteristics to consider are:

1. Rooting depths to be large enough to provide stability up to a certain required depth
2. Provision of year-round protection
3. Ability to establish under adverse soil conditions and to withstand hydraulic shear forces
4. Being long-lived and require minimum maintenance (Marden *et al.* 2005).

In places, where a seed source already exists, native vegetation would likely regenerate naturally and at little cost (Marden *et al.* 2005). Nevertheless, restoration success can be jeopardised by stock grazing, seedlings being washed away, plant diseases (Marden *et al.* 2005), drought, (which hindered re-establishment of vegetation following willow removal in an Australian project; Zukowski & Gawne 2006), secondary invasions by environmental weeds, or re-invasion by willows. Disposal of the removed willows is crucial to avoiding re-invasion and frequent weed control as well as stock exclusion is typically needed for successful establishment of woody riparian vegetation (Zukowski & Gawne 2006). However, the effort and cost involved in on-going maintenance may be too large to outweigh the benefits. For example, while removal programmes targeting female and seeding willows in rivers with low levels of flow disturbance may eliminate willow recruits, the same programme may prove unsuccessful in rivers of high disturbance levels because of on-going asexual willow recruitment (Stokes & Cunningham 2006).

3.2.4. Damage caused during removal operation

Immediate risks are associated with the removal technique such as damage to the banks and existing native vegetation by heavy machinery or effects of herbicides on the riparian and instream fauna and flora. Some of the risks and measures to minimize mechanical damage are described in willow management guides (*e.g.* Holland-Clift & Davies 2007), but the effects of different herbicides and chemical treatment techniques on stream ecosystems are largely unknown (Maloney 1995). These immediate risks are not reviewed here.

3.3. Case studies

3.3.1. Upper Gellibrand River Catchment, southern Victoria, Australia

Willow removal and re-vegetation with native plants was conducted in 3rd and 4th-order streams in a semi-rural catchment and enabled the study of recovery of macroinvertebrate communities after riparian restoration (Becker & Robson 2009). The study design comprised of six ‘treatment’ sites where re-vegetation works had

been completed 1, 3, 4, or 8 years prior to sampling, six willow-dominated 'control' sites, and six native forest 'reference' sites dominated by evergreen tree species (eucalypts, Australian blackwood and myrtle beech). The canopy cover was complete at the two sites where restoration took place eight years before sampling, but was incomplete at all other sites. Macroinvertebrate abundance and taxon richness did not significantly differ between treatment, control and reference sites, in both spring and autumn. Macroinvertebrate community composition, however, significantly differed between sites in autumn. Overall, the variability in taxon composition among sites within each vegetation type showed the clearest pattern. Native forest sites had the highest variability among sites in both seasons. In spring, communities at willow sites were more variable than those at re-vegetated sites, but in autumn, no difference could be discerned. Temperature was recorded as one potential factor affecting macroinvertebrate communities. Maximum temperatures exceeded 23 °C at the most recently re-vegetated sites, but never exceeded 19.5 °C at forest sites. Mean temperature at the two sites where canopy cover was complete (sampling eight years since re-vegetation) were comparable to that at the forest sites. The authors suggest that while willow removal increased stream temperature until canopy cover of the restored vegetation was complete, temperature increase in their study had little influence on macroinvertebrate community structure (Becker & Robson 2009). Full recovery of the variability in macroinvertebrate communities as seen in forest sites may be a matter of time and take longer than 8 years. For example, it may take longer for instream willow root mats, which have not been actively removed, to decompose and the benthic habitat to be restored to natural conditions; or take longer for the biota to recover from past history of human disturbance. On the other hand, stressors other than those redressed by riparian restoration may constrain full recovery to macroinvertebrate communities observed at reference sites.

3.3.2. Little Snowy Creek, Victoria, Australia

A de-willowed 600-m stream reach was monitored up to three years after the willow removal operation and compared to a willowed control reach, both surrounded by farming land. Key findings were:

1. Earth works likely caused bank erosion observed immediately after removal
2. Dissolved oxygen levels remained high at least during the spring and autumn sampling periods
3. Maximum summer temperature was often more than 5°C higher at removal sites reaching temperatures of up to 34.5°C
4. Despite high summer temperatures that were likely associated with reduced dissolved oxygen levels (not monitored), there was little difference in standard macroinvertebrate metrics (*e.g*. EPT taxon richness) or fish communities between treatment and control sites (Zukowski *et al.* 2009; McInerney *et al.* 2010).

However, at treatment sites, trout abundance seemed to be slightly higher but trout sizes smaller two years after removal (Zukowski *et al.* 2009). As with most restoration studies, low replication and, in this case, no replication at the reach-scale precluded statistical analysis and rigorous study of willow removal effects.

3.3.3. Restoration of riverbed habitat for native birds in a braided river in New Zealand

Mechanical and chemical removal of willows and exotic grasses from a 1.5 to 2.5-km long braided-river section of the Tekapo River in the Upper Waitaki Basin was undertaken in 1992 to restore habitat for native riverbed bird species; some of special conservation status. Here, vegetation was not re-established as bare shingle or sparse vegetation with grasses is the reference condition. Soon after the removal operation, four of the five monitored species (banded dotterel, pied stilt, black-fronted tern, South Island pied oystercatcher) used the cleared areas for nesting and foraging, and their densities were comparable to those in old riverbed habitat (Maloney *et al.* 1999). So it appears that willow removal has benefitted these native riverbed bird species. Long-term success will depend on the on-going maintenance to prevent the invasion of exotic grasses and herbs because flow regulation has altered the flow regime so that these areas are not naturally kept clear of vegetation anymore (Caruso 2006). Furthermore, control of introduced mammalian predators will also be necessary to increase the bird population in the long-term (Maloney *et al.* 1999). Aquatic invertebrates have not been formally monitored; but the assessment of trout habitat and abundance carried out by Fish & Game New Zealand, showed that the declining population of trout was probably due to factors other than willow removal (Heppelthwaite 1998; Brown & Sanders 1999).

4. CONCLUSIONS

4.1. Complexity of willow management

4.1.1. Invasive and non-invasive willows

In New Zealand and Australia, there is a multitude of willow species, hybrids and varieties. Some of them are invasive and their removal may be necessary, and in Australia is even legally required, to prevent further invasion by means of vegetative propagation or seeding or both. This includes removal of willows from earlier plantings or from areas that have been invaded. Eradication of these invasive species, however, is not an easy task and the risk of re-invasion and the associated costs for follow-up maintenance can be extremely high. Knowledge of the ecological requirements and the way these willows spread is crucial for successful control. For example, crack willow (*S. fragilis*) has brittle branches and spreads with its branches being carried downstream and becoming established. Hence, removal strategies such as working from upstream to downstream in the catchment and prioritising the removal of the pioneer willows rather than the dense and mature willow stands, will maximise willow control efficiency (Rutherfurd 2007). Grey willow (*S. cinerea*) spreads by seed and does not require bare ground. So the risk with this species is also its spread upstream and across catchments and into areas of potentially high conservation status, rather than just the riparian zones. Removal programmes targeting female and seeding willows in rivers with low levels of flow disturbance may eliminate willow recruits, while the same programme may prove unsuccessful in rivers of high disturbance levels because of on-going asexual willow recruitment (Stokes & Cunningham 2006).

4.1.2. Multiple values of willows

Willows have multiple values to multiple stakeholders. For example, farmers and resource managers value willows for their provision of erosion control, streambank stabilisation and as a buffer against agricultural run-off. Farmers also value willows as provision of fodder and shade for livestock. One the other hand, anglers appreciate the willows' aesthetic looks and that they can provide good fish habitat.

4.1.3. Current willow plantings

In Australia the planting of willows is no longer encouraged. By contrast, in New Zealand willows of non-invasive and sterile varieties are still being planted by resource managers and landowners for streambank stabilisation, soil conservation and other specific purposes on farms. Resource management authorities promote such willow plantings on their websites, but at the same time implement willow removal programmes. This is likely to cause confusion among the public, which can be resolved by informing the public how these new varieties differ from problematic willows. Further, in situations where native species are able to provide adequate bank

protection, and at the same time improve ecological values, promotion of native species should be considered.

4.1.4. Multiple reasons for willow removal

Willows have multiple values but willows, both invasive and non-invasive types, also have multiple disadvantages. Hence, the reasons for willow removal currently put forward by New Zealand and Australian resource management authorities are numerous and include the protection of ecological, economic and social values of streams and rivers and their riparian zones. However, since the use of willows have pros and cons, willow removal will not protect all these values at the same time. For example, willow removal may be necessary to protect economic values but it will not necessarily improve ecological condition although negative ecological effects need to be mitigated for. For that reason, it is important to state the specific goals for willow removal on a case-by-case basis. This ensures that 1) the public is informed about the reasons for intended management action, 2) the most appropriate removal strategy is being implemented, and 3) success in reaching these goals can be tracked.

4.2. Cost-benefit analysis of reach-scale willow removal

This review focussed on investigating reach-scale willow removal and re-establishment of native riparian vegetation as a stream rehabilitation measure. Hence, knowledge of the ecological effects of willows and of their removal is central to evaluating the potential benefits and negative ecological effects or risks (costs) of willow removal operations. However, knowledge of the ecological effects of willow removal is also relevant for when willows are to be removed for reasons other than the protection of ecological values.

Ecological costs are associated with the potential negative effects or risks of the destructive removal process on the ecosystem. The benefits, however, are strongly dependent on what ecological values management seeks to protect. In fact, evaluation of whether the expected benefits outweigh the costs is impossible without having set the goals, the latter of which is the first critical stage in successful stream rehabilitation projects (Ladson *et al.* 1999). In particular, because there may be positive effects for the riparian, but negative effects on the instream ecosystem.

Very few studies have formally investigated the ecological effects of reach-scale willow removal and riparian re-vegetation to provide strong evidence for or against such operations as a stream rehabilitation measure. Documentation of ecological condition before and after willow removal is equally scarce. However, this review summarised information from the literature on the effects of willows on ecosystems, from which potential benefits can be inferred, as these typically are the mitigation of

their adverse effects. This review also summarised the risks of willow removal based on knowledge of the important functions riparian vegetation fulfils and based on knowledge of the ability of willows to retain material and influence stream geomorphology.

A key finding of this review is that the ecological effects of willows and their removal are complex and highly context-dependent. Hence, the influence willows have on a stream ecosystem, the risks that are involved with the removal of willows, and the benefits that arise from when native riparian vegetation is fully re-established will all be highly specific to each particular situation. Stream size and geomorphology, hydrology, catchment land use and associated stressors, and the extent of willow growth and species will all play a role.

For example, the risk of channel degradation is likely to be high when willows are removed from larger rivers where active erosion undercuts banks to a steep and unstable slope (Marden *et al.* 2005), although smaller but high-energy streams are also at high risk to get further incised (Rutherfurd 2010). While it may be possible to provide the necessary bank stability if structural measures are installed in addition to re-establishment of native riparian vegetation (Marden *et al.* 2005), the ecological benefits for the instream biota and ecosystem functioning may be small and the monetary costs of such operations too large to make the rehabilitation cost-effective. Conversely, willow removal with the intention to improve instream values may be more effective in small streams where riparian vegetation has a relatively larger influence compared to bigger rivers. Rehabilitation may be particularly effective in streams where improvement of local stream condition, as a consequence of reach-scale riparian management, is not constrained by land-use impacts at larger-scales, as here more intensive measures, such as channel and instream habitat modification, are not needed (Greenwood *et al.* 2012).

4.3. Potential ecological benefits of willow removal and re-establishment of native riparian vegetation

Potential ecological benefits of willow removal as a stream rehabilitation measure relate to the mitigation of the adverse effects of willows. Overall, review of the literature showed that willows compared to the native riparian vegetation:

1. Are likely to provide less suitable habitat for macroinvertebrates due to the dense willow roots and their ability to trap fine sediment
2. May not sustain equally productive macroinvertebrate communities due to the shorter availability of leaf organic material during the year
3. Can increase water temperature and epilithic biomass during the seasons when deciduous leaves are young or shed and hence provide less shade

4. May degrade water quality by reducing levels of dissolved oxygen as a consequence of increased temperature or decomposition of large amounts of retained willow leaves
5. Can substantially reduce flow due to high evapotranspiration rates
6. Retain lesser quantities of LWD because light willow wood is prone to be carried downstream and decays quickly
7. Trigger erosion, channel widening or migration if willows reduce channel capacity due to their extensive root growth
8. Sustain less diverse native terrestrial arthropod and bird communities, amongst others.

4.4. Recovery from adverse effects of willows and evaluation of rehabilitation success

There is a multitude of potential benefits that may arise from willow removal and re-establishment of native riparian vegetation. Evaluation of rehabilitation success, however, is dependent on the ecological values management seeks to protect. These can be broadly categorised into instream ecosystem values and values of riparian ecosystems although streams and their riparian zones are intimately connected. These values can be further specified, for example into water quality, healthy/diverse stream or riparian biotic communities, and ecosystem functioning/services. Specification of values guides appropriate selection of a set of indicators required to evaluate and track rehabilitation success after completion (Parkyn *et al.* 2010).

In some cases, recovery from adverse effects of willows may be quick and successful. For example, native riverbed birds recolonized the braided section of the Tekapo River, New Zealand, soon after the willow removal operation, although on-going maintenance may be required (see section 3.3.3; Maloney *et al.* 1999); and Watts *et al.* (2012) observed that willow removal from wetlands was effective for restoration of terrestrial beetle communities. However, in most cases, expectations of riparian rehabilitation should be tempered with knowledge of the temporal and spatial limitations (Parkyn *et al.* 2003). Long recovery times can be expected because it takes time for the re-established vegetation to provide the necessary structure. For New Zealand native riparian vegetation to mature and provide complete canopy cover it takes 7-10 years, but more at high altitudes (Marden *et al.* 2005) and at larger stream widths (Quinn & Wright-Stow 2008). For riparian vegetation to recruit LWD, however, it takes at least 100 years (Erskine & Webb 2003; Meleason & Hall 2005). Full recovery from the adverse effects may further be hampered by spatial limitations. For example, reach-scale riparian rehabilitation may not result in recovery to good or excellent stream health if human land-use impacts operate at a larger spatial scale; the re-established native riparian vegetation may not provide suitable habitat for native bird species in pastoral catchments if birds respond to scales larger than the

riparian zone (Stanley & Ward 2003); and there may be spatial or temporal barriers to recolonisation with native and sensitive species (Parkyn & Smith 2011). Identification of barriers to recovery assists management to maximise the positive outcomes of rehabilitation (Robson *et al.* 2011).

4.5. Potential risks and negative effects

Review of the literature showed that potential risks of reach-scale willow removal are related to the influence willows have on geomorphic processes and the consequences of their removal. These include changes to the stream channel, pool-riffle sequences or channel migration associated with streambank and floodplain erosion with further consequences for stream biota. Furthermore, mobilisation of large amounts of sediment, organic matter, and the nutrients that are contained within them, from the rotting roots that retained these materials, are of particular concern in heavily degraded agricultural catchments. In these cases, willow removal may cause more damage to the stream ecosystem than willows cause when leaving them intact (Rutherfurd 2010). In fact, willows may even be beneficial in re-filling deeply incised high-energy streams in agricultural catchments providing an argument against willow removal, at least in the medium term (Wilson 2006; Rutherfurd 2010). On the other hand, if geomorphological change following willow removal reinstates channel dynamics and a riparian ecosystem more similar to the natural condition at a larger scale, then these values need to be weighed up against the potential loss in values of the local aquatic ecosystem. The potential conflict that initially arises between restoration of riparian and that of aquatic ecosystems has been described before and stresses the importance to clearly define restoration aims (Richards *et al.* 2002).

The review also showed that risks of willow removal are associated with the loss of the important functions riparian vegetation fulfils and include increase in water temperature, sediment and nutrient levels, decrease in dissolved oxygen levels, organic matter input, shade and shelter, changes in periphyton community structure and stream metabolism, and eutrophication with direct negative effects on sensitive macroinvertebrate and fish species or indirect food-web mediated effects.

Management strategies to potentially reduce the risks of willow removal have been suggested. These strategies include either staged replacement of willows by natives (Holland-Clift & Davies 2007) or planting of native seedlings alongside and under willows and letting succession take its course (Wilson 2006). In both cases, willows can still perform their erosion-control function and provide canopy cover until the native vegetation has matured. The slow transition between willows and native riparian vegetation may prevent further drastic ecosystem changes that a wide-scale willow removal operation might cause. Australian willow management guidelines suggest that a planned project over several years of gradual willow removal and

replacement with native vegetation is more costly than an operation in one go, but more likely to be successful (Pope *et al.* 2006).

4.6. Research needs for the New Zealand context

There are various questions arising from this review specific for the New Zealand context:

Invasion

- What is the status of willow invasion and what is the risk of further spread in relation to willow species or hybrids?
- How can further invasion be effectively prevented?
- What species and habitats are threatened by riparian willows?

Removal strategies

- What are the best willow removal and native re-vegetation strategies at the reach scale balancing the protection of ecological values and cost-effectiveness?
- Are the following strategies effective management options and what is the influence of stream channel type on effectiveness:
    - staged removal and replacement with native vegetation
    - understorey willow removal and native vegetation replacement leaving the willow canopy intact until establishment of a native canopy
    - natural regeneration from planting natives next to or amongst riparian willows?
- For example, are these strategies effective for spring-fed streams with U-shaped channels receiving few floods?
- Do certain invasive species require special consideration and different strategies to be effective?

Costs

- What is the effort and cost of managing invasive riparian willows?
- What is the effort and cost (in the short and long-term) of establishing and maintaining native plants *vs*. that of non-invasive willow varieties currently planted for streambank protection?
    - For example, natives may be more costly to establish than willows but cheaper to maintain and hence be more cost-effective than riparian willows provided they equally fulfil the desired functions.

Native riparian plant species

- Building on the research by Marden *et al.* (2005), further information is needed on the suitability of native riparian plant species or mix of species for replacement of the various functions willows fulfil (particularly in regards to streambank protection) specific to soil types, geologies, channel morphologies and hydraulic characteristics of streams. This is important knowledge for projects involving willow removal and re-vegetation but also for re-vegetation programmes where traditionally exotics have been planted but native species would be equally well suited.

4.7. Management recommendations

This literature review identified the following management recommendations concerning willow removal operations:

- Know the pros and cons of willows
- State the goals for willow removal
- Know the ecological risks of willow removal
- Seek and apply best management practice for the local context.

The goal of willow management is not to eradicate all willows but to decide why, where, when and how to manage them (Holland-Clift & Davies 2007). Knowledge of the pros and cons of willows, that is, the values of willows and the impacts of willows on values incorporating social, economic and ecological aspects is important. These will vary with the willow taxa involved as there are invasive as well as non-invasive species and hybrids. Equally important is knowledge of the ecological risks of willow removal. The pros and cons of willows and the risks associated with their removal will be context-dependent and can vary widely amongst the individual situations. It is crucial for resource management to state the goals for willow removal, so that; 1) a cost-benefit analysis incorporating social, economic and ecological values can be undertaken before its implementation, 2) areas can be prioritised both at the regional and catchment scale, 3) the appropriate steps can be taken to reach these goals, 4) success can be evaluated in reaching these goals, and 5) the stakeholders and public are made aware of the intentions of such costly and often controversial operations.

The goals are manifold and mainly relate to:

1. Flood management and the protection of downstream infrastructure
2. Reduction of costs involved with ongoing willow management
3. Reduction of risk of further invasions
4. Increase in water yield for irrigation purposes or instream biological communities

5. Increase in recreational values including angling and kayaking
6. Increase in riparian and/or instream ecological values.

Cost-benefit analysis and the steps to be taken to reach these goals will vary vastly. For example, if invasive species are involved, knowledge of the ecology and spread of the species is important and specific removal strategies should be implemented to maximise control efficiency, such as working from upstream to downstream in the catchment for species spreading vegetatively or targeting multiple populations at the regional level for seeding willows; if increase in water yield is the goal, removal should target those individuals that remove substantial amounts of water. Some of the goals may require removing all willows at a site while others may only require for some to be removed. Best management practices are available to minimize some of the risks associated with willow removal and to maximise effectiveness of rehabilitation through re-vegetation with the most appropriate native species. The manual 'Willows National Management Guide: current management and control options for willows (*Salix* spp.) in Australia' (Holland-Clift & Davies 2007) provides guidance based on published information, existing research and experience with willow management. The authors, however, specifically mention that this manual is meant to evolve as new information and research becomes available and new experience with willow control is gained. Therefore, feedback on the manual's presentation and management recommendations including sharing of information on the successes and failures of willow control operations to build a data bank of case studies in Australia is highly appreciated. In New Zealand, no such substantial manual exists although some guidance on willow control management can be found on Regional Council websites, for example:

- 'Eradicating Crack Willow and Grey Willow' in 'The Waitakere Best Practice Guidelines for Bush and Riparian Restoration'[1],
- 'Mechanical vegetation removal – willows and other plant pests' in 'Best Practice Guidelines for Vegetation Management and In Stream Works'[2],
- Willow removal section in the 'Living Streams handbook'[3].

A compilation of best management practices specific to the New Zealand stream environment and a databank of New Zealand case studies would also be of great benefit to willow control management.

[1] http://www.waitakere.govt.nz/cnlser/pw/greennetwk/pdf/willow-control-best-practice.pdf (accessed March 2013)
[2] http://www.waikatoregion.govt.nz/PageFiles/5677/tr0741.pdf (accessed March 2013)
[3] http://ecan.govt.nz/GET-INVOLVED/LOCAL-PROJECTS-COMMUNITY-GROUPS/LIVING-STREAMS/HANDBOOK/PART-2/Pages/removing-willows.aspx (accessed March 2013)

This review focused on willow removal as a stream rehabilitation measure where the goal is to enhance riparian and instream ecological values. Hence, the following specific management recommendations are

- State the specific goal for willow removal, such as increase in water quality, riparian or instream biodiversity, increase in invertebrate or fish habitat, *etc.* taking into account spatial limitations and that long timespans for recovery can be expected. There are multiple indicators that can be used to monitor and evaluate restoration success and the management goals will guide which indicators to use (*e.g.* dissolved oxygen, invertebrates, fish, birds, habitat, ecological processes, *etc.*) but success also depends on whether the restored stream ecosystem is compared to the pre-willow removal or to a potential pristine reference condition.
- Prioritise riparian management where it is most needed within a catchment or a region and most effective for a specific goal. For example, in order to maximise ecological outcomes from stream rehabilitation efforts, it is recommended that 1) planting of native riparian vegetation should be prioritised at pastoral sites before proceeding to streams where willows need to be removed first, unless the willows are invasive and threaten other ecosystems, 2) willow removal should be prioritised for streams where the native riparian vegetation can fulfil an erosion-control function on its own and where the expected benefits are maximised, which is likely the case in smaller streams.
- In each case, evaluate what are the adverse effects that willows currently have and what are the expected benefits from rehabilitation.
- Evaluate the potential negative effects and the risks involved that are associated with 1) loss of important functions riparian vegetation fulfils: change in shading, temperature regime, *etc.*, 2) issues with mobilisation of sediment, organic matter and nutrients and geomorphic effects, and 3) the removal process itself. Here, knowledge of the system is extremely important.
- Given the potential ecological risks and negative consequences that are involved with willow removal in some cases, it is not recommended 1) where willow roots retain large amounts of fine sediment and organic matter that will be mobilised and threaten downstream ecosystems, and 2) where removal will lead to undesirable changes in geomorphology and flow patterns.
- Watch out for threatened plant species among the willowed area.
- Remove most invasive willow species/hybrids first, as this prevents potential impacts on stream or wetland ecosystems not yet invaded by willows.
- Consider alternative strategies to wide-scale willow removal, such as staged removal and replacement with native vegetation or clearing of small willows and replacing with natives in the understorey leaving the willow canopy intact until the native vegetation is established.

- Willow management would improve if handled more consistently in New Zealand. For example, it makes little sense to remove willows and re-establish native riparian vegetation in agricultural catchments for reasons to increase biodiversity and stream health when at the same time new willows (even if non-invasive) are being planted on streambanks where native riparian vegetation could provide the same functions that willows fulfil (stabilisation, canopy cover, buffer *etc.*) but also positively contribute to biodiversity and stream health.

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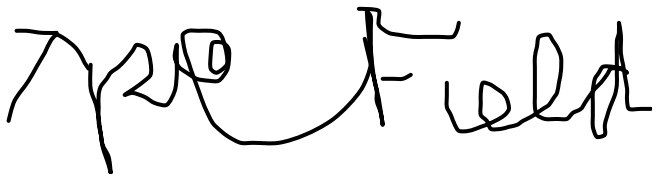
Reserve Management Plans

Submission date: 3/8/2017

Receipt number: 11

Question	Response
Contact Details	
Full Name:	Tony FIELD
Name of Organisation (if on behalf of an Organisation)	
Address for Service:	637 Waitarere Beach Road
Postcode:	5510
Daytime Telephone:	06 3678489
Mobile:	
Email:	trofield@xtra
Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	Waitarere Domain
Enter your comments for the Waitarere Beach Reserves:	There appear to be no concrete plans to define the northern boundary of the western end of the Domain and to address the problem of who owns trees along that boundary. Apart from that the plan is full of policies but with very limited details about actions. Perhaps I have to wait for the development concept plan.
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the Ohau River Reserves your below comments relate to.	
Enter your comments for the Ohau River Reserves:	
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council hearing for the Draft Reserve Management Plans?	No
Do you wish to speak in support of your submission at the hearing?	No
Additional Information	
Attachments:	

Question	Response
Declaration	
Signature:	Name of signatory: T.R.O. Field Link to signature
Date:	08/03/2017
Council Use Only	
Date Received:	
Submission No:	



Reserve Management Plans

Submission date: 3/9/2017

Receipt number: 13

Question	Response
Contact Details	
Full Name:	Alison Diana Timms, Anthony Douglas Timms
Name of Organisation (if on behalf of an Organisation)	NA
Address for Service:	20 Carlisle Street, Wellington
Postcode:	6023
Daytime Telephone:	04 383 7388
Mobile:	021 0761399
Email:	adtimms@slingshot.co.nz
Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	Holmwood Park
Enter your comments for the Waitarere Beach Reserves:	Our holiday home (8 Rangitane Grove) adjoins Holmwood Park. We fully support the objectives and policies of the draft plan. The park is a very family friendly area for general small scale recreational use, and is well utilised especially during the summer months by groups and individuals - ball games, walking dogs, riding bikes, using the play equipment and the rugby goal and volleyball equipment - these latter two were provided by locals. We'd like to see bit more play equipment, such as the ship which was very popular but is now stripped down to being just a seat. Another picnic table would be good, and howabout a basketball hoop? .
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the Ohau River Reserves your	

Question	Response
below comments relate to.	
Enter your comments for the Ohau River Reserves:	
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council hearing for the Draft Reserve Management Plans?	No
Do you wish to speak in support of your submission at the hearing?	No
Additional Information	
Attachments:	
Declaration	
Signature:	Name of signatory: Alison Timms Uploaded signature image
Date:	09/03/2017
Council Use Only	
Date Received:	
Submission No:	

Reserve Management Plans

Submission date: 3/9/2017

Receipt number: 12

Question	Response
Contact Details	
Full Name:	Alison Diana Timms, Anthony Douglas Tmms
Name of Organisation (if on behalf of an Organisation)	
Address for Service:	20 Carlisle Street, Wellington
Postcode:	6023
Daytime Telephone:	04 383 7388
Mobile:	021 0761399
Email:	adtiims@slingshot.co.nz
Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	Holmwood Park
Enter your comments for the Waitarere Beach Reserves:	
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	We fully support the objectives and policies of the draft plan. We'd like to make the following comments and points Re. dune management - we are keen to see the spraying programme continued at the Hydrabad entrance to control wild acacia. Re. encroachments - we wonder if those property owners should be required to seek an encroachment licence and pay an annual fee (as happens in Wgton). Make it a requirement that no fences or other means of blocking off reserve land is allowed. Re. the two roads giving vehicle access to the beach - these are graded from time to time, but the debris from the grading is then dumped on the main beach - sharp edged roading material included. Not only does It spoil our lovely stretch of sand, it's hazardous for anyone going barefoot on the beach (most people) especially young children. Could it be a requirement that it is dumped further along the beach, away from the main user part?
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the Ohau River Reserves your below comments relate to.	

Question	Response
Enter your comments for the Ohau River Reserves:	
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council hearing for the Draft Reserve Management Plans?	No
Do you wish to speak in support of your submission at the hearing?	No
Additional Information	
Attachments:	
Declaration	
Signature:	Name of signatory: Alison Timms Uploaded signature image
Date:	09/03/2017
Council Use Only	
Date Received:	
Submission No:	

Reserve Management Plans

Submission date: 14/03/2017 7:45 AM

Receipt number: 15

Question	Response
Contact Details	
Full Name:	Sam Ferguson
Name of Organisation (if on behalf of an Organisation)	
Address for Service:	77 Waka Tete Place Waitarere Beach
Postcode:	5510
Daytime Telephone:	027 827 7037
Mobile:	
Email:	sdf.blackbetty@gmail.com
Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	Wairarawa Stream Reserve
Enter your comments for the Waitarere Beach Reserves:	I support the community use of the reserve for a community garden and tractor storage. As the tractor is being used for fishing boats there is a need for wash down facilities and a means to deal with fish carcasses.
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	The Waitarere Rise area is well outside of the 400m and 800m pods for access to parks and reserves. One way to rectify this is to work with the Waitarere Rise society to form a joint strategy on reserves in that area. The society owns reserve land that is currently private and may be willing to partner with council. Although the area is presently surrounded by plenty of open space this may change in the future and the opportunity is now for council to secure reserve land for future use.
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm which of the Ohau River Reserves your below comments relate to.	
Enter your comments for the Ohau River Reserves:	
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council	No

Question	Response
hearing for the Draft Reserve Management Plans?	
Do you wish to speak in support of your submission at the hearing?	No
Additional Information	
Attachments:	
Declaration	
Signature:	Name of signatory: Sam Ferguson Link to signature
Date:	14/03/2017
Council Use Only	
Date Received:	
Submission No:	

Reserve Management Plans

Submission date: 12/03/2017 14:30 PM

Receipt number: 14

Question	Response
Contact Details	
Full Name:	Raewyn Tate
Name of Organisation (if on behalf of an Organisation)	
Address for Service:	103 Rua Avenue Waitarere Beach Levin
Postcode:	5510
Daytime Telephone:	06 368 5572
Mobile:	
Email:	rrtate@xtra.co.nz
Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	
Enter your comments for the Waitarere Beach Reserves:	Section 2 I fully support the Surf Lifesaving Club being able to build a new Surf Club further forward on the dunes front. This will be an opportunity for Council to extend the car park and put in a playground and picnic area on the fore dunes. Many elderly people do not like to drive on the beach, but love watching the sea, at present only one spot in the car park gets a glimpse of the sea. SIGNAGE Beach access, The blue signs posts marking the walking tracks through the dunes are so deeply buried, only their tips are showing, another month and they will be completely buried. HORSES Signage indicating that horses are prohibited from using the walking tracks should be erected at the end of the car park, horse's are damaging the tracks and making it dangerous by leaving big holes in the track from their hooves, there by making it unsafe for walkers. WAITARERE BEACH ROAD ACCESS TO THE BEACH Surely it would be more practical to erect a log retaining fence along the edge nearest to footpath to stop the continuous flow of sand on the footpath and road and the expense of contractors. FIRE RISK ON THE DUNES the report seems to have an issue with property owners mowing the dunes in front of their properties. The reason we keep the grass cut is to act as a firebreak. With so many dry wood shrubs, dead lupin, dry grass etc, I personally feel there is a high fire risk. There is no access onto the dunes for a fire truck, and no reticulated water. There has already been a fire in front of the houses at the end of the car park caused by a Gipsy truck with a built in

Question	Response
	fire, sparks from this set fire to the dunes. Luckily some one saw it before it got out of hand. Many people stay overnight in the car park , it would only take a cigarette butt to cause a fire. WEED CONTROL ON BOTH THE FOREDUNES AND THE BACK DUNES. In 2011 Horizons commissioned a plan for restoration of Waitarere dunes and for the eradication of introduced shrubs and weeds. In it they proposed that Beach front residents pay quite a hefty levy yearly and the rest of the community a lot smaller levy, I'm not sure whether this went ahead. But at present I pay around $459.00 For Horizons rates and $4683.00 to Horowhenua Cncl. The lack of maintenance on the dunes is DISGRACEFUL. Very little has been spent on weed eradication. We pay the highest rates in the Horowhenua and see very little for it. Last year I understand a contractor was employed to spray the lupin from the fore dunes to the back dunes. Some areas were sprayed, but fromthe end of the surf Club car park to Windsor Street was completely missed. I hope this will be done in the near future THE DUNES ARE COVERED IN PLANTS THAT ARE NOT NATIVE TO THE DUNES. Boxthorn, Karo, buckthorn shrubs. Wild pohutukawa, lupin, macrocarpa some of which are mature trees, others covering the frontage of two properties, that were trimmed back by a former owner, but are now taking off and need removing. BUT TO ADD INSULT TO INJURY 2 years ago, a contractor employed by Cncl or Horizons made a bit of an attemp to dig out a few of the sword yucca plants which I suspect were planted at the entrances some years previously, (they have a leathal sharp point that could take your eye out) however the contractor only partially dug out the roots, leaving bits still in the ground, then they threw what they had dug out into the hollows, so now we have a forest of yaccas. WHY IS NO CHECK EVER MADE OF WORK DONE BY CONTRACTORS? BLOWOUTS When some of these were filled in a couple of years ago. Flax was planted where the sand was exposed, flax is not a suitable plant for foredunes. When will people responsible ever learn what should and should not be planted on the dunes. More responsibility should be taken when selecting grasses and plants.
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	Wairarawa Stream Walkway to Baggerys Lake. this is another project that started with great fanfare, and sponsorship to create this walk and biking track. After the first year when work was done from Rua to Karakura Street, nothing further has been done, what is the use of further talks on developing shared pathways when nothing ever happens except talking, Horowhenua is missing out on the tourists who flock to Napier, Gisborne, Waikanae etc. to walk and ride the walkways along their coastlines and rivers, especially with the huge number of ebikes being sold to the older person who previously couldn't ride these walkways and now have the time and means to do so.
Section 3: Draft Ohau River Reserves Management Plan	

Question	Response
Please tick one or more of the options below to confirm which of the Ohau River Reserves your below comments relate to.	
Enter your comments for the Ohau River Reserves:	
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council hearing for the Draft Reserve Management Plans?	Yes
Do you wish to speak in support of your submission at the hearing?	Yes
Additional Information	
Attachments:	
Declaration	
Signature:	Name of signatory: Raewyn Tate Link to signature
Date:	11/03/2017
Council Use Only	
Date Received:	
Submission No:	

Fish & Game
NEW ZEALAND

15th March 2017

Horowhenua District Council
126 Oxford Street
Levin

Attn: Tiffany Williams

Dear Tiffany

Submission on Draft Reserve Management Plans

Please find enclosed the Wellington Fish and Game Council's submission on the Draft Reserve Management Plans.

Yours faithfully

Adam Canning
Resource and Research Officer

RESERVES ACT 1977

TO: Horowhenua District Council

SUBMISSION ON: Draft Management Plans.

SUBMISSION BY: Adam Canning (Resource and Research Officer) on behalf of Wellington Fish and Game Council.

ADDRESS: Wellington Fish and Game Council
292 Featherston Street
P O Box 1325
PALMERSTON NORTH

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1. Comments and concerns:

1.1. Wellington Fish and Game supports the actions recommended throughout the Draft Reserve Management Plans.

1.2. We seek that current access points along the Ohau River are maintained to allow continued usage by anglers.

1.3. We support the removal of weeds and planting along riparians. We do, however, seek that along the immediate river edge that low lying vegetation (e.g., Carex sp.) are planted so anglers have room to cast and the vegetation is robust to floods. We also seek that access tracks are developed in newly revegetated riparians so anglers can continue to access the river.

2. I do not wish to be heard in respect of this submission.

Dated in Palmerston North this 15th day of March 2017.

Adam Canning
Resource and Research Officer
Wellington Fish and Game Council
P O Box 1325
PALMERSTON NORTH

16th March 2017

Draft Reserve Management Plans
Horowhenua District Council
Private Bag 4002
Levin 5540

Attn: T. Williams

SUBMISSION ON THE PROPOSED HOROWHENUA RESERVES MANAGEMENT PLANS –

- **DRAFT WAITARERE BEACH FORESHORE RESERVE MANAGEMENT PLAN**
- **DRAFT COMBINED WAITARERE BEACH RESERVES MANAGEMENT PLANS**
- **DRAFT OHAU RIVER RESERVES MANAGEMENT PLAN**

INTRODUCTION

1. This submission is made by the New Zealand Motor Caravan Association Inc. ("the NZMCA") on the proposed Horowhenua Reserves Management Plans (RMP's). The NZMCA encourages and supports permissive policies that allow responsible freedom camping in certified self-contained ("CSC")[1] motorhomes and caravans ("motor caravan") so that users can enjoy exploring the Horowhenua District without unreasonable or unnecessary restrictions.

2. The NZMCA was established in 1956 to foster and advance the motor caravan movement by providing relevant services and information, promoting fellowship, vehicle safety, road courtesy and protection of the environment. Today, the NZMCA represents the interests of over 71,500 New Zealanders who share a passion for exploring our country at leisure in their purpose-built motor caravans.

3. Motor caravanning is a traditional recreational activity in New Zealand that enables a wide range of people and families to provide for their social and economic wellbeing. Travelling in a CSC motor caravan enables people and the communities they visit to provide for their health and safety while minimising adverse effects on the environment.

4. This submission will encompass all three of the proposed Reserve Management Plans, which include;

   a. Waitarere Beach Foreshore Reserves

[1] Certified to the *New Zealand Standard – Self containment of motor caravans and caravans (NZS 5465:2001).*

Freedom to Explore
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b. Waitarere Beach Reserves;
   i. Waitarere Domain
   ii. Holmwood Park
   iii. Wairarawa Stream Reserve

c. Ohau River Reserves;
   i. Gladstone Reserve
   ii. Kimberley Reserve
   iii. Kirkcaldies Reserve
   iv. River Access of Muhunoa East Road
   v. Parikawau Reserve

5. The NZMCA would also like to note that the organisation was not consulted on the draft Parks and Reserves General Policy 2016, which underpins much of the rationale in these management plans.

KEY COMMENTS AND RECOMMENDATIONS

6. Although not a statutory requirement, the Freedom Camping Act 2011 (FCA) is an important and relevant piece of legislation that should be considered when preparing RMP's. As such, we recommend that it is inserted into the diagrams of each of the Management Plans in the section "Overview of Statutory Context".

7. Prior to March 2015, under the Horowhenua District Council (HDC) Traffic and Parking Bylaw 2007, overnight camping on a Road Reserve or any public space was a prohibited activity. This was repealed and removed at a council meeting held 4th March 2015. Restrictions on overnight camping were then incorporated into the Parks and Reserves General Policy Document 2016, that states in policy 4.9.4;

   "Overnight camping shall only be permitted within the reserves where this activity has been specifically identified within the reserve management plan for that reserve"

   This is effectively taking a prohibitive approach to freedom camping within reserves, and the NZMCA opposes this, as it is inconsistent with;

   a. the overriding purpose of 'recreational reserves' under section 17 of the Reserves Act 1977 ("the RA"); and

   b. the permissive regime under the Freedom Camping Act 2011 ("the FCA");

8. The NZMCA submits that HDC should recognise the importance of freedom camping in its RMP's. The NZMCA commends HDC that motor caravans can legally park as of right on any Road Reserve within the District.

9. Not considering or identifying areas within the reserves that are suitable for responsible freedom camping is inconsistent with Objective 4.9.3 in the Parks and Reserves General Policy Document 2016, which is;

'That provision is made in specific reserves with appropriate facilities for campervans and rental vans to stay overnight'.

10. Further, not considering or identifying areas within the reserves that are suitable for responsible freedom camping is inconsistent with the actions for the 'Camping and Motor Homes' section, which are;

    a. *'Identify reserves and the specific parts of those reserves that are suitable for camping'.*

    b. *'Undertake an analysis of overnight camping (including Motor Homes) within the District's reserves, to understand the levels of usage, the impacts on the reserves and consider the necessity of additional facilities or services and the appropriateness of charging for overnight camping'.*

11. The Management Plans do not recognise the importance of overnight camping in New Zealand and therefore does not allow for responsible overnight parking to occur on any reserves captured by the Management Plan. This is a surprise to the NZMCA; particularly given the primary purpose of the RMP is to provide for public recreation.

12. As all of the reserves are identified at least in part as a recreation reserve, freedom camping is not inconsistent with the purpose of reserves. Freedom camping is recognised as an important recreational activity under the FCA. Under the RA, recreation reserves are;

    "for the purpose of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor recreational activities, including recreational tracks in the countryside'.

13. The council should specifically mention that freedom camping is permitted in all reserves, unless prohibited in specific reserves. It is suggested that this could be done by inserting a new policy into each individual Objectives and Policies 'Objective - Reserve Use' section in each Management Plan.

    The Council may also consider using their delegated powers under s44(1) of the RA to consent to freedom camping in lieu of specific reserve management plan policies (see attached letter from the Minister of Conservation to Territorial Authorities, dated 15 March 2017).

14. Both Foxton and Levin are classified as motorhome friendly towns under the NZMCA motorhome friendly town scheme, and it is disappointing that this approach is not being consistently implemented across the District through the reserve management plans.

    Below is a summary of the three different RMP's, and key recommendations and comments on each. Each Management Plan is similar with their content regarding freedom camping, so it is considered appropriate to combine them into one submission document.

15. **DRAFT WAITARERE BEACH FORESHORE RESERVE MANAGEMENT PLAN**

General comments:

- There is no mention of freedom camping being permitted in any part of the Reserve under this management plan.

- Not allowing responsible freedom camping in any part of the Reserve is inconsistent with the Reserve Use Policy 3.7.1.1 in the Management Plan, which is to

  'Allow activities to take place within the Foreshore Reserve area which are consistent with the purpose of the Reserve and which will not adversely affect the significant values of the Reserve'.

- At least three parts of this Reserve are vested as Recreation Reserve, which freedom camping is not inconsistent with.

- Four parts of this Reserve are vested as Local Purpose – Road Reserve, which according to the Parks and Reserves General Policy Document 2016, motor homes can legally park on as of right. This needs to be incorporated into the policies of this plan, as discussed below.

Key recommendations:

That Council considers permitting freedom camping in CSC vehicles on all vehicle-accessible reserves with appropriate restrictions, where necessary.

Section	**Support/ Oppose or Neutral**	**Recommendation**
1.3. Overview of Statutory Context	Oppose in part The Freedom Camping Act 2011 is an important piece of legislation that should be considered when preparing reserve management plans.	Include the Freedom Camping Act 2011 in the diagram of national legislation that needs to be considered when preparing a reserve management plan.
3.8.1. Objective – Reserve Use Add Policy	Oppose in part This section fails to recognise the importance of freedom camping as a distinct recreational activity for the District.	Add a policy to ensure the management plan duly recognises the importance and value of freedom camping to the public and communities. 'Freedom camping in a certified self-contained

		vehicle is allowed in all parts of the WAITARERE BEACH FORESHORE RESERVE, unless prohibited in specific reserves, and provided all conditions for freedom camping are complied with
3.8.1. Objective – Reserve Use Add Policy	Oppose in part	Add a policy that alludes to the fact that freedom camping in motor homes is permitted in the areas vested as Road Reserves within the Management Plan 'Freedom camping in motor homes is permitted in areas of the reserve that are identified as Road Reserves'.

16. **DRAFT COMBINED WAITARERE BEACH RESERVES MANAGEMENT PLANS**

General comments:

- There is no mention of freedom camping being permitted in any of the three reserves under this Management Plan (Waitarere Domain, Holmwood Park, Wairarawa Stream Reserve).

- All the reserves within this Management Plan are classified to include informal recreation, and the visions of each reserve mention that they want to maintain and develop the reserves for passive and informal recreation purposes.

- Not allowing responsible freedom camping in Waitarere Domain is inconsistent with the Reserve Use Policy 3.7.1.1 in the Management Plan, which is to;

  'Ensure that the Domain remains available for use by the community as an important recreation space'.

- Not allowing responsible freedom camping in Holmwood Park is inconsistent with the Reserve Use Policy 4.7.1.1 in the Management Plan, which is to;

  'Ensure that the Holmwood Park remains available for use by the community as a passive and informal recreation space'.

- The Wairarawa Stream Reserve has a Motor Camp, which is in an area of the reserve that was designated under the District Plan as "Reserve for Civic Purposes". Policy 5.8.1.1 identifies that the Management Plan aims to;

  'Allow for the public access the Wairarawa Stream Reserve provided it does not compromise the natural and ecological values of the Reserve and the Stream'.

Using Objective 4.9.2 from the Parks and Reserves General Policy to justify not allowing responsible freedom camping is inappropriate. We argue that not recognising freedom camping in reserve management plans to protect commercial revenue streams is contrary to the provisions in other relevant Acts, for example

a. The Freedom Camping Act 2011 does not enable local authorities to regulate camping through bylaws1 that seek to protect the revenue streams of commercial operators. It provides authorities with access to an enforcement regime while protecting one's right to enjoy freedom camping without undue restrictions or prohibitions;

b. The Resource Management Act 1991 prohibits local authorities from taking into account the effects on trade competition when making plans and considering resource consent applications. We note the Council may be guided by the RMA's statutory requirements for the provision and planning of its reserves;

c. The Commerce Act 1986 promotes competition in markets for the long-term benefit of New Zealand consumers. It prohibits anti-competitive behaviour. While we do not consider freedom camping to be in direct competition with commercial operators, we recognise this is often the argument put forward in an attempt to justify prohibitions. In which case, we believe prohibiting freedom camping on public land not only contravenes the purpose of this Act, it denies income opportunities for other local businesses that would directly benefit from the patronage of freedom campers.

   Prohibiting responsible freedom camping in this reserve is inconsistent with Policy 5.8.1.3, which provides for other appropriate uses by the community.

   Each reserve within this management plan has its own objectives and policies, which is reflected in the table below.

Key recommendations:

That Council considers permitting freedom camping in CSC vehicles on all vehicle-accessible reserves with appropriate restrictions, where necessary.

Section	Support/ Oppose or Neutral	Recommendation
1.3. Overview of Statutory Context	Oppose in part The Freedom Camping Act 2011 is an important piece of legislation that should be considered when preparing reserve management plans.	Include the Freedom Camping Act 2011 in the diagram of national legislation that needs to be considered when preparing a reserve management plan.
3.7.1. Objective – Reserve Use Add Policy (Waitarere Domain) 4.7.1. Objective – Reserve Use Add Policy (Holmwood Park) 5.8.1. Objective – Reserve Use Add Policy (Wairarawa Stream)	Oppose in part This section fails to recognise the importance of freedom camping as a distinct recreational activity for the District.	Add a policy to ensure the Management Plan duly recognises the importance and value of freedom camping to the public and communities. 'Freedom camping is allowed in all reserves within WAITARERE BEACH, unless prohibited in specific reserves, and provided all conditions for freedom camping are complied with'.

17. **DRAFT OHAU RIVER RESERVES MANAGEMENT PLAN**

General comments:

- While the NZMCA commends that freedom camping and camping, in general, are mentioned in both Parikawau Reserve and Kimberley Reserve (Kimberley reserve restricted to summer months and only with a permit), there is not a clear policy that suggests that freedom camping is a permitted activity in all reserves under this management plan (Gladstone, Parikawau, Kimberley). Not allowing responsible freedom camping in these reserves is inconsistent with the common Policy of "Uses of the Reserve" 2.1.4.2(a) which is to;

  'Provide and maintain appropriate facilities on the Ohau River Reserves which encourage the responsible use and enjoyment of the Reserves and the Ohau River by the public".

- In Gladstone Reserve, the Management Plan identifies that the reserve is prone to flooding and that no vehicle access to reserve beyond the metal carpark outside of the summer period. Motor caravans and other vehicles can evacuate with very little notice because of their mobile nature. Not allowing freedom camping on this reserve in the metal carpark is inconsistent with Policy 3.7.1.1 in the Management Plan; which is to;

  'Allow freedom of public access to the recreational part of Gladstone Reserve provided this does not compromise the natural or ecological values of the Reserve and the safety of reserve users'.

  Key recommendations:

That Council considers permitting freedom camping in CSC vehicles on all vehicle-accessible reserves with appropriate restrictions, where necessary.

Section	**Support/ Oppose or Neutral**	**Recommendation**
1.3. Overview of Statutory Context	Oppose in part The Freedom Camping Act 2011 is an important piece of legislation that should be considered when preparing reserve management plans.	Include the Freedom Camping Act 2011 in the diagram of national legislation that needs to be considered when preparing a reserve management plan.
2.1.4.2 Objective – Reserve Use Add Policy *(Common objective and Policies Ohau River Reserves)*	Oppose in part This section fails to recognise the importance of freedom camping as a distinct recreational	Add a policy to ensure the Management Plan duly recognises the importance and value of freedom camping to the public and

	activity for the District.	communities. 'Freedom camping is allowed in all reserves within OHAU, unless prohibited in specific reserves, and provided all conditions for freedom camping are complied with'.
3.7. Objective – Reserve Use Add Policy	Oppose in part	'Due to flooding concerns, freedom camping is restricted to the metal car park all year around'.

GENERAL COMMENTS ON THE PLAN

Statutory considerations

18. Freedom Camping Act 2011

We acknowledge the Council is not statutorily required to give effect to the FCA's permissive regime when preparing this plan under the Reserves Act 1977. However, the FCA represents Parliaments intent to protect everyone's right to freedom camp (responsibly) and encourages local authorities to adopted permissive bylaws. HDC does not currently have a freedom camping bylaw; instead, overnight parking is dealt with under the Parks and Reserves General Policy Document 2016.

We believe that in time the Council will consider adopting a freedom camping bylaw. Therefore, it seems prudent to ensure that from here on in the Council's freedom camping-related policy framework will include consistent provisions.

19. Reserves Act 1977

The plans acknowledge the purpose of the Reserves Act, which includes the preservation and management of areas for the benefit and enjoyment of the public, and the preservation of access for the public. In our view not referencing responsible freedom camping in each plan fails to uphold these two fundamental requirements.

20. Resource Management Act 1991

We submit prohibiting freedom camping to the Parks and Reserves General Policies extent, which underpins the rationale of the plans, is an excessive step towards achieving the purpose of the Resource Management Act. This is because adequate restrictions on vehicle type and length of stay provisions can

promote the sustainable management of the reserves in a way that enables people and communities to provide for their social and economic well-being.

21. Local Government Act 2002

Motor caravanning is a fast growing activity in New Zealand. The NZMCA has over 71,500 individual members - many of whom enjoy camping on public land. We are not convinced the plans are designed to meet the current and future needs of the community members who also enjoy motor caravanning.

FREEDOM CAMPING – A PERMITTED ACTIVITY

22. Parliament has recognised, through the permissive regime set out in the FCA, that freedom camping is an important leisure activity for many New Zealanders. In her opening speech on the first reading of the Freedom Camping Bill in 2011, the Minister of Conservation called freedom camping "an important part of our tourism industry and great Kiwi lifestyle".

23. For many domestic tourists, freedom camping is often seen as a "Kiwi tradition". Many New Zealanders value the flexibility and independence that freedom camping offers. They do not always want to be confined to camping grounds but enjoy being on the road and having the ability to stop where they please or to enjoy the serenity of a reserve location. The NZMCA believes the Management Plans should recognise Parliament's intent and this Kiwi way of life by adopting permissive provisions that demonstrate a willingness to accommodate the recreational needs of responsible freedom campers.

BENEFITS OF A PERMISSIVE REGIME

Economic benefits

24. Motor caravanning is worth over $650 million to New Zealand's economy and the latest research has reinforced how significant the industry is to local economies, in particular, those reliant on tourism. For example; a report published in October 2012 concluded campervan hirers in the year 2011 spent on average $195 per day during their travels[2]. The Tourism Industry Aotearoa came out in support of these findings stating campers were contributing to communities all around New Zealand, supporting local business and jobs, and their spending was not limited to tourism operators rather spread across a wide range of businesses in the community;

25. In February/March 2014 the Central Otago District Council surveyed 1,000 campers at popular freedom camping spots across their district.

26. According to results; the average camper spent $91 a day while visiting the district, 78% were domestic visitors, and 64% over 60 years of age. The Council's Parks and Recreation Manager, Mathew Begg, noted that this spend was quite significant to the community[3].

[2] Understanding the Value Created by Campervan Tourists in New Zealand, COVEC (NZ Market Research Company)_

[3] http://www.odt.co.nz/regions/central-otago/309317/freedom-campers-good-spenders [accessed 16 July 2014]

27. A survey carried out in March/April 2012 at Ferry Road, Taupo indicated the average motorhome visitor spent $401 per visit. Also of note, over 100 local businesses signed a petition to the Council supporting the preservation of freedom camping at this site.

28. A survey carried out in March 2012 at the Murchison town centre, by CB Marketing Consultants in Nelson, showed the average NZMCA couple spent $117 per day in local businesses.

Social benefits

29. Areas that permit certified self-contained freedom camping generally suffer less from vandalism and other undesirable social behaviour as CSC campers provide free security for the area. Many community clubs and associations have formed reciprocal relationships with the NZMCA allowing our members to park overnight for the security it provides to their facilities. This positive benefit from allowing responsible freedom camping is frequently overlooked.

Environmental benefits

30. In addition to the benefits associated with CSC camping, NZMCA members value the places they stay and take special care to look after and improve them. Members regularly volunteer their time with local organisations and authorities to tidy up sites, pick up litter, and plant vegetation.

SUMMARY

31. We recommend the Management Plans recognises responsible freedom camping in CSC vehicles as important passive recreational activities in New Zealand that contribute a great deal to people's enjoyment of the outdoors as well as the local economy. It is a significant part of our kiwi culture.

32. Responsible freedom camping allows people of all backgrounds to experience the various attractions and scenic pleasures New Zealand has to offer. The Council plays a vital role in supporting domestic tourism and should recognise the needs of all people who want to share in this traditional kiwi way of life.

33. We submit permitting freedom camping with (if necessary) appropriate and reasonable restrictions uphold the intent and purpose of the RA and other statutory documents that contribute to the overall planning framework.

34. The NZMCA would appreciate the opportunity to discuss these suggestions further with the Council. We also wish to speak at the hearing.

Yours sincerely,
NEW ZEALAND MOTOR CARAVAN ASSOCIATION INC.

Victoria Edmonds

Policy and Planning Advisor

Department of Conservation
Te Papa Atawbai

8 July 2013

Chief Executive
Territorial Local Authorities
North Island
New Zealand

Dear Sir/Madam

Revised Delegation of Powers under the Reserves Act 1977

The Hon Dr Nick Smith, the Minister of Conservation has recently approved new delegations to local authorities, including regional councils, under the Reserves Act 1977.

A copy of the instrument of delegation signed by the Minister of Conservation on 12 June 2013 is attached, and updates the one currently incorporated in the *Reserves Act Guide*.

These delegations extend the scope of the existing powers by removing the previous limitations and conditions and they include some additional delegations. It is envisaged they will better enable local authorities to make decisions affecting reserves and are in accordance with the spirit of the changes taking place within the Department of Conservation with an emphasis on conservation with communities.

Local authorities will now be able to consider consent applications that previously had to be referred to the Department of Conservation for the consent of the Minister or the Minister's delegate, for matters such as the granting of leases, licences or easements over council vested reserves.

An appropriate record of any decision made under the delegations must be retained and it is suggested this should be in the form of a separate submission or component of a submission to the decision maker with clear recommendations and provision for the formal approval to be recorded.

A submission template is attached as a guide for the preparation of submissions together with, by way of example, a recent submission for the granting of a lease that required Ministerial consent by the Department. We trust that these will provide some guidance as to the information local authorities should be providing to the consenting authority.

In exercising the new delegations local authorities must, of course, still act in accordance with the requirements of the Reserves Act; and the processes set out in the Act must still be complied with.

Waikato Conservancy
Private Bag3072, Waikato Mail Centre, Hamilton 3240
Telephone (07) 858-1000.

There is an expectation that local authorities will maintain a distinction between their role as the administering body of a reserve and their role as a delegate of the Minister.

It is important to note that the decision making function, whereby the merits of the proposal are considered, is a fundamental responsibility of the reserve administering body. The Minister is not the decision maker, but has, instead, a supervisory role in ensuring that the necessary statutory processes have been followed; that the administering body has taken the functions and purposes of the Reserves Act into account in respect of the particular classification and purposes of the reserve; that it has considered any objections or submissions from affected parties; and that, on the basis of the evidence, the decision is a reasonable one.

A more detailed explanation of the differing roles and the matters which need to be considered in exercising the delegation of consent is attached as *Appendix 1*

It should be noted that the power to revoke a reservation has not been delegated to ensure that such a significant step would remain subject to consideration by the Minister or the Minister's departmental delegate.

The Minister is confident that the delegations will be exercised responsibly and the Department is of course still able to provide guidance and advice to you; however, where the required advice is complex and lengthy we may need to recover costs, though this would be discussed prior to incurring them.

There are some actions that the Department will need to be notified of to enable the maintenance of its national reserve records. Such actions would include changes to a reserve classification and other actions requiring a gazette notice. Please ensure that a system is put in place whereby such notification is undertaken.

Notices should be sent for the attention of Anna Ginnaw at our Hamilton office; and Anna may be contacted by phoning (07) 858 1050 or by email to aginnaw@doc.govt.nz

Please do not hesitate to contact Anna for advice.

Yours faithfully

Deidre Ewart
Manager Permissions/SLM

EXERCISING THE DELEGATION OF CONSENT TO LOCAL AUTHORITIES

The Minister's Role

It is important to note that the decision making function, whereby the merits of the proposal are considered, is a fundamental responsibility of the reserve administering body ("the AB"). The Minister is not the decision maker, but has, instead, a supervisory role in ensuring that the decision was arrived at in compliance with the requirements of the Reserves Act; with the primary considerations being:-

(a) That the status of the land has been correctly identified and the AB has the power and authority to make the decision; [1]

(b) That the necessary statutory processes have been followed;

(c) That the AB has taken the functions and purposes of the Reserves Act into account in respect of the particular classification and purposes of the reserve, as required by section 40 of the Act;

(d) That the AB has considered any objections or submissions from affected parties; and that, on the basis of the evidence, the decision is a reasonable one. [2]

(e) That pursuant to the requirements of section 4 of the Conservation Act 1987, the AB has consulted with and considered the views of tangata whenua or has in some other way been able to make an informed decision. [3]

An example of the different roles can be seen in the consideration of submissions or objections under s.120 of the Reserves Act; which only requires that the AB provide a "summary" of all objection and comments received by it and state the extent to which they have been allowed or disallowed. The purpose of this requirement must be for the administering body to demonstrate that it has carried out its obligation to consider every objection and submission.

The actual content of the submissions is a matter for consideration by the AB as the primary fact finding body and decision maker; and it would be inappropriate for the Minister to receive and consider objections or submissions in relation to the merits of an application.

The Minister may, however, consider submissions relating to procedure; as these do relate directly to the consenting role. Another exception is under the provisions of s.24 of the Act, where the AB is required to forward all objections to the Minister for consideration. In this instance the Minister's delegate would need to consider the actual content of the submissions and be able to conclude that the AB had given fair and reasonable consideration to the subject matter.

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1 i.e. the legislative authority for the proposed consent has been clearly identified, and where necessary, that there is sufficient evidence that the reserve is vested in the AB.

2 The word 'reasonable' is used in the public law sense, whereby a decision would be considered unreasonable if it were one which no sensible decision maker acting with due appreciation of their responsibilities would have made.

3 See Chapter 4 of the Reserves Act Guide for local Government.

RESERVES ACT 1977

INSTRUMENT OF DELEGATION FOR TERRITORIAL AUTHORITIES

1. PURSUANT to section 10 of the Reserves Act 1977 I, NICK SMITH Minister of Conservation, DELEGATE to all territorial authorities (as defined in this Instrument of Delegation) such of my powers, functions and duties under the Reserves Act 1977 as are set out in the following Schedule subject to the Limitation of Powers in the Schedule and to the conditions in paragraph 2 of this Instrument.

2. The delegations in this Instrument apply only where the territorial authority is the administering body of the relevant reserve (i.e. affected by the decision to be made) by virtue of a vesting or an appointment to control and manage.

3 This Instrument replaces the previous Instrument of Delegation dated 10 March 2004, which is hereby revoked.

Definitions:

"Administering body" - means an administering body under the Reserves Act 1977.

"Territorial authority" - means a local authority and a unitary authority as defined in section 5 Local Government Act 2002.

"Vested reserve" - means a reserve vested in a territorial authority (not in the Crown).

SCHEDULE

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
6(3)	Revoke a Gazette notice and issue a fresh notice or amend the original notice		Only applies to notices in the Gazette given by the territorial authority
14(4)	Gazette resolution to declare vested land to be reserve. Note: it is, therefore, no longer necessary to consult the Commissioner in terms of sec 14(3) of the Act.		

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
15(1)	Authorise or decline to authorise, by Gazette notice, the exchange of land in any reserve or any part(s) of a reserve for any other land to be held for purposes of that reserve.		Only to be exercised where the territorial authority did not derive title from the Crown, or title would be deemed not to be derived from the Crown if the reserve was going through a revocation process (s.25). The territorial authority must consult with the Crown before making a decision under s.15(1) if the land it proposes to grant in exchange was purchased with funds provided either wholly or partly by the Crown.
15(3)	To do all things necessary to effect any exchange authorised by the local authority under Section 15(1) of the Act, or by the Crown in the case of vested reserves derived from the Crown, including the payment or receipt of any money by way of equality of exchange in the case of non Crown derived reserves.		
16(1)	Classify, by Gazette notice, according to their principal or primary purpose all reserves. [Note this delegation does not affect sections 16(2) and 16(2A) Reserves Act]		
16(4)	To advertise the intention to classify a reserve in accordance with sec 16(1).		
18(2)(e) 19(2)(a) 19(3)(a)	Determine in which cases exceptions can be made to the preservation of flora and fauna and the natural environment.		
24(1)	Change the classification or purpose of a reserve by notice in the Gazette.		Does not apply to the revocation of reserves
24(2)(e)	To consider all objections received to a proposed change of classification or purpose.		
24(3)	To form an opinion that the change of classification or purpose of a scenic, nature or scientific reserve is justified.		

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
24(5)	To form an opinion that the change in the classification of a historic reserve is justified.		
25(1)	Upon revocation of the reservation of any public reserve (or part of one) pursuant to section 24 Reserves Act, dispose of that land in such manner and for such purpose as the Minister specifies. [Note this is intended to allow Territorial Authorities to decide how and for what purpose the land may be disposed of].		The delegation only applies where the title to the reserve was not derived from the Crown, or is deemed not to be derived from the Crown in terms of s.25(4) or (5).
41(1)	To approve reserve management plans.		
42(1)	Give or decline to give express written consent to the cutting or destruction of trees and bush on any historic, scenic, nature, or scientific reserve. Determine terms and conditions subject to which written consent is given.		
44(1)	To consent to the use of a reserve for temporary or permanent personal accommodation.		
44(2)	To consent to any vehicle caravan, tent or removable structure remaining on a reserve during the period 1 November to 31 March.		
45	Give or decline to give prior approval to administering body to erect, or authorise any voluntary organisation or educational institution to erect shelters, huts, cabins, lodges etc., on any recreation or scenic reserve.		

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
48(1)	Consent or refuse consent to administering body granting rights of way and other easements over any part of a vested reserve for any of the purposes specified in section 48(1). Impose such conditions as it thinks fit in giving the consent.		
48A(1)	Consent or refuse consent to administering body granting a licence over a vested reserve to any person or department of State - (a) To erect, maintain and use buildings, dwellings, masts and other structures, and plant and machinery; and (b) To construct, maintain, and use tracks and engage in other works - for any of the purposes specified in section 48A(1).		
48A(3)	Approve terms and conditions determined by the administering body.		
49	Grant or decline to grant in writing any qualified person a right to take specified specimens of flora or fauna or rock mineral or soil from a reserve for scientific or educational purposes. Form opinion as to whether qualified person has the necessary credentials. Impose conditions on the grant in writing.		With regard to fauna, the delegation is for exotic fauna which are not protected under the Wildlife Act 1953.
50(1)	Authorise or decline to authorise any person to take and kill any specified kind of fauna that may be found in any scenic, historic, nature or scientific reserve. Authorise or decline to authorise the use of firearms, traps, nets or other like objects within reserve for the foregoing purposes.		The delegation is for non-protected exotic fauna only.

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
51(1)	Authorise or decline to authorise in writing an administering body to introduce indigenous flora or fauna or exotic flora into any scenic reserve for any of the purposes referred to in section 51(1). Impose conditions on the giving of the authorisation.		
52(1)	Declare by Gazette notice that any 2 or more reserves, or parts of 2 or more reserves, or parts of one or more reserves and the whole of one or more other reserves, are to be united to form one reserve.		All affected reserves or parts of reserves must have the same administering body and must all either be vested in that body or all held under an appointment to control and manage.
53 (1)(d)	To consent to an increase in the number days the public shall not be entitled to have admission to a reserve.		
53 (1)(e)	To approve the fixing of charges generally or with respect to any specified occasion or event.		
54(1)	Give or decline to give prior consent to administering body, in the case of a recreation reserve vested in it, to grant leases for any of the purposes specified in paragraphs (a), (b), (c) and to grant a lease or licence for any of the purposes specified in paragraph (d) and to exercise all powers of the Minister referred to in the First Schedule that pertain to leases under s.54(1)(a), (b), (c) and (d).		

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
	Give or decline prior consent to administering body permitting, in a lease, the erection of buildings and structures for sports, games or public recreation not directly associated with outdoor recreation. Consent or decline consent to variations or amendments to leases and consent to the carrying out of any other necessary actions arising out of the leases consistent with the First Schedule, Reserves Act.		
55(2)(a) (d), (e) (f) and (g)	In the case of a scenic reserve to give or decline to give consent to :- • the enclosure and grassing or grazing of open parts of the reserve; • the setting apart of areas for other purposes; • the erection of buildings and other structures and amenities; • such things considered necessary for the public to obtain the benefit of the reserve; • the setting apart of sites for residences and other buildings and structures necessary for the management of the reserve.		Must be satisfied that the facilities, amenities, buildings or structures are necessary and cannot readily be provided outside or in close proximity to the reserve.

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
56(1)	Give or decline prior consent to administering body, in the case of a scenic reserve vested in it, to grant leases or licences for the purposes set out in s.56(1) and to exercise all powers of the Minister referred to in the First Schedule that pertain to leases under s.56(1)(a) and (b). Consent or decline consent to variations or amendments to leases and licences, and consent to the carrying out of any other necessary actions arising out of the leases and licences consistent with the First Schedule, Reserves Act.		
56(2)	Give public notice in accordance with section 119 of the Reserves Act and give full consideration in accordance with section 120 to all objections and submissions.		
58(b)	Set apart and use part of a reserve as a site for residences and other buildings.		
58A(1)	Give or decline prior consent to administering body, in the case of an historic reserve vested in it, to grant leases or licences for any of the purposes specified in that subsection. Consent or decline consent to variations or amendments to leases and licences and consent to the carrying out of any other necessary actions arising out of the leases and licences, consistent with the First Schedule, Reserves Act.		

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
59A(1)	In accordance with Part IIIB Conservation Act 1987, grant or refuse a concession in respect of any reserve controlled or managed by an administering body under s.28 Reserves Act so that the administering body may apply Part IIIB as if references in that Part to a conservation area were references to such a reserve and references to the Minister of Conservation and to the Director-General of Conservation are references to an administering body.		
67(1)(b)	Consent or decline consent to lease of recreation reserve set apart for race course purposes, to a racing club.		
72(1)	To enter into and agree the terms of a lease or other agreement for the farming of a recreation or local purpose reserve.		Note sec 72(3) applies.
73(1)	Consent or decline prior consent to an administering body granting a lease of recreation reserve in the circumstances specified in s.73(1), where the reserve is vested in the administering body, and consent or decline prior consent to an administering body granting a lease in the circumstances specified in section 73(1) in all other cases. Exercise all powers of the Minister referred to in the First Schedule that pertain to leases under s.73(1).		

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
73(2)	Consent or decline prior consent to an administering body granting a lease of recreation reserve for afforestation where the reserve is vested in the administering body, and consent or decline prior consent to an administering body granting a lease of recreation reserve for afforestation purposes in all other cases. Exercise all powers of the Minister referred to in the First Schedule that pertain to leases under s.73(2).		
73(3)	Form opinion as to whether recreation reserve is not likely to be used for purposes of a recreation reserve. Consent or decline consent to administering body granting leases of whole or part of reserve vested in administering body. Grant or decline to grant leases of whole or part of a reserve held under an appointment to control and manage. Exercise all powers of the Minister referred to in the First Schedule that pertain to leases under s.73(3).		Note: The provisions of Part IIIB Conservation Act apply (s.73(3A)(b)) Note: s.73(3A) (a) applies.
73(5)	Consent or decline consent in writing to a member of an administering body becoming the lessee of any land under the control of that body.		
73(6)	Consent or decline consent to surrender of lease.		Only exercisable where the original approval for the lease was given by the territorial authority under this delegation.
74(1)(b)(ii) (proviso)	Consent or decline consent to granting of a licence to occupy a historic, scenic or scientific reserve.		

SECTION	SUMMARY OF POWERS	O	LIMITATION OF POWERS
75(1) and (2)	Consent or decline to consent to the afforestation of a recreation or local purpose reserve.		
121	Where under the provisions of the Reserves Act consent or approval is required, give consent or approval subject to such conditions as are thought fit.		Only exercisable in respect of matters delegated under this Instrument of Delegation.

SIGNED at Wellington this)
)
10th day of Jul . 2013)
)
by NICK SMITH)
Minister of Conservation)

Submission to: [*name of MOC delegate*]

HEADING [*e.g. Easement of Esplanade Reserve - Whale Bay, Wellington*]

1.	**Proposal**

[*what you are wanting decision maker to do; e.g."That you consent to...*]

2.	**Background / Explanation**

[*only include brief details if any relevant to the recommendation/decision*]

3.	**Land and Status**

[*this information helps validate the authority for the transaction*]

4.	**Location**

[*describe if it will help the delegate make a decision*]

5.	**Authority, Criteria, and Policy for Decision**

5.1 [*provide details of the legislation and other relevant criteria or statutory tests in providing authority for the proposed* activity]

6.	**Management Planning**

[*Refer to reserve management plan if applicable*]

7.	**Public Notification/Consultation**

[*as required/exempted/not required by statute or principles of administrative law*]

8.	**Treaty of Waitangi**

[*refer to Chapter 4 of the Reserves Act Guide*]

9.	**Attachments**

[*list relevant attachments*]

10.	**Conclusion/Comments**

[*based on the justification*]

11.	**Authority**

[*state the relevant section of the Reserves Act 1977 and the delegation from the Minister of Conservation*]

12.	**Recommendation**

[*make a recommendation on whether to consent or not consent*]

Report prepared by:

Signature
Name

Decision

Recommendation Approved / Not Approved

Signature
Delegate

/ /

Based on standard document DOCDM-49570

21 June 2013

Submission to: Community Support Manager, Northland

Rawene Domain Recreation Reserve
Far North District Council Lease to Hokianga Volunteer Coastguard

Proposal

That you consent to a lease over an area of recreation reserve vested in the Far North District Council.

Explanation

It is proposed that an area of Rawene Domain be leased to the Hokianga Volunteer Coastguard Incorporated, for a term of 10 years with a right of renewal for a further 10 years.

The lease is for the purposes of a building to house a coastguard rescue boat; together with the local sailing and boating club, and the Rawene school sailing programme; and to provide workshop space for repairs and maintenance of boats.

The building is to be a 15 x 7.5 corrugated iron Durobuilt Industries farm shed; to be sited on a lease area of approximately 4650 m^2, shown cross hatched on the attached plan - with the location to be decided between the lessor and lessee. The general public is to have access to the leased area at all times (excluding the building).

Description & Status

Approximately 4650 m^2, shown crosshatched on the site plan in the Schedule of the Deed of Lease; being part Sections 4 and 5 Block XIV Mangamuka Survey District.

Classified as recreation reserve by NZ Gazette 1980 p.1283; and vested in the Far North District Council pursuant to s.26A of the Reserves Act 1977 - see file records *Appendix 1*

Policy & Criteria

Section 40 of the Reserves Act 1977 provides that the administering body is charged with the duty of administering, managing, and controlling the reserve, in accordance with the appropriate provisions of this Act, so as to ensure the use, enjoyment, maintenance, protection, and preservation of the reserve, for the purpose of its classification, as the case may require and within the means at its disposal.

Section 53(1)(h) provides that in the exercise of its functions under section 40 and to the extent necessary to give effect to the principles set out in section 17 (purposes of recreation reserves) - the administering body may set apart any part or parts of a reserve for, among other things, parking places for vehicles or mooring places for boats, or other facilities for public recreation or enjoyment or facilities and amenities necessary for the public using the reserve.

Section 54(1)(a) provides that, with the prior consent of the Minister, the administering body may from time to time lease any area set apart under section 53(1)(h) for a parking or mooring place, or other facilities for public recreation or enjoyment.

Section 54(1)(a) also requires that the lease comply with the relevant provisions set out in Schedule 1 of the Act; which allows for a lease to be issued for a term of up to 33 years, and renewal terms of up to 33 years, perpetual or otherwise.

Section 54(2) requires that the administering body give public notice and consider any objections in accordance with the provisions of sections 119 and 120 of the Act.

The proposed lease (draft copy attached), is considered to comply with all the above mentioned requirements.

Public Notice

The proposed lease was publicly notified in the Northern News and Bay Chronicle. The only submission received was from the Rawene Area Residents Association, and this was in support of the proposal. The application is also supported by the 'Domain Committee'.

Section 4 Conservation Act 1987

Council consulted with Steve Morunga, representing the local Omanaia Marae (also a member of the 'Domain Committee') and he is in agreement with the project.

Authority

Section 54(1)(a) of the Reserves Act 1977; and Instrument of Delegation from the Minister of Conservation - Version 13

Attachments Draft lease document; land plans and consent notice.

Recommendation

It is recommended that you consent to the granting of the proposed lease.

If you approve the recommendation please sign the attached consent notice.

B Ashbridge
Statutory Land Manager Advisor
Hamilton

Decision

RECOMMENDATION APPROVED

Andrea Booth
Community Support Manager

Dated:

Department of Conservation
Te Papa Atawbai

CONSENT OF MINISTER

Section 54(1)(a) of the Reserves Act 1977 and to a delegation from the Minister of Conservation, the Community Support Manager, for the Northland Conservancy, Department of Conservation, hereby consents to the granting of a lease over the area of recreation reserve described in the Schedule, in accordance with the provisions of the attached draft Deed of Lease.

Schedule

Approximately 4,650 m^2, as shown crosshatched on the site plan in Schedule 1 of the attached draft Deed of Lease; being part Sections 4 and 5 Block XIV Mangamuka Survey District.

Classified as recreation reserve by NZ Gazette 1980 p.1283; and vested in the Far North District Council pursuant to s.26A of the Reserves Act 1977.

Dated this day of 2013

SIGNED BY

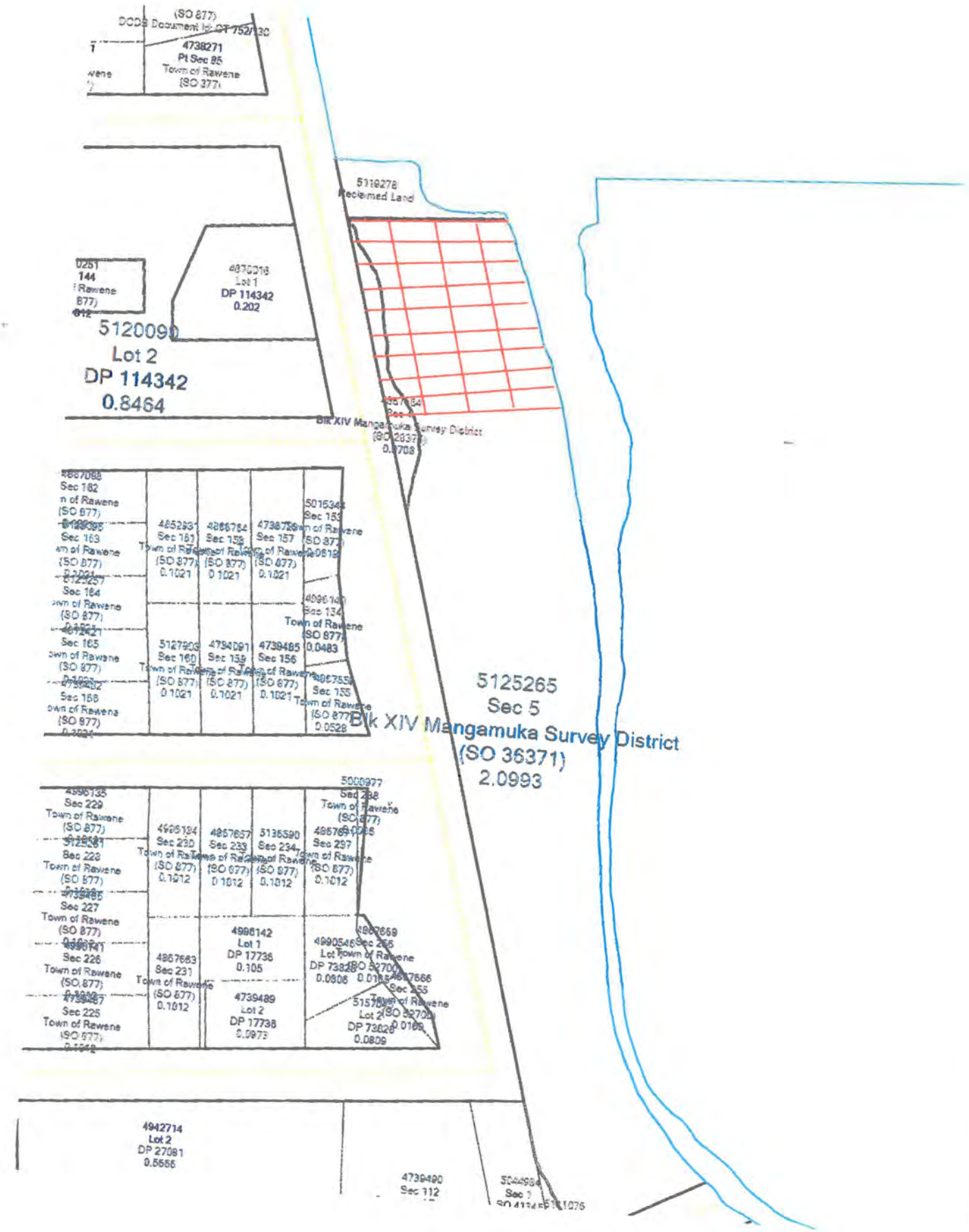
Andrea Booth)
Community Support Manager) _____

In the presence of:

Witness _____

Occupation _____

Address _____



Hokianga coastguard lease – Rawene Domain

16


Mariner Street
Clendon Esplanade
Reclaimed Land
Lot 1
DP 114342
0.202
65A/471, Te Kohanga Reo National Trust Board
Lease area
Sec 4
Blk XIV Mangamuka Survey District
(SO 28376)
0.0708
RECREATION PURPOSES(NZG 1980/1283/2)
PUBLIC DOMAIN(NZG 1954/956/4)
RESERVE(NZG 1980/1283/2)
more...
Mcdonell Street
Rawene Domain
Sec 153
Town of Rawene
(SO 877)
0.0619
RECREATION RESERVE(GAZ 1998 P 921)
Sec 161
Town of Rawene
(SO 877)
0.1021
Sec 158
Town of Rawene
(SO 877)
0.1021
Sec 157
Town of Rawene
(SO 877)
0.1021
Recreation Reserve(NZGZ 1998/921)
Sec 154
Town of Rawene
(SO 877)
0.0483
LOCAL PURPOSE (EDUCATIONAL FACILITIES) RESERVE(GAZ 1998 P 2905)
RESERVE EDUCATIONAL FACILITIES(NZG 1998 P 2905)
Sec 160
Town of Rawene
(SO 877)
0.1021
Sec 159
Town of Rawene
(SO 877)
0.1021
Sec 156
Town of Rawene
(SO 877)
0.1021
Sec 155
Town of Rawene
(SO 877)
0.0528
LOCAL PURPOSE (EDUCATIONAL FACILITIES) RESERVE(GAZ 1998 P 2905)
RESERVE EDUCATIONAL FACILITIES(NZG 1998 P 2905)
Sec 5
Blk XIV Mangamuka Survey District
(SO 36371)
2.0993
RECREATION PURPOSES(NZG 1980/1283/2)
RECREATION RESERVE(GAZ 1953 P 33)
RECREATION RESERVE(NZG 1952/1683/6)
more...
Nimmo Street East
Sec 238
Town of Rawene
(SO 877)
0.0086
2065/80, Blair Maryanne
2065/80, Blair Michael John
2065/80, Blair Jodie Caroline
NZG 1928/2788/1
Sec 237
Town of Rawene
(SO 877)
0.1012
Sec 230
Town of Rawene
(SO 877)
0.1012
199/150, Hokianga Health Enterprises Trust
Sec 233
Town of Rawene
(SO 877)
0.1012
199/150, Hokianga Health Enterprises Trust
Sec 234
Town of Rawene
(SO 877)
0.1012
199/150, Hokianga Health Enterprises Trust
2065/80, Blair Michael John
2065/80, Blair Jodie Caroline
Scale: 1:1253
160 metres
N
SI


Rawene
Takapuna Pa
Waima R
Omanaia River
Ohuri
Scale: 1:17860
1500 metres

APPENDIX 1

Evidence of Vesting in Far North District Council

Attached

Papers from archived Lands & Survey file: DO 8/3/38

RESERVES ACT 1977

SUBMISSION TO COMMISSIONER OF CROWN LANDS

CLASSIFICATION OF RESERVE

HO: Res 2/2/206
DO: 8/3/38

CASE NO. R80/41

NORTH AUCKLAND LAND DISTRICT

PROPOSAL
To classify the reserve described below as a reserve for recreation purposes.

NAME OF RESERVE
Rawene Domain Recreation Reserve.

LOCATION
Approximately 42km west of Kaikohe.

LEGAL DESCRIPTION
Part Allotments 106 to 109, adjoining closed road and Allotments 110 and 111 Suburbs of Rawene, Allotments 153 to 166 Town of Rawene, and Sections 4, 5, 6, 7 and 11, all situated in Block XIV Mangamuka Survey District.

AREA
31.4311 hectares.

STATUS
Public Domain by New Zealand Gazette 1907/2181, 1953/33, 1953/437, 1954/956, 1955/771 and 1977/1017.

CONTROL
Hokianga County Council by New Zealand Gazette 1962/1556. Council agree with classification, Folio 701 refers.

ADVERTISING
Not required as reserve is being classified for the purpose it was reserved.

GENERAL
Under CCL Case No. R78/275 preliminary approval was given to the classification of the above reserve as recreation.

As all required conditions have been complied with, and there being no objections to the proposed classification, approval to formally classify the reserve recreation is in order.

If you concur the attached notice is in order for your signature please.

RECOMMENDATION
That pursuant to Section 16 Reserves Act 1977 you approve the classificatio of recreation for the above land.

DECISION
Approved/~~Declined~~

ASSISTANT COMMISSIONER OF CROWN LANDS
14/4/80

Gazette to H.O.
& Register noted 15/4/80
M.O'C

2206,

AUCKLAND C.1.

24 May 1963

Miss F.M.J. Irvine,
Maning Street,
RAWENE.

Dear Miss Irvine,

RAWENE DOMAIN BOARD

We write in reply to your letter of 11 May 1963.

On looking further into the legal position we find that by virtue of the action taken by the Hokianga County Council under the Counties Act 1956 and in terms of Section 47 (2) of the Reserves and Domains Act 1953, that Council is legally already the new Rawene Domain Board.

The notice issued in the New Zealand Gazette 1962 page 1556 abolished the Rawene Town Council as from 19th September 1962 and this is the effective date of the change of control in respect of the Rawene Domain.

A copy of this letter is being sent to the County Council.

Yours faithfully,

J.H. SINCLAIR
commissioner of Crown Lands
per:

The County Clerk,
Hokianga County Council,
P.O. Box 3,
RAWENE.

Dear Sir,

Copy for your information. In terms of the special order made by your Council under Section 88 of the Counties Act 1956 and in pursuance of Section 47(2) of the Reserves and Domains Act 1953, your Council became the Rawene Domain Board. Section 47(2) of the Reserves and Domains Act reads:-

"Where any Borough Council or Town Council or County Council or Road Board has been appointed to be the Domain Board of any public Domain in this district and subsequently the Domain is included in the district of any local authority of any of those kinds, the last mentioned local authority shall, without further appointment become the Doamin Board in respect of that Domain in place of the first-named local authority."

Yours faithfully,
J.H. SINCLAIR
Commissioner of Crown Lands
per:

425

DAJ 8/3/38

DEPARTMENT OF LANDS AND SURVEY,
P.O. BOX 2206,
AUCKLAND. C.1.

21 May 1963

TITLES:

Your minute of 20 May. I share your view that the Hokianga County Council is now by operation of law the Domain Board. The Rationale of this is as follows:-

1. Rawene Domain was gazetted as such - N.Z. Gazette 1910 page 3350.
2. The Rawene Town Board was appointed Domain Board - N.Z. Gazette 1925 page 662.
3. The Rawene Town Council was abolished by Special Order of the Hokianga County Council under Section 88 of the Counties Act 1956 - N.Z. Gazette 1962 page 1556.
4. This was a merger of a dependant town district in a county under Section 27 of the Counties Act 1956. The legal effects of the dissolution of a town council are set out in Section 28 which, in part, read "(b) all functions, powers, rights and duties theretofore vested in or imposed upon the town council shall become vested and imposed upon the County Council".
5. Moreover, Section 47 (2) of the Reserves and Domains Act 1953 as substituted by Section 11 of the Reserves and Domains Amendment Act 1956 provides "where... Town Council... has been appointed to be the Domain Board of any public domain in its District and subsequently the Domain is included in the District of another local authority... the ... local authority shall, without further appointment, become the Domain Board in respect of that Domain in place of the first mentioned local authority (i.e. the Town Council)."

J.A.B. O'KEEFE.
21.5.63

Gaz 1962 p. 1556

Special Order Made by Hokianga County Council Merging Rawene Town District in the County of Hokianga

PURSUANT to section 88 of the Counties Act 1956, the Acting Secretary of Internal Affairs hereby publishes the following special order made by the Hokianga County Council.

Dated at Wellington this 19th day of September 1962.

E. PERYMAN, Acting Secretary for Internal Affairs.

SPECIAL ORDER

1. That in order to give effect to a petition signed by a majority of ratepayers in the Dependent Town District of Rawene praying for their merger with the county, by authority and direction of the Local Government Commission, and in exercise of the powers conferred upon it under the provisions of section 27 of the Counties Act 1956, the Hokianga County Council resolves that the said Rawene Town District be abolished and merged with the county.

2. That the merger of the town district (described as all that area in the North Auckland Land District bounded on the west by the Omanaia River, on the north by the Hokianga River, on the east by the Waima River and Okura Creek, and on the south by White's Old Land Claim) take effect from the 19th day of September 1962.

I hereby certify that the foregoing special order has been duly made.

D. B. CUNNEEN, County Clerk.

(I.A. 176/36)

Submission – Reserve Management Plans

Full Name	Larry Hine
Organisation	Waitarere Beach progressive and Ratepayer Association
Address for Service	49 Kent Avenue, Waitarere Beach, Levin 5510
Telephone	3670144 0274669025
E-mail	larry@hineaccountants.co.nz

General Comment

Our interpretation of this process is the plans set the guidelines and the resulting action points act as a basis for incorporation into the funding or long term planning process.

The plans cover our points raised from the pre-consultation in the general sense. The plans are non - committal nor aspirational, we do not see the proposed plans adding to the area.

Tourism and the area as a destination is not mentioned.

What are the links to Go Levin and the Shared Pathways strategy?

The action points and priorities. What is the relevance of the priority for including in the Council funding process? What does high priority mean? What are the timelines for specific projects ? If an investigation is high priority when can we expect the investigation to be finished? The proposed foreshore plan is now 17 years on from the previous draft plan, how can action points stated or implicit 17 years ago, still be a low priority?

Can we incorporate strategy and vision into the policies as well as the compliance and procedural aspects?

Section1 Combined Waitarere Beach Reserves Management Plan

Waitarere Domain

We are pleased with the recent developments, the new toilet block, signage and parking adds to the user friendliness of the area.

Older Children

The proposed policies specifically mention encouraging the use by the wider cross section. We think the currently the domain does not cater enough for older children, we have been discussing the broader use of the park with Council.

Current Equipment

The current equipment is standard – we have all seen interactive equipment in newer and modern parks.

The half pipe is mentioned as popular, it is an aged structure, replacement would help cater for the older children requirements.

Community Consultation

An action from the plan is to prepare a development plan for Waitarere Domain with local input with medium status.

The Progressive has been meeting with council management regarding domain development. Broad budgets and projects have been tabled. Further meetings had been put on hold as we were waiting for this review. We were at a stage to request expenditure be included in the long-term plan, we would have thought to conclude in the coming year – therefore high priority? This priority ranking also follows to the remaining actions points.

Holmwood Park

We see the domain as the main recreational area. We recognise that Holmwood Park is limited by size and proximity to adjacent properties for further development. The area is important as fits the Ped Shed measure.

There are action point priorities we would like reviewed. Preparing a development concept plan with local input – can we move to medium – high, as fits into the discussions we have had with council on the domain.

We also see the Captain Holmwood link as important to the area and an information board would be low cost?

Park Avenue Horowhenua Council Owned Property

There is a bare section in the North End of Waitarere. If this section was further developed recreationally the area would fit the Ped Shed measure which indicates the adjacent area to be outside the pedestrian range of current parks.

Waitarere Forest and Access

We understand the Forest is outside reserves policy but where else can we mention?

This area is well used recreationally, Council does not seem to want to recognise the forest as a potential recreational asset. How about talking to the parties concerned and let us see if there is way forward recreationally? We see this discussion as high priority.

In regard to additional forest access there is a paper road at the forest end of Gloucester Street that is now disused and historically used to be an access road to the forest. We appreciate Rayonier might not want another vehicle access point, Rayonier do not mind the public using the forest. How about installing a stile for pedestrian access on this land?

As an access alternative, council own land next to the stream purchased as part of the proposed Wairarawa Stream walkway extension, this land could be developed for pedestrian access to the forest.

Wairarawa Stream Reserve

Council have spent time and money developing into a nice area. The stream is aesthetically messy (not sure if good or bad). Council have made available the old depot under a sub-lease arrangement to the Beach Wardens and the Fishing Club for housing a patrol vehicle and boat tractor.

We are pleased the proposed walkway to at least Bagrie lakes has been given a medium high rating. Some years ago the Council officially launched and obtained funding for this walkway.

The ecology of the stream has not been given an action.

Managing pest plants growing in the stream such as water celery should be given a high priority.

Section 2 Waitarere Beach Foreshore

With the prevailing north westerly wind and public use a difficult area to manage.

There are several background points not mentioned in the plan from our pre-consultation response.

a) The importance of the area as a destination for Horowhenua and providing facilities that enhance this aspect. Filleting station, elevated viewing platform and picnic area come to mind.
b) The Hydrabad wreck as a destination?
c) Horizons responsibility for the first 200 metres inland from the first line of vegetation.
d) Waitarere Ratepayers pay a target rate to Horizons for vegetation control (mainly spraying to eradicate coastal wattle).

Community Involvement

We seem to act individually on a broad range of issues.

Instead council talking individually with interested parties, high priority should be for periodic meetings of the interested parties to work together – HDC, Horizons, Maori and Waitarere Progressive regarding management of the area. Following from these meetings could be the development of a long-term improvement plan as mentioned in this document. This in turn follows to the response to blow outs and establishment of plantings.

Encroachment

This has been happening for years. This has been given a low to medium priority. The longer Council leaves the bigger the potential problem. If one person develops the reserve, the next person believes it is acceptable. Beachfront properties are incorporating reserve into their living and aesthetics. In the end, it is reserve and Council should indicate what is acceptable and what is not – high priority.

Dune Control – Blowout maintenance and contouring

The closest reference we have as an action point is respond to complaints. We need to know the exact council policy on this. Minor blowouts become big blowouts. If Council are to respond the response should be high priority as early response lessens cost later. Control by laying bark seems to work.

Vegetation Control

Coastal Wattle is the prevalent unwanted vegetation. Currently Horizons organise a contractor to spray or remove vegetation and this cost is paid from the Horizons target rate fund provided by Waitarere Ratepayers. Council should take more of a lead in controlling vegetation rather than the low priority action status given.

There is always the question should Waitarere Ratepayers be paying for the vegetation control? The control also fits into the community involvement point above.

Stream Movement

Recently the stream has been moving South. This upsets the current beach entrance. We are not sure of the action point but should be a consideration for the future.

Vehicle Access

Important for vehicle assess to continue for the district recreationally. Given a proposed medium status would have thought maintenance of beach access points as high priority.

Stormwater Outlets

As the beach accretes the problem of clear drainage increases. We feel this should be given a higher priority than an investigation.

We would like to speak in support of this submission at the hearing.

Department of Conservation
Te Papa Atawhai

Ref: CE630

13 March 2017

Horowhenua District Council
Pte Bag 4002
Levin 5540

Attn: T Williams
Strategic Planner

Waitarere Beach, Waitarere Foreshore and Ohau River – review of reserves management plans

Thank you for forwarding copies of the draft reserve management plans for Waitarere Beach, Waitarere Foreshore and Ohau River reserves.

The Director-General appreciates and is generally supportive of Council's management intentions for these varied reserves, and does not wish to comment on the detail of Council's reserve management, but requests that Council considers the following points.

For all reserves, while the Act does not specifically require this, it is highly desirable that reserves are classified before a management plan is drafted, otherwise the purposes of the reserves are unclear and section 41(3) of the Act cannot be satisfied. The Department is following legal advice in this matter. Some areas being managed as 'reserves' may require also require reserve gazettal action before they are classified.

The plans should clearly record two matters: whether the reserves are vested in, or controlled and managed by, Council; and that Council holds a delegation from the Minister of Conservation for various management actions within reserves under the Act, including an approval role for the reserve management plans.

The use of imprecise terms within objectives and policies should be avoided, such as the use of "appropriate" which gives no guidance to decision-makers as to what is 'appropriate'. Preferably some criteria are built into the objective or policy to give clear guidance.

The Director-General encourages the use of "will", "should" and "may" within policies that guide decision-making, as set out in Policy 1(d) of the *Conservation General Policy 2005*. This is to ensure that policies accurately reflect any legislative requirements and that decision-making by Council (and any delegated officer) is not fettered beyond the allowable scope of the Act.

It is presumed that Council has general activity bylaws. It is desirable for the policy behind these bylaws, as they relate to the reserves, to be set out in the management plans.

No reference was found to having regard to Treaty of Waitangi obligations, whether it be through such as consultation with iwi during drafting of the plans, iwi values within the reserves, or iwi engagement in reserve management. This should be addressed.

Waitarere Beach Foreshore Reserve:

1. The draft plan acknowledges that the area covered is not yet all reserve land under the Act, including some land being claimed as accretion. Land that is not yet reserve cannot be covered by a reserve management plan under the Act, although Council could have a less-formal management plan for the non-Reserves Act areas. There are the options of waiting for the accretion claim completion and reserves creation and classifications before drafting and approving a Reserves Act management plan, or re-structuring the draft plan to make clear which parts are subject to the Act and which are not.
2. Strictly speaking, the area concerned is not "foreshore" as that name only applies to the area between mean low and high water marks (see the full definition in the Resource Management Act 1991).
3. Policy 3.8.1.9 unnecessarily states that activities must comply with legislation and the District Plan. Council's bylaws, as they relate to the reserve, should be implementing policy that is set out within the plan. The reference to "appropriate consent" is unspecific and gives no real guidance to decision-making.

Waitarere Beach Reserves:

4. With respect to Waitarere Domain, under section 16(7) of the Act, a "domain" is to be controlled and managed as a recreation reserve, pending its classification under the Act. If it is a local preference, the name 'domain' can still be used but it is not its legal classification.
5. The reserve parcels covered by the 'Wairarawa Stream Reserve' need clarification. The Appendix 4 map incorrectly shows the boundary between Sec 2 Blk III Moutere SD and Pt Lot 63 DP 10023, doesn't include the north-eastern corner of Lot 9 DP 48366, includes pt Lot 61 DP 10023 which is also covered by the Watarere Beach Foreshore plan, and shows a "Wairarawa Stream Reserve" which does not seem to formally exist. Not acknowledged in the plan are Lots 1 & 2, DP 13250 which seem to be part of the motor camp and be Council-owned; is there any Council intention to add these to the reserve? Title clarification also seems necessary for Lot 14 DP 10678 at the north-western end of Rua Avenue, which Terraview is showing as both private title and reserve.

Ohau River Reserves:

6. With respect to Gladstone Reserve, the two parcels of land adjoining the eastern end of the reserve are marginal strips and are best described as "public conservation land administered by the Department of Conservation". Their management is in accord with Council's vision for the adjoining reserve. Lot 1 DP 10440, as a defined land parcel, would not require subdivision from other parcels within the title, before it could be classified as a recreation reserve.
7. With respect to Kimberley Reserve, please clarify where the gravel extraction takes place. The plan text says the "western side of the reserve", but is it meant to be adjoining the eastern side where Appendix 2b seems to show an access road from the Section 80 gravel storage area and Ohau riverbed extraction site (as per pg 12, 3rd para)? If the gravel extraction is from the reserve itself then this would be inconsistent with a scenic reserve status.

   A management plan's primary focus must be on the purposes for which the reserve is classified (see Section 41(3) of the Act). Sections 4.5 and 4.6 of the draft plan often place recreational values before scenic ones; this is contrary to section 19 of the Act if the reserve is classified scenic. Sections 4.5 and 4.6 also

refer to "development" and "future development"; these references are too non-specific, especially for a scenic reserve, and give little guidance for management.

8. With respect to 'Kircaldies' Reserve please clarify the status of this land as it seems unlikely to be closed road. It does seem ideal as a reserve providing for public recreation and riparian protection, once gazetted and classified. The plan notes the adjoining farming encroachment, leaving just a narrow un-grazed riparian margin, but does not address how this will be resolved.
9. With respect to the "River access off Muhunoa East Road" note that Section 1 SO 28189 is marginal strip administered by the Department, the use of which is consistent with adjoining a recreation reserve. For the recreation reserve, the presumption under the Act is that there will be freedom of entry and access for the public, subject to provisions to manage the reserve as set out in the Act. Statements in the draft plan about restricted and restricting public use may be contrary to the Act. The current grazing of Section 95 is unauthorised, as the plan acknowledges, and should be addressed in accordance with what is permissible under the Act.
10. With respect to Parikawau Reserve [sic; should it be Parakawau?] greater clarity is required on reserve boundaries, and the status of Sections 78, 80 and that part of section 79 apparently not included within 'Parikawau Reserve'. Classification of all parts of this reserve is highly desirable before management directions are set within a plan. Might this reserve be affected by proposed SH1 realignment?
11. For all the Ohau River reserves, there does seem to be scope to consider linking riparian management and a shared pathway, as acknowledged in the draft plan. There appears to be other riparian and riverbed lands that could assist this (e.g. downstream of Muhunoa Road, although also there are some freehold lands that fully straddle the river.

If you wish to discuss any of these points please contact Poma Palmer, Statutory Management Planner, Christchurch, at ppalmer@doc.govt.nz, ph 03 3713745.

I do not wish to be heard at any hearing.

Yours sincerely,

SE Bowman

Stephanie Bowman
North Island Planning Manager (Acting)
by delegation from the Minister of Conservation
under section 83 Local Government Act 2002

From: david paterson [mailto:davidatshannon@gmail.com]
Sent: Friday, 17 March 2017 3:39 p.m.
To: ReserveManagement Plans
Subject: Gladstone reserves plans

Tiffany Williams

reservemanagementplans@h0r0whenua.govt.nz

From Gaye Harrison

28A MacArthur St, Levin

Comment on the use of Gladstone Reserve

As there are quite a number of sections with No Title who administers these areas?

Who grants permission for gravel extraction and what area do they operate from?

The reserve is a popular place, but no longer has an organised dog exercise area.

Now with the planting of many willow trees along one bank, in the last two years,

no one will have access to the water for swimming.

I would like to see no gravel extraction from the reserve for at least three years which

would give nature a chance to repair the damage.

Maybe by then we would have an idea of where or if a quarry should be allowed to

operate.

I have other inquires regarding this matter and I can be contacted at the above

address.

Thank you.

Gaye Harrison

Horowhenua DISTRICT COUNCIL

Council Use Only
Date Received: ...../...../.....
Submission No: .....

SUBMISSION FORM - Reserve Management Plans

Horowhenua District Council is currently reviewing its Reserve Management Plans for the following reserves:

- Waitarere Domain, Holmwood Park and Wairarawa Stream Reserve (which are covered by the Draft Combined Waitarere Beach Reserves Management Plan);
- Waitarere Beach Foreshore Reserve; and
- Gladstone Reserve, Kimberley Reserve, Kirkcaldies Reserve, an access way off Muhunoa East Road and Parikawau Reserve (which are covered by the Draft Ohau River Reserves Management Plan).

Draft Reserve Management Plans have been prepared for the above reserves and Council is now seeking feedback/comments in the form of submissions from the public on what they think about one or more of these Draft Reserve Management Plans.

Submissions can be:

Delivered to: Horowhenua District Council Offices, 126 Oxford Street, Levin

Posted to: Horowhenua District Council, Private Bag 4002, Levin 5540

Faxed to: (06) 366 0983

Emailed to: reservemanagementplans@horowhenua.govt.nz

Feedback must be provided to Council by no later than **5:00pm on Friday, 17 March 2017**

Contact Details

Full Name: Sarah Walsh

Name of Organisation: *(If on behalf of an Organisation)*.....

Address for Service: 33 Dervois Tce

Ohau Post code: 5570

Telephone (Day time): 0274175203 Mobile: .....

Email: mystic pumpkin@hotmail.com

Section 3: Draft OHAU RIVER Reserves Management Plan

Please tick one or more of the below boxes to confirm which of the Ohau River Reserves your below comments relate to.

☐ Gladstone Reserve ☐ Kimberley Reserve ☑ Kirkcaldies Reserve

☑ Access way off Muhunoa East Road ☐ Parikawau Reserve

6.1, I am fully in support of exploring the options available in making this a viable access way.

5.1 I am also fully in support of enhancing the accessability of a swimming spot here

I believe there are many positives in developing the true Ohau river access points (P.T.O) *(Continue on a separate sheet if necessary)*

Section 4: Reserve Management Plan Hearing

Do you wish to attend a Council hearing for the Draft Reserve Management Plans?
Yes ☑ No ☐

Do you wish to speak in support of your submission at the hearing? Yes ☑ No ☐

Signature: ..... **Date:** 17/3/17

(Or person authorised to sign on behalf of submitter)

Further Information

If you require further information about this process then please visit the Council's website (www.horowhenua.govt.nz/rmp). If you have any questions then email them to reservemanagementplans@horowhenua.govt.nz or call us on (06) 366 0999 and ask to speak to Tiffany Williams.

Privacy Act 1993

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I feel Ohau has drawn the 'short straw' recently. It would be a good idea to see some of our rates being put to making these 'unknown' treasures of our small district more accessable, encouraging outdoor activities for our area, and allowing access to showcase these beautiful natural resources and potential walkways.

Regards

Sarah Walsh

Sarah Walsh.

Reserve Management Plans

Submission date: 17/03/2017 14:39 PM

Receipt number: 17

Question	Response
Contact Details	
Full Name:	Pamela Margaret Robinson
Name of Organisation (if on behalf of an Organisation)	
Address for Service:	362 Kimberley Rd, RD1, Levin, 5571
Postcode:	5571
Daytime Telephone:	063683422
Mobile:	0273620033
Email:	p2robbo@xtra.co.nz
Section 1: Draft Combined Waitarere Beach Reserves Management Plan	
Waitarere Beach Reserves	
Enter your comments for the Waitarere Beach Reserves:	
Section 2: Draft Waitarere Beach Foreshore Reserve Management Plan	
Enter your comments for the Waitarere Beach Foreshore Reserve:	
Section 3: Draft Ohau River Reserves Management Plan	
Please tick one or more of the options below to confirm	Gladstone Reserve,Kimberley Reserve,Kirkcaldies Reserve,Access way off Muhunoa East Road,Parikawau Reserve

Question	Response
which of the Ohau River Reserves your below comments relate to.	
Enter your comments for the Ohau River Reserves:	I live near Kimberley Reserve, but my submission relates best to the overall Ohau River Reserves Plan. I would like to raise 6 main points, the first 3 being the significant ones, and the last 3 being queries. Point 1. Pathways linking reserves will be fantastic, also plan to extent them to town. a. I strongly support the development of pathways along the northern edge of the river and the eventual linking of the reserves. I have lived in both Waikanae and Palmerston North and know how the growing population of Levin will use and appreciate linked long stretches of river walks/runs/cycle/bridal ways. This, will attract people to the area. b. I think this concept of linking the reserves for those enjoying physical exercise should be extended to include safe off road access from town to and from the reserves. Pathways, like the gravel one on Queen St East, make it so much safer for cyclists and joggers etc, and if one was also created along Arapaepae, Tararua and Gladstone roads then This would complete the “loop” making it possible to go from town to a reserve, along the river, and back to town in a safe manner. This is especially relevant now with the upcoming negotiations with NZTA. If they decide on the SH1 bypass option along Arapaepae Rd then wise negotiations could ensure that NZTA funding provides much of the safe off rode pathways (as they have done elsewhere with the express way so far). Even without the links between reserves, safer cycle access for children coming from town to swim at Kimberley Reserve would really help. (They tend to cycle past with no shoes and towels trailing over their handlebars). Please include creating safer access from town in the plan. Point 2. Make sure NZTA ensures reasonable road access from town to these reserves. This follows on from point 1 b. At one stage the NZTA Levin bypass option was to cut Kimberley Rd East, off from all but the southern end of Arapaepae Rd, this would have meant someone visiting the reserve from town would have to travel an extra 10 km (about 5 km extra each way). It would be logical to assume that if that happened they would also cut off the connection between the east end of Tararua Rd and the new bypass. That would mean about an extra 6 km each way if someone from south Levin wanted to visit Gladstone reserve. Putting these assets up to 10 km further away from Levin is completely unreasonable and needs to be prevented. Please make continued reasonable road access to the reserves a priority and plan to negotiate with NZTA on this matter so that if the bypass goes ahead they will be forced to agree to a local road on the east side, beside the new bypass, so this eastern side of Levin, and the river amenities stay properly connected to the town. Point 3. I recommend the Ohau River Reserves management plan be amended to include the recognition of horse access and bridal ways, and appropriate management of this activity. Why? • Because horses already use some of these areas and have done so for decades. The Reserve notice eg at Kimberley Reserve does not mention horses. In all the years we have ridden through the reserve, when we do meet people I do not recall ever being told off, criticized or having caused offense. On the contrary, if we meet them, children and families will often approach us longing for a ride and enjoying patting the horses. • Because these reserves are so suitable. The area is large enough to support all these activities without a conflict of interests. For example, Kimberley Reserve has a huge area

Question	Response
	suitable for trekking which does not interfere with other users, this includes the old oxbow that has been intermittently quarried over the last few years. • The Reserves provide necessary access for larger rides, for example one needs to use Kimberley reserve when crossing form Kimberley Rd to Florida Rd when riding “round the block “ • Because being able to go for a beautiful ride always draws people to the area. If we want Levin and Ohau to be popular lifestyle locations, then encouraging people to want to live there is good. Let’s face it, lifestyle blocks are often bought by horsey people. We brought in Kimberley Rd because of trekking options. And I know of many others who may not be aware of these Management Plans, but who have moved to this area for the same reasons, and who love to ride to the river. Please acknowledge riding in these reserves, and if it becomes necessary, manage where and how. But also, please include bridal access when linking the reserves, as it will be a huge draw-card to the area. Yes, it may mean the blind corners, and the path generally will need to be widened. But it will anyway for cyclists and pedestrians to share it. By all means enforce picking up poo (or removing it from the track) (same as for dogs who should also be allowed access on leads) as it’s not hard for a rider to stop and clean up if necessary. Also rules about safety and consideration could be posted but most riders are sensible and do not want to spoil it for others. Please look at how the Waikanae river shared pathway works. It’s a fantastic asset and would draw lifestyle people to the area. Point 4. Rock fall hazard? Should it be included that at the reserves (eg Gladstone) where rock fall is a significant hazard, especially over a swimming hole, that notices to make the public aware of safe practice, are kept in place? Point 5. Can traditional swimming holes be maintained? Because the river will always change, should it be part of the Reserve Management Plan to include that Horizons is encouraged to do what is acceptable and appropriate to help, if possible, to maintain good swimming holes where the public access has already been developed. Not only does this benefit the community, but it means that the reserve maintenance and resources are not wasted by people giving up going if their hole is gone. It also reduces the public putting in their own tracks to new swimming holes, and thereby minimizes ecological damage. Point 6. Should there be a natural damage verses erosion protection comment? With regards to wanting to protect the environment, should controlling river erosion be mentioned, even though it is up to Horizons. The moving river will always naturally destroy a much larger area of developed native bush, than anything else could. As evidenced in sections 55 and downstream 79 of Kimberley Reserve over the last few years. Even just to explain who manages this issue etc, might help people reading the plan to have a better understanding.
Section 4: Reserve Management Plan Hearing	
Do you wish to attend a Council hearing for the Draft Reserve Management Plans?	Yes

Question	Response
Do you wish to speak in support of your submission at the hearing?	Yes
Additional Information	
Attachments:	
Declaration	
Signature:	Name of signatory: Pam Robinson Uploaded signature image Link to signature
Date:	17/3/2017
Council Use Only	
Date Received:	
Submission No:	

Horowhenua DISTRICT COUNCIL

Council Use Only
Date Received: ...../...../.....
Submission No: .....

SUBMISSION FORM - Reserve Management Plans

Horowhenua District Council is currently reviewing its Reserve Management Plans for the following reserves:

- Waitarere Domain, Holmwood Park and Wairarawa Stream Reserve (which are covered by the Draft Combined Waitarere Beach Reserves Management Plan);
- Waitarere Beach Foreshore Reserve; and
- Gladstone Reserve, Kimberley Reserve, Kirkcaldies Reserve, an access way off Muhunoa East Road and Parikawau Reserve (which are covered by the Draft Ohau River Reserves Management Plan).

Draft Reserve Management Plans have been prepared for the above reserves and Council is now seeking feedback/comments in the form of submissions from the public on what they think about one or more of these Draft Reserve Management Plans.

Submissions can be:
Delivered to: Horowhenua District Council Offices, 126 Oxford Street, Levin
Posted to: Horowhenua District Council, Private Bag 4002, Levin 5540
Faxed to: (06) 366 0983
Emailed to: reservemanagementplans@horowhenua.govt.nz

Feedback must be provided to Council by no later than **5:00pm on Friday, 17 March 2017**

Contact Details

Full Name: Charles Rudd

Name of Organisation: *(If on behalf of an Organisation)*

Address for Service: c/- Postal Counter

LEVIN Post code: 5510

Telephone (Day time): (06) 3683567 Mobile: 021 029 787 00

Email: N/A

Section 3: Draft OHAU RIVER Reserves Management Plan

Please tick one or more of the below boxes to confirm which of the Ohau River Reserves your below comments relate to.

☐ Gladstone Reserve ☐ Kimberley Reserve ☐ Kirkcaldies Reserve

☐ Access way off Muhunoa East Road ☐ Parikawau Reserve

See Attached Submission

(Continue on a separate sheet if necessary)

Section 4: Reserve Management Plan Hearing

Do you wish to attend a Council hearing for the Draft Reserve Management Plans?
Yes ☑ No ☐

Do you wish to speak in support of your submission at the hearing? Yes ☑ No ☐

Signature: [signature] (snr) **Date:** 17 March 2017

(Or person authorised to sign on behalf of submitter)

Further Information

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SUBMISSION

DRAFT Waitarere Beach Foreshore Reserve Management Plan

Horowhenua District Council

1. Concerned that, I Charles Rudd (snr) as a previous submitter, was not consulted with to the above subject matter prior to this submission.

2. Concerned that my submission to HDC on the 12th of February 2016, to that subject matter at that period of time was basically ignored:

   - The Waitarere Beach Foreshore from the chain strip, is Customary Maori Land.
   - The Foreshore Accresion, is Customary Maori Land.
   - The ignorance and arrogance from the decision-maker, made after the 12th of February 2016, was a devious Confiscation of Maori Land with disrespect to the Treaty of Waitangi of 1840.
   - The application's to use the Reserves Act 1977 as a vehicle to try to supercede the Marine and Coastal Area (Takutai Moana) Act 2011, is a devious underhanded manipulation ny the parties involved.

3. Very concerned about the Cultural and Environmental insensitivity, which could manifest into Social upheavals.

4. Concerned about the DRAFT Waitarere Beach Foreshore Reserve Management Plan's diagram which places Maori precariously.

5. Concerned that Maram grass and Spinefex are used as priority , over the native Pingao (Golden sand sedge) (*Desmoschoenus).*

6. Concerned that Horses have priority over Dogs. Horses and Vehicles destroy the Toheroa, Tohemanga and Tuatua sprats that is a food source of Maori and others now. Dogs do not. Who picks up the Horses droppings?

7. Concern that any storm-water outlets and leachate of heavy metals, is a Health and Safety issue in the Waitarere Beach Foreshore area.

8. Concern that any sewage / oxidation pond leachate in the porous sand coastal area, is a Health and Safety issue in a food gathering and recreational are.

Naku noa na

Charles Rudd

Charles Rudd (snr)

17th March 2017

SUBMISSION

DRAFT Combined Waitarere Beach Reserves Management Plan

Horowhenua District Council

1. Concerned about the DRAFT Waitarere Beach Foreshore Reserve Management Plan's diagram which places Maori precariously

2. Though not mentioned in the above worded plans, I have concerns about the following effects relative to on-site, off-site, and distant off-site area's

3. Concern that any storm-water outlets and leachate of heavy metals, is a Health and Safety issue in the Waitarere Beach Foreshore area.

4. Concern that any sewage / oxidation pond leachate in the porous sand coastal area, is a Health and Safety issue in a food gathering and recreational are.

Naku noa na

Charles Rudd (snr)

17th March 2017

SUBMISSION

DRAFT Ohau River Reserves Management Plan

Horowhenua District Council

1. Concerned that, I Charles Rudd (snr) as a previous submitter, was not consulted with to the above subject matter prior to this submission.

2. Concerned about the DRAFT Waitarere Beach Foreshore Reserve Management Plan's diagram which places Maori precariously

3. The above named document has pretty words in HDC's policies, but does not mention the:

    - Affects and effects that gravel extraction from the Ohau River has on the Reserves, fish, birds, native plant species, recreational pursues and Maori connection to the nga Atua, whenua and awa.

Naku noa na

Charles Rudd (snr)

17th March 2017

Horowhenua DISTRICT COUNCIL

Council Use Only
Date Received: ...../...../.....
Submission No: .....

SUBMISSION FORM - Reserve Management Plans

Horowhenua District Council is currently reviewing its Reserve Management Plans for the following reserves:

- Waitarere Domain, Holmwood Park and Wairarawa Stream Reserve (which are covered by the Draft Combined Waitarere Beach Reserves Management Plan);
- ✓ Waitarere Beach Foreshore Reserve; and
- Gladstone Reserve, Kimberley Reserve, Kirkcaldies Reserve, an access way off Muhunoa East Road and Parikawau Reserve (which are covered by the Draft Ohau River Reserves Management Plan).

Draft Reserve Management Plans have been prepared for the above reserves and Council is now seeking feedback/comments in the form of submissions from the public on what they think about one or more of these Draft Reserve Management Plans.

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Posted to: Horowhenua District Council, Private Bag 4002, Levin 5540

Faxed to: (06) 366 0983

Emailed to: reservemanagementplans@horowhenua.govt.nz

Feedback must be provided to Council by no later than **5:00pm on Friday, 17 March 2017**

Contact Details

Full Name: PETER WRIGHT

Name of Organisation: *(If on behalf of an Organisation)*.....

Address for Service: 673 WAITARERE BEACH RD

LEVIN Post code: 5510

Telephone (Day time): 3681480 Mobile: 027 315 6466

Email: p.v.wright@xtra.co.nz

Please fill in the corresponding sections below, depending on which draft reserve management plan you would like to make a submission on.

Section 1: Draft COMBINED WAITARERE BEACH Reserves Management Plan

*Please **tick** one or more of the below boxes to confirm which of the Waitarere Beach Reserves your comments relate to. NOTE: Comments on the Foreshore Reserve should be entered in Section 2.*

☐ Waitarere Domain ☐ Holmwood Park ☐ Wairarawa Stream Reserve

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(Continue on a separate sheet if necessary)

Section 2: Draft WAITARERE BEACH FORESHORE Reserve Management Plan

.....

In 2002, I was Secretary of the Waitarere Progressive and Ratepayers Association and was very involved in the consultation and implementation of HDC Land Use consents 101346, 101716 and RCA 1344 to reshape the sand dunes and realign Waitarere Beach Road.

I am disappointed that through no regular maintenance, non-compliance with some consent conditions and unsupervised contractor ignorance, the dunes are rapidly getting higher, the roadside verges are being built up, recreating the pre 2003 wind tunnel/sand funnel effect and the spectacular sea views are fast disappearing.

I am including a photo montage to illustrate my concerns.

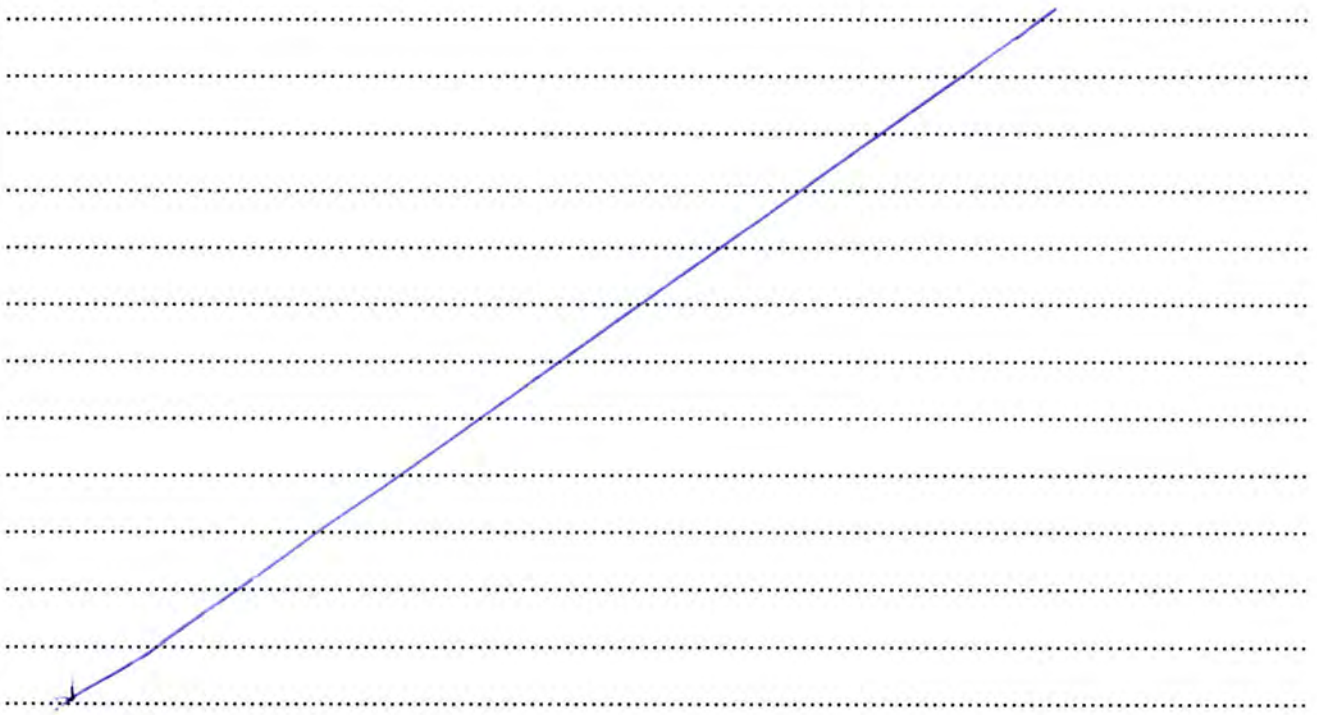
1)

Section 3: Draft OHAU RIVER Reserves Management Plan

Please tick one or more of the below boxes to confirm which of the Ohau River Reserves your below comments relate to.

☐ Gladstone Reserve ☐ Kimberley Reserve ☐ Kirkcaldies Reserve

☐ Access way off Muhunoa East Road ☐ Parikawau Reserve



(Continue on a separate sheet if necessary)

Signature: P M Wright **Date:** 16/3/2017

(Or person authorised to sign on behalf of submitter)

Note: A signature is not required if you make your submission by electronic means.

Further Information

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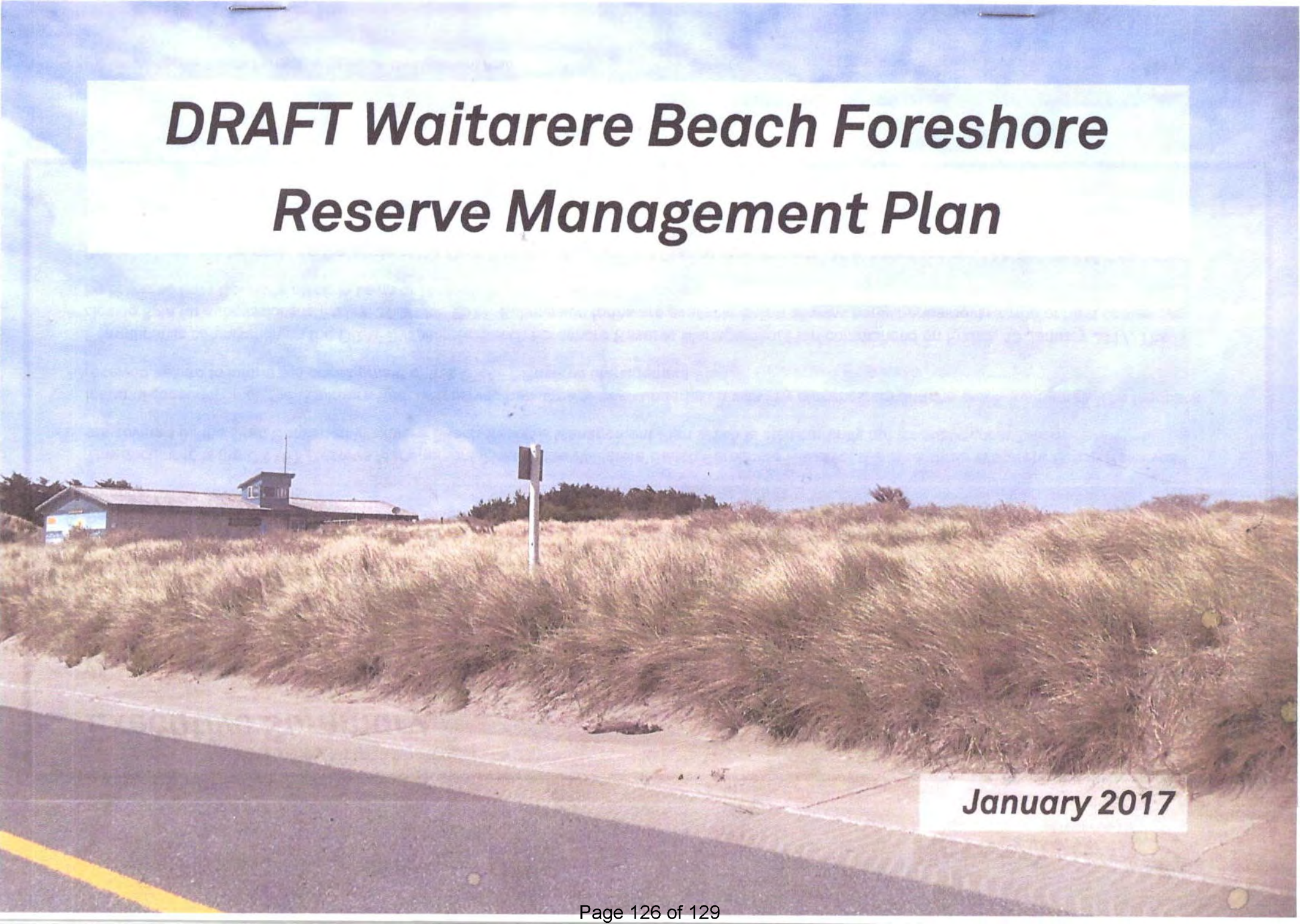
DRAFT Waitarere Beach Foreshore Reserve Management Plan



January 2017

Road/ Seaview 2003

Road/ Seaview 2017

Car Park / Seaview 2003

Car Park/ Seaview 2017

Road / Seaview 2003

Road / Seaview 2017

Marram Plantings 2003

Marram Dune / disappearing Surf Club

Footpath and verge build up 2017

Turning bay North Jan 2017

Marram Dunes Uncontrolled 2017

Turning bay South Jan 2017

Contractors dumping sand along road verges

Signage, there are over 30 signs
along the beach entrance road
(worse than graffiti) time for a weed out!

The large "Tsunami" sign warning people not to go near the beach is inappropriately placed. It should be in the "hub " of town, near Community Notice Boards, shops, bus stop.