



# BIODIVERSITY

## 1 ACTIVITY OVERVIEW

- 1.1.1 Manawatū-Whanganui Regional Council (Horizons) has statutory obligations to maintain and sustainably manage the region's biodiversity under the Resource Management Act (1991). Horizons' strategy is set out in our One Plan and includes both regulatory and non-regulatory approaches. This item reports on the non-regulatory biodiversity programme.
- 1.1.2 Horizons' Biodiversity team works closely with other Council teams and external organisations to enhance biodiversity and engage the community in biodiversity enhancement. This work is supported by research, additional labour and monitoring undertaken by the Horizons' Science & Innovation and Biosecurity teams, along with other agencies, to prioritise and focus implementation efforts. This item reports on the collective biodiversity activity of the implementation and science programmes. Other non-regulatory programmes, particularly the freshwater programme, also contribute to biodiversity outcomes.
- 1.1.3 A key challenge in biodiversity management is allocating resources in a way that provides the greatest ecological benefit. This has been a significant area of focus for the recent review of the biodiversity programme, which aimed to improve processes and subsequent biodiversity outcomes across the region, while working to bring Horizons closer to meeting requirements under the proposed **National Policy Statement for Indigenous Biodiversity (NPSIB)**. The proposed NPSIB requires councils to identify areas where there is significant vegetation and habitats of indigenous fauna, and to manage their protection through plans and consent processes under the **Resource Management Act (RMA)**.

- 1.1.4 National policy direction is changing with Central Government releasing the National Biodiversity Strategy, *Te Mana o te Taiao*, on 10 August 2020. The regional sector and Horizons staff were involved in the development of the strategy. The NPSIB has been delayed due to Central Government's Covid-19 response and is now signaled for release in April 2021. These documents will influence the way that Horizons manages biodiversity within the region.
- 1.1.5 An outcome of the review is that Council has resolved that work across the non-regulatory biodiversity programme supports the goal for the priority sites to "*maintain or restore the full range of the region's indigenous ecosystems to a healthy and functioning level*". The goal for the biodiversity partnerships programme is "*Empowering communities to engage with biodiversity*".
- 1.1.6 This report presents information for the period July 2020 to December 2020 in the context of delivery of the programme for the financial year (July to June). Biodiversity Activity is presented regionally (where appropriate) and/or for each of the programmes that make up the Non-regulatory Biodiversity Programme, integrating the implementation work of the Biodiversity team and the activities of the Science & Innovation and Biosecurity teams. This report is arranged in the following sections:
- The regional activity update and progress against Annual Plan targets;
  - The priority biodiversity sites programme, a site-led programme working with landowners to maintain and enhance priority sites on private land;
  - The biodiversity partnerships programme, where projects extend beyond the boundary of a single landowner and/or involve community groups or external agencies; and
  - Management of Tōtara Reserve, our regional park.

## 2 ANNUAL PLAN TARGETS

- 2.1.1 Progress against the Annual Plan targets for the 2020-21 year are shown in Table 1 below.
- 2.1.2 The annual plan targets for the priority sites programme are to add four new wetland sites and seven new bush remnant sites. Six of the seven bush remnant sites have been identified, and one wetland site has been identified. Confirming the further three wetland sites and one bush site is a current focus for the team. The sites confirmed to date for inclusion in the programme this year are shown in the priority sites section.
- 2.1.3 The biodiversity partnerships programme has 18 projects currently allocated for an Annual Plan target of 12 with two – the planting at Betty Tripe Reserve, and the work at Cape Turnagain – completed.
- 2.1.4 The work at Totara Reserve has continued with a strong focus on health and safety. The poplar trees have been removed and the camping season is well underway.

Table 1 Progress reporting for the Biodiversity Activity Annual Plan targets for 2020-21.

Long-term Plan Target	Target	Allocated	Completed or supported	% of target completed
<b>Protect/enhance priority habitat remnants</b>				
Additional top 100 wetlands actively managed	4	1	0	0%
Additional top 200 bush remnants actively managed	7	6	1	14%
<b>Support community involvement in biodiversity protection</b>				
Support existing community-based biodiversity improvement projects	12	18	2	16%
<b>Tōtara Reserve Regional Park</b>				
Annual report on the management of Tōtara Reserve Regional Park for biodiversity and recreational values, including managing the camping facility.	1	-	0	To be presented at the end of the financial year
<b>Science &amp; Innovation - Biodiversity Long-term Plan targets for 2020-21.</b>				
Performance Measures for Levels of Service	Target 2020-21	Target achieved	Progress update	
Annual report on biodiversity monitoring and research activity.	1	0	To be presented at the end of the financial year	

## 3 PRIORITY SITES PROGRAMME

### 3.1 Programme overview

- 3.1.1 The Priority Biodiversity Sites Programme is a habitat-focused programme aiming to maintain or restore the full range of the region's indigenous ecosystems to a healthy and functioning level. Staff identify and assess priority sites for their eligibility for management. Once sites are found to be eligible, staff work alongside the landowner and sometimes the QEII National Trust to manage them by interventions such as animal exclusion and pest plant control.
- 3.1.2 The non-regulatory biodiversity activity has been through a review involving developing a prioritisation process to identify and select sites for further management. Once sites are selected from site summary information, site management prescriptions are written and costed, and will be added to the prioritisation list for work that is required at management sites. The budget available for this work will then be allocated according to the assessed priorities. A paper was presented to the Council's Strategy and Policy Committee in November 2020 on the new goal to maintain or restore the full range of the region's indigenous ecosystems to a healthy and functioning level and the approach to working toward this goal via this year's work programme.

### 3.2 Activity Update

#### **IDENTIFYING AND ASSESSING SITES**

- 3.2.1 **Rapid Ecological Assessments (REAs)** involve visiting a site to collect inventory data on the ecosystem types present and the threats that would need to be managed if the site were included in the Priority Sites Programme. As well as increasing our knowledge of remaining biodiversity in the region, REAs identify sites that are eligible for management in the following year.
- 3.2.2 To create the list of sites outlined for REAs in the coming year, a subset of regionally critically endangered ecosystems has been shortlisted, based on four factors: predicted remaining habitat, extent of habitat decline, area of remaining habitat in the conservation estate, and proportion of remaining habitat outside the conservation estate. Sites identified by prioritisation modelling from these shortlisted ecosystems will be targeted for REAs in the coming year. By being selective about the location of

next year's REAs, we are targeting the most threatened sites for management in the 2021-22 financial year.

3.2.3 Table 2 below provides a summary of the management level index status for all sites on the managed list to the end of December 2020.

Table 2 Priority Sites Management Level Index (0.5: site may have received management from Horizons but has not been assessed, 1: REA completed within the last 10 years, 2: site has received Horizons contribution to management, 3: site receives ongoing management input from Horizons, 4: site receives a higher level of management inputs, 5: site receives significant inputs from stakeholders, 6: site receives management inputs for all animal pests.

Management level	Bush sites	Wetland sites	All sites
6	1	0	1
5	1	2	3
4	7	3	10
3	40	14	54
2	100	51	151
<b>Sub-total for Level 2+</b>	<b>149</b>	<b>70</b>	<b>219</b>
1	350	69	419
0.5	4	6	10
<b>Total</b>	<b>503</b>	<b>145</b>	<b>648</b>

### SITE MANAGEMENT IN 2020-21

3.2.4 Management actions in the 2020-21 year are being prioritised to fit the available budget through a process that is focusing firstly on the 68 sites at Management Level 3 and above. The process includes all of these sites having full site summaries and management prescriptions prepared. These: a) identify ecological integrity targets, b) identify pressures required to be managed to meet targets and c) develop prescriptions and indicative cost information to reduce pressures to required levels over a five-year period. Costings are based on prescriptions designed to restore ecosystem function and viability, not to maximise populations of charismatic species or ensure the persistence of threatened species. Where charismatic or threatened species are present it may be appropriate to provide additional management in collaboration with the Department of Conservation.

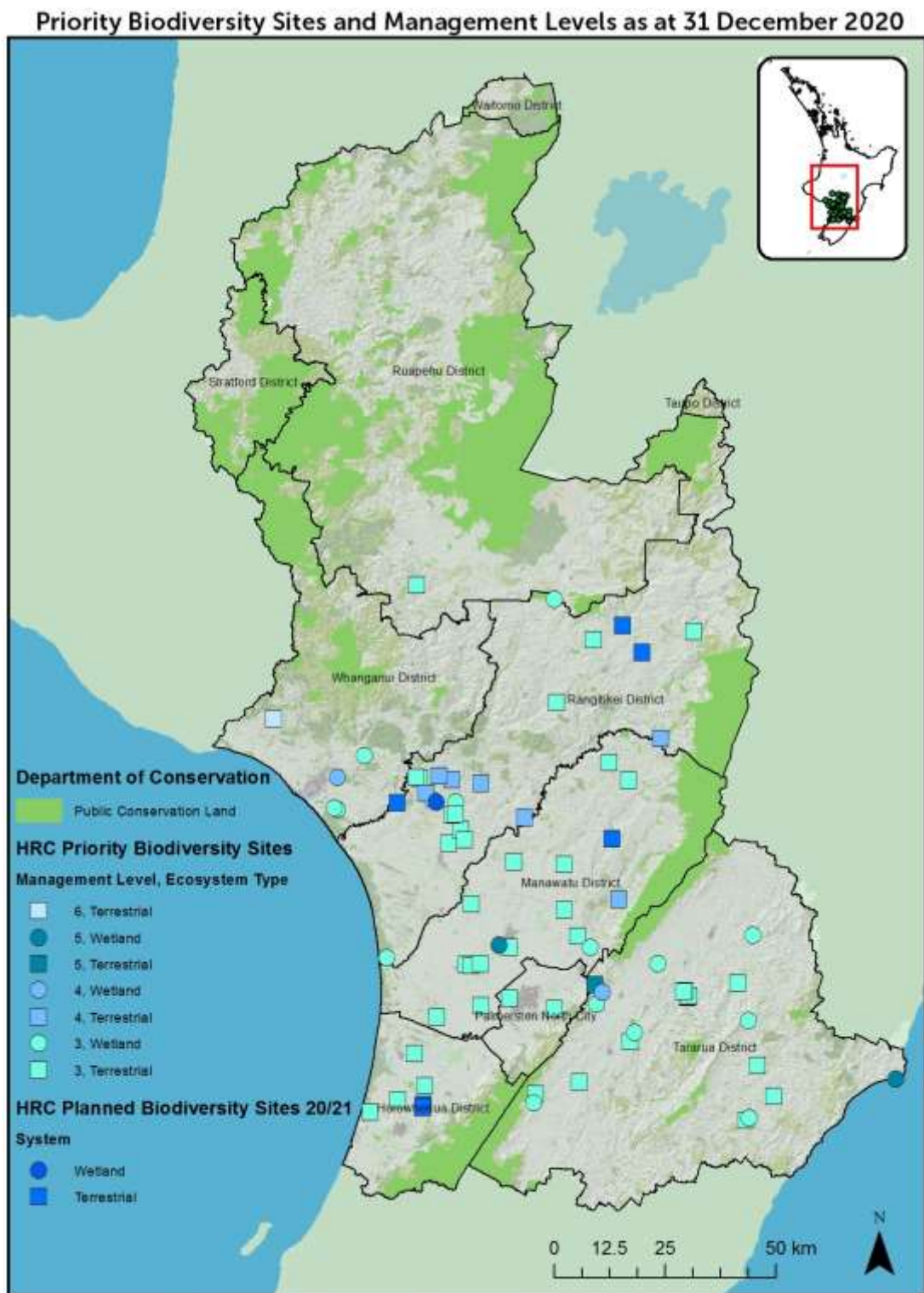
3.2.5 All of the sites where management is planned for this financial year have had site summaries prepared and management prescriptions approved.

3.2.6 As highlighted above, the Annual Plan target of adding four new wetlands and seven new bush remnants has progressed to having six new bush remnants and one new wetland allocated (Table 3 below).

Table 3 2021 new wetland and bush priority sites under management.

	Type	Name	District	Short Description
1	Bush	Man260 Near Kimbolton	Manawatu	5 ha of tawa, podocarp forest – deer fence erected with Horizons assistance in December 2020. Landowners have retired an additional 1 ha of pasture adjacent and Horizons are providing plants to replant this in June 21.
2	Bush	Rang187a North of Taihape	Rangitikei	40 ha of kahikatea, tōtara and matai forest – landowner had fenced off 20 years ago. Horizons have contractors booked to do ground control of <b>old man's beard (OMB)</b> in March 2020, and drone OMB control in adjacent Moawhango River corridor.
3	Bush	Rang253, North of Taihape	Rangitikei	13 ha of kahikatea, tōtara and matai forest, currently grazed. Horizons Land and Biodiversity teams are working together to provide funding to get the forest deer-fenced. Fencing materials have been delivered and contractor booked for April 2021.
4	Bush	Horo194, Koputaroa	Horowhenua	0.3 ha kahikatea forest, containing one of the three remaining populations of giant snail <i>Powelliphanta traversi koputaroa</i> . Landowner is retiring additional land adjacent to forest remnant and Horizons will be assisting with replanting this to extend habitat; we will also carry out predator control to protect snails.
5	Bush	Horo109, Koputaroa	Horowhenua	5 ha swamp mosaic (kahikatea forest, raupo and tawa podocarp forest) containing remnant population of giant snails <i>Powelliphanta traversi koputaroa</i> . Landowner is removing old pines that are falling and damaging fence. Horizons will control weeds, replant with species that provide good snail habitat, and control introduced predators to enhance the snail population.
6	Bush	Whan20, Fordell	Whanganui	7 ha kahikatea, pukatea forest. Horizons is assisting with deer fencing planned for this financial year.
1	Wetland	Rang61W, Marton	Rangitikei	2 ha sphagnum mossfield. Horizons to assist with fencing planned for this financial year.

3.2.7 Map 1 shows the locations of the 68 sites currently at Management Level 3 and above, plus the confirmed new sites.



Map 1 Priority Biodiversity Sites and Management Levels as at 31 December 2020.

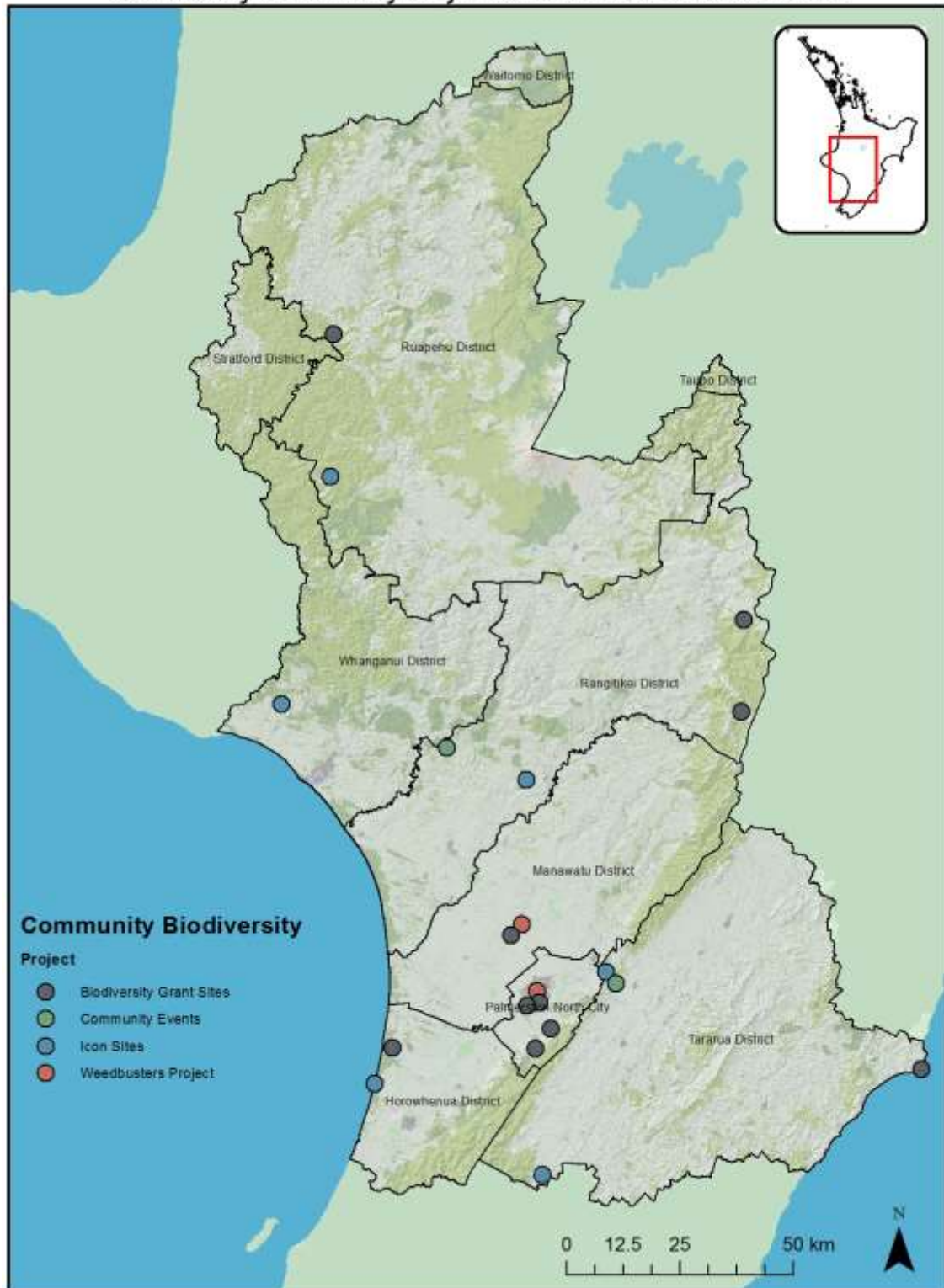
## 4 BIODIVERSITY PARTNERSHIPS

### 4.1 Programme Overview

- 4.1.1 The Biodiversity Partnerships Programme funds biodiversity-related projects that extend beyond the property boundary of a single landowner and/or involve community groups or external agencies. The current suite of projects includes target sites or areas with environmental, social and cultural values.
- 4.1.2 The 18 projects approved in 2020-21 are made up of six Biodiversity Collaborations (four "icon" and two targeted rate projects), nine Biodiversity Fund projects, Weedbusters and, so far, one Community Engagement event.
- 4.1.3 Map 2 shows the locations of community biodiversity sites, events and projects as at 31 December 2020.



### Community Biodiversity Project Sites as at 31 December 2020



Map 2 Community Biodiversity Project Sites as at 31 December 2020.

## 4.2 Programme Activity

- 4.2.1 Council approved the revised structure for the Biodiversity Partnerships Programme and adopted “*Empowering communities to reconnect with and improve biodiversity*” as the programme’s goal, after the Strategy and Policy Committee meeting in August 2020.
- 4.2.2 The biodiversity partnerships project includes icon and targeted rate projects (Table 4), biodiversity grant project (Table 5) and community engagement projects. A further component of work during 2020-21 has been seeking Central Government funding, which is also updated in the sections below.

Table 4 Council has approved the following as Biodiversity Partnerships icon projects and targeted rate funding allocations for the 2020-21 year as follows:

Icon projects	2020-21 FY (excluding GST)	Current Status
Te Āpiti Manawatu Gorge	\$244,856	At risk of non-completion
Kia Whārite	\$150,000	On track
Pūkaha Mt. Bruce	\$37,292	On track
Bushy Park Tarapurahi	\$20,000	On track
Targeted rate projects	2020-21 FY (excluding GST)	Current Status
Rangitikei Environment Group (REG)	\$95,000	On track
Waiterere Beach Community Project	\$7,000	On track
<b>Total</b>	<b>\$554,148</b>	

Table 5 Biodiversity Grant projects for the 2020-21 financial year.

Partnership Projects	2020-21 FY (excluding GST)	Current Status
Manawatū Estuary	\$25,000	At risk of delivery
Turitea Reserve	\$20,000	Underway
Tawata Eco-sanctuary	\$15,000	Underway
Te Pōtae o Awarua Predator Control	\$15,000	Ruahine Whio Protectors Grant proposed works and H&S plan approved, grant provided. Aorangi Awarua Trust Awaiting grant, proposed works details and H&S plan.
Cape Turnagain	\$10,000	Completed

Partnership Projects	2020-21 FY (excluding GST)	Current Status
Awahuri Forest – Kitchener Park	\$8,000	Awaiting grant, proposed works details and H&S plan.
Kahuterawa Stream	\$8,000	Underway
Ahimate Reserve	\$5,000	Underway
Massey Hill	\$3,500	Underway
<b>Total</b>	<b>\$109,500</b>	

## 4.3 Project Updates – 2020-21

This section provides updates on the activity of the projects funded in 2020-21.

### TE ĀPITI MANAWATŪ GORGE

4.3.1 The Te Āpiti Manawatū Gorge Governance Group met on December 10, 2020. Key topics of discussion included:

- A presentation on the draft Master Plan, which was endorsed for the next stage of consultation with the community.
- An update on operational activity, including budget. Through Waka Kotahi NZ Transport Agency (NZTA) and the Horizons Annual Plan there has been a significant increase in funding. A proposed budget was presented and accepted. A workshop on environmental education will be held prior to the next meeting.
- An overview of the additional pest plant and animal control underway this year was provided. Groundtruth Ltd are updating the 2017 Te Āpiti – Manawatū Gorge Biodiversity Management Plan, which will include improved outcome monitoring of the pest control work.
- An overview of DOC work included the Tawa Loop upgrade planned for 2021, and pest control (trapping and baiting) being carried out on the southern side of Manawatū Gorge Scenic Reserve.
- The Manawatū Mountain Bike Club are on target to complete an upgrade of Te Ara o Mahurangi Mountain Bike Trail.
- The **Central Economic Development Agency (CEDA)** presented an initial feasibility study into tourism opportunities focusing on opening the Old Gorge Road and creating an eco-sanctuary.

- The next Governance Group meeting will be scheduled for June 2021.

#### 4.3.2 Activity in the first half of the financial year has included:

- The weed control contract has been signed and the contractor has made good progress.
- More than 100 school children, teachers and parents joined Rangitāne tangata whenua, members of the Woodville RSA, Horizons Regional Council, Woodville Lions and Woodville Domain Board to mulch around the tōtara planted as a living memorial at Ferry Reserve. Twenty-six soldiers from the Woodville district who died in WWII are commemorated by these 26 trees.



Photo 1 Papatawa School student Emily mulches a memorial tree, December 2020.

## **KIA WHĀRITE**

- #### 4.3.3
- Predator trapping has continued in the Rētāruke, Manganui o te Ao and Whanganui River Catchments for whio (blue duck) protection and in the Waimarino area for North Island brown kiwi protection. Ground and aerial goat control operations were also undertaken in the Waimarino area. Horizons' activity for this year has been contracted and is underway with 12 of the 20 planned checks completed by December 2020 as scheduled.

4.3.4 DOC is undertaking a review of the Manganui o te Ao who security site to refine the requirements for ongoing protection and enhancement of this taonga species. The review will include consideration of DOC’s ongoing funding of the project. An update will be provided to Council following the review.

## **PŪKAHA MOUNT BRUCE**

4.3.5 Pūkaha Mount Bruce is a community project involving Horizons, Greater Wellington, DOC, iwi, and local landowners. The 942 ha reserve straddles the boundary of the Horizons and Greater Wellington regions just south of Eketahuna. Pūkaha has thriving wild kokako, kiwi and kaka populations, native lizards, longfin eels, and other special inhabitants. The forest itself is a dense lowland podocarp remnant of Seventy Mile Bush. Pūkaha is managed as a “mainland island” without predator-proof fencing, which means pest control in and around the reserve is essential to protect its vulnerable wildlife.

4.3.6 Environmental pest plants such as old man’s beard and Darwin’s barberry have the ability to destroy and replace native vegetation and habitats. Both of these are in Pūkaha and the surrounding landscape. To tackle these issues, a Technical Advisory Group including Pūkaha National Wildlife Centre, DOC, Horizons, Greater Wellington, and landowners was formed to assist with providing guidance on best practice control for these plant pests.

4.3.7 Currently, Horizons Regional Response Team is servicing perimeter mustelid traps every two weeks and continuing the landscape-scale possum control operations. The budget for trap servicing is \$27,292 this year. Trap catch data is presented below (Table 6).

Table 6 Pukaha trap catch results for the year to date.

	<b>July – Sept Totals</b>	<b>Oct-Dec Totals</b>	<b>Year to date</b>
Stoats	6	1	7
Weasels	1	0	1
Ferrets	4	0	4
Rats	45	30	75
Hedgehogs	20	24	44
Cats	15	0	15

## **BUSHY PARK TARAPURUHI**

- 4.3.8 Horizons contributes \$20,000 per year to Bushy Park Tarapuruhi, near Whanganui, and this year our funds will help with predator monitoring, weed control within the sanctuary, mouse control, work on the predator-proof fence and track maintenance.
- 4.3.9 A potential rabbit incursion into Bushy Park Tarapuruhi was noted in November. This was followed by intensive monitoring, including the use of a specialised rabbit dog, poisoned carrots and repeated checks of the fence-line. No further rabbit sign has been found and the area was given the all clear on 17 December. If it occurs, rabbit burrowing under the fence could allow predators to access the protected area inside the fence.
- 4.3.10 A translocation of pōpokotea (whitehead) into Bushy Park Tarapuruhi is planned. The application for a wildlife permit to carry out this work is currently with the DOC permissions team.
- 4.3.11 A translocation proposal for titipounamu (rifleman) into Bushy Park Tarapuruhi has been costed and funding for this work is being sought by the Trust; it is understood they are seeking approximately \$23,000 for this to occur.
- 4.3.12 The Biodiversity team, alongside DOC, is managing the environmental pest plants within the reserve and the buffer. This contracted work is planned to begin in January 2021 with an aerial weeds survey followed by ground control from late February. Horizons is currently spending \$10,000 each season on pest plant work at this site.

## **RANGITIKEI ENVIRONMENT GROUP (REG)**

- 4.3.13 REG are on track with their planned old man's beard control work in the Rangitikei District as per their operational plan, having completed approximately half of the planned work by the end of December.
- 4.3.14 REG are investigating a partnership with the **Rangitikei River Catchment Care Group (RRCC)**, who have received approximately \$1.5 million funding from MPI to be spent over three years on control of old man's beard in the Rangitikei River catchment. Horizons staff have provided some support for this potential new project.

## **WAITARERE BEACH COMMUNITY PROJECT**

- 4.3.15 The Waitarere Beach community pay a targeted rate to Horizons for the purposes of controlling exotic plants and restoring native plants on the dunes.

4.3.16 Horizons contractors have controlled lupins, acacia and yucca at Waitarere Beach during this reporting period. Horizons staff updated community members on this work at the Waitarere Beach Progressive and Ratepayers Association meeting in November.

## MANAWATŪ ESTUARY

4.3.17 Horizons has been exploring opportunities to have operational plan/s prepared for the 558 ha estuary site. The Manawatū Estuary Management Plan requires the production of plans for weeds, pest animals, flora and habitat management. Horizons is engaging with iwi, Horowhenua District Council and DOC about undertaking this work, and look forward to updating Council with progress reports. Success will depend on stakeholder agreement.

4.3.18 The usual Arctic migrants – kuaka (godwits), huahou (knots) and a small number of kuriri (golden plover) – have returned to the Manawatū Estuary for the summer. Tuturiwhatu (banded dotterel) have bred in the dune slacks near the estuary mouth this year, which is the first breeding record here for years.

4.3.19 Monthly checks of the DOC 200 series traps targeting mustelids continues. The six damaged or stolen traps have been replaced, so all 40 traps are operational again. Trap catch data is presented below.

Table 7 Manawatū Estuary trap catch data for the reporting period.

	Jul – Sep Totals	Oct – Dec Totals	Year to date
Stoats	17	8	25
Weasels	0	0	0
Ferrets	0	0	0
Rats	13	7	20
Hedgehogs	0	0	0
Other	1	0	1

## TURITEA RESERVE

4.3.20 This project is a partnership between Palmerston North City Council and Horizons. Planned weed control for 2020 has been completed with follow-up work to occur in February.

## **TAWHATA MAINLAND ISLAND**

- 4.3.21 This year (2020-21) Horizons will contribute \$15,000 towards the project for goat control and will also treat the bait stations as it is part of our possum control programme when our contractor treats that particular PCO this year. Goat control has been initiated and should be completed by the end of March.

## **TE PŌTAE O AWARUA PREDATOR CONTROL**

- 4.3.22 Horizons' funding supports the Aorangi Awarua Trust with the costs of servicing remote predator traplines on their land in the Taihape area to protect whio (blue duck) and also with Ruahine Whio Protection Trust volunteers servicing more than 800 traps on public land in the Northern Ruahine. Servicing these remote predator traps supports and enhances whio and North Island Eastern Brown Kiwi populations in the area. Northern Ruahine trap checks have been carried out in October, November and December 2020.

## **CAPE TURNAGAIN**

- 4.3.23 Cape Turnagain is a significant natural landscape on the East Coast north of Herbertville. Covering 121 hectares, it is home to many rare and threatened plants and animals, some of which are found nowhere else. Most of it is protected by a QEII covenant, however this doesn't address the pest issues that threaten the vulnerable flora and fauna.
- 4.3.24 In 2018, QEII National Trust with Horizons were successful in applying for Lotteries Commission funding to embark on a three-year protection project and we are in the third and final year of the project. Horizons has contributed \$10,000 per year and Biodiversity staff time. The total project budget across the three years is \$144,000.
- 4.3.25 Work includes contracted goat, possum, rat, cat, and mustelid control, pest plant control (specifically pampas and marram), population monitoring of the nationally critical "Cape Turnagain" day-flying moth (*Notoreas perornata*), revegetation planting of the sand daphne the moth lives on, and community engagement with Weber School and Herbertville residents.
- 4.3.26 Trapping and baiting is occurring monthly and pest plant work is seasonal, mostly during summer. Horizons has increased the number of possum bait stations around the perimeter. Monitoring protocols were established at the beginning and will be run again at the end to measure what has been achieved.



4.3.27 To date actual costs have been lower than estimated and it is likely sufficient funds will remain to extend the project. A request for an extension to funding timeframes is being investigated.

4.3.28 Camera traps have been operating in the area and have photographed four cats. Trapping has caught three cats, two of which look the same as the cats observed on camera traps. The control of cats is important at this site due to the presence of ground nesting shorebirds, lizards and threatened invertebrates. Full details of trap catches can be found in (Table 8).

Table 8: Trap catch at Cape Turnagain for the year to date

	August - Sept	October - Nov	Year to date
Ferrets	2	-	2
Stoats	-	-	-
Weasels	-	-	-
Rats	1	2	3
Cats	2	1	3
Hedgehogs	1	5	6
Mice	-	-	-
Birds	1	-	2
Possoms	-	-	-
Rabbits	-	-	-
<b>Total</b>	<b>5</b>	<b>9</b>	<b>16</b>

4.3.29 Radio tracking of the Judas goats resulted in the dispatch of 28 feral goats. This process involves capturing a wild goat, fitting it with a radio tracking collar and releasing it to join a herd. The Judas goat is then tracked and the accompanying feral goats dispatched. At this site a thermal drone is also used to search the cliff habitat.



Photo 2: Contractor using radio tracking during goat cull.

4.3.30 In November, Weber School joined contractors, QEII and biodiversity staff to check on 30 small sand daphne (*Pimelea prostrata x carnososa*) planted in September 2020, which appear to be doing well. Cape Turnagain sand daphne is home to the only known population of the nationally critical "Cape Turnagain" day-flying moth (*Notoreas perornata*). Ensuring that there is a viable population of these plants is crucial to the moth's survival.



Photo 3: Pupils from Weber School search for the nationally critical "Cape Turnagain" day-flying moth (*Notoreas perornata*).

### **AWAHURI FOREST – KITCHENER PARK**

- 4.3.31 Awahuri Forest-Kitchener Park is a valuable wetland forest remnant with strategic importance for the future walkway network and recreational opportunities in and around Feilding. It is also one of Horizons' managed Priority Sites, a critically endangered kahikatea pukatea forest ecosystem type. Horizons provides advice on ecological matters to the Awahuri Forest-Kitchener Park Trust and \$8,000 of funding for revegetation planting and pest plant control in this 14 ha reserve.
- 4.3.32 Samples of the giant grass that has invaded the Park from its source on the banks of the Makino Stream were confirmed as *Phragmites karka*. It is similar to, but much larger, than *Phragmites australis* (a plant already listed as an unwanted organism) and appears to be thriving in conditions that are drier than those preferred by *P. australis*. The Trust has informed Horizons of the discovery and the River

Management Group is investigating the extent of the infestation – both upstream and downstream of the park – to assess the potential impact on waterways and their management.

- 4.3.33 The Trust has been successful in securing a three-year grant from the Ministry of Primary Industries' Partnership Fund for restoring large areas of the forest. Most of the work involves willow removal and replacement with suitable native species and MPI will provide just over half of the almost \$360,000 total cost. In preparation for the increased planting programme, the Trust has contracted an experienced collector to provide eco-sourced seed to the nurseries involved in supplying the plants.

### **KAHUTERAWA STREAM BIODIVERSITY RESTORATION**

- 4.3.34 The project aims to enhance the biodiversity values of the Kahuterawa Stream site of approximately 65 ha, from the bridge at Linton to the confluence with the Manawatū River. Horizons contributes to revegetating the stream corridor with eco-sourced native plants and removing willows and other weeds. Massey University and New Zealand Defence Force are partners in this project, with each of the three partners contributing \$8,000 this year.
- 4.3.35 During this reporting period, Horizons' contractors have carried out weed control and released some of the 8,000 plants planted earlier this season. Some follow up work will occur during February to March.

### **AHIMATE MANAWATŪ RIVER URBAN RESTORATION PROJECT**

- 4.3.36 The Te Motu o Poutua project, an extension to Ahimate Park, is progressing well with 14 active relationships engaged in the site development. The site is situated at the old Higgins Metal Crushing site below the recycling centre at the end of Maxwells Line.
- 4.3.37 Horizons is one of the stakeholders in this project, alongside iwi, **Palmerston North City Council (PNCC)** and the community.
- 4.3.38 Extensive planning is underway for Te Motu o Poutua. Potential projects include the reconstruction of the original marae, creation of waterbodies in the four excavated sites, provision of picnicking and swimming areas with a biodiversity focus, and protecting nesting habitat of shorebirds including tuturiwhatu (banded dotterel).

## **MASSEY HILL**

- 4.3.39 This restoration project is a partnership between Ferguson Hall, PNCC, Massey University and Horizons. Horizons contributes contractor services to the value of \$3,500.
- 4.3.40 Horizons' contractors have controlled banana passionfruit, woolly nightshade, tutsan and old man's beard at this site during this reporting period, and will return later to monitor effectiveness and follow up with control where required. Horizons staff attended a stakeholders' meeting at Ferguson Hall in December.

## **WEEDBUSTERS PALMERSTON NORTH**

- 4.3.41 This programme involves the public, who are our eyes and ears when it comes to pest plant sites that are hidden away in backyards and other places. It operates during the spring and summer period. The areas covered include all of the PNCC area and the Feilding urban area. The programme includes the follow up of previous pest sites treated to make sure we have eradicated those plants and on-going treatment until we do. All these sites are GPS recorded so they can be revisited the following year. It also includes advice and information on other plants and herbicide treatment options. Weedbusters is a partnership between PNCC, **Manawatu District Council (MDC)**, and the community. A \$29,300 (56%) decrease in the size of the Weedbusters budget this year to \$23,000 will result in a reduction in the level of service that can be provided under this project.

## **COMMUNITY ENGAGEMENT**

- 4.3.42 Community engagement is a priority and through the 2020-21 Annual Plan process, Council resolved to fund an additional position to add capacity and grow the current programme of community participation in biodiversity projects across the region.
- 4.3.43 Horizons is supporting the next Coastal Restoration Trust NZ conference to be held in Whanganui on 10-12 March 2021. The conference brings together experts and community groups from all over the country and is an opportunity for Horizons to highlight some of the work we are doing in the coastal environment.
- 4.3.44 Horizons is working with the Koitiata Community Restoration Project at Turakina Beach, providing advice and resources for predator and weed control. The Coastal Restoration Trust conference will include a field trip to see the work this community group have been doing.

## SEEKING GOVERNMENT FUNDING

- 4.3.45 During the 2020 year Horizons has made a range of applications to Central Government for funding from the Jobs for Nature fund. These applications aimed to provide employment opportunities with biodiversity enhancement outcomes, and included Iwi Environmental Management Plans, Regional Biodiversity enhancement, Kia Whārite expansion, and supported two projects proposed by the Unenuku Charitable Trust for the Pōkākā Eco-sanctuary Trust in Ruapehu District. None of these biodiversity or biosecurity based applications were successful.
- 4.3.46 During the reporting period, staff engaged with the Department of Conservation and some iwi regarding the DOC “Kaimahi for Nature” funding which has an allocation of approximately \$11 million for work in the region. Staff have sought clarity about the regional council role and process around funding distribution from DOC, and are working to support further discussion with iwi/hapū and the formation of the alliance structures that will enable projects to be determined and rolled out. The rollout of this programme is being led by DOC and is continuing to evolve, with applications being assessed nationally. Regionally two projects have been recommended by the local alliance and Jobs for Nature team at DOC, and are both awaiting ministerial approval. The projects with the minister are outlined in Table 9. There are further rounds of applications being nationally considered in February and March, however it is Horizons’ understanding that no applications from the region are part of the February round. Horizons staff are working with DOC and iwi/hapū to target applications into the March application round.

Table 9 Proposed Jobs for Nature Projects Recommended by Local Alliance

Project Name	Brief Description	Amount Requested
Lake Rotoaira Forest Biodiversity Management	Pest control in Lake Rotoaira Forest. 12 FTE (4 per year over 3 years)	\$752,000 (+GST) over 3 years
Karioi Rahui Eco Sanctuary	The project's goals involve biodiversity protection including preventing the extinction of North Island brown kiwi, enhancing populations of other threatened species and ensuring the security of short-tailed bat/pekapeka. 27 FTE (9 per year over 3 years)	\$2.3 million (+GST) over 3 years

## 5 TŌTARA RESERVE REGIONAL PARK MANAGEMENT

### 5.1 Programme Overview

- 5.1.1 Tōtara Reserve Regional Park is focused on providing visitors with enjoyable biodiversity and recreational experiences. The work includes plant and animal pest control, flood protection, walking tracks, and campground management and maintenance. Tōtara Reserve is one of the last and best remaining examples of lowland forest ecosystems in the Pohangina Valley and is also valued as an important site under the Biodiversity Priority Sites Programme

### 5.2 Activity Update

#### **REMOVAL OF POPLARS**

- 5.2.1 Felling of poplars bordering the stopbank at the Kererū Campground was completed two weeks prior to Christmas. This allowed Kererū campground to reopen in time for the Christmas holiday period while Kahikatea campground has remained open for the complete season.
- 5.2.2 Mulching of the smaller branches is almost complete and will provide an adequate planting environment for the reforestation of the site with native species. This part of the project is an opportunity to involve the wider community with planting and care of the site.
- 5.2.3 Access to Camp Rangi Woods was maintained during the felling operation by cordoning off the road from the grounds, thus giving safe right of way to camp visitors. We also had strict H&S protocols in place for anyone that had reason to enter the grounds, including the vehicle access to the camp.

#### **PEST ANIMAL CONTROL**

- 5.2.4 Horizons' Annual Plan provided additional funding to substantially upgrade animal pest control programme for the entire reserve. The pest control operations will be targeting possums, rats and mustelids to improve ecological biodiversity and visitor experience in the reserve, which contains two campgrounds. A plan has been developed to be implemented this spring by the Regional Response Team. The pest targets are to reduce possum abundance to <5% **residual trap catch (RTC)**, and rat abundance to <10%, to enhance the reserve's biodiversity and amenity values.

- 5.2.5 The bait station network has been installed by Horizons Regional Response Team and pre-control pest monitoring has been completed with chew cards and tracking tunnels, providing a pre-control index of 7% (RTC) for possums, and tracking tunnel index of 30% for rats. The baiting has been undertaken with a varied level of uptake of bait. Post control monitoring will be undertaken over the next month.
- 5.2.6 A new toxin called Double Tap, which is designed to be less persistent in the environment, is being trialed. This trial will help evaluate the performance of the toxin alongside wider trials within the Horizons Possum Control Programme, to evaluate its appropriateness for various applications and cost-effectiveness.

### **PEST PLANT CONTROL**

- 5.2.7 A contractor is due to start the annual programme of weed control at Totara Reserve and will be revisiting all previous treatment sites, and surveying for other incursions of pest plants.
- 5.2.8 A stocktake on the progress made by the weed control programme is planned for 2021-22. This work will review progress to date and provide direction to ensure we continue to build on the results achieved so far.

### **COMMUNICATION**

- 5.2.9 Staff are working on several aspects of improving communication around the work at the site including a regular update to the Advisory Group, on-site signage about activities and further information through social media and Horizons' website.

### **CAPITAL PROJECTS**

- 5.2.10 Planning has progressed for the approved capex spending in the 2020-21 financial year. The capex projects include a platform with safety rails around the septic system inspection point, and water storage and treatment upgrades to provide drinking water along with reliable source of water. Once these two projects are costed, further allocation of unspent capital for remaining projects will occur. Options for additional capital spending (in no particular order) include an upgrade of the Kahikatea camp ground ablution block, sealing of the entranceways to both campgrounds and the caretaker's house, a website booking and payment system for the camp grounds, and electrical upgrades at the powered camping sites. There is a capex allocation of \$157,930 for the 2020-21 year and work is underway to prioritise projects and undertake procurement and implementation.



## **TŌTARA RESERVE ADVISORY GROUP**

- 5.2.11 The development of Terms of Reference for the group and a strategy for Tōtara Reserve are tasks to be undertaken once the priority work of poplar removal and remediation of the site, and water supply upgrades and other health and safety actions are completed.

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