Meeting of the Environment and Integrated Catchments Committee

Date: Wednesday 8 September 2021

Time: 9.00am

Venue: Council Chamber
Hawke's Bay Regional Council
159 Dalton Street
NAPIER

Agenda

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: FOLLOW-UPS FROM PREVIOUS ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE MEETINGS

Reason for Report

1. On the list attached are items raised at previous Environment and Integrated Catchments Committee meetings that staff have followed up on. All items indicate who is responsible for follow up, and a brief status comment. Once the items have been reported to the Committee they will be removed from the list.

Decision Making Process

2. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the "Follow-ups from Previous Meetings".

Authored by:

Annelie Roets
GOVERNANCE ADVISOR

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

1⇩ Followups for September 2021 EICC meeting

Follow-ups from Previous Environment & Integrated Catchments Committee Meetings

23 June 2021

	Agenda item	Follow-up item	Responsible	Status/Comment
1	Follow-ups from previous EICC meetings	Update on engagement with Napier City Council in relation to mitigation undertaken since the November 2020 rainfall event, to address stormwater issues in Napier	K Brunton	The Napier Rainfall event in November was categorised as a 1 in 250-year event. Napier City Council currently has stormwater infrastructure built to operate effectively in events with return periods of between 1 in 2 and 1 in 10 years. This is in line with national guidance for stormwater networks. During the flood event, NCC wastewater network became overwhelmed by stormwater inflows in the network and to avoid a significant public health risk they discharged for a short period from their network into a tributary that leads to the Ahuriri Estuary. Prior to the discharge event NCC notified both HBRC and the HBDHB of the intention to discharge and undertook sampling of the receiving environment before, during and after the event. These samples indicated that the discharge resulted in elevated concentrations of faecal coliforms in the estuary for a period or 2-3 days following the initial discharge. Concentrations thereafter were reported below relevant guideline values. NCC undertook this discharge using emergency powers under section 330(1)(f) of the RMA (1991). Post this event, Napier City Council has engaged with HBRC in development of their 30-year infrastructure program for wastewater which was completed alongside the LTP process. HBRC is satisfied that the proposed infrastructure program presents an ambitious timeline in improvements to both the network integrity and capacity, treatment plant wet weather event storage, and improved treatment/disposal. Initial programs for 2021-22 will focus on wet weather capacity and re-lining of the existing older network. Both streams of work should significantly reduce the additional flows observed during wet weather events, as well as build capacity to buffer peak flows better. It is anticipated that this will reduce the need to discharge directly from the network during wet weather events.

	Agenda item	Follow-up item	Responsible	Status/Comment
2	Follow-ups from previous EICC meetings	Independent review of the CDEM response to the November 2020 Napier rainfall event and independent review of the Emergency Management response across all agencies commissioned by Fire & Emergency NZ (FENZ) to be provided to councillors	I Macdonald	Was the subject of a Council workshop on 25 August, and will be reported to the September Regional Council meeting as part of the report from the 30 August 2021 HB CDEM Group Joint Committee meeting.
3	Follow-ups from previous EICC meetings	Update to be provided on the review of the operation of shared (with HDC, NCC) stormwater infrastructure assets	C Dolley	HBRC and NCC have commissioned a specialist resource to assist in the review of the operating model of the open waterway network. This work is being overseen by a steering group of senior staff from both organisations. As this work is completed the initial findings will be brought to each Council.
4	Minor items	Information about compliance monitoring requirements with respect to infrastructure asset condition and maintenance	K Brunton	A common condition of most municipal wastewater and stormwater resource consents is that all '*works and structures associated with this consent be constructed and maintained to a safe workable standard at all times*'. In addition to this, there are often separate conditions for areas of critical risk to the activity such as screen maintenance and outfall inspections for wastewater or sump cleaning and pumpstation screen inspections. Maintenance and upgrades of the wastewater network are typically not included as part of the consented process (no discharge occurring) except where there are significant concerns such as the Pandora separated pipeline. If HBRC had concerns about a section, area or type of structure within the network, we would discuss the potential need for additional maintenance or upgrades with the consent holder. Enforcement may be considered if no, or insufficient, action was taken. TLA consent compliance program was reported to 18 August Corporate and Strategic Committee meeting in line with that Committee's Terms of Reference.
5	Follow-ups from previous meetings	Report: Key Ecological Areas of the Hawke's Bay Coastal Marine Area - distribute to committee members	Anna Madarasz-Smith	2 September 2021 – distributed via email, also available in councillor resources on Stellar.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: CALL FOR MINOR ITEMS NOT ON THE AGENDA

Reason for Report

1. This item provides the means for committee members to raise minor matters relating to the general business of the meeting they wish to bring to the attention of the meeting.
2. Hawke's Bay Regional Council standing order 9.13 states:
   2.1. "A meeting may discuss an item that is not on the agenda only if it is a minor matter relating to the general business of the meeting and the Chairperson explains at the beginning of the public part of the meeting that the item will be discussed. However, the meeting may not make a resolution, decision or recommendation about the item, except to refer it to a subsequent meeting for further discussion."

Recommendations

That the Environment and Integrated Catchments Committee accepts the following "Minor Items Not on the Agenda" for discussion as Item 17:

Topic	Raised by

Annelie Roets
GOVERNANCE ADVISOR

James Palmer
CHIEF EXECUTIVE

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: BIOSECURITY 2020-21 ANNUAL REPORT AND 2021-22 OPERATIONAL PLAN

Reason for Report

1. This item presents the Hawke's Bay Regional Council's Biosecurity Annual Report for the 2020-21 year and Operational Plan for the 2021-2022 year.

Executive Summary

2. Pest management is an important part of the sustainable management of natural resources in Hawke's Bay. The Hawke's Bay Regional Council (Council) manages risks posed by pests and other organisms through its Biosecurity programme. The Hawke's Bay Regional Pest Management Plan (RPMP) 2018-2038 is the core document behind this and establishes the regulatory basis for pest management in Hawke's Bay. The RPMP was made operative in February 2019.

3. As the management agency, Council is directed by the Biosecurity Act 1993 (the Act) to prepare an Annual Operational Plan (AOP) that sets out how the RPMP is to be implemented. Following the end of each financial year, Council is required to produce an Annual Report (AR), recording progress in implementation of the RPMP via the Operational Plan.

Background

4. Regional councils have a mandate under Part 2 of the Act to provide regional leadership in activities that prevent, reduce, or eliminate adverse effects from harmful organisms that are present in their region. HBRC therefore has this leadership role in the Hawke's Bay region.

5. The purpose of the RPMP is to provide for the efficient and effective management or eradication of specified harmful organisms in the Hawke's Bay region. It builds on the 2013 Strategy and previous pest management programmes. The purpose of the Plan is to:

   6.1 minimise the actual or potential adverse or unintended effects associated with those organisms; and

   6.2 maximise the effectiveness of individual actions in managing pests through a regionally coordinated approach.

6. Many organisms in the Hawke's Bay region are considered undesirable or a nuisance. The RPMP only addresses pests where voluntary action is insufficient due to the nature of the pest or the related costs and benefits of individual action or inaction. The Act specifies criteria that must be met to justify such intervention.

7. The RPMP empowers Council to exercise the relevant advisory, service delivery, regulatory and funding provisions available under the Act to deliver the specific objectives identified within the Plan.

Discussion

8. The RPMP contains 63 pests, comprising of 33 pest plants, 23 pest animals, two marine pests and five horticultural pests.

9. Some of the key outputs during the 2020-2021 financial year were:

   9.1. The Pest Plant team visited 2,100 properties undertaking weed control or auditing

   9.2. Staff undertook 5 biocontrol releases (Californian green thistle beetle)

9.3. No exclusion pest plants were detected in the Hawke's Bay region

9.4. Eight Notices of Direction were issued

9.5. A total of 109 active rook nests were treated

9.6. A total of 755 feral goats were controlled within the Mahia and Maungaharuru feral goat coordinated management areas (CMA)

9.7. A total of 70 rabbit enquiries were responded to

9.8. Staff worked with 39 land occupier/community groups in managing site specific pests, primarily predators

9.9. Possum monitoring was undertaken across 127,000 ha (approximately 18% of the PCA area) with the overall trap catch across the area being 2.1%

9.10. Predators were controlled over 54,000 ha, removing 10 feral cats, 31 ferrets, 29 stoats, 460 hedgehogs and 178 rats

9.11. Outcome monitoring showed increases in native bird abundance within the predator control areas.

10. Although almost all programme objectives were achieved, the following areas of concern were identified:

10.1. 226 possum monitoring lines were above a 4% RTC, resulting in 18 properties failing their monitor (19.9% of properties monitored). These properties were followed to ensure additional possum control occurred to reduce numbers.

10.2. Rabbit enquiries continue to increase, particularly in urban areas. Rabbits are a difficult pest to control, requiring expensive ongoing management. Regional night count lines indicate an increase from 5.8 to 13.7 rabbits per spotlight kilometer. The management of rabbits continues to be a discussion across the sectors biosecurity experts as it is recognized to be a national not regional problem.

10.3. The number of properties with pest plants (primarily Chilean Needle Grass) continues to grow, resulting in increased pressure on Pest Plant budgets and staff.

Strategic Fit

11. Regional pest management sits within a biosecurity framework for the Hawke's Bay region, which includes the RPMP, the Hawke's Bay Biodiversity Strategy and the HBRC Strategic Plan. Neighbouring Regional Pest Management Plans and national legislation, policy and initiatives have also influenced Hawke's Bays RPMP.

12. The activity that is reported in the AOR and AP support Council's healthy functioning biodiversity priority area in it Strategic Plan and the strategic outcome that *Agricultural and environmental pests are managed and eradicated through the Regional Pest Management Plan*.

Next steps

13. A proposal to undertake a partial plan review of the PCA programme was agreed by the EICC in May this year. This partial plan review process is underway and is reported separately to the EICC on this committee agenda.

14. A review of the Chilean Needlegrass programme is underway and will be reported to the November EICC.

15. Staff have continued having a significant level of communication with OSPRI, who have moved to a new geographically based operating model, with staff now based in the region. There are currently 17 herds infected. OSPRI believe they are managing the outbreak and expect the number of infected herds to drop substantially over the next 6 months.

Decision Making Process

16. Council and its committees are required to make every decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements in relation to this item and have concluded:

    16.1. The decision does not significantly alter the service provision or affect a strategic asset, nor is it inconsistent with an existing policy or plan.

    16.2. The use of the special consultative procedure is not prescribed by legislation.

    16.3. The decision is not significant under the criteria contained in Council's adopted Significance and Engagement Policy.

    16.4. The persons affected by this decision are all persons in the region with an interest in the region's biosecurity activities and biodiversity outcomes.

    16.5. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

Recommendation

1. That the Environment and Integrated Catchments Committee receives and notes the "*Biosecurity 2020-21 Annual Report and 2021-22 Operational Plan*" staff report.
2. The Environment and Integrated Catchments Committee recommends that Hawke's Bay Regional Council:

    2.1. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted Significance and Engagement Policy, and that Council can exercise its discretion and make decisions on this issue without conferring directly with the community or persons likely to have an interest in the decision.

    2.2. Adopts the *Biosecurity Operational Plan for 2021-22.*

Authored by:

Campbell Leckie
MANAGER CATCHMENT SERVICES

Mark Mitchell
TEAM LEADER PRINCIPAL ADVISOR BIOSECURITY BIODIVERSITY

Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

1⇩ 2021-22 Combined Pest Plant and Pest Animal Operational Plan

2⇩ HBRC Biosecurity Annual Report July 2020 - June 2021


2021-2022 Operational Plan
Regional Pest Management Plan 2018-38
August 2021
Hawkes Bay Regional Council Publication No.
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Catchment Services

2021-2022 Operational Plan

Regional Pest Management Plan 2018-38

August 2021
Hawkes Bay Regional Council Publication No.

Prepared By:
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Iain Maxwell – Group Manager – Integrated Catchment Management

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Version

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Introduction

Regional councils have a mandate under Part 2 of the Biosecurity Act 1993 (the Act) to provide regional leadership in activities that prevent, reduce, or eliminate adverse effects from harmful organisms that are present in their region.

This operational plan sets out how Hawke's Bay Regional Council (HBRC) will implement the objectives set out in the Hawke's Bay Regional Pest Management Plan 2018-38 (the RPMP). This operational plan is effective from July 2021 to 30 June 2022.

Background

Hawke's Bay Regional Council is the management agency responsible for developing and implementing the Hawke's Bay Regional Pest Management Plan 2018-2028 in accordance with the Biosecurity Act 1993.

The RPMP sets out policies and rules that in combination seek to achieve the eradication or effective management of specified pests or groups of pests. It describes the biosecurity activities that will be undertaken throughout Hawke's Bay and outlines the management or eradication of specific organisms. Doing so will:

- minimise the actual or potential adverse or unintended effects associated with these organisms, and,
- maximise the effectiveness of individual actions in managing pests through a regionally coordinated approach.

As the management agency, Council is required to prepare an annual operational plan that sets out how the plan is to be implemented. Following the end of each financial year, staff will report to Council on the implementation of the operational plan.

This plan is the operational (management) response to supporting or directly achieving the objectives contained within the RPMP and is delivered by the Biosecurity team of the Catchment Services section within the Integrated Catchment Management (ICM) group.

Integration with Annual Plan

As far as practicable, the Operational Plan has been integrated with council's Annual Plan. The Annual Plan sets the overall priorities and work programmes for the organisation and provides an overview of related pest management activities for the 2021/22 year. Implementation costs are included in the Annual Plan.

Integration with Biodiversity Activities

HBRC has responsibilities to manage biodiversity under the Resource Management Act 1991. The management of high value biodiversity areas across the region is coordinated by the Biodiversity team of the Catchment Services team within the ICM group. Pest plant and pest animal control is a key method for managing native biodiversity, requiring ongoing investment of council resources, with resources allocated to the Ecosystem Prioritisation programme. This programme focuses on managing the areas of highest biodiversity value in Hawke's Bay, which includes ongoing coordinated pest control. Implementation of this programme requires close coordination with the Pest Plant, Pest Animal and Predator Free Hawke's Bay teams. This work is complemented by other efforts such as deer fencing to exclude feral deer and advocating for legal protection under QEII and other covenanting agencies.

Pest Categories

Exclusion Pests

The purpose of this category is to prevent the establishment of a pest which is present in New Zealand but not yet established in the region. Eradication of an incursion exclusion pest will be attempted by the Council in conjunction with other agencies such as MPI, DOC and neighbouring Regional Councils.

Eradication Pests

The purpose of this category is to reduce the incidence or density of a pest to zero levels in an area in the short to medium term. For pests such as rooks, this could take over 30 years to achieve.

Progressive Containment Pests

The intermediate outcome for this category is to contain and reduce the geographic distribution of the pest to an area over time. Progressive containment pests are those where a pest is at high densities in parts of Hawke's Bay, but of low extent or limited range. Eradication is not feasible region-wide, but it is feasible to prevent the pest from spreading to other parts of Hawke's Bay or to eradicate the pest from parts of Hawke's Bay.

- Existing populations will be monitored and, where appropriate, systems set in place to prevent further spread.
- New technologies and methods will be investigated and introduced where possible.

Sustained Control Pests

The purpose of this category is to ensure pests are being controlled, to reduce its impacts on values and spread to other properties. This may include boundary control of pest plants or suppression of a pest animal over a large geographic are where eradication is not possible.

Pests contained within the RPMP

Table 0-1: Number of Pest Species in the Plan.

Number of species (or groups of species) in the Regional Pest Management Plan					
Type of pest	Exclusion	Eradication	Progressive containment	Site led	Sustained control
Plants	5	8	11		9
Animals	1	2		8	5
Phytosanitary					5
Marine	2				

**Note some species have more than one programme.*

Table 0-2: Pest Plant species included in RPMP

Common Name	Scientific Name	Programme
African feather grass*	*Cenchrus macrourus*	Eradication
Alligator weed*	*Alternanthera philoxeroides*	Exclusion
Apple of Sodom	*Solanum linnaeanum*	Progressive Containment
Australian sedge	*Carex longebrachiata*	Progressive Containment
Bathurst bur	*Xanthium spinosum*	Sustained Control
Blackberry	*Rubus fruticosus* agg.	Sustained Control
Cathedral bells*	*Cobaea scandens*	Eradication
Chilean needle grass*	*Nassella neesiana*	Sustained Control
Cotton thistle	*Onopordum acanthium*	Progressive Containment
Darwin's barberry*	*Berberis darwinii*	Progressive Containment
Goats rue	*Galega officinalis*	Eradication
Gorse	*Ulex europaeus*	Sustained Control
Japanese honeysuckle	*Lonicera japonica*	Progressive Containment
Marshwort*	*Nymphoides geminata*	Exclusion
Noogoora bur	*Xanthium strumarium*	Exclusion
Nassella tussock*	*Nassella trichotoma*	Progressive Containment
Nodding thistle	*Cardus nutans*	Sustained Control
Old man's beard*	*Clematis vitalba*	Progressive Containment
Phragmites*	*Phragmites australis*	Eradication
Purple loosestrife*	*Lythrum salicaria*	Eradication
Privet (Chinese and tree)	*Ligustrum sinense, L. lucidum*	Sustained Control
Ragwort	*Jacobaea vulgaris*	Sustained Control
Saffron thistle	*Carthamus lanatus*	Progressive Containment
Senegal tea*	*Gymnocoronis spilanthoides*	Exclusion
Spartina	*Spartina alterniflora, S. anglica, S. gracilis, S. maritime, S. x townsendii*	Exclusion
Spiny emex	*Emex australis*	Eradication
Variegated thistle	*Silybum marianum*	Sustained Control
Velvetleaf*	*Abutilon theophrasti*	Progressive Containment
White-edged nightshade*	*Solanum marginatum*	Eradication
Wilding Conifers	*Ref glossary pg 102*	Progressive Containment
Woolly nightshade*	*Solanum mauritianum*	Progressive Containment

Common Name	Scientific Name	Programme
Yellow bristle grass	*Setaria pumila*	Sustained Control
Yellow water lily*	*Nuphar lutea*	Eradication

** Unwanted organisms (as declared by a Chief Technical Officer)*

Table 0-3: Pest Animal species included in RPMP

Common Name	Scientific Name	Programme
Feral cat	*Felis catus*	Sustained Control, Site-led
Feral deer (incl. hybrids)	*Cervus elaphus, C. nippon, C. dama*	Site-led
Feral goat	*Capra hircus*	Sustained Control, Site-led
Feral pig	*Sus scrofa*	Site-led
Hedgehog	*Erinaceus europaeus*	Site-led
Mustelids (ferret, stoat, weasel)	*Mustelo furo, M. ermine, M. nivalis*	Sustained Control, Site-led
Possum	*Trichosurus vulpecula*	Eradication, Sustained Control, Site-led
Rabbit	*Oryctolagus cuniculis*	Sustained Control
Rat (Norway and ship)	*Rattus norvegicus, R. rattus*	Site-led
Rook*	*Corvus frugilegus*	Eradication
Wallaby (Bennett's, dama, parma, brush-tailed rock and swamp)*	*Macropus rufogriseus rufogriseus, M. eugenii, M. parma, Petrogale pencillata, Wallabia bicolour*	Exclusion

** Unwanted organisms (as declared by a Chief Technical Officer)*

Table 0-4: Marine Pests species included in RPMP

Common Name	Scientific Name	Programme
Mediterranean fanworm**	*Sabella spallanzanii*	Exclusion
Clubbed tunicate	*Styela clava*	Exclusion

*** Notifiable organism (s45 Biosecurity Act)*

Table 0-5: Phytosanitary Pests species included in RPMP

Common Name	Scientific Name	Programme
Apple black spot	*Venturia inaequalis.*	Sustained Control
Codling moth	*Cydia pomonella*	Sustained Control
European canker	*Neonectria ditissima*	Sustained Control
Fireblight	*Erwinia amylovora*	Sustained Control
Lightbrown apple moth (Leafroller)	*Epiphyas postvittana*	Sustained Control

This operational plan details the Plan objective for the control of the pests defined within the RPMP and provides a brief description of what activities HBRC will undertake to achieve the stated objective.

Principle Measures

This plan and the RPMP are based on the following core areas of HBRC's responsibility:

Regulation (standards and enforcement)

Standards, rules and restrictions are set, and compliance enforced with penalties, when and where necessary.

Inspection

Regular property inspections ensure that rules and regulations are being met and changes in pest densities are determined over time.

Monitoring

Undertaking monitoring for pests in the region to determine their presence, distribution and effects, and to measure the extent to which the objectives of the RPMP are being achieved.

Direct control

Funding and undertaking pest control in some circumstances as a service for regional benefit.

Advice and education

Free advice is given to raise awareness of pest problems and to provide land occupiers with the information to control their own pests.

Community initiatives

Guidance and support are provided for community driven initiatives to control pests.

Cost recovery

A full cost recovery operational service is available for pest control.

Biological control

As approved biological control agents become available, HBRC may elect to utilise them. Biocontrol is currently a key tool in the management of rabbits and various pest plant and other harmful species.

Pest Plants

1.1. Exclusion Pest Plants

Objective

Prevent the establishment of exclusion pest plants in the Hawke's Bay region.

Targets

Conduct searches in areas vulnerable to infestation, follow up on reported sightings and raise public awareness of exclusion pests. Develop partnerships with other organisations and community groups that have expertise or an interest in protecting the environment.

Eradication of exclusion species will be attempted by HBRC in conjunction with relevant Crown agencies and stakeholders where practicable.

Council will provide training to relevant council staff and stakeholders about the identification of the exclusion pests to assist in early detection. Council will provide advice, attend events, and undertake publicity campaigns to increase public awareness of exclusion pests.

Exclusion	Management Regime
Alligator weed	Develop partnerships with interested and relevant parties to extend the area monitored for the presence of these pest plants. Investigate possible pathways for these pest plants to move into Hawke's Bay. Respond to reports of this pest, using powers under the Biosecurity Act if required
Marshwort	
Noogoora bur	
Senegal tea	
Spartina	

1.2. Eradication Pest Plants

Objective

Destroy all known infestations of these species within the Hawke's Bay region, prior to seed set.

Targets

Undertake direct control through service delivery at all known sites. Assessment of existing infestation points to decide whether any surveys are required. Inspection and delimit regime to be carried out at all known sites.

Control work will be undertaken annually by council staff, contractors, partners and/or stakeholders and data will be recorded in Clover.

Eradication	Management Regime
African feather grass	HBRC will destroy all infestations prior to seed set.
Cathedral bells	
Goats rue	
Purple loosestrife	
Spiny emex	
White edged nightshade	
Yellow water lily	
Phragmites	In accordance with the contract between HBRC and Ministry of Primary Industries, HBRC will destroy all infestations prior to seed set.

1.3. Progressive Containment Pest Plants

Objective

Progressively contain and reduce the geographic distribution of the pest plant either across the region or specified areas within the region.

Targets

Through a combination of direct control (service delivery) and occupier responsibility (monitoring and compliance) all known infestations will be controlled prior to seed set where practical.

Council staff will control populations within the containment area through a variety of control methods, including but not limited to spraying. The long-term goal for many of these pests is eradication but is not feasible within the short to medium term.

Council staff will also support communities to reduce the impact of progressive containment pests through regulatory and non-regulatory biosecurity programmes.

Progressive containment	Management Regime
Apple of Sodom	Occupiers are responsible for the control of Apple of Sodom on their land and may qualify for a subsidy under the incentive scheme. HBRC will at its discretion control some known infestations prior to seed set where it is practical to do so.
Australian sedge	
Cotton thistle	
Darwin's barberry	
Japanese honeysuckle	
Saffron thistle	
Velvetleaf	
Woolly nightshade	
Nassella tussock	Occupiers are responsible for the control of Nassella tussock on their land and may qualify for a subsidy under the incentive scheme. HBRC will at its discretion control known infestations prior to seed set.
Old man's beard	As stated in the RPMP, Old Man's Beard (OMB) is not as widespread North of SH5 as it is South of this area, therefore it is beneficial to require occupiers to continue to control old man's beard north of SH5. Occupiers North of SH5 are responsible for the control of Old man's beard on their land and may qualify for a subsidy under the incentive scheme. HBRC will at its discretion control some known infestations prior to seed set where it is practical to do so. There is also a progressive containment programme along the Ruahine and Kaweka ranges, to prevent the establishment of Old man's beard in the ranges. HBRC, upon forming an agreed work programme with the Department of Conservation, will control all Old man's beard within a 500-metre buffer zone along the edge of the Ruahine and Kaweka ranges (as per map in RPMP 2018-38).

Progressive containment	Management Regime
	South of SH5 and outside of the 500-metre buffer zone along the edge of the Ruahine and Kaweka ranges, Council will still encourage the control of OMB but will not enforce compliance. Land users below SH5 will still be eligible for the incentive scheme for the control of OMB. HBRC will at its discretion control some known infestations before seeds reach maturity where it is practical to do so.
Wilding Conifers	Occupiers are responsible for the control of Pinus contorta on their land and may qualify for a subsidy under the incentive scheme. HBRC will at its discretion control some known infestations where it is practical to do so. Occupiers are responsible for the control of Scots pine, mountain pine and dwarf mountain pine on their land in the designated containment area and may qualify for a subsidy under the incentive scheme. HBRC will at its discretion control some known infestations where it is practical to do so. HBRC will collaborate with other stakeholders to ensure the milestones it is responsible for within the Kaimanawa and Rangitaiki Management Units are completed, and MPI are supplied with all the necessary data required

1.4. Sustained Control Pest Plants

Objective

To provide for ongoing control of the subject, or an organism being spread by the subject, to reduce its impacts on values and spread to other properties.

Targets

A number of pests are well established in Hawke's Bay, many of which have been subject to various control aspirations over time. Preventing or minimising the spread of these pests between neighbouring properties is the primary objective.

Sustained Control	Management Regime
Bathurst bur	HBRC, upon receiving a written complaint, will ensure the occupier destroys all Bathurst bur within 5 metres of the property boundary that is adjacent to the adjoining occupier complainants boundary where the adjoining occupier is also destroying, or the land is clear of, all Bathurst bur.
Blackberry	HBRC, upon receiving a written complaint, will ensure the occupier destroys all Blackberry within 10 metres of the property boundary that is adjacent to the adjoining occupier complainants boundary where the adjoining occupier is also destroying, or the land is clear of, all Blackberry.
Chilean needle grass	Occupiers are responsible for the control of Chilean Needle grass on their land and may qualify for a subsidy under the incentive scheme. Chilean needle grass was identified in dry summer areas of Hawke's Bay - west of Napier, and at Bay View, Puketapu, Havelock North, Maraekakaho, Poukawa, Tukituki flood plain, Otane, Patangata, Waipawa, Waipukarau, Wakarara, Omakere, Onga Onga and Porangahau (approx. 665ha) There are infestations on river berm land and roadsides. Biosecurity staff will arrange for the control of Chilean needle grass on public land. On private land, occupiers are required to meet the rules outlined in the RPMP and control Chilean needle grass in accordance with their agreed management

	programmes. HBRC will at its discretion control some known infestations prior to seed set where it is practical to do so. HBRC will work with Marlborough District Council and Environment Canterbury in raising awareness of CNG within New Zealand. HBRC will encourage the use of the control tool, Flupropanate as required. HBRC will assist Marlborough District Council and Environment Canterbury in undertaking further Flupropanate trials to provide residue and efficacy data to the Environmental Protection Authority.
Gorse	HBRC, upon receiving a written complaint, will ensure the occupier destroys all Gorse within 10 metres of the property boundary that is adjacent to the adjoining occupier complainants boundary where the adjoining occupier is also destroying, or the land is clear of, all Gorse
Nodding thistle	HBRC, upon receiving a written complaint, will ensure the occupier destroys all Nodding thistle within 20 metres of the property boundary that is adjacent to the adjoining occupier complainants boundary where the adjoining occupier is also destroying, or the land is clear of, all Nodding thistle
Privet (Chinese and Tree)	Upon receipt by Council of a doctor's certificate/positive blood test clearly showing a person to be suffering a Privet allergy, Council will, within the urban area (50km speed zone or less), destroy any isolated Chinese and Tree privet plants within 50m of the residence or place of work of that person. If, upon inspection by Council, large numbers of plants exist, including as hedges, a direction will be served on the occupier to thoroughly prune to prevent flowering or destroy the plants. The Standard Operating Procedures for managing Privet are attached to this paper. (Appendix 1)
Ragwort	HBRC, upon receiving a written complaint, will ensure the occupier destroys all Ragwort within 20 metres of the property boundary that is adjacent to the adjoining occupier complainants boundary where the adjoining occupier is also destroying, or the land is clear of, all Ragwort. The presence of biological controls will be taken into consideration when a complaint is made.
Variegated thistle	HBRC, upon receiving a written complaint, will ensure the occupier destroys all Variegated thistle within 5 metres of the property boundary that is adjacent to the adjoining occupier complainants boundary where the adjoining occupier is also destroying, or the land is clear of, all Variegated thistle
Yellow bristle grass	HBRC will collaborate with roading authorities to manage likely vector pathways of Yellow bristle grass.

1.5. Biodiversity Pest Plants

These are plants that have a negative ecological effect which are managed outside of the RPMP. Plants that presently fall into this category are African love grass, Boneseed, Climbing spindleberry, Blue passion flower, Asiatic knotweed, Giant knotweed, Banana passionfruit, Cotoneaster, Mothplant, Feathertop grass, Pampas, Purple ragwort and Chilean rhubarb.

1.6. Biological Control of Pest Plants

HBRC continues to support research into biological control of pest plants. HBRC's priorities for further research into bio-control agents during the life of the RPMP are Calamint, Mothplant, Nassella tussock, and Japanese honeysuckle. Biological control agents for Ragwort, Nodding thistle, and Gorse are widespread and active in the region.

Over the duration of this operational plan staff will continue to work effectively to engage Maori land owners and hapu at a local and regional level in the consultation around new biocontrol releases.

1.7. National Pest Plant Accord

The Ministry of Primary Industries manages the National Pest Plant Accord, which has declared 135 plants as unwanted organisms under the Biosecurity Act. HBRC has agreed to be responsible for ensuring that people selling plants are conforming to the requirements of the Act, and not selling or propagating these plants. All pest plants and unwanted organisms are banned from sale and propagation under the Biosecurity Act. All retail outlets that are known to sell plants will be visited at least once every three years, to ensure that they are not selling any pest plant listed in the RPMP or the Pest Plant Accord.

1.8. General Advice and Information

Biosecurity staff will provide advice, attend events and undertake publicity campaigns to increase public awareness of pests. The information is intended to assist occupiers meet their obligations under the RPMP. Biosecurity staff will also assist with the general identification of plants, and provide information and education material about poisonous plants.

Staff will inspect plant outlets and markets within the Hawke's Bay region for the sale and/or propagation of RPMP species. Training will be provided to relevant staff and stakeholders in the identification of pests to assist in early detection.

HBRC implemented a new website called Pest Hub. It lists a large range of pests, including those listed within the RPMP. It contains information on their impact, best practice control techniques and has the ability to report a pest to HBRC staff. It can be found here: https://www.hbrc.govt.nz/environment/pest-control/pest-hub/

Pest Animals

1.9. Exclusion Pest Animals

Objective

Prevent the establishment of exclusion pest animals in the Hawke's Bay region.

Targets

Undertake surveillance of high-risk areas/pathways. Follow up on reported sightings or reports of illegal releases and raise public awareness of exclusion pests. Develop partnerships with other organisations and community groups that have expertise or an interest in protecting the environment.

Eradication of exclusion species will be attempted by HBRC in conjunction with relevant Crown agencies and stakeholders where practicable.

Council will provide training to relevant council staff and stakeholders about the identification of the exclusion pests to assist in early detection. Council will provide advice, attend events and undertake publicity campaigns to increase public awareness of exclusion pests.

Exclusion	Management Regime
Wallaby	Undertake active surveillance of high-risk areas/pathways for these pests. Develop partnerships with interested and relevant parties to extend the area monitored for the presence of these pests. Investigate possible pathways for these pest plants to move into Hawke's Bay. Respond to reports of this pest, using powers under the Biosecurity Act if required
Mediterranean fanworm	
Clubbed tunicate	

1.10. Eradication Pest Animals

Objective

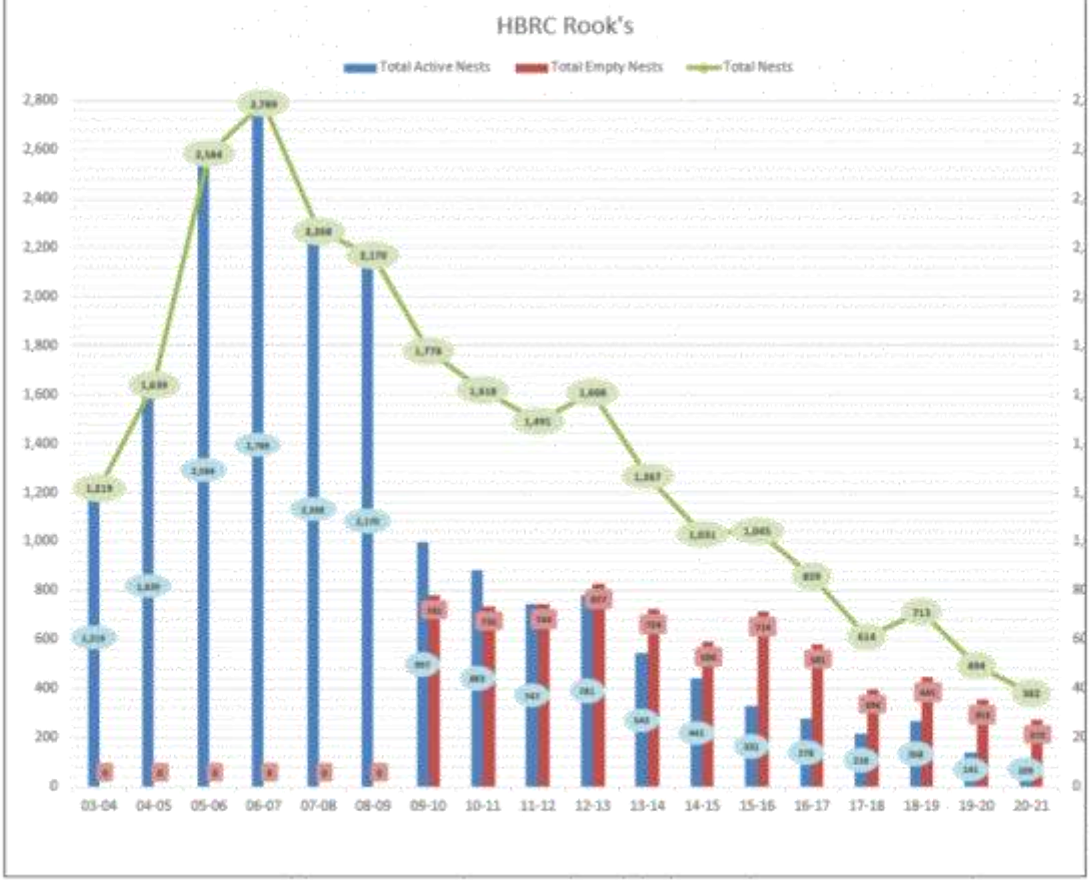
Eradicate rooks from the region. Have no active rookeries within 20 years of the commencement of the RPMP. Eradicate all possums contained within Possum Eradication Areas.

Targets

Destroy all active rook nests within the Hawke's Bay region and eradicate possums within those areas identified as Possum Eradication Areas. Inspect pet shops, online sales and wildlife shelters if reports are received of the sale and/or breeding of possums and rooks. Support appropriate research initiatives, including biological control should it become available. Undertake direct control through service delivery.

Eradication	Management Regime
Possum	A Possum Eradication Area is created once written agreements have been entered into with 75% or more of the total proposed land area. The Council will undertake possum eradication work within the entire Possum Eradication Area. Once possum eradication commences, land occupiers within the area shall maintain possum eradication status in accordance with the Hawke's Bay Regional Possum Control Technical Protocol (PN 4969).

Rook	Over the duration of the Plan, all active rook nests will be destroyed within the Hawke's Bay region. Information will be provided to land occupiers on rook identification, the potential adverse effects that they cause, who to contact for rook control, and the risks of inappropriate control.



1.11. Sustained Control Pest Animals

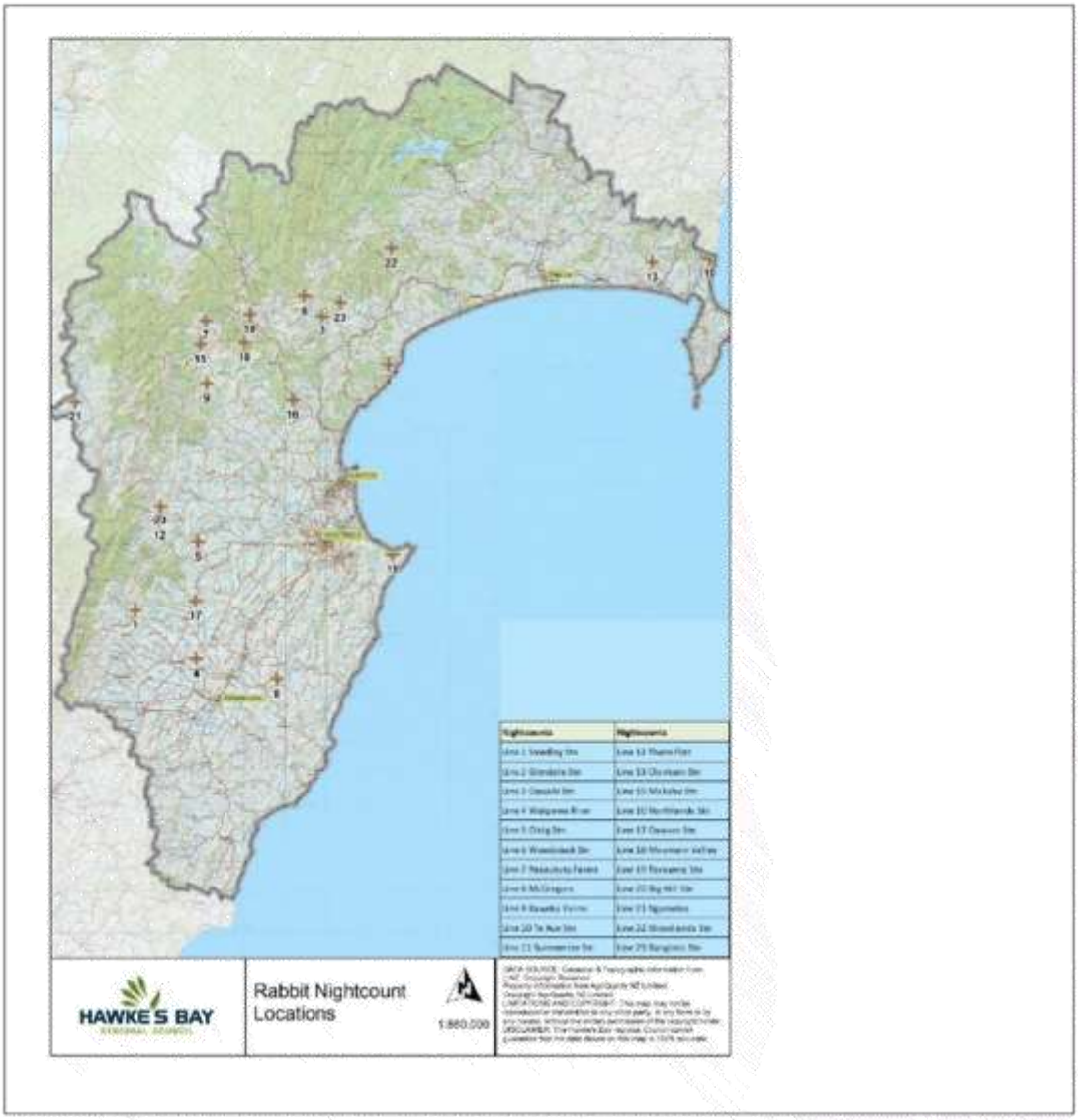
Objective

Over the duration of the Plan, sustainably control sustained control pest animals in order to minimise adverse effects on environmental values and economic well-being within the Hawke's Bay region.

Sustained Control	Management Regime
Feral Goat	Sustainably control feral goats on land contained within Feral Goat Coordinated Management Areas to zero density or to levels specified within a Written Management Agreement approved by Hawke's Bay Regional Council. A Feral Goat Coordinated Management Area is created once written agreements have been entered into with 75% or more of the total land area. The Council will coordinate initial feral

	goat control work within the entire Feral Goat Coordinated Management Area. Once feral goats have been reduced to low levels, occupiers within the area are required to maintain feral goats in accordance with this Protocol.
Possum	Sustainably control possums contained within Possum Control Areas to ensure population density on that land is at or below 4% residual trap catch. An occupier within a Possum Control Area shall maintain possum densities on their land at or below 4% residual trap catch, in accordance with the Hawke's Bay Regional Possum Control Technical Protocol (PN 4969). Possum monitoring will be undertaken by council on a sample of properties within the PCA area to assess if properties are meeting the plan rule. Compliance action will be undertaken for properties that fail to meet the plan rule. This includes land where the Good Neighbour Rule applies. HBRC will support land occupiers in managing possum densities through providing best practice advice, a subsidy will be provided on a range of possum control products and financial assistance for managing possums in difficult terrain. Landowners who have a QEII block less than 20 hectares on their property are eligible to receive free possum bait sufficient to control possums within the QEII area. For landowners with QEIIs greater than 20 hectares, or where several small QEIIs are collectively greater than 20 hectares, HBRC arranges and pays for possum control.
	Possum Control Area Annual RTC monitoring 
Predators	Sustainably control stoats, ferrets, weasels and feral cats on land contained within Predator Control Areas to ensure population density on that land does not exceed levels outlined in the Hawke's Bay Regional Predator Control Technical Protocol (PN 4970). The Council will identify Predator Control Areas and will seek to enter into written agreements with individual landowners within those areas to undertake long term predator control

	maintenance. Once written agreements have been entered into with 75% or more of the total land area, the Council will undertake initial predator control work within the entire Predator Control Area. After initial predator control work has been undertaken, occupiers within the area will be required to maintain the listed pests in accordance with the Hawke's Bay Regional Predator Control Technical Protocol.
Rabbits	Sustainably control rabbits to ensure population levels are maintained below Level 4 on the Modified McLean Scale (2012). The following will be undertaken: • Conduct targeted biannual surveillance of rabbit prone areas. • Conduct biannual monitoring of rabbits at known or suspected Rabbit Haemorrhagic Disease (RHD) areas. • Provide advice and education to land occupiers, including occupiers of small blocks, to help them control rabbits by the most efficient and effective means. • Monitor for compliance and where appropriate enforce the rabbit control rule. At its discretion, and as set out in an approved management programme, Council may meet up to 50% of the cost of rabbit control on rateable land where rabbit numbers exceed 4 on the McLean Scale. Council will continue to support research initiatives, including biological control, and release biological control agents for the control of feral rabbits when appropriate.
Rabbit night count locations	



1.12. Site-Led Pest Animals

Objective

Support sustainable control of site-led pests at sites of ecological importance to levels appropriate for the protection of ecological values, recreational values and economic well-being within the Hawke's Bay region.

Targets

Coordinated and integrated control of pests in defined areas that protect and restore specific ecological or biodiversity values which are threatened or compromised by pests. Sites include:

- Ecosystem Prioritisation (Hawke's Bay Regional Council)
- Recommended Areas for Protection (Department of Conservation)

- Sites of Special Wildlife Interest (Department of Conservation)

Site-led	Management Regime
Feral cats **Feral deer** **Feral goats** **Feral pigs** **Hedgehogs** **Mustelids** **Possums** **Rats**	Support land occupiers and community groups in managing site-led pests at areas of high biodiversity value though technical information, best practice control techniques and provision of traps or ungulate control. An agreement will be signed with the land occupier agreeing to utilise the traps and undertake best practice. HBRC staff will work with other groups to maximise outcomes of council programmes e.g. Erosion Control Scheme, Predator Free Hawke's Bay, Environmental Enhancement projects, Ecological Management and Enhancement Plans.

Phytosanitary Pests

Objective

Sustainably control apple black spot, codling moth, European canker, fireblight and lightbrown apple moth on unmanaged pipfruit production sites to protect economic well-being of the pipfruit industry within the Hawke's Bay region.

Targets

Occupiers of unmanaged pipfruit production sites shall, on receipt of a written direction from an Authorised Person, control:

- Apple black spot (Venturia inaequalis) on their land from the presence of green tips until fruit maturity/harvest; and
- Codling moth (Cydia pomonella) on their land if five (5) or more codling moths are caught in any one codling moth pheromone trap during any calendar week on their land;
- European canker (Neonectria ditissima) by inspecting all pipfruit trees on their land at least four times during the year, applying post-harvest sprays if canker is found and removing and burning all infected pipfruit tree parts showing any presence of European canker; and
- Fireblight (Erwinia amylovora) on their land during the pipfruit bloom period (from pink to petal fall); and
- Lightbrown apple moth (Leafroller) (Epiphyas postvittana) on their land once thirty (30) lightbrown apple moths are caught in any one lightbrown apple moth pheromone trap on their land from the 15th December until fruit harvest.

Sustained Control	Management Regime
Phytosanitary pests	Resolving apple black spot, codling moth, European canker, fireblight or lightbrown apple moth control disputes between neighbouring parties will be undertaken by HBFGA in the first instance.

Sustained Control	Management Regime
	If pest monitoring on the affected managed pipfruit production site over a reasonable time period confirms that: • there is a clear difference in the management inputs required to control phytosanitary pests compared to the previous three years; and • monitoring results indicated that the phytosanitary pest outbreak is more severe along the boundary with the adjacent unmanaged pipfruit production site; Then HBFGA will advise the occupier of the unmanaged pipfruit production site(s), that they are deemed to be an exacerbator of phytosanitary pests. HBFGA will be entitled to give the occupier of the unmanaged pipfruit production site(s) 14 days to reach an agreement. If agreement cannot be reached and/or control is not undertaken within that time, HBFGA will advise Hawke's Bay Regional Council of the situation and seek a direction to control phytosanitary pests on the unmanaged pipfruit production site. On receiving advice regarding the situation, Hawke's Bay Regional Council will initiate appropriate enforcement procedures under the Biosecurity Act for the control of the phytosanitary pests.

Financial Summary

Council's Long Term Plan 2018 - 2028 provides the necessary funding, via rates and user charges, for the operational and planning activities associated with pest management.

The 2021-2022 expenditure budgets are summarised in the table below:

Biosecurity 21-22 Annual Expenditure	Rounded to $000
Pest Management Strategies	$ 106,000
Plant Pest Control	$ 1,312,000
Rabbit control	$ 67,000
Possum control	$ 1,130,000
Site specific pest animal control	$ 121,000
Rook control	$ 144,000
Possum Bait and Rabbit Subsidy	$ 103,000
Pest Annual General Advice	$ 56,000
Pest Animal Research	$ 62,000
Marine Pests/Horticulture & Pipfruit	$ 78,000
Predator Free Hawkes Bay	$ 1,105,000
Total including organisational overheads	$ 4,284,000

Measuring Performance

The following criteria will be used to measure the success or otherwise in implementing the Operational Plan:

- Completion rate of programmes contained within this Operational Plan;
- Results from trend monitoring undertaken, and an assessment of these results;
- The number of enquires received, and a summary of those enquires;
- The education initiatives undertaken during the year;
- The number of Notice of Directions issued, the level of compliance with those notices, and any follow-up activity undertaken;
- The outcomes of all service delivery operations undertaken;
- The results of biological control research and monitoring, and the number of bio-control releases undertaken;
- All research initiatives to which contributions have been made during the year; and
- Any cross-boundary issues that arose and how they were resolved.

Implementation Report

A report on the Operational Plan and the success or otherwise of its implementation will be prepared no later than five months after conclusion of the financial year. A copy of this report will be provided to council.

Biosecurity Annual Report July 2020 - 30 June 2021

Report on the 2020-21 Operational Plan

August 2020
Hawkes Bay Regional Council Publication No.

HAWKES BAY
REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

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Catchment Services

Biosecurity Annual Report

August 2020
Hawkes Bay Regional Council Publication No.

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Contents

Executive Summary

Hawke's Bay Regional Council is the management agency responsible for developing and implementing the Hawke's Bay Regional Pest Management Plan 2018-2028 in accordance with the Biosecurity Act 1993.

The RPMP is a combination of the eradication or effective management of specified pests or groups of pests. It describes the biosecurity activities that will be undertaken throughout Hawke's Bay and outlines the management or eradication of specific organisms. Doing so will:

- minimise the actual or potential adverse or unintended effects associated with these organisms, and,
- maximise the effectiveness of individual actions in managing pests through a regionally coordinated approach.

As the management agency, Council is required to prepare an annual operational plan that sets out how the plan is to be implemented. Following the end of each financial year, staff will report to Council on the implementation of the operational plan.

This is the Annual Report for the 2020/2021 year relating to the Operational Plan for the Hawke's Bay Regional Pest Management Plan (RPMP).

1 Introduction

Regional councils have a mandate under Part 2 of the Biosecurity Act 1993 (the Act) to provide regional leadership in activities that prevent, reduce, or eliminate adverse effects from harmful organisms that are present in their region.

The purpose of the Hawke's Bay Regional Pest Management Plan (RPMP) is to provide for the efficient and effective management or eradication of specified harmful organisms in the Hawke's Bay Region. It builds on the 2013 Strategy and previous pest management programmes. The purpose of the Plan is to:

- Minimise the actual or potential adverse or unintended effects associated with those organisms; and
- Maximise the effectiveness of individual actions in managing pests through a regionally coordinated approach.

This Annual Report records progress in implementing the Regional Pest Management Plan via the Operational Plan 2020-2021, covering council's biosecurity activities for the period 1 July 2020 to 30 June 2021. The Annual Report of regulatory activities is a statutory requirement under section 100B(2) of the Biosecurity Act 1993 (the Act).

2 Pest Plants

The RPMP lists a total of 33 plant species as pests, which have been divided into five management categories.

For each of these pest plant categories, the Annual Report provides a brief description of what activities Council undertook in the 2020/2021 year.

2.1 Exclusion Pest Plants

These are pest plants that are not known to be present in the Hawke's Bay region and would likely have significant negative environmental and/or economic impacts if they were to establish. The objective of this programme is to prevent their establishment.

Exclusion	Management Regime
Alligator weed	Staff worked with other Regional Councils and technical experts to produce a high-level response plan for these pests. They were also added to the Pest Hub on the HBRC website to raise awareness with the public. Staff followed up any suspected sightings of Exclusion pest plants. No exclusion species were confirmed in the Hawke's Bay region during the 2020-21 financial year.
Marshwort	
Noogoora bur	
Senegal tea	
Spartina	

2.2 Eradication Pest Plants

These are pest plants in the Hawke's Bay region where eradication is possible. The objective is to destroy all known infestations of these species within the Hawke's Bay region, prior to seed set. HBRC undertakes direct control through service delivery at all known sites.

Eradication	Staff days	Management Regime
African feather grass	7	Control work focussed around the Ngaruroro River. Two surveys were undertaken. Very few plants were found.
Cathedral bells	2	All known rural sites are being controlled by contractors or staff. A few sites are now clear.
Goats rue	2	Staff monitored all high risk roadside areas and known infestation sites in Eskdale. Plants were only found at one roadside area in Central Hawke's Bay and in the Eskdale area over the 2020-21 financial year.
Purple loosestrife	1	There are now two sites in Hawke's Bay as a new site was found at Tangoio. All plants were destroyed.
Spiny emex	3	Numbers remain static on the two infested properties. Spiny emex has a very long seed life.
White edged nightshade	1	Three plants were found and destroyed
Yellow water lily	1	A new site of Yellow water lily was found on a dam near Horseshoe Lake during the 2020-21 financial year. These plants were controlled.
Phragmites	7	In accordance with the contract between HBRC and Ministry of Primary Industries, HBRC will destroy all infestations prior to seed set.

2.3 Progressive Containment Pest Plants

These are pest plants in the Hawke's Bay region where they are too widespread to eradicate but there is an opportunity to progressively contain and reduce their geographic distribution either across the region or specified areas within the region. This programme is achieved through a combination of occupier responsibility and direct control by HBRC through service delivery at all known sites.

Progressive containment	Staff days	Management Regime
Apple of Sodom	14	Main problem areas are several farms in the Seafield Road area. Improvements continue to be made each year. Time spent undertaking surveillance and control has reduced to approximately three weeks per year. Isolated plants are removed and destroyed by staff.
Australian sedge	11	Only found in the Wairoa district. Majority of work subsidised through the incentive scheme and undertaken by contractors.
Cotton thistle	2	Numbers were high to the drought in autumn last year. Staff assisted private landowners in controlling cotton thistle to make sure control was undertaken adequately.
Darwin's barberry	13	There are two infestations, one at Gwavas and one at Puketitiri. Both were surveyed with control work being ongoing. An extensive surveillance and control programme continued at Puketitiri using contractors and a helicopter. This was the first year landowners had to pay for the contractors which met a little resistance.

Progressive containment	Staff days	Management Regime
Japanese honeysuckle	1	This programme applies to the Tutira area, as outlined in the RPMP. Key areas were controlled by contractors and land occupiers. Tutira Country Park infestations have been sprayed by Council's Old Man's Beard team.
Nassella tussock	4	Although plant numbers are reducing there is a large seed bank. A site detected ten years ago in the Tukituki area continues to be of concern due to the high numbers of plants being found each year.
Old man's beard	52	Main control areas at present are north of the Napier-Taupo Highway and in areas of high biodiversity value. Areas found adjacent to the Kaweka and Ruahine Ranges were surveyed again and controlled.
Saffron thistle	50	Numbers were higher this year, due to an autumn drought in the previous year. All known sites were controlled.
Velvetleaf	1	Known sites were assessed. No plants found. Machinery hygiene was enforced.
Wilding Conifers	27	Pinus contorta is mainly a problem in areas that are close to conservation land. Over 25,000 hectares was surveyed in the Napier/Taihape Rd area, including Timahanga Station, Te Koau A, Aorangi, Awarua and Owhaoko C7 blocks. In the Rangitaiki area over 20,000 hectares was surveyed which included various Runanga blocks and Tarawera C9. Any Pinus contorta/Douglas fir detected were controlled. MPI have continued to help finance control programmes in the Napier/Taihape Rd area and have now started helping finance control programmes in the Rangitaiki area.
Woolly nightshade	80	New urban sites were found this season, although less than previous years. A pamphlet drop in most urban areas of Napier, Hastings and Wairoa assisted in detecting new sites. Known infestations on logged properties (forestry) continue to have high numbers of plants due to soil disturbance and high light environment.

2.4 Sustained Control Pest Plants

These are pest plants that are well established in Hawke's Bay where preventing or minimising the spread of these pests between neighbouring properties is the primary objective. This includes boundary control pest plants, where a neighbouring occupier may be required to control these pests on their boundary to prevent the spread onto adjacent properties.

Chilean Needle Grass

Chilean needle grass is a very difficult weed to control. With the current control tools available, HBRC are only able to contain it within known areas. However, over the last six years, an average of 12 new properties per year have been found, due to a robust advocacy programme and an increased surveillance programme. This increase in properties has created extra pressure (in Spring/Summer) on staff resources and budgets, at what is already an extremely busy time for the Pest Plant team. In addition significant effort has been made working with the Asset Management team and gravel extraction contractors / land users to reduce the risk of CNG seed dispersing through gravel extraction from rivers where CNG seed is potentially present. This is an ongoing management issue.

HBRC continue to run a joint advocacy programme with Environment Canterbury and the Marlborough District Council with Chilean needle grass. Along with surveillance programmes another twenty new properties had Chilean needle grass discovered on them. Subdivision of properties that have Chilean needle grass on is increasing which increases the number of landowners to contact each year.

Privet

The new rule within the RPMP (the requirement of a doctor's certificate by the complainant) continues to reduce the number of properties requiring privet removal. A total of 54 properties had privet removed. Management programmes for hedges are ongoing.

Yellow bristle grass

Staff worked with NZTA and Wairoa District Council to manage the risk posed by mowing regimes during seeding and the requirement for mower washdowns. High risk landowners were also contacted.

2.5 Sustained Control Pest Plants – Boundary Control

These are pest plants that may require neighbouring occupiers to control these pest plants on their boundary. They are Bathurst bur, Blackberry, Gorse, Nodding thistle, Ragwort and Variegated thistle.

The amount of time spent in this area this season was minimal, with only 4hours recorded to this. Complaints were predominantly regarding Blackberry or Variegated thistle.

Enforcement is the key management tool for Boundary Control plants. Controls are only enforced if their location contravenes RPMP rules (e.g. gorse within 10 metres of a neighbour's boundary providing that boundary is clear), and only if there is a complaint.

2.6 Biodiversity Pest Plants

These are plants that have a negative ecological effect which are managed outside of the RPMP.

Blue Passion Flower

Staff have refocused where its activities are undertaken. Additional infestations were found in Napier, Hastings, Waipawa and Havelock North. Control was undertaken down the Taipo Stream and near the estuary. Advice is provided to landowners in other areas on how to control this troublesome weed.

Climbing Spindleberry

This plant is found in the Central Hawke's Bay area along the banks of the Waipawa and Tukituki Rivers. This season all known sites were sprayed by contractors although some areas are very difficult to get through due to Blackberry, Gorse and Broom. Biosecurity staff are working with the Operations Group to clear tracks through these areas to allow easier access for the contractors.

Giant/Asiatic Knotweed

This was reported to HBRC in the Tuai area and is present in the Waipukurau Transfer Station. The Tuai infestation was sprayed by a contractor while no plants were found at the Waipukurau Transfer Station. It is a very invasive plant that will smother native plants, especially lower growing species and samplings.

DIDYMO/Aquatic Pest Plants

No student was employed over the summer season due to a lack of resources around staff time. Samples were taken from strategic sites on the main Hawke's Bay Rivers by HBRC, Fish and Game and DOC and sent away for DNA analysis to ascertain whether Didymo is present. All samples this year were negative for the presence of Didymo.

2.7 Surveillance Programme

More focus has been put into certain pest plants such as Woolly nightshade and Chilean needle grass.

During each property inspection, staff record relevant pest plants found on individual farm maps. During monitoring staff use previously gathered information to assess whether or not infestations have spread or contracted. During visits staff take the opportunity to discuss any relevant concerns with the occupier.

Biosecurity officer visits	Properties
Rural visits	1,486
Urban visits	886
Nurseries and pet shop visits	14

2.8 Surveillance of Railway Land

Staff have a good working relationship with Treescape, the contractors who have responsibility for vegetation control along the rail corridor in Hawke's Bay. Staff communicate with the Area Supervisor annually, identifying areas that need control. Treescape then does the work when required. This procedure enables staff to control pest plants along the railway tracks throughout the region in a timely manner.

2.9 State Highway and District Road Monitoring

A good working relationship has been developed between staff and Waka Kotahi (NZ Transport Agency) as well as the Central Hawke's Bay, Wairoa and the Hastings District Councils, for the clearance of roadside weeds. When weeds are cleared from roadsides, staff ensure that the adjacent property owner also clears their side. Both District Councils and NZTA have been very cooperative in setting up no-mow zones when Chilean needle grass is seeding in November/ December.

The NZTA provides an additional budget to control pest plants, on their roadsides, such as Old man's beard, Japanese honeysuckle, Chilean needle grass and Pampas. This budget is managed by HBRC staff which ensures that these pest plants are controlled at the optimum time.

2.10 Nurseries and Pet Shops

MPI has indicated that nurseries in the Hawke's Bay area only have to be visited at least once every three years to ensure that no plants banned for sale under the National Plant Pest Accord are being stocked. Fourteen nurseries were visited this year.

2.11 Regulatory

Notices of Direction were issued, all related to shingle extractors along the Tuki Tuki rivers. Subdivision activities are monitored by staff to ensure compliance, which has been good this year. Over 100 diggers/mowers were inspected this year.

2.12 Education and Publicity

The objective of these activities is to reach a wider community than can be achieved through farm visits. In this plant pest staff work with the Environment Education section of the Council. Six displays were done in this financial year. These were done at:

- CHB A + P Show
- Wairoa A + P Show
- East Coast Farmers Expo

The following topics have been printed in the media: newspaper local newspapers:

- Chilean needle grass (x2)
- Woolly nightshade

Pamphlets on Woolly nightshade were distributed in selected urban areas throughout Hastings, Napier and Wairoa. A talk on pest plants was given at the EIT.

2.13 Biological Control

HBRC contracted Landcare Research to:

- Develop new Biological Control Projects.
- Provide a plant identification service.

Landcare Research is continuing to evaluate/import possible biological controls for Aquatic weeds, Japanese honeysuckle, Woolly nightshade, Chinese privet, Field horsetail, Mothplant, Nassella tussock, Tradescantia, Pampas, Darwin's barberry, Wild ginger, Old man's beard, and Banana passionfruit.

Landcare Research (with the support of the Biocontrol Collective) has secured funding through the SFF programme to start biocontrol work on six new weeds including Sydnet golden wattle and Yellow flag iris.

Staff undertook five releases of green thistle beetle (Californian thistle) in the Hawke's Bay area this season, collecting beetles from local established populations. This beetle has dispersed throughout over 50% of Hawke's Bay which is pleasing.

2.14 Plant Pest Subsidy Scheme

The scheme was set up to provide assistance to landowners in undertaking control programmes. A record 95 subsidy forms were signed and undertaken this season.

Type	Number	Amount
Rural	94	$84,933.83
Urban	1	$500.00

Chilean needle grass, Saffron thistle, Australian sedge, Pinus contorta and Old man's beard were the main pests subsidised. Please note this subsidy only applies to small number of land occupier responsibility pest plants within the RPMP.

2.15 Conclusion

Most pest plant programme objectives have been achieved. Generally, a downward trend in numbers of plants is continuing except for Chilean needle grass where new properties/sites are continually being found.

The surveillance monitoring plan carried out this year has continued to target certain pest plants (particularly Old man's beard, Chilean needle grass and Woolly nightshade) and some of the areas surrounding them, areas of high risk, QEII covenanted sites, dump sites, creeks-drains and rivers and areas that are presently being controlled for low incidence plants.

3 Animal Pests

The RPMP lists a total of 25 animal species as pests, which have been divided into five management categories. For each of these pest categories, the Annual Report provides a brief description of what activities Council undertook in the 2020/2021 year.

3.1 Exclusion Pest Animals

These are pest animals that are not known to be present in the Hawke's Bay region and would likely have significant negative environmental and/or economic impacts if they were to establish. The objective of this programme is to prevent their establishment.

<table>
<tr><th>Exclusion</th><th>Management Regime</th></tr>
<tr><td>Wallaby</td><td>No reports were received of wallabies during the 2020/2021 year. Partnerships have been formed with MPI, Waikato Regional Council and Bay of Plenty Regional council who are currently managing wallaby populations.</td></tr>
<tr><td>Mediterranean fanworm & Clubbed tunicate</td><td>When a vessel berths in the Inner Harbour an Incoming Vessel Form is completed and submitted to HBRC. A risk analysis is undertaken and if the vessel is deemed high risk divers will inspect the vessel.

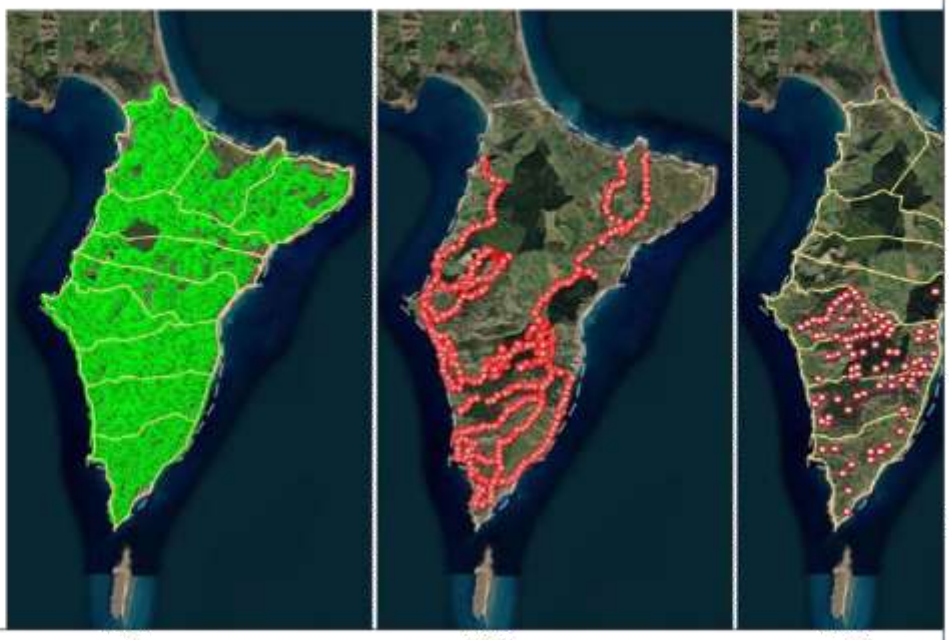
The table below shows the number of incoming vessels assessed, and the levels of compliance.
<table>
<tr><td># of Incoming Vessel Forms received</td><td>58</td></tr>
<tr><td># of vessels inspected
• # of vessels inspected compliant with Clean Hull Rule
• # of vessels inspected not compliant with Clean Hull Rule
• # of vessels non-compliant vessels directed to be hauled out or leave HB waters</td><td>13
5
8
8</td></tr>
<tr><td># of marine pest incursions</td><td>0</td></tr>
</table>
Council staff responded to all non-compliant vessels, requiring vessels to be either hauled out and cleaned or leave the region.

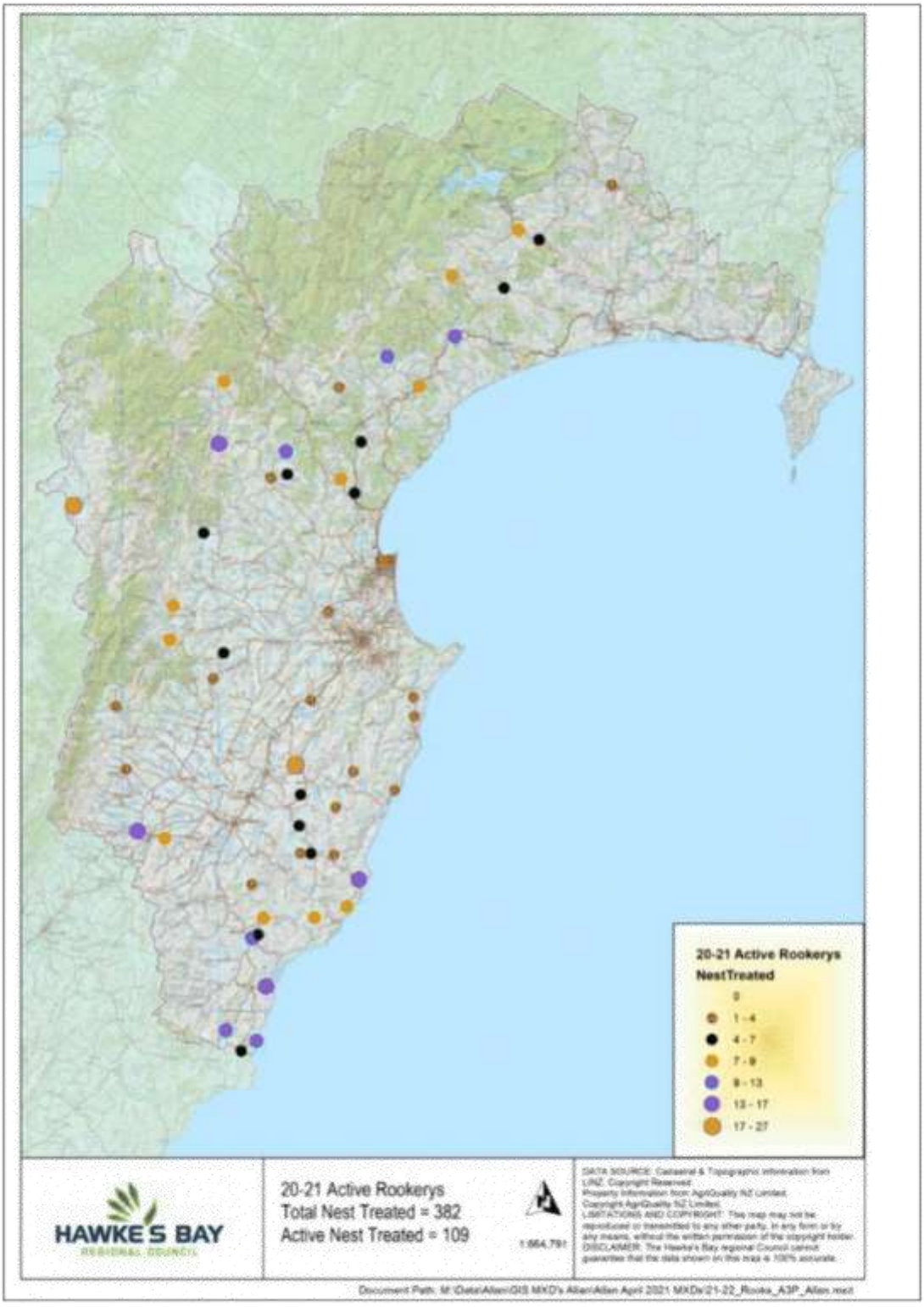
<u>Stakeholder and Partnerships</u>
• Relationships have been formed with key stakeholders including Napier City Council, Napier Sailing Club, Port of Napier, Legasea HB, Top of the North Marine Biosecurity Partnership, Top of the South Marine Biosecurity Partnership, NIWA and Biosecurity New Zealand.</td></tr>
</table>

3.2 Eradication Pest Animals

These are pest animals in the Hawke's Bay region where eradication is possible. The objective is to eradicate rooks from the region and all possums contained within Possum Eradication Areas.

Eradication	Management Regime
Possum (within the Whakatipu	HBRC is currently contracted to deliver the Whakatipu Mahia project for Predator Free 2050 Ltd. This includes 14500ha of possum eradication and reducing mustelid populations by 90% on the peninsula. Land occupiers within this area have been signed up to the Possum Eradication Area programme

Mahia area)	contained within the RPMP and will be responsible for maintaining possum eradication status in accordance with the Hawke's Bay Regional Possum Control Technical Protocol (PN 4969). The bait station network currently covers 95% of the peninsular consisting of 8,105 stations. There are currently 858 traps deployed on the peninsular, including 455 wirelessly monitored leghold traps. Camera monitoring for predators was undertaken pre and post control, showing a 61% reduction in feral cats. Due to using toxin as the primary control tool of possums, the total number of possums controlled is unknown. Up to date numbers caught in mop-up traps totals 395 (known) possums (plus 1,053 from the Mahia Scenic Reserve), 50 cats, 125 rats, 116 hedgehogs and 1 stoat have been removed from the peninsular. Despite significant challenges the project is currently on track to deliver its possum eradication commitments to PF2050. The map below outlines the teams progress across the peninsula to date. Green icons represent bait stations, red wireless monitored traps and purple motion sensitive cameras. 
Rook	All known rookeries within the Hawke's Bay Region were aerially treated utilizing a under slung strop man applying DRC 1339 gel bait directly into nests. A total of 109 active nests were treated. Post control inspections on some of these rookeries indicate that previous control has been successful with greatly reduced activity. seven rook ground control enquires were responded to during the year with approximately 250 rooks poisoned as a result of these enquiries.


20-21 Active Rookerys
NestTreated
0
1 - 4
4 - 7
7 - 9
9 - 13
13 - 17
17 - 27
HAWKE'S BAY
REGIONAL COUNCIL
20-21 Active Rookerys
Total Nest Treated = 382
Active Nest Treated = 109
1:664,791

Map: Aerial Rook Control 2020-2021

Graph 1: Rook Nests Trends

3.3 Sustained Control Pest Animals

These are pest animals that are widespread across the Hawke's Bay region. The objective is to sustainably control these pests in order to minimise adverse effects on environmental values and economic well-being within the Hawke's Bay region.

Sustained Control	Management Regime
Feral Goat	Feral goat control was undertaken across two feral goat coordinated management areas (CMA), being Mahia (7,672 ha) and Maungaharuru (28,000 ha). A total of 755 feral goats were controlled. The Mahia goat CMA is jointly managed by HBRC, Department of Conservation and supported by Grandy Lake Forests. It is now in a maintenance phase and the project objective is to maintain and enhance the results accomplished to date on the internal areas and continue to maintain low populations within the boundary properties. Reinvasion continues to be an ongoing risk with high populations still current on most boundaries.

	The Maungaharuru goat CMA is jointly funded by HBRC, Department of Conservation and Pan Pac. This CMA is also in a maintenance phase. Like Mahia, reinvasion continues to be an ongoing risk.
Phytosanitary pests	Occupiers are responsible for managing production pests at pipfruit production sites. Resolving apple black spot, codling moth, European canker, fireblight or lightbrown apple moth control disputes between neighbouring parties is undertaken by the HBFGA in the first instance. If an agreement cannot be reached, the HBFGA will advise Hawke's Bay Regional Council of the situation and seek appropriate enforcement action to be undertaken under the Biosecurity Act. HBRC did not receive any requests to undertake enforcement action for phytosanitary pests.
Possum (rest of region)	Occupiers within a Possum Control Area (PCA) programme are required to maintain possum densities on their land at or below 4% residual trap catch (RTC). The PCA programme currently covers 774,450ha. Due to the TB outbreak in Hawke's Bay, approximately 94,823ha contained within the PCA programme is now under OSPRI management. Biosecurity staff are working closely with OSPRI who have moved to a new geographically based operating model, with staff based in the region. Possum monitoring was undertaken across 127,095ha (approximately 19% of the PCA area) of the PCA programme to monitor compliance with the RPMP rule.

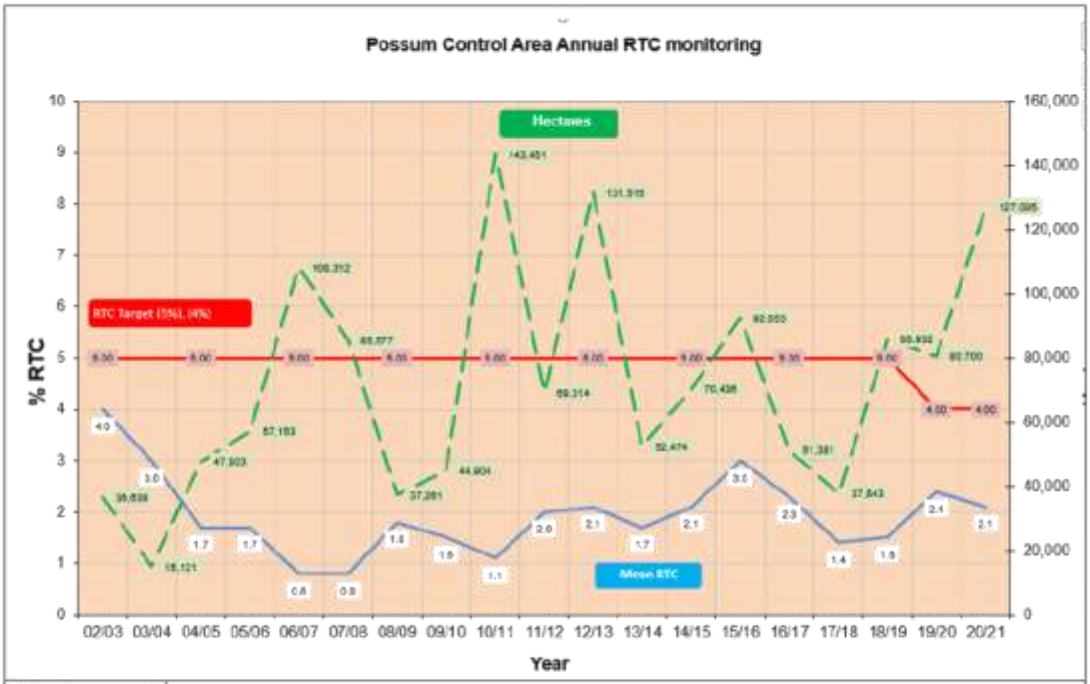
PCA possum monitoring programme 2020-21

Occupiers	Area monitored (Ha)	Number of monitoring lines	Average Residual Trap Catch (RTC %)	Number of monitoring Lines > 4% RTC
467	127,095	1730	2.1%	226

Although the overall trap catch rate across the area monitored was 2.1%, 226 lines were above 4% with 19.9% of properties monitored failing (93 properties in total monitored). Biosecurity staff worked with failed properties to ensure they are compliant with the RPMP rule. All properties engaged an HBRC approved contractor to undertake possum control resulting in no requirement for enforcement action.

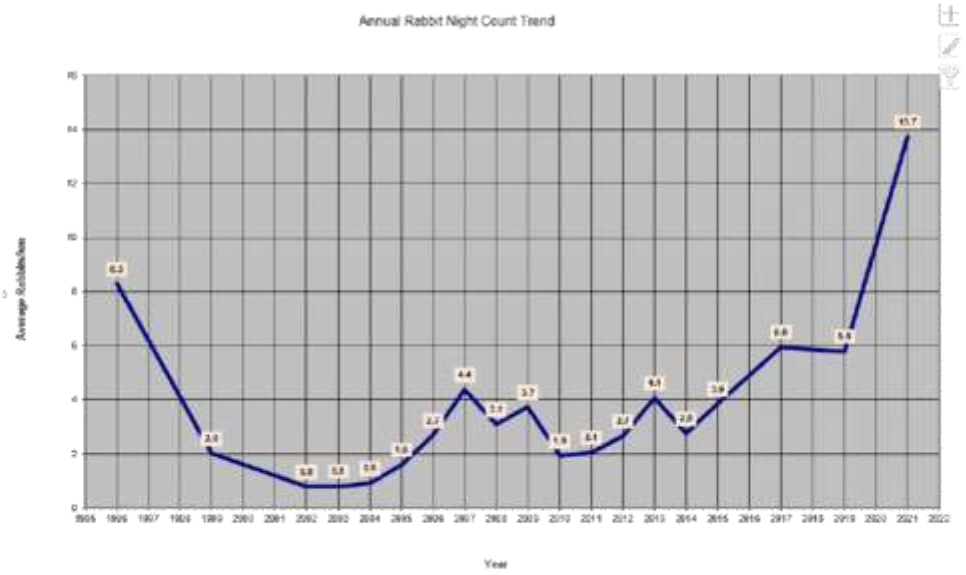
HBRC supported land occupiers in managing possum densities through providing best practice advice, a 40% subsidy on a range of possum control products at Farmlands and PGG Wrightsons and financial assistance for managing possums in difficult terrain. Furthermore, 37 QEII covenants received either free possum control (covenants >20ha) or free bait sufficient to control possums within the QEII area (covenants <20ha).

HBRC ensured possum control on all HBRC managed river berm land using a contractor. This has been done as a good neighbour, to meet HBRC's obligations under the RPMP, and to complement the control being carried out by adjacent land users in the PCA programme.

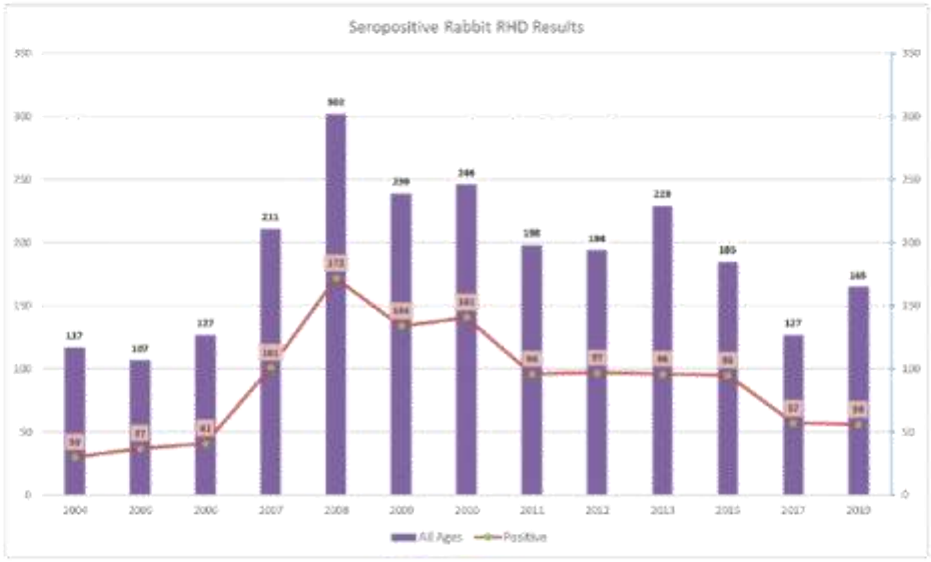


Predators	HBRC is currently involved in a multi-agency initiative Te Matau A Maui. This is via two separate but complementary projects, Poutiri Ao o Tane and Cape to City. The 'Poutiri Ao o Tane' project is a community based initiative with strong backing from several agencies including HBRC, DOC, HDC, Landcare Research and local community and Iwi groups. The project aim is to achieve positive biodiversity and social outcomes over an 8,000 hectare area, encompassing both DOC reserves and private farmland. An important milestone of this project was the release of native birds such as Kaka and Kakareiki in Boundary Stream Mainland Island and the re-establishment of sea birds on the Maungahaururu range, including Black, Cooks and mottled petrel. This financial year Poutiri Ao ō Tāne and Cape to City trap maintenance checks across a total of 39500 ha, servicing 2178 podiTRAP and DOC250 traps. These traps have caught 10 cats, 31 ferrets, 29 stoats, 7 weasel, 460 hedgehogs, 178 rats, 21 mice and 91 rabbits across 76 properties. The team has also supported additional trapping on several lifestyle block properties. Biodiversity monitoring with tracking tunnels suggests that skinks, geckos and wētā are more abundant within the Cape to City footprint than in the adjacent non treatment area. Although there are preexisting differences, trends suggest increasing abundance of species within the project area. Bird counts have been conducted over the Cape to City operational area and are discussed in more detail in section 3.6 of this annual report under Research. Longer term, HBRC objectives in regard to Predator Free Hawkes Bay are to: Identify a pest control regime that substantially reduces the current cost of top predator (cats and mustelid) control maintenance within a rural landscape containing significant bush fragments Provide additional protection to important habitat or sites of regional significance and native species that will benefit from top predator control.

	Support and empower the local community to set and attain achievable biodiversity protection goals.

Rabbits	A total of 70 rabbit enquiries for advice and assistance were received over the last 12 months. Assistance was provided in the form of Environment Topic handouts, verbal advice, and in some cases demonstrations on the use of Pindone pellets and Magtoxin for rabbit control. **Rabbit night counts** Rabbit night counts were undertaken this financial year across 23 sites. Data indicates a increase in rabbit densities from 6 rabbits per kilometre in 2017 to 13.7 rabbits per kilometre in 2021. This is only a snapshot of rabbit populations in Hawke's Bay. Graph 1: Rabbit night counts  **Rabbit haemorrhagic disease** Regional surveillance was not carried out during 2020 to assess the prevalence of rabbit haemorrhagic disease (RHD). This surveillance is only carried out once every two years.

Graph 2: RHD Trends



3.4 Site-Led Pest Animals

The objective is to support coordinated and integrated control of pests in defined areas that protect and restore specific ecological or biodiversity values which are threatened or compromised by pests.

Site-led	Management Regime
Feral cats **Feral deer** **Feral goats** **Feral pigs** **Hedgehogs** **Mustelids** **Possums** **Rats**	The following table outlines the projects that received assistance through the site-specific programme. These projects form a wide range of initiatives from working with individual land users through to projects with significant local community involvement. Most projects have a strong focus on predator control to restore native birdlife.

Project	Location
Ahuriri Bittern Protection group	Ahuriri
Arlie	Wanstead
Big Hill Station	Keraru
Birch Hill	Porangahau
Blowhard Bush	Kaweka
Campbell / Snelling	Wairoa
Esk Catchment Group	Esk River
Glenorchy Station	Fernhill
Haumoana Community Care	Haumoana
Hutchinsons Reserve	Pukatitri
Ian Campbell	Mangapoike Rd

Karamu Station	73 Brownlie rd Frasertown
Katrin Wunderlich	Haumoana
Lake Hatuma Shooters Society	Waipukurau
Lake Oingo	Napier
Little bush Reserve	Puketitiri
Maungataniwha Forest Trust	Willowflat
Medway Trust	Waipawa & Omakere
Mike Walker	Bayview
Moo Scooting	Te Awunga
Ngatapa	Waipunga
Ohurakura wetland	Te Pohue
Opoutama wetland	Mahia
Papakihau Station	Porangahau
Pekapeka	SH2
Poraiti Community Group	Poraiti
Pringa Bush	Kereru
Puahanui Bush	Gwavas
Tauroa reserve	Tauroa Rd Havelock nth
Te Mata Park	Havelock North
Te Umuopua Station	Takapau
Trelinnoe Station	Te Pohue
Tuki Tuki River	Below Red Bridge
Tutaekuri River	Dartmoor
Waipatiki Valley	Waipatiki
Wetewhakaawi / McGregors	Pakaututu
Whakaki wetland Trust	Wairoa
Whakamahi Lagoon	Mouth of Wiaroa River
Whangahou Beach	Whangahou

3.5 Education and Advice

The Biosecurity team continue to post regular articles in "Our Place", concentrating on rabbits, RHD, rooks, PCA updates and the use of maintenance contractors. Alongside pest plants, Pest Animal staff have worked closely with the HBRC Communications Team to implement a new HBRC Pest Hub website, including incorporating 21 factsheets covering all aspects of pest animal control.

3.6 Research Initiatives

A range of research initiatives have been completed as part of the Predator Free Hawkes Bay programme. Almost all of the research undertaken in the project is available to be viewed at http://capetocity.co.nz/resources/reports/.

These initiatives include research in two main areas:

Optimising operational delivery

These projects include Wireless trap monitoring optimisation, landowner participation modelling, trap network optimisation and motion sensitive camera monitoring. Peter Sweetapple and Dave Latham undertook possum home range and movement behaviour research on Māhia Peninsula during the 2020-2021 financial year.

Outcome monitoring

There is a wide range of outcome monitoring taking place in the Cape to City project. This includes bird count monitoring, skinks and geckos, invertebrates, and toxoplasmosis monitoring. Al Glen, and Jo Peace have led the Predator and biodiversity response monitoring in Cape to City with an annual report available (unpublished Manaaki Whenua Landcare Research Contract Report LC3982). Kahori Nakagawa, undertook the bird count survey and it is available as "Cape to City bird count survey report".

The summary of this is that the majority of native species in the Cape to City footprint is positively responding to the predator control programme. Effects of predator control were evident in key sites within the footprint, such as Te Mata Peak, Frederick Pines, 100 Acre Bush and Mohi Bush, where both top predators and rats were controlled. Waterfowl in the footprint areas also experienced increased breeding and survival, most likely due to the low predator abundance. A new robin population has now successfully established in Maraetotara Plateau after several translocations. A majority of robins seen at Mohi Bush and 100 Acres Bush are unbanded, indicating successful breeding. As long as rat control continues in these targeted areas, robin will continue to flourish. However, loss of pine forests had significant effects on bird abundance and dispersal in the footprint area. Insectivore species such as robin, tomtit and whitehead were occasionally recorded outside Cape Sanctuary. Unfortunately, loss of habitat (i.e., logging) and the lack of corridors between these bush patches and other suitable habitats meant that these birds remained isolated or led to gradual disappearance. Significant pine forest cover was lost in the operational area, stopping further dispersal of spill over species from Cape Sanctuary into wider regions. Species such as kakariki and kaka which can fly long distance may overcome such challenges in the future when their numbers grow and disperse.

4 Communications

In 2020, the biodiversity and biosecurity communications and engagement plan was updated, to plan and implement strategic communications. This included seasonal activities for public awareness and information, such as the river bird survey and pest control work around the region.

October 2020 and May 2021 were dedicated months focussed on biosecurity and biodiversity respectively. Where possible media releases, social media, web content, and internal comms are delivered through these focus times. While both months were a success, biodiversity month in May was particularly so with

two media releases sent out and around 20 social posts going up. Information about eDNA was particularly popular.

Website and pest control hub

Council revamped the Biosecurity webpage to make it easier to quicker to access the desired information. This included introducing a comprehensive pest control hub. The hub went live in July 2020.

The pest hub provides a very user-friendly web hub of all the pest plants and animals, including marine pests, and diseases, that fall under the Regional Pest Management Plan. It also includes many other pests in New Zealand, including those not currently known to be found in Hawke's Bay. There is the opportunity to report pests, including a geo location, provides detailed information about pests including descriptions of the pest, photos, what harm or damage they may cause, and how they can be controlled. Management programmes and rules relating to each pest are included which lets people know if they need to take any steps if found on their property - https://www.hbrc.govt.nz/environment/pest-control/pest-hub/

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: RIGHT TREE RIGHT PLACE PROJECT ACCELERATION

Reason for Report

1. This item requests approval from the Council to bring forward up to $500,000 in operating expenditure out of the total committed Long Term Funding for the for the Right Tree Right Place (RTRP) project. The funds are to be moved from year-3 (2023-24) to year-1 (2021 22) and the expenditure is funded from reserves (Sale of Land Reserve).

Officers' Recommendation(s)

2. That the committee receives the update on initial progress with RTRP Pilot project and initial project timing; and

3. That the committee recommends that Council approves the request for a change of timing, with up to $500,000 of expenditure brought forward from year-3 to year-1 of the approved 2021-31 LTP budget.

Executive Summary

4. This matter was workshopped with Council on 4 August 2021.

5. From a project planning perspective, the RTRP project is being viewed as two parallel, but aligned streams of work: The RTRP Pilot aimed to plant up to five farms and due diligence on a scale-up to move it to a market driven approach.

6. Aligning the RTRP Pilot with the scale-up assessment requires up to $500,000 Opex funding to be brought forward in the approved 3-year LTP funding in order to accelerate aspects of planned work.

7. If the due diligence on the scale-up opportunity is successful, it may result in earlier than anticipated funding from external impact related funders.

8. Investment advice and investigation will be required during the due diligence process on commercial aspects of a scaled-up impact investment proposition, including investment vehicle and governance arrangements proposed during the due diligence process.

9. Since approval of LTP funding, the RTRP project is gathering momentum with the current focus on developing the project/procurement plan and budget.

Background /Discussion

10. The significant challenges facing the region about the adverse impacts of erosive processes and corresponding sedimentation alongside its response to climate change have been well traversed with Council. Targeted afforestation is a critical tool to achieve a range of outcomes that this Council is seeking.

11. Council has identified approximately 250,000ha of the region that has land eroding at more than 1000 tonnes/km^2/yr. There is expected to be around 10,000ha of the highest risk land planted over the next ten years by grant funding initiatives directly supported by Council such as through Council's investment of $30M in the Erosion Control Scheme. However, the scale of the regional context still represents significant challenges, risks and opportunities.

12. During the 2021-31 LTP process, Council was presented how the RTRP project can address the significant erosion problem through demonstrating a successful RTRP model by refining a planting model with several objectives:

12.1. To recover its own costs

12.2. Encourage planting of trees on erodible land

12.3. Stimulate the market to invest in trees on farms that strengthens financial and environmental outcomes

12.4. Reducing the need for whole farm afforestation

12.5. Plant enough trees to prepare for climate change; and

12.6. Significant environmental benefits.

13. Council committed to fund the RTRP project ~$4.8M through the 2021-31 LTP process apportioned as follows:

13.1. $2.6M in Capex for planting trees by providing debt funding to farmers to be repaid with interest over 10 years; and

13.2. $2.2M in Opex from reserves to fund operational aspects of the project over 3-years with the goal of recovering this cost if the pilot trial is scaled up.

RTRP Project Update

14. Council are reminded that staff workshopped this paper with them and its content on 4 August.

15. This section provides a brief update on the RTRP Pilot project following Council's approval of $4.8M in funding in late June 2021. A project lead has been appointed – Michael Bassett-Foss has transitioned into the role and completed a hand-over process from Campbell Leckie. Campbell will continue to offer guidance as required.

16. A discussion is underway with the Catchment Delivery team (CDT) to integrate RTRP into their service offering with farmers. In time, they will be able to assist the filtering of suitable farms and updating a database with potential RTRP farm information.

17. CDT is assisting to collate a shortlist of potential farms suitable as RTRP pilot farms. Farm selection criteria have been developed and discussions are underway with several potential pilot farm landowners.

18. Procurement and project plans are being developed with associated project budgets being compiled.

19. Progress has started on assessing the potential to scale-up the RTRP concept with the use of an external impact funding model alongside partners.

RTRP Comms and Engagement

20. Fundamental to this project is engagement, education and attitude change with the farming sector toward afforestation. Comms and engagement are a critical component to the project. Communications with farmers and wider industry has ramped up.

20.1. Our communication team is developing five short videos of farmer leaders telling their stories about planting trees. Three videos have been released already across the Council's and other key stakeholder social media platforms. The videos have been very successful, with high engagement. Wairoa farmer Dave Read's video reached over 10,000 people and the video was viewed over 7,000 times. To see the videos, go to hbrc.govt.nz and search #RTRP. The videos are being developed into case study briefs and will be published in local media publications

20.2. High level information has been included in various farmer communication channels including HBRC's Our Environment section of Hawke's Bay Today, CHB Mail and Wairoa Star

20.3. Communications and Marketing has drafted a farmer information booklet which is being reviewed by the CDT. It will be expanded to contain more information targeted at HBRC internal teams

20.4. A dedicated email address is being monitored (righttreerightplace@hbrc.govt.nz) and a list of interested parties collected for future communication updates about the project

20.5. Comms is developing a strategic comms and engagement plan for the next 6 to 12 months. Upcoming communications and engagement activity will include thought leadership pieces, farmer sentiment survey, farmer workshops, and internal resources for catchment staff.

RTRP Short-term Focus

21. From a project planning perspective, the RTRP project is being viewed as two parallel but aligned streams of work:

21.1. RTRP Pilot involving planting trees on up to five farms with associated farm plan development, farmer comms/engagement, commercial arrangements for HBRC debt funding and an environmental monitoring framework; and

21.2. Investigating the potential to accelerate transition of the project to a market driven scaled-up initiative.

22. Due diligence into a scaled-up RTRP initiative aims to explore the questions for which we don't currently have answers for including an outline of key research needed, preferred afforestation financing models, farmer sentiment, preferred consultancy partners, preferred investors, primary risks, potential for government involvement, etc.

23. Should the impact investment model be successful, it will position the project to scale up quickly to a subsequent roll-out in the NZ$400-500m investment range that's required to plant the more than 250,000ha of highly erodible land in the region.

Options Assessment

24. The Committee and Council can either approve the change in timing for the approved funding, as requested or officers can be directed to keep within the original LTP spend profile, or an alternative adjustment to the profile could be approved.

25. The preferred option is for the funds to be brought forward so that the Pilot C and associated scoping study can be accelerated as proposed. No change is requested to the approved 3-year budget in the LTP. The impact relates to the timing of expenditure. The cost of the preferred option is the cost of financing the expenditure earlier (lost interest on reserves) estimated at $20,000 which is 2 years at 2%.

Strategic Fit

26. The RTRP project aligns with Council's strategic plan, priority areas and associated objectives for sustainable land use, biodiversity and water quality. This report seeks to accelerate funding within the total set out in the 2021-31 LTP to deliver on those priority areas.

Significance and Engagement Policy Assessment

27. This matter is not significant, as defined in Council's significance and engagement policy. The RTRP pilot project and associated funding is already included in Council's 2021-31 LTP.

Climate Change Considerations

28. The RTRP is part of Council's climate change response, as set out in the LTP.

Considerations of Tangata Whenua

29. There are no specific considerations required in relation to the request made in this report as this merely seeks to accelerate existing funding for the project.

Financial and Resource Implications

30. Accelerating investigation into the potential to move the RTRP concept to a market driven, scaled-up initiative will require bringing forward work tasks that had planned to be completed over the 3-year LTP funding period. These tasks have previously communicated with Council and include:

    30.1. Farmer engagement and communication including farmer sentiment survey

    30.2. Tangata whenua and other stakeholder engagement

    30.3. Farm database management – establish pipeline of potential farms suitable for RTRP

    30.4. Detailed farm plans for the entire farms that most closely match farm selection criteria

    30.5. Monitoring framework for pilot farms including water quality outcomes

    30.6. Advice for commercial arrangements for on-farm investment and for preferred commercial arrangements for a scaled-up RTRP proposition.

31. This work was initially envisaged to proceed over three years of the RTRP Pilot period. Accelerating this work over a 12 to15 month timeframe will underpin due diligence for the scaled-up opportunity, thereby leveraging HBRC funding to attract external investment into the RTRP proposition from as early as year-2 of the LTP period.

32. Focus areas for accelerated activity are farmer engagement and the completion of detailed farm plans on a representative number of farm properties. This will provide the due diligence process with information about farmer appetite for RTRP along with the associated costs and revenue streams for afforestation on those properties. This information is needed for the business case development and discussions with investors, including the preferred investment vehicle and governance arrangements.

33. The funding approved by Council during the LTP process for the Opex portion of RTRP funding is detailed in the table below. In order to accelerate aspects of this work, funding will need to be brought forward from year-3 to year-1. The estimated change in funding is also illustrated in the table below. Note that the 3-year Opex funding total remains unchanged at $2,221,051.

	21	22	23
Description	2021/22Budget	2022/23Budget	2023/24Budget
Applications of Operating Funding for RTRP	2021/22 Budget	2022/23 Budget	2023/24 Budget
Payments to staff and suppliers	355,250	522,200	695,825
Finance Costs	3,806	20,120	49,260
Internal Charges & Overheads Applied	119,319	183,494	271,777
Total Operating expenditure	478,375	725,814	1,016,862
Estimated Operating Funding required to accelerate RTRP			
Total estimated Operating expenditure	970,000	725,814	525,237

34. Funding for RTRP Opex is from HBRC reserves. Subject to completion of the final project plan and budget, it is forecast that up to $500,000 is required to be brought forward from year-3 to year-1 of the LTP period. Financing this expenditure earlier than originally budgeted will have little impact when compared with benefits of achieving increased external investment into planting trees in the RTRP model. At a 2% finance cost on $500,000 funding brought forward 2 years, the increased financing cost is approximately $20,000.

35. Timely agreement from Council for this change in funding will allow staff to work with partners to confirm the project plan for the 12–15-month accelerated process and initiate initial work.

Consultation

36. The RTRP funding was included in the LTP. As this proposal does not seek to change the total amount of funding allocated to this initiative no consultation is required.

Decision Making Process

37. Council and its committees are required to make every decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements in relation to this item and have concluded:

    37.1. The decision does not significantly alter the service provision or affect a strategic asset, nor is it inconsistent with an existing policy or plan.

    37.2. The use of the special consultative procedure is not prescribed by legislation.

    37.3. The decision is not significant under the criteria contained in Council's adopted Significance and Engagement Policy.

    37.4. The persons affected by this decision are all ratepayers, in relation to the financial impact of the proposed acceleration of the programme funding.

    37.5. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

Recommendations

That the Environment and Integrated Catchments Committee:

1. Receives and considers the "*Right Tree Right Place Project Acceleration*" staff report.
2. Recommends that Hawke's Bay Regional Council:

    2.1. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted Significance and Engagement Policy, and that Council can exercise its discretion and make decisions on this issue without conferring directly with the community or persons likely to have an interest in the decision.

    2.2. Approves the request for a change of timing, with up to $500,000 of expenditure brought forward from year-3 to year-1 of the approved 3-year LTP budget.

Authored by:

Michael Bassett-Foss
RTRP PROJECT MANAGER

Approved by:

Ross Franklin
ACTING CHIEF FINANCIAL OFFICER

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: ENVIROSCHOOLS 2020-21 UPDATE

Reason for Report

1. This agenda item provides an update on Enviroschools in Hawke's Bay.

Executive Summary

2. Enviroschools is specifically designed to meet Local Government outcomes including improving biodiversity, restoring waterway health, reducing waste at school and home, water conservation, energy efficiency, and resilient and connected communities.
3. The kaupapa of Enviroschools provides our tamariki with real life natural experiences and plays a pivotal role in the delivery of environmental education.
4. The programme has a focus on Learning for Sustainability, Māori Perspectives, Empowered Students, Sustainable Communities and Respect for the Diversity of People and Culture.
5. In Hawke's Bay, the programme includes exposure to Council activities, such as the work of the Open Spaces, Biodiversity and Catchment teams, including a freshwater focus aligned to the TANK Plan.
6. Today we have 68 Hawke's Bay Enviroschools, 32 ECEs and 36 schools. In recent months we welcomed Ongaonga School to the programme.

Strategic Fit

7. Hawke's Bay Regional Council has supported facilitation of the Enviroschools programme since 2002.
8. The facilitation team is well placed to work with schools and their wider communities to deliver on Regional Council initiatives and campaigns. Currently we are looking to highlight a Freshwater Focus and our impacts on our Changing Climate.
9. Enviroschools programmes support the Regional Council's strategic focus areas of water quality, safety and climate-resilient security; climate-smart and sustainable land use; healthy, functioning and climate-resilient biodiversity, and sustainable and climate-resilient services and infrastructure.
10. Across Hawke's Bay, our Enviroschools continue their involvement in restoration projects. Throughout winter tamariki have been supporting their local communities. This has also included growing and planting natives right across our region.
11. We continue to collaborate with Te Mata Park and have recently been supporting their Kaitiaki programme involving local schools adopting a section of newly-developed planting areas.
12. This year as part of Matariki we worked with the Ātea a Rangi Educational Trust to support their week long schools education programme.
13. We have just appointed a new facilitator in the Wairoa region, Julia Howard. Julia joins Sonya and Amy who support our schools in Napier/ Hastings and Central Hawke's Bay respectively.

Opportunities for growth

14. A secondary school sector Climate Action Camp took place in March 2021. We hosted 47 students from seven different Hawke's Bay High Schools over two and a half days. The Regional Council's wide focus and diverse activities offer so many possibilities for positive action, we plan to keep the conversation going.

    14.1. Specifically following up and visiting schools that participated in the camp

    14.2. Building a stronger base for our Youth Environment Council.

15. As a result of successful new funding being approved from the recent Long Term Plan round we will be boosting our environmental education team. We are looking forward to this role focusing on the initial priorities of:

    15.1. Secondary School sector – developing stronger relationships to assist field activities; local curriculum development – including supporting teachers with environmental NCEA unit standards.

    15.2. Scoping out new educational initiatives that actively engage with the Regional Council's strategies and environmental work programmes.

16. I successfully requested funding from three of our Local Authorities through the Long Term Plan process in 2021. We are thankful for the continued support of Central Hawke's Bay District Council and Napier City Council and welcome back Hastings District Council as a financial supporter to Enviroschools in the Hastings region. This is a validation of the work the team carries out and the benefits they see through Enviroschools supporting their activities, at schools and in the wider community. This funding will assist with:

    16.1. Specific in region connections, i.e. workshops, resources, professional development opportunities and supporting our kindergarten partners.

17. Continuing to foster close contacts with staff at all Hawke's Bay councils. Regular catch-ups are a good opportunity to discuss relevant issues and how we can potentially play a part in solutions at a school and community level.

Summary and next Steps

18. The Enviroschools programme is highly regarded, however it wouldn't exist in the Hawke's Bay region without the Regional Council's support.

19. Our local Enviroschools are well placed to work with us, extending beyond each school into local communities to tackle challenges head on.

20. Our local focus already speaks to key catchment-based programmes such as the TANK Plan, with strong focus on the Karamū and Ahuriri catchments. The facilitation team will also support the development of local community engagement in the Kotahi Plan as this work evolves.

Decision Making Process

21. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the *Enviroschools 2020-21 Update*.

Authored by:

Sally Chandler
COMMUNITY ENGAGEMENT
COORDINATOR (SCHOOLS)

Approved by:

Drew Broadley
MARKETING & COMMUNICATIONS
MANAGER

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: POSSUM CONTROL AREA PARTIAL PLAN REVIEW UPDATE

Reason for Report

1. This item updates the Committee on the preparation of the proposal for a partial plan review for the Possum Control Area (PCA) programme staff were instructed to prepare.

2. The item also discusses the process for establishing and delegating some partial plan review decision-making authority to a sub-committee/ Biosecurity Working Party (BWP) which will also serve as a Hearing Panel during the submission process. A BWP with appropriate delegated powers will help deliver the partial plan review of the PCA programme in alignment with the Annual Plan / Long Term Plan amendment process.

Executive Summary

3. If a significant change is required to the current PCA programme, a Partial Plan Review to amend the Hawke's Bay Regional Pest Management Plan (RPMP) (under sections 70 to 77 of the Biosecurity Act – the Act) will need to be undertaken. The steps to 'making' a RPMP are clearly outlined within sections 70 to 77 of the Biosecurity Act 1993. This includes preparation of a proposal in accordance with the Act, public notification, receipt of submissions and conducting a hearing process.

4. A final draft of the amended RPMP, along with a report outlining proposed decisions, will be tabled for council to make a final decision upon in accordance with section 75 of the Act. Staff will develop the PCA partial plan review proposal over the next four months and it will be presented to Council early in the new calendar year.

5. If a substantive change to resourcing is required to the PCA programme as a result of the partial plan review process, an amendment to the long-term plan will also be required to fund it. Consultation would occur concurrently with the Annual Plan process in March 2022.

6. A key initial step of the proposal preparation is the Cost Benefit Analysis (CBA) process. This will require having an indicative range of likely contracting costs for the contracting out of the PCA programme. It will also require a reworking of the CBA analysis carried out for the 2019-2039 Regional Pest Management Plan CBA for possums. Consultants have been appointed to undertake the CBA.

7. Staff will recommend that at the November EICC a Biosecurity Working Party (BWP) is established consisting of three appointed Councillors, three appointed members of the Regional Planning Committee and one independent member with biosecurity and hearings experience. This panel will hear submissions and can also be delegated the authority to make certain decisions under the Act. These delegations will allow for a streamlined, stepped approach, saving Council time as well as speeding up the hearing process.

Background

8. The Hawke's Bay Regional Pest Management Plan is the main statutory document implementing the Biosecurity Act 1993 in the region; providing a framework for the management of plant, animal and horticultural pests in Hawke's Bay.

9. Subsequent to a review of the PCA programme staff were instructed at the 12 May EICC to prepare a proposal for a partial plan review to consult publicly on contracting out the delivery of PCA possum control. Staff have begun preparing the proposal which will require meeting sections 70 - 76 of the Act. The main requirements of a proposal under S 70 of the Act are outlined in attachment two for the committee's information.

10. An important component of compliance with the Act is a cost benefit analysis (CBA) and a cost allocation report. The CBA analysis will be undertaken by Jon Sullivan at Lincoln University and Melissa Hutchison at Tenex consultants. Jon and Melissa undertook the CBA analysis for the 2019 - 2039 RPMP and have the appropriate skills and experience for the review of the PCA CBA. Staff are seeking appropriate consultants to undertake the cost allocation report.

11. Central to the CBA assessment is the likely cost of contracting out the delivery of possum control across the region. The actual costs of contracted possum control cannot be known until (and if) tenders are received from contractors for areas to receive possum control. However, an indicative range of costs is possible, and the CBA can be run based on these. A number of factors will drive the cost of possum control including contract conditions, risk, and the geographic area possum control is undertaken. Staff will be engaging with possum contractors who work in the Hawkes Bay region to ensure that the indicative cost range used in the CBA is realistic.

12. In undertaking the public notification and receipt of submissions process, as part of the consultation plan, a hearing panel is required to hear submissions. This panel (the BWP) can also be delegated the authority to make certain decisions under the Act.

13. The decisions that a hearings panel can be required to make with delegated authority are:

    13.1 Considering and recommending advice on the PCA partial plan review process and key issues

    13.2 Considering reports on the PCA partial plan review and giving guidance on recommended approach

    13.3 Considering reports on the PCA partial plan review proposal and reviewing and giving guidance on the proposal and providing guidance on the alignment of the partial plan review with other plans and strategies

    13.4 Reviewing and giving guidance on received submissions.

14. As shown by the graphic in attachment one, these delegations to the BWP will allow for a streamlined, stepped approach, saving Council time as well as speeding up the hearing process.

15. During the 2019 - 2039 RPMP development, the BWP included one independent, out of region member, with both Biosecurity and hearings process experience, to sit on the panel as a Biosecurity expert. This worked well and staff will recommend this take place for the partial plan review as well.

16. As part of the 2019-2039 RPMP process, BWP membership included three members each from the Environment and Integrated Catchments Committee and the Regional Planning Committee respectively. Staff will be proposing the same membership and seeking approval for the working party with member nominations at the November EICC and December RPC.

17. A more detailed outline of the appropriate delegations and process for the BWP will be provided initially at the November EICC.

Strategic Fit

18. The PCA programme sits within the RPMP. The RPMP plays an important role in achieving both the Biodiversity and Land strategic outcomes and goals in the HBRC Strategic Pan 2020-25.

19. Failing to achieve the RPMP objective and council Level of Service Measures for the PCA programme could affect achieving the strategic outcomes and goals in the HBRC Strategic Pan 2020-25 for Biodiversity and Land.

Significance and Engagement Policy Assessment

20. The decision sought in this item is low under the criteria contained in council's adopted Significance and Engagement Policy as it is only seeking to develop a proposal with more

detailed information that is to be subsequently presented to council for consideration and potential public consultation.

Considerations of Tangata Whenua

21. Staff consider tangata whenua will have a strong interest in this topic and will be engaged as part of the consultation process.

22. If council agree to the staff recommendation engagement with tangata whenua will occur as part of the development of the partial plan review process and associated changes to councils LTP.

Financial and Resource Implications

23. The average estimated cost for landscape maintenance control from Hawke's Bay possum contractors contacted as part of the PCA review was $7-8/ha. This is acknowledged by staff as very rough estimate that needs rigorous testing. Staff are now going through a more detailed contracting cost assessment process as part of the CBA required under the Act. This information would be included within the Proposal that would come back to council for consideration before being released for public consultation.

24. Following the development of the revised programme and the changes to the levels of service required for delivery, a change to the Revenue and Financing Policy will likely be required. The funding needs analysis will be undertaken to assess the beneficiaries and exacerbators of the revised programme to determine the most appropriate funding model in accordance with Section 101 (3) of the Local Government Act.

25. As the Proposal is highly likely to significantly alter current Levels of Service consulted on and agreed in the 2021-31 LTP there is likely the need to amend the 2021-31 LTP and so may necessitate an Annual Plan consultative process later in 2021/early in 2022 to do this. Staff will provide further advice on this later in the process.

Consultation

26. A full consultative process will be undertaken as required within sections 70 to 77 of the Biosecurity Act 1993. This includes public notification, receipt of submissions and conducting a hearing process.

Decision Making Process

27. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendations

That the Environment and Integrated Catchments Committee receives and notes the "*Possum Control Area Partial Plan Review Update*" staff report.

Authored by:

Campbell Leckie
MANAGER CATCHMENT SERVICES

Lauren Simmonds
PROJECT MANAGER - BIOSECURITY REVIEW

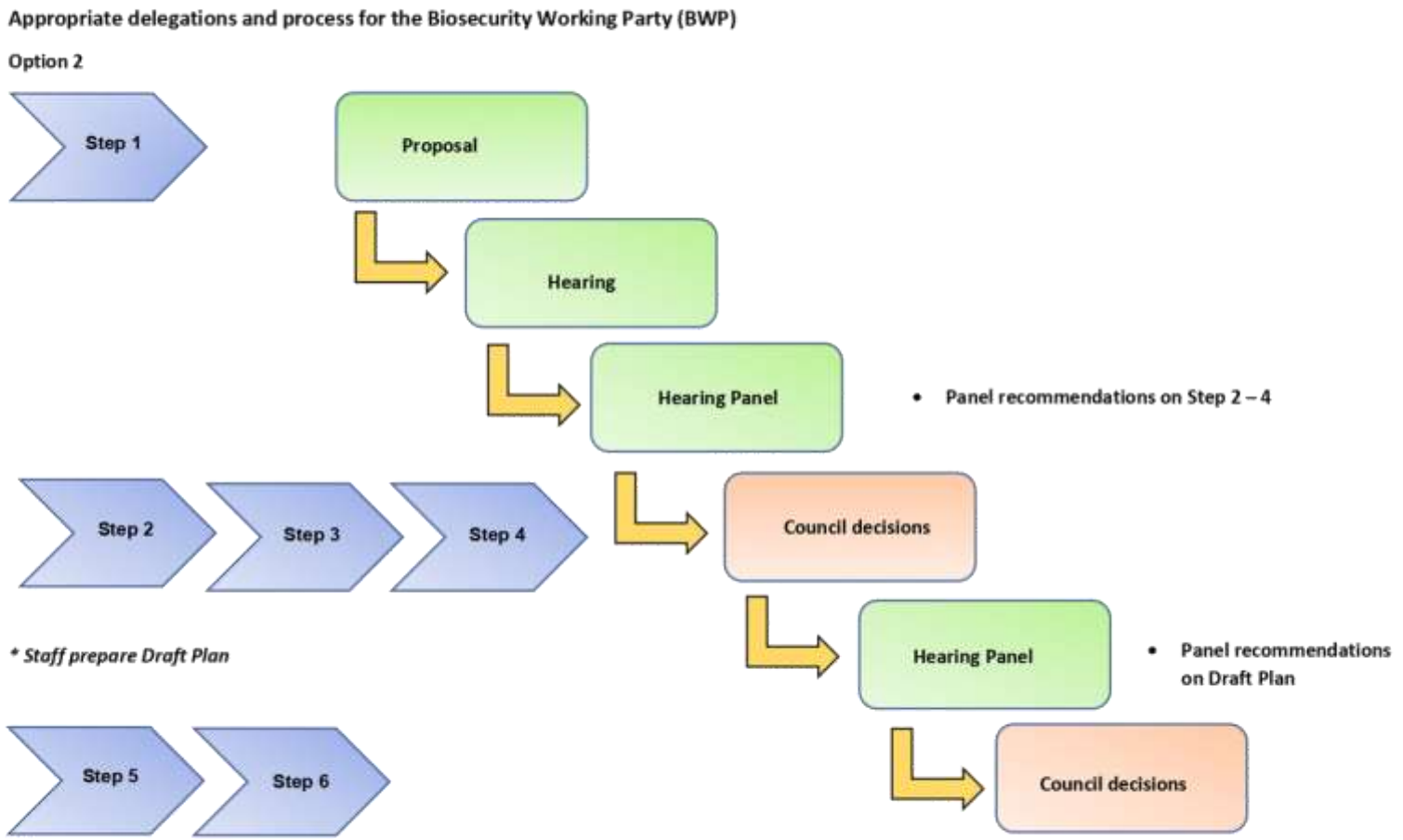
Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

1⇩ Appropriate delegations and process for the Biosecurity Working Party

2⇩ Proposal Requirements


Appropriate delegations and process for the Biosecurity Working Party (BWP)
Option 2
Step 1
Proposal
Hearing
Hearing Panel
• Panel recommendations on Step 2 – 4
Step 2
Step 3
Step 4
Council decisions
* Staff prepare Draft Plan
Hearing Panel
• Panel recommendations on Draft Plan
Step 5
Step 6
Council decisions

70 First step: plan initiated by proposal

(1) The first step in the making of a plan is a proposal made by—

(a) the council; or

(b) a person who submits the proposal to the council.

(2) The proposal must set out the following matters:

(a) the name of the person making the proposal:

(b) the subject of the proposal, which means—

(i) the organism proposed to be specified as a pest under the plan or the organisms proposed to be specified as pests under the plan; or

(ii) the class or description of organism proposed to be specified as a pest under the plan or the classes or descriptions of organisms proposed to be specified as pests under the plan:

(c) for each subject,—

(i) a description of its adverse effects:

(ii) the reasons for proposing a plan:

(iii) the objectives that the plan would have:

(iv) the principal measures that would be in the plan to achieve the objectives:

(v) other measures that it would be reasonable to take to achieve the objectives, if there are any such measures, and the reasons why the proposed measures are preferable as a means of achieving the objectives:

(vi) the reasons why the plan is more appropriate than relying on voluntary actions:

(vii) an analysis of the benefits and costs of the plan:

(viii) the extent to which any persons, or persons of a class or description, are likely to benefit from the plan:

(ix) the extent to which any persons, or persons of a class or description, contribute to the creation, continuance, or exacerbation of the problems proposed to be resolved by the plan:

(x) the rationale for the proposed allocation of costs:

(xi) if it is proposed that the plan be funded by a levy under section 100L, how the proposed levy satisfies section 100L(5)(d) and what matters will be specified under section 100N(1):

(xii) whether any unusual administrative problems or costs are expected in recovering the costs allocated to any of the persons whom the plan would require to pay the costs:

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: AN INTRODUCTION TO THE CATCHMENTS POLICY IMPLEMENTATION WORK PROGRAMME

Reason for Report

1. This item provides an overview of the work of Council's policy implementation teams, the structural reorganisation that led to development of these teams and the drivers, focus and priorities of the work.

Executive Summary

2. HBRC has a Regulatory Policy Implementation team (RI) situated in the Policy and Regulation Group, and a Catchments Policy Implementation team (CI) situated in the Integrated Catchment Management Group. These teams work together as a virtual team and across other sections of council.
3. While this paper primarily refers to the work in the CI team, it touches on the work in the RI team.
4. The current context is one of growing complexity and regulatory requirements for landowners. This generates potential for confusion and stress in the farming community.
5. Part of the role of these teams is to work with other primary sector organisations, rural professionals and landowner groups (particularly catchment groups) to ensure clear, consistent and staged messaging to help people navigate a path through these requirements and to engage with the "why". The primary reason for growing requirements is the issues that exist and outcomes needed at the sub-catchment level.
6. This paper contains more detail on the work associated with new roles within the team focused on TANK and Tukituki catchments, as Farm Environmental Management Plan (FEMP) and Water Efficiency work has been reported to this committee in recent months.

Strategic Fit

7. The HBRC Strategic Plan 2020-25 has the mission statement "Enhancing our Environment Together". "Together" requires a joined-up approach across teams within council, and an approach which draws catchment communities together to strengthen connections to their awa (river) and collectively work on issues that will improve the health of their catchments. This builds on the good work done by individual approaches and actions on a farm by farm basis.
8. The work of CI connects catchment communities to catchment issues to bring about visible improvement.
9. The work of the team is primarily in the Strategic Plan focus areas of land (climate smart and sustainable land use) and water (quality, safety and climate-resilient security) and contributes to the following strategic goals and objectives from the Strategic plan listed below.

Strategic goals

10. By 2050, there is an increasing trend in the life-supporting capacity of all of the region's degraded rivers and major streams.
11. By 2025, Land Use Suitability information is available to all landowners to inform smarter land use.

12. By 2025, all farms, orchards and vineyards operate under a Farm Environment Management Plan or an independently audited industry best-practice framework.

13. By 2030, all land-users in critical source areas have phosphorus management plans being implemented, with at least 50% of highly erodible land treated with soil conservation plantings

14. By 2025, catchment management plans are established to target improvements on land that lead to water quality improvements

15. By 2050, there are 50% less contaminants from urban and rural environments into receiving waterbodies.

Strategic Objectives

16. That Hawke's Bay farmers and growers understand their environmental impacts, what they can do to reduce these, and are implementing good management practice on-farm.

17. That land use is managed to ensure pathogens and contaminants are being reduced, and water is being allocated sustainably to highest value use.

Other legislated drivers for the work

Freshwater Farm plans

18. Resource Management Act 2021 Part 9A outlines requirements for the development of a framework for Freshwater Farm Plans which will be required nationally.

19. A proposal for a framework and more detailed regulations to support the development of Freshwater Farm Plans nationally is currently out for consultation. This proposal includes a role for council to provide a catchment context to farmers, farm plan providers and certifiers so that plans can be tailored to address catchment specific issues.

Tukituki Plan Change 6

20. In 2015 the Change 6 to the Regional Resource Management Plan (RRMP) for the Tukituki catchment became operative. This required Farm Environmental Management Plans to be developed for each farm over 10ha in the catchment by May 2018. There are a range of other regulatory requirements including thresholds, triggers and dates for requiring consents, and requirements for stock exclusion from waterbodies.

21. Each regulatory requirement has needed a program of communication, follow up and coordination of work across various council teams. This is ongoing.

22. While the plan took a property specific regulatory approach to set bottom line expectations for stock exclusion and to manage high instream nitrogen levels in sub-catchments and individual properties, instream dissolved reactive phosphorus (DRP) is treated differently as it could not be quantified and managed by rules that seek to manage phosphorus (P) loss from land at a property scale. P loss still needs to be managed however, and the Board of Inquiry accepted that managing P loss required a more flexible farm specific approach requiring farm planning to address critical source areas on farm for P management.

23. Policy TT5 1.f also requires HBRC to provide land advisory services and incentives and prioritise non-regulatory efforts on high P sub-catchments to work with the community and collaborate with the primary sector. Part of this requires us to encourage industry good practice and identification of critical source areas to reduce P loss.

24. Work in priority sub-catchments (places), with catchment communities (people) to identify critical source areas and encourage industry good practice and practices that go beyond regulatory bottom lines will deliver on this policy.

25. Rules and incentives alone will not be enough to reach the instream DRP targets in exceeding sub-catchments. Collective catchment engagement and action on the issues is needed.

TANK Plan Change

26. The notified draft Change 9 to the RRMP (TANK Plan Change) contains map schedules of sub-catchment issues and priorities. The proposal developed by the farmer reference groups for a catchment collective approach had unanimous support from the TANK stakeholder group. This raised community expectations for HBRC support for the growth and development of catchment collectives to address sub-catchment issues. Such support is imbedded in the draft TANK Implementation plan. The role of council and the form of support is outlined in the 2018 report by Connelly which outlines barriers and risks to adoption of proposed mechanisms within the TANK Plan Change and focuses particularly on the requirements for success of catchment collectives. https://www.hbrc.govt.nz/assets/Document-Library/TANK/TANK-Key-Reports/SD-18-007-TANK-Barriers-Report-2018.08.27.pdf

27. The sub-catchment priorities and the catchment collective approach are unlikely to change through the remaining TANK hearings process.

Essential Freshwater package of reforms

28. This package of reforms was introduced on 3 September 2020. It includes regulations requiring stock exclusion from water bodies, and National Environmental Standards (NES) covering a range of other activities such as intensive winter grazing of forage crops, stock holding areas, land use intensification, nitrogen fertiliser use.

29. These requirements require interpretation, clarification and communication to landowners.

30. The first requirements of concern to farmers have been those related to intensive winter grazing (IWG). This is because decision making on crop location and some management factors are locked in almost a year in advance of the crop being grazed.

31. Central government now requires quarterly reporting from regional councils on monitoring and actions taken in relation to IWG. The first report was 1 August 2021.

Background

Relevant History

32. The National Policy Statement for Freshwater Management 2020 (NPS-FM) requires that all councils in New Zealand must have statutory plans for all catchments notified by the end of 2024.

33. Prior to this requirement Council had begun a rolling review of the RRMP by catchment. The first of these catchment-based plan changes to the RRMP was Change 6 to the RRMP for the Tukituki catchment which was made operative by HBRC in September 2015 and then required coordinated implementation.

34. Ahead of the first Tukituki regulatory deadlines in May 2018 the coordination of implementation in that catchment was largely led by the Land Management team and a “key practitioners” group within council. In particular, the Land Management team created an awareness of the Tukituki plan focusing on the priority sub-catchments and worked with the primary sector and potential farm plan providers to develop initial processes and external capability for Farm Environmental Management Plans (FEMPs) to be prepared.

35. Following the 2018 first regulatory deadlines (requiring FEMPs) there were several changes brought in by the 2018 HBRC Long term plan (LTP):

    35.1. Land Management became three zone-based Catchment Management teams and refocused on individual farmer contact in erodible areas of Hawke’s Bay to drive more on-ground erosion control work to deliver on expectations enabled by the newly established Erosion Control Scheme

    35.2. A project manager role was created for the FEMP work which was ongoing and needing further development. This role sat within the client services team alongside Heatsmart

35.3. A Principal Advisor Policy Implementation role was established in the regulation group to focus on coordinating implementation of Tukituki regulatory requirements as these became due.

36. Following a review process there was a further reorganisation of the Catchment Management team structure in 2020. Some reasons for this were:

36.1. The work of the Erosion Control Scheme and erosion control work was the dominant focus of the catchment teams, and homogenous in its policy and conditions across the region. It required consistency of processes and efficiency and clarity of approach which would be best served by a single team in three locations rather than three teams

36.2. At the same time there was a recognition of gaps left from the work the Land Management Team had previously done and an environment of increasing demands and complexity. These were:

36.2.1. Work required outside of erodible areas, in the more intensively managed land with water quality issues other than sediment

36.2.2. Targeted development and promotion of key good management practices to deal with these other issues

36.2.3. An approach that goes beyond regulation and individual incentives for on-ground work to bring catchment communities together to collectively address issues that vary at the sub-catchment level

36.2.4. A need to provide support for people to grow understanding, clarity and engagement with catchment issues and to navigate through the complexity of growing requirements.

37. Since the last catchment management team reorganisation in 2020 a CI team has gradually been brought together around this work. There are several connected strands to this work.

The team comprises

38. The 0.4 FTE Water Management advisor role focused on water efficiency work. Last update on this work was given to the 12 May 2021 EICC meeting

39. Farm Environment Management Plans (FEMP). Two roles working on the FEMP project delivery brought across from Client services team following a review. Last update was given to EICC on 3 February 2021.

40. Two Senior Catchment Advisor roles that were due in the last LTP, but delayed until February this year to assist overall HBRC financial conservation in the last financial year. These roles are focused in the Tukituki and TANK catchments mainly working with sub-catchment communities.

41. One Science Translator role presently being recruited and funded from an existing repurposed role.

Regulatory Policy Implementation work

42. This connected team comprises of two roles being a Principal Advisor for policy implementation (in place since 2018) and a Senior Regulatory Advisor (in place since 2020). These two roles are focused on coordinating cross council workstreams to ensure the timely implementation of both national and regional legislative regulatory requirements as prescribed through NES and Regional plans.

43. The RI teams internal focus is to ensure that the council has the necessary resources and processes in place to be able to implement the regulation required by the Regional Plans, NES and s.360 regulations, as well as ensuring that relevant staff (mainly regulatory), have an understanding of Council's obligations in implementation and receive any required training or upskilling to enable them to complete their roles successfully. The

Senior Regulatory Advisor also provides technical expertise for the wider regulation group and the FEMP project team, regarding farm systems and nutrient budgeting.

44. The RI teams external focus is to ensure that the requirements of Regional Plans, NES and s.360 regulations are communicated clearly to the affected communities. The main focus since 2018, has been predominantly in the Tukituki catchment and the regulatory requirements for FEMPs and production land use resource consents. This has been achieved by close collaboration with the CI team.

45. When the TANK plan becomes operative, the RI team will co-lead the internal cross council implementation team to ensure that the new rules are understood and communicated to both internal and external stakeholders.

46. Since the introduction of the NES for freshwater in September 2020, the team has also been heavily involved in the interpretation of what these new standards will require from the council and communicating this to both internal staff and external stakeholders. The team also represents the council on many of the national working groups established through both MfE and the regional sector to determine the implications of these new standards and interpret how they will impact on both council and the communities in our region.

47. As with the CI team, the RI team has a role to play in the development of Kotahi. As the plan is developed, the RI team will work with other teams across council to ensure that the correct processes and resources are in place to successfully implement the plan and that resources are developed to clearly communicate the objectives of the plan to the wider community along with any regulatory requirements.

Discussion

48. As the FEMP and water efficiency work has been reported in recent months the focus of this discussion will be the catchment work undertaken by the new roles within the CI team in recent months and the priorities of this work for the year ahead.

Focus of the work

Priority places and people - Catchment groups/Collectives

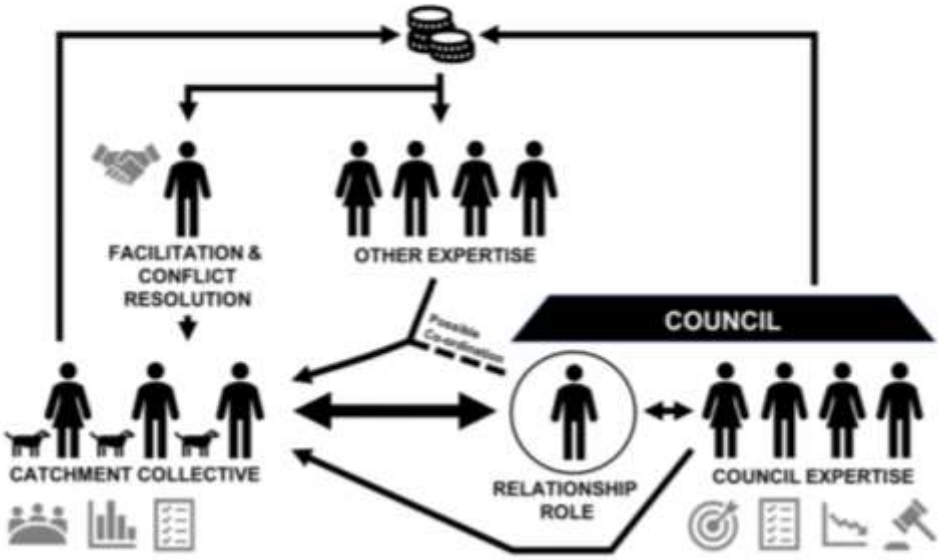
49. Two Senior Catchment Advisor roles are focused in Tukituki and TANK catchments. In line with the requirements of the Tukituki and TANK plans outlined earlier there is a focus on supporting the growth and development of catchment groups. These groups engage catchment communities in building collective understanding and work within catchments. There are successful examples of such groups in Hawke's Bay eg Whangawehi.

50. The starting proposition for HBRC involvement is a group that is self-motivated, and the aim is to support their development to becoming self-sufficient. This is a more sustainable model with broader reach than Council driving group activities. Groups will also be prioritised where their aims align with HBRC's, to improve land use or water quality. Catchment groups commonly form with this aim, but broader social benefits can also occur. There are also sub-catchment priorities based on current condition.

51. There is currently a growing movement of catchment group formation across New Zealand. Other agencies such as MPI, Landcare Trust and Beef and Lamb have an interest in this work. Part of the role of HBRC in managing relationships with catchment groups is to broker support from other sources and regional coordination of support from various agencies so that there is clarity rather than confusion for landowners on available support.

52. The diagram below from Connelly 2018 describes the council "Catchment Collective" support role required in the TANK catchments.

Figure 17. Visual representation of how the Catchment Collectives should operate in conjunction with other individuals and organisations.



Five main nodes of people (group or individuals) are identified in the diagram: The Catchment Collective itself, Council expertise; a *relationship role* at Council (which is shown in a circle to highlight its importance; other expertise; and independent facilitation and conflict resolution. The elements highlighted in grey indicate the various elements of the possible Catchment Collective agreements described in Table 1.

53. In particular, recognising and supporting local leadership development within sub-catchments and providing catchment context will be important. The Science Translator role will underpin and support the work of the Catchment Advisors in these catchments by making the resource of HBRC science information accessible and understandable to landowners at the sub-catchment level by user testing and adapting the information with catchment groups.

54. The Science team is currently well focused on supporting the large amount of policy development work which is underway. The Science Translator shortcuts that process by taking the issues clearly and directly to the catchment communities we are working with.

Priority Practices – Good management practice

55. Some practices have a potential disproportionately large effect on water quality. A focus on some of these key practice improvements is another area of focus. Intensive winter grazing (IWG) of forage crops is the one that is a current focus of work.

Catchment based work from February to present

Intensive winter crop grazing

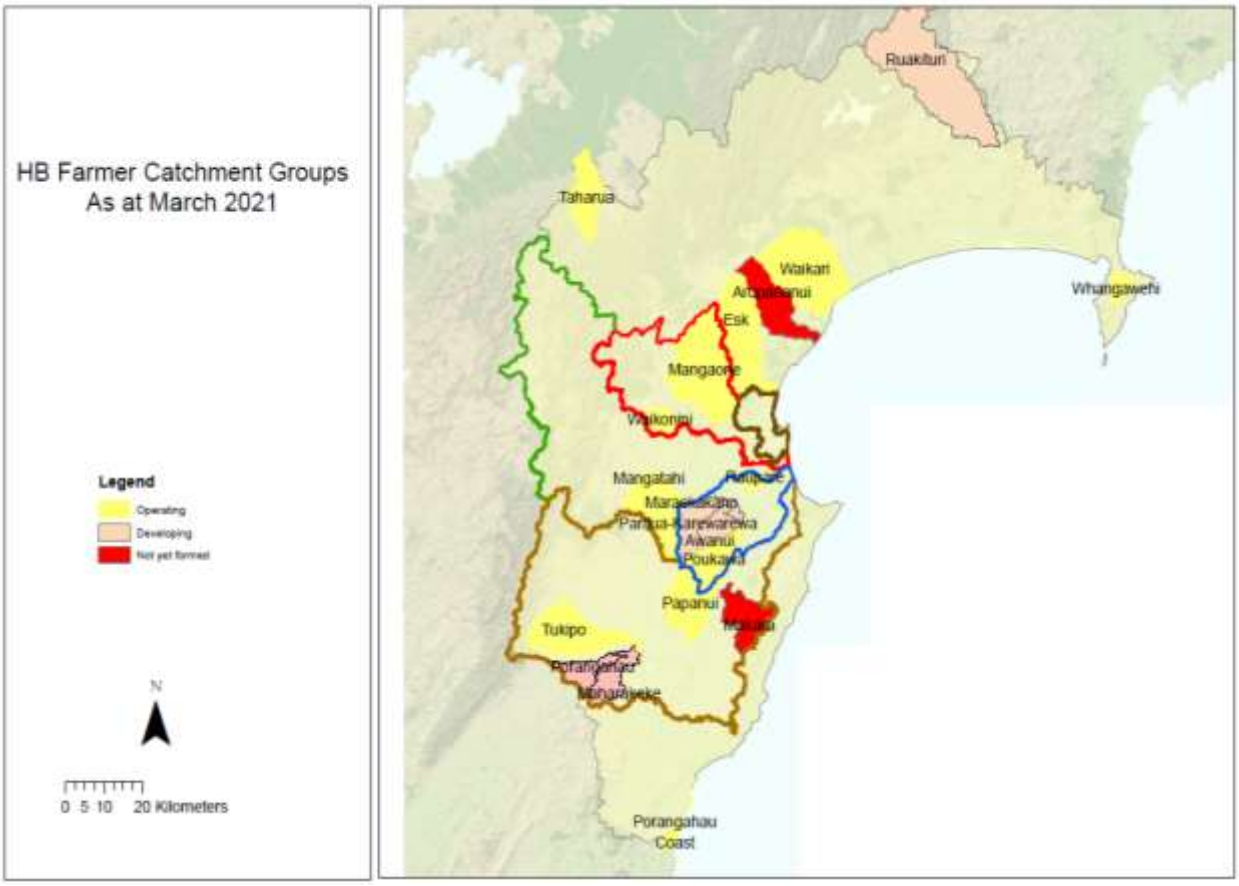
56. A coordinated IWG campaign has been designed and delivered, with communications through various media and field-days and coordination and reporting of activities to central government. There were 9 field-day, group presentations, or catchment group sessions presented on this across the region to communicate expectations for winter crop management. There was a joint approach to these field days with other primary industry groups and vets to include animal welfare messages were covered.

Catchment group work

57. The team has made a good start since February, connecting with and offering support to the various catchment groups in Tukituki and TANK catchments and across the rest of the region. This has also involved working with and supporting groups in erodible areas with existing relationships to the catchment delivery team. Support has included sessions

on a range of topics requested by the groups and sessions to help clarify and agree on purpose at the formation stage.

58. A stocktake of these groups contacted show 26 groups across the region at various stages of development from expressing an interest in formation to well-formed with a legal structure in place such as an incorporated society. There are currently 6 groups in TANK out of 41 sub-catchments and 7 groups in Tukituki out of 17 sub-catchments.



Priorities for the year ahead 2021-22

Practices

59. IWG work to continue with a further campaign of delivery through the season to support farmers with clear information at key decision times. This links IWG with developing national freshwater farm plan requirements.

60. Development of a project focused on nitrogen management in arable systems in the TANK area in collaboration with industry stakeholders.

Catchments

61. Continue development of support packages for catchment group startup, growth and development. These will include workshops, training and access to information.

62. Begin a programme across TANK subcatchments, raising awareness of subcatchment priority issues, TANK plan and the catchment collective opportunity. There will be a pilot project supported by the Science Translator with two subcatchments to develop, test and refine communication of subcatchment issues. This will then be replicated for other sub-catchments. Provision of catchment context material is also a proposed requirement for regional councils in the current national freshwater farm plan documentation. The Science Translator will focus on developing supporting material in TANK catchments in the first year before moving on to other areas.

63. Build a network structure between catchment groups within major catchments and regionally to bring catchment group leaders together to create an accelerated learning

environment for catchment group development. The first workshop is scheduled for 21 September.

64. Begin developing a relationship between catchment groups and a Tukituki reference group to gain feedback on implementation effectiveness.

Work with implementation partners

65. Both implementation teams (Catchments and Regulatory) will work with rural professionals, primary sector industry bodies and organisations to ensure alignment and work to resolve issues so that landowners receive clear and consistent messages to help navigate a path through requirements. A Pan Primary Sector group will be re-formed to assist this.

Ongoing plan development

66. Connection and contribution to Kotahi plan development to ensure plan is able to be implemented.

Next Steps

67. Future delivery of catchment-based plans will present growing needs for internal and external coordination of catchment place-based implementation. The need for this overall coordination of TANK implementation as that plan comes on stream has been recognised across HBRC teams with identified responsibilities in the TANK draft implementation plan. There is a position for an overall TANK project coordinator in year 3 of LTP to deal with that.

68. Action plans – The National Policy Statement for Freshwater Management (NPSFM) 2020 recognises that catchment-based plans need to be implemented and put into action. This signals a future requirement for more tangata whenua and community involvement and ownership in development, review and improvement of these implementation plans which are labelled "action plans". Staff are exploring ways that this can be achieved. What can be signalled is that in future, the development of, and then implementation of Kotahi will require more dedicated internal and external coordination.

Decision Making Process

69. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the "*An Introduction to the Catchments Policy Implementation Work Programme*" staff report.

Authored by:

Louise McPhail
PRINCIPAL ADVISOR (POLICY IMPLEMENTATION)

Brendan Powell
MANAGER CATCHMENTS POLICY IMPLEMENTATION

Kate Proctor
SENIOR REGULATORY ADVISOR

Approved by:

Katrina Brunton
GROUP MANAGER POLICY & REGULATION

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s - There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: TUKIPO WETLAND

Reason for Report

1. This item provides an update on the successful delivery of the 1.6ha constructed wetland in Tukipo following Hawke's Bay Regional Council committing $100,000 of the Recovery Fund to this project in the 2020-21 financial year.

Background

2. Ambitious nitrogen targets have been set in the Tukituki Plan, and in some cases require instream Dissolved Inorganic Nitrogen (DIN) levels to be more than halved.

3. Fonterra included the Tukipo catchment to be part of their Sustainable Catchments programme, due in large part to proactive work from the Tukipo Catchment Care Group (TCCG). The Tukipo sub-catchment was sitting at 2.32 mg/l, which is almost 3 times over the 0.8 mg/l DIN target and indicated a 66% reduction in instream DIN levels would be required.

4. Ongoing research has proven the effectiveness of constructed wetlands at removing nitrogen from waterways via biological conversion (microbial denitrification) rather than plant uptake. This confirms that a strategic network of constructed wetlands, in combination with on farm improvements around nutrient management, may help achieve the ambitious nitrogen reduction targets.

5. The Council Tukituki implementation team believe that constructed wetlands may form a key part of the strategic Tukituki response, and are very supportive of the constructed wetland initiative. It is hoped that the outcomes from this project will provide a model that is transferable to other properties in Hawke's Bay. A well-designed constructed wetland that is sized to 1% of the catchment area can remove 20-30% of the nitrogen passing through it.

6. Fonterra provided HBRC and the TCCG funding to undertake a scoping exercise to identify willing landowners who had suitable sites to build a constructed wetland to achieve DIN reduction on a catchment scale ($30k). A further $226k was then provided to design and construct a wetland on the most promising site.

7. Over this same time period, NIWA obtained funding from MPI's Sustainable Land Management and Climate Change: Freshwater Mitigation Fund to comprehensively monitor 6 constructed wetlands to collect high quality data to refine our understanding on wetland performance and help improve the wetland modules available in Overseer or for use in other nutrient modelling approaches. The two projects aligned and so NIWA designed the Tukipo wetland so that it could be used in their national project.

8. Following completion of the scoping exercise a preferred location was selected that had full support from the landowner to construct a 1.6ha wetland to capture and treat water from a 180ha catchment. The wetland was designed larger than originally expected in order to meet requirements for inclusion in the national NIWA study.

9. To fit in with project timelines and due to COVID-19 lockdown in 2020 preventing site visits, the wetland design work had to be completed remotely and was based off LiDAR (remote sensing using pulse lasers to measure elevation) which gave the most accurate data set available at the time.

10. Prior to construction beginning the design was double checked with a surveyor building a 3D model for machinery to run off. However, this process revealed that the LiDAR data

underestimated the volume of earth that needed to be moved. This resulted in the construction costs increasing to exceed the available budget.

11. A decision was made to proceed with the construction to meet project timeframes. This meant the wetland earthworks would be completed within available budget, but the site could not have been planted with the correct wetland plants needed to ensure a highly functioning constructed wetland in time to be part of the NIWA monitoring project, unless additional funding as obtained.

12. To fill the budget gap, a paper was successfully presented to the Corporate and Strategic Committee on 3 March 2021 seeking $100k to be committed from Councils $1m Recovery Fund to allow for the complete delivery of this project to ensure the wetland could be created within the timeframes needed for inclusion into the NIWA national monitoring programme.

13. Prior to this decision the constructed wetland project had been exclusively funded by Fonterra (approx. $250k), with Council only committing a small amount of staff time. Councils' investment provided an opportunity to further collaborate with national organisations to lead and deliver an exciting research and development project. The results of which could provide a model that would add significant value to how we target nitrogen reduction throughout the region and provide a more holistic understanding of the water quality benefits derived from wetlands. It would also provide a local farm feature for the Tukituki community to consider.

Discussion

14. Construction of the wetland was completed in May 2021 which included the planting of approximately 24,000 native wetland plants. Further details on the development of the wetland will be presented during the Environment and Integrated Catchment Committee meeting.

15. A successful planting day was held involving Tukipo Catchment Care Group and a range of HBRC from Regulation, Consents/Compliance and Catchment Delivery.

16. HBRC Comms Team prepared a media release covering the successful delivery of the project that highlighted the collaborative approach between key organisations and landowners to investigate possible solutions to current water quality issues. This was covered by multiple radio and print media as well as TVNZ One News and included staff/landowner interviews. The landowner has welcomed multiple calls from other interested farmers based on his interview.

17. NIWA are committing their expertise and the equipment required to continuously monitor flow, nitrate, turbidity and floods, alongside covering the laboratory costs for monthly monitoring at the wetland inflow and outflow for three years with monitoring set to begin late summer. The expectation is that a well-designed wetland that is sized to 1% of the catchment area can remove 20-30% of the nitrogen passing through it.

18. The collaborative approach taken to deliver this project has helped build and strengthen relationships with rural landowners in the region, creating positive solution focused discussions about how to improve water quality.

19. Hawke's Bay region has a paucity of functioning wetlands and the establishment of this new wetland will also be of significant value to the region for biodiversity through increased habitat.

Next Steps

20. Regional Councils and NIWA are exploring how best to provide nitrogen credits to farmers who are using constructed wetlands to help meet their nitrogen reduction targets.

21. Fonterra are interested in committing further funding for projects targeting water quality improvement in the Tukituki catchment. We are currently in discussions around funding a scoping exercise for the entire Ruataniwha Plains, using Lidar and land use layers to identify optimum areas for locating catchment scale constructed wetlands for Nitrogen

stripping. This approach will seek to identify the best locations for a strategic network of constructed wetlands of various sizes on both private and HBRC owned land.

Decision Making Process

22. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the "Tukipo Wetland" staff report.

Authored by:

Dr Andy Hicks
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WATER QUALITY AND ECOLOGY

Thomas Petrie
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& ENHANCEMENT PROJECTS

Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED
CATCHMENT MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: UPDATE ON THE 3D AQUIFER MAPPING PROJECT (SKYTEM)

Reason for Report

1. This item provides the Committee with an update on the progress of the 3D Aquifer mapping project, including revisiting the objectives and outcomes sought, timeframes, budgets and partners involved. It also provides an overview of the data collected, the analysis undertaken and presents some of the preliminary findings

Executive Summary

2. The Hawke's Bay 3D Aquifer Mapping Project (3DAMP) is a three-year initiative (2019-2022) jointly funded by the Provincial Growth Fund (PGF), Hawke's Bay Regional Council (HBRC) and GNS Science (GNS). The project applies Airborne Electromagnetic surveys (SkyTEM) technology to improve mapping and modelling of groundwater resources within the Heretaunga Plains, Ruataniwha Plains and Poukawa and Otane Basins. 3DAMP involves collaboration between HBRC, GNS and the Aarhus University HydroGeophysics Group (HGG). The programme is also supported with specialist project management services from Project Haus.

3. Between Jan/Mar 2020, SkyTEM were flown over the Heretaunga Plains, Ruataniwha Plains and Poukawa and Otane Basins by SkyTEM Australia. Within Heretaunga and Ruataniwha Plains, work is currently underway to collect additional geological data for model calibration through an exploratory drilling programme. Completion of this work is planned in stages based on the areas surveyed.

4. GNS Science have completed processing and modelling of SkyTEM data in the Poukawa and Otane Basins. This work involved removing data impacted by electromagnetic noise, developing resistivity models, and interpreting basin-wide hydrogeological characteristics. Work is underway to develop similar models within the Heretaunga and Ruataniwha Plains. This report provides an update on these work programmes.

Strategic Fit

5. This work underpins actions and outcomes listed in the 2017-2021 Strategic Plan as things that council will continue to do; and will do differently.

Water Quality, Safety and Uncertainty. Kia kounga, kia haumaru, kia pumau te pai o te wai

6. *Aquatic ecosystems are protected and enhanced for all to safely enjoy, and all water users have knowledge on what water is available to meet their needs*

    6.1. Land use is managed to ensure pathogens and contaminants are being reduced, and water is being allocated sustainably to highest value use

    6.2. Identify/protect Hawke's Bay's outstanding freshwater bodies

    6.3. Better understand trends/risks for each catchment

    6.4. Work with stakeholders in high-risk areas to design viable solutions

    6.5. Ensure efficiency of water use

    6.6. Investigate alternative sources.

Smart, Sustainable Land Use. Kia koi, kia ukauka te whakamahinga o te whenua

7. Focus on managing the effects of intensive land use/irrigation.
8. The proposal also links to Sustainable Services and Infrastructure in relation to:
    8.1. transforming natural resources to economic prosperity; along with
    8.2. providing regional leadership and enhancing relationships and partnerships (especially with identification of safe drinking water supplies).
9. Drivers include the NPS-FM and objectives set in RRMP Tukituki Plan Change 6, along with the proposed TANK plan change 9.

Background

10. The concept of using SkyTEM to map regionally significant groundwater resources was proposed by HBRC Staff during development of the Heretaunga groundwater model. This led to discussions between the GNS Science and Council on the potential application of airborne electromagnetic (AEM) technology for groundwater mapping.
11. In 2017, following discussions with GNS Science, a proposal for an AEM survey was presented to Council as part of Science's business case for the Long-Term Plan (LTP). This business case proposed to deliver a high-resolution geophysical dataset for the entire Heretaunga Plains aquifer system. At the request of the Council this was extended to include the Ruataniwha Basin and was adopted in the 2018-2028 Long-Term Plan.
12. In 2018 and 2019, HBRC engaged GNS Science and Project Haus Limited to carry out planning for the SkyTEM survey and to develop a strategy for all tasks required for processing, modelling, and interpretation of SkyTEM data, including refinement of groundwater knowledge and information (such as refining geological and groundwater models).
13. During 2019, with assistance from GNS Science and Project Haus Limited, HBRC applied to the Provincial Growth Fund (PGF) for additional funding. The application included surveying the Poukawa and Otane Basins in addition to the Heretaunga and Ruataniwha Plains. This was notified as successful in June 2019. In October 2019, SkyTEM Australia Pty Ltd was contracted by HBRC to acquire AEM data using SkyTEM technology. This survey was flown during January and February 2020.
14. GNS Science have completed processing and modelling of SkyTEM data in the Poukawa and Otane Basins. This work involved removing data impacted by electromagnetic noise, developing resistivity models, and interpreting hydrogeological characteristics for the groundwater resources. Work is underway to develop similar models within the Heretaunga and Ruataniwha Plains.
15. A programme of work is planned to update the Heretaunga numerical groundwater models based on the hydrogeological frameworks derived from interpretation of the AEM data. SkyTEM data is currently being used to map the base of the aquifer in the Bridge Pa area, as part of model developments for the Te Whakaheke o Te Wai programme.
16. The AEM data, combined with existing borehole data, provides considerable improvement in understanding of the hydrogeologic framework at a level of accuracy not previously achievable. Such refinements aim to expand the utility of predictions made using numerical groundwater models and provide water-resource managers with increased knowledge upon which their decisions are based.

Objectives and benefits of SkyTEM

17. The primary objective of the 3D aquifer mapping project is the provision of improved scientific data and information, leading to accurate and reliable groundwater management decisions. This information is vital to ensure the health and well-being of groundwater resources are protected (including surface water connections), drinking water is safe, and users have confidence in the reliability of water supply.

18. Airborne Electromagnetic data is needed to help understand the location, extent, and physical properties of hydrogeological layers (i.e., aquifers and confining layers). The hydrogeological framework is a fundamental source of information for quantitative and qualitative groundwater analysis. Poorly conceptualised settings based on limited knowledge of the hydrogeological framework can lead to incorrect parameterisation and erroneous or misleading model predictions, and ultimately sub-optimal groundwater management decisions.

19. The hydrogeologic framework for most groundwater analysis is traditionally based on lithological (description of the geological properties) borehole logs, however, scarcity of lithological logs (particularly at depth or over difficult terrain) and low-quality of logging means existing information is often missing or insufficient to fully capture regional and local-scale geological structures. This, coupled with the high cost associated with drilling and high cost of professionally logging exploration wells, means characterising groundwater systems with a dedicated drilling programme is neither practical nor feasible.

20. Airborne Electromagnetic data provides a cost-effective, non-invasive data collection method to map large areas with a higher density of data coverage and the ability to cover areas with rugged terrain with minimal impacts to local activities.

21. The Hawkes Bay Regional Council has invested significant amount of staff time and cost into development of numerical groundwater models for the Heretaunga and Ruataniwha Plains. Results of these models underpin policy developed for Plan Change 9 and Plan Change 6 respectively. Understanding the complex groundwater and surface water interactions in the Heretaunga and Ruataniwha Plains has allowed managers to develop defensible and sound policy in support of these plan changes. Furthermore, simulation of management scenarios, aimed at balancing demand for water supply with impacts on the environment, were critical in setting allocation limits.

Who's involved?

22. The 3D Aquifer Mapping Project is a three-year initiative (2019–2022) jointly funded by the Provincial Growth Fund (PGF), HBRC and GNS Science (GNS). The project applies SkyTEM technology to improve mapping and modelling of groundwater resources within the Heretaunga Plains, Ruataniwha Plains and Poukawa and Otane Basins. This project involves collaboration between HBRC, GNS Science and the Aarhus University HydroGeophysics Group (HGG). The programme is also supported with specialist project management services from Project Haus.

Budgets and funding

23. The budget for the 3D Aquifer mapping project is $4.86 million (Table below). This includes costs for the SkyTEM survey, additional data collection, such as drilling, resistivity and geological modelling, and refinement of the Heretaunga numerical groundwater model. Provision is made for all services and works within the Council's Long-Term Plan. This project is funded through a combination of capital loan funding, general rates, GNS in-kind contributions and PGF funding.

Multi-year project costs (Grand Total by vendor/provider)

						TOTAL
External Costs	Project Haus	GNS	SKYTEM	Other		
SkyTEM Project Management	98,560			47,725		
SkyTEM Drilling				900,000		
SkyTEM Survey		88,500	1,166,227			
SkyTEM Geo + GW Modelling		1,849,000				
	98,560	1,937,500	1,166,227	947,725	-	$ 4,150,012
In-kind (internal time)		GNS			HBRC	
Sky TEM project mgmnt						
SkyTEM survey						
SkyTEM data collection						
SkyTEM Geo + GW Modelling						
In-kind contribution		300,000			413,184	$ 713,184
						$ 4,863,196

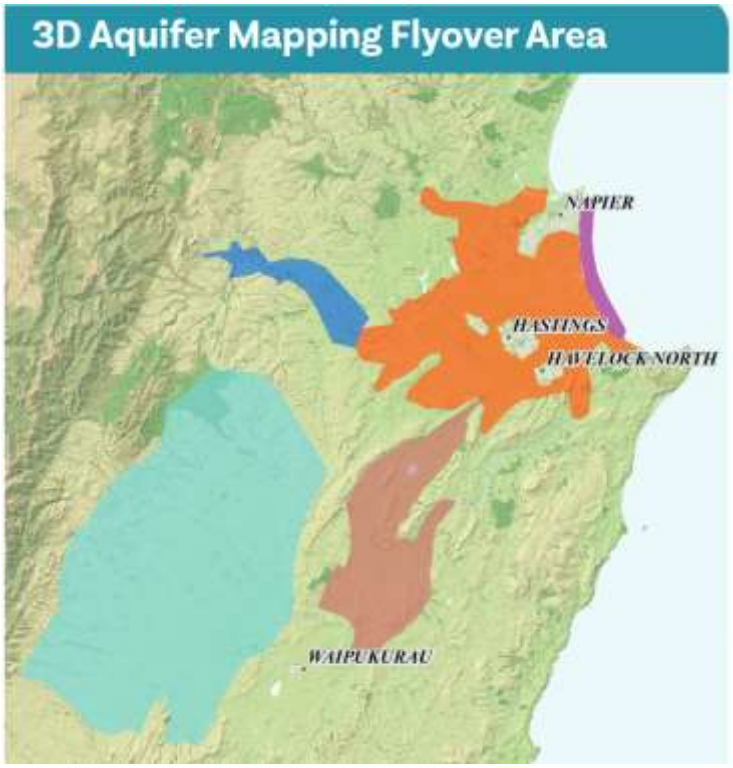
Funded by:	HBRC Capital loan funding	$ 1,996,012
	HBRC General Rates	$ 413,184
	PGF funding	$ 2,154,000
	GNS in-kind	$ 300,000
		$ 4,863,196

Discussion

Summary of SkyTEM survey and current results

24. In October 2019, SkyTEM Australia Pty Ltd was contracted by HBRC to acquire airborne electromagnetic (AEM) data using SkyTEM technology. This was flown using helicopter during the period 12 January to 10 February 2020 using a New Zealand company Heli A1 Limited.

25. The survey acquired 7,786 kilometres of transient electromagnetic (TEM) and magnetic data. The Heretaunga surveys delivered 2,540.5km of data along transects spaced approximately 170 metres apart. The Ruataniwha survey delivered 3884.2km of data along transects spaced approximately 250 metres apart. The Poukawa survey delivered 1220 km of data along transects spaced 200 metres apart. A further 69.6km of data was collected offshore spaced 400m apart.



26. GNS Science have finalised processing and resistivity modelling for the Poukawa and Otane Basements and are working on finalising interpretations from this data set. The SkyTEM survey reveals a detailed 3D resistivity picture of the subsurface which in some locations extends down to 490 metres below land surface.

27. The resistivity data has been used to delineate the Poukawa and Otane basins into three major hydrogeological units (HU) of which two of these units are further split into two hydrogeological subunits (sub-HU). The delineations enable a view of the subsurface geology and hydrogeology not previously possible and provide significant refinement of the existing understanding of groundwater resources in the Poukawa and Otane basins. These hydrogeological units will be demonstrated during the meeting.

Summary of the work programme

28. The work programme for the 3D Aquifer Mapping project commenced September 2019 and completion is planned for December 2022. Key milestones are:

    28.1. Complete airborne electromagnetic surveys of the Heretaunga, Ruataniwha and Otane/Poukawa aquifer surveys (completed)

    28.2. Develop quality assured resistivity models from the collected SkyTEM data (Work In Progress - WIP)

    28.3. Undertake a simple groundwater-relevant assessment of the resistivity models for Heretaunga Plains, Ruataniwha Plains and Otane/Poukawa Basin (WIP)

    28.4. Complete a more complex groundwater-relevant assessment of the resistivity models for Heretaunga Plains and Ruataniwha Plains considering factors such as confinement status and groundwater-surface water interaction (i.e., clay fraction models) (WIP)

    28.5. Develop Geological Models using the resistivity data and interpretations for Heretaunga Plains and Ruataniwha Plains, for the purposes of visualisation, conceptual understanding of the aquifer systems and for informing groundwater flow models (WIP)

    28.6. Refine existing Numerical Groundwater Models using the resistivity data and interpretations for Heretaunga Plains (WIP).

Next Steps

29. Multiple workstreams are underway including:

    29.1. An additional data collection programme – exploratory drilling and ground-based Transient Electromagnetic (TEM) Surveys are being used to constrain resistivity inversions and assist with secondary interpretations. This programme of work is nearing completion with exploratory drilling remaining for one site in the Ruataniwha Plains.

    29.2. GNS Science are processing and modelling the resistivity data for the Heretaunga Plains survey area. A draft report on these findings is expected in September for staff review.

    29.3. The 3D aquifer mapping project team (HBRC/GNS Staff and Project:Haus) have been developing a communication strategy for delivering 3D aquifer mapping products, this includes:

        29.3.1. Developing a ESRI StoryMap to present findings from resistivity modelling and secondary interpretations, explain concepts related to the methods of data collection, provide links to reports and to provide updates on the project. HBRC are looking to use a similar StoryMap template as used by the USGS for the Mississippi[1]

        29.3.2. Continuing with quarterly newsletter reports to interested stakeholders

29.3.3. Capturing digital media such as drone footage and interviews explaining the data collection methods and modelling

29.3.4. Exploring online options for visualising and interrogating resistivity data and interpretations. Staff have held discussions with two providers of geological modelling software and GNS Science are developing a prototype portal using the Poukawa data set as an additional third option.

Decision Making Process

30. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the “Update on the 3D Aquifer Mapping Project (SKYTEM)” staff report.

Authored by:

Simon Harper
SENIOR SCIENTIST

Dr Jeff Smith
MANAGER SCIENCE

Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: UPDATE ON THE WHAKAHEKE O TE WAI (TWOTW): MBIE FUNDED ENDEAVOUR PROGRAMME AND HERETAUNGA PLAINS GROUNDWATER CASE STUDIES

Reason for Report

1. This item provides the Committee with an overview on the progress of this programme, including revisiting the objectives and outcomes sought, timeframes, and partners involved. It also provides an overview of the data collected, the analysis undertaken and present some of the preliminary findings.

Executive Summary

2. The Te Whakaheke o Te Wai (TWoTW) research programme is a 5-year programme (2018-2023) funded through the Ministry of Business, Innovation and Employment (MBIE) aimed to better support water management-decisions based on an improved understanding of groundwater flow sources, pathways, and time-lags. The programme seeks to incorporate groundwater age and isotope tracers, surface and groundwater mātauranga Māori (Māori knowledge), and other data into numerical models, which are developed across a range of scales. The programme is led by GNS Science in collaboration with national and international organisations and key stakeholders.

3. The Heretaunga Plains is a critical case study for this programme and is being used to develop understandings and methodologies for groundwater system that will be extended across New Zealand. Key partners in the Heretaunga Plains case study include HBRC, Ngāti Kahungunu, and Hastings District Council.

4. Beyond the Heretaunga Plains, the programme is undertaking a nationwide sampling programme of groundwater age tracers and isotope tracers. The programme is also developing a national groundwater age model based on this nationwide sampling programme. Methods and tools to allow rapid, robust, and cost-effective building and deployment of groundwater models are also being developed.

5. To date the programme has sampled isotope, dissolved gas, and the hydrochemistry signature of surface water and groundwater within the Heretaunga Plains. This work is to refine the understanding of groundwater recharge sources, and the flow system throughout the Plains.

6. As part of the TWoTW programme, five different groundwater models are in the process of development within the Heretaunga Plains, each with a different modelling purpose, e.g., development of methods for incorporating new information from new data sources, such as SkyTEM, isotope data, mātauranga knowledge, etc. Models are also being used to test how this new information can be used to support:

   6.1. groundwater allocation limit setting

   6.2. groundwater source protection zone delineation

   6.3. estimates of lags between land use change and water quality changes

   6.4. providing a numerical voice to local concerns, and

   6.5. hypothesis testing.

7. All the model development is being undertaken in a Bayesian context, where the uncertainty of specific predictions is quantified and reduced to the extent that available data allows.

8. An archive of mātauranga Māori in the plains is being compiled. This is focusing on identifying the long-term changes in the groundwater-surface water system of the Heretaunga Plains

area. To date this work has centred around identification and mapping of features and indicators that hold significance to local iwi.

Strategic Fit

9. This work underpins actions and outcomes listed in the 2017-2021 Strategic Plan as things that council will continue to do; and will do differently:

Water Quality, Safety and Uncertainty. Kia kounga, kia haumaru, kia pumau te pai o te wai

10. *Aquatic ecosystems are protected and enhanced for all to safely enjoy, and all water users have knowledge on what water is available to meet their needs*

    10.1. Land use is managed to ensure pathogens and contaminants are being reduced, and water is being allocated sustainably to highest value use

    10.2. Identify/protect Hawke's Bay's outstanding freshwater bodies

    10.3. Better understand trends/risks for each catchment

    10.4. Work with stakeholders in high-risk areas to design viable solutions

    10.5. Ensure efficiency of water use

    10.6. Investigate alternative sources.

Smart, Sustainable Land Use. Kia koi, kia ukauka te whakamahinga o te whenua

11. Focus on managing the effects of intensive land use/irrigation

12. The proposal also links to **Sustainable Services and Infrastructure** in relation to:

    12.1. transforming natural resources to economic prosperity; along with

    12.2. providing regional leadership and enhancing relationships and partnerships (especially with identification of safe drinking water supplies)

13. Drivers include the NPS-FM and objectives set in RRMP Tukituki Plan Change 6, along with the proposed TANK plan change 9.

Overview of progress to date

14. New data from the Heretaunga Plains has been gathered and already enabled unprecedented new understanding of groundwater flow boundaries, recharge source, river-groundwater interaction, flow velocities, and mātauranga o te wai, and is being used to improve groundwater-surface water models. The next steps in the project will see this enhanced understanding through analysis of groundwater age tracer data and mātauranga Maori to be rolled out NZ-wide. Modelling work components that are currently underway to support this are further summarised below.

15. National-scale groundwater model of New Zealand (using MODFLOW 6) developed in conjunction with the NZ Water Model project (NZWaM), is incorporating nationally consistent datasets and providing seamless coverage of groundwater flow information across NZ. It also provides the foundation for the national groundwater age map and serves as an optimal starting point for the rapid generation of regional and local scale models that can be modified to address specific questions in areas of interest.

16. Our existing Heretaunga Plains groundwater model has been updated into the new MODFLOW 6 software platform, in collaboration with HBRC, allowing 'communication' between the national and local models and information transfer through aquifer model boundaries. The Heretaunga Plains model also serves for testing a range of methodologies developed to enhance the model-based assimilation of information from groundwater age and other tracer data, as well as the SkyTEM survey data.

17. Development of local groundwater models focussing on the area around Bridge Pa, with the aim of combining groundwater modelling and mātauranga Māori to give a numerical voice to the concerns of the community, and to explore how community observations of

long-term changes in the groundwater system can reduce the uncertainty of predictions used to underpin water management decisions. The methodology for this work combines five main components.

17.1. gaining an understanding of the nature of community concerns surrounding groundwater and surface water

17.2. research into the long-term changes in the groundwater and surface water system

17.3. collating all available long-term and recent data to form a conceptualisation of the groundwater-surface water system, and building a numerical model on this basis

17.4. undertaking history matching, predictive simulations, uncertainty quantification analyses, and exploring the extent to which key predictions are reduced by the information in different data

17.5. exploring the feasibility of mitigation options in the context of the understanding of the system encapsulated in the model, while acknowledging the remaining uncertainties.

18. Development of new efficient and robust approaches for source protection zone modelling addressing two fundamental problems.

18.1. Up-scaling (coarse approximations) of small-scale sedimentary features (e.g. open framework gravels) that dominate transport problems

18.2. Identifying simple and robust source protection zone delineation methods without exaggerating land required, nor underestimating risk to health, for a range of hydrogeological and water supply contexts.

19. Develop meta-modelling approaches for the Heretaunga Plains by using statistical relationships between groundwater age and other groundwater parameters, such as, distance to the coast, hydrochemistry, geology, etc to provide estimates of groundwater age in unsampled parts of aquifers. These approaches are currently being tested and developed using data sets from several regions.

20. A database of surface water and groundwater Mātauranga observations that span both space and time has been developed, including a spring stocktake whereby all known springs have been accurately mapped and identified. This has also involved archival research, working with early maps of the area located at the MTG (Napier Museum), as well as those created for the Māori Land Court hearings in the 1870s. This information is supported by aerial photographs, oral histories, and collectively provides a record of observed behaviour and long-term changes in the groundwater and surface water system.

Who's involved?

21. The TWoTW is collaborating with a number of national and international organisations and key stakeholders[1].

22. The 3D Aquifer Mapping Project (reported separately to this meeting) is providing information on the aquifer basement, and hydraulic properties for use in the models being developed. As more information comes available from the 3D Aquifer Mapping project further refinements may occur.

Budgets and funding

23. The Te Whakaheke o Te Wai (TWOTW) research programme received $9.5 million from the MBIE Endeavour Fund. HBRC provides in-kind contribution via data collection programmes and modelling support.

1 **Primary collaborators:** National Institute of Water and Atmospheric Research (NIWA, NZ), Institute of Environmental and Scientific Research (ESR, NZ), Te Tai Whenua O Heretaunga (Hawke's Bay, NZ), Victoria University of Wellington (VUW, NZ), Watermark Numerical Computing (AUS). **Additional collaborators:** Hawke's Bay Regional Council (HBRC, NZ), Environment Canterbury Regional Council (ECan, NZ), Monash University (AUS), University of Saskatchewan (CAN), Luxembourg Institute of Science and Technology (LUX), Hastings District Council (HDC, NZ), Hawke's Bay District Health Board (HBDHB, NZ), Ministry for the Environment (MfE, NZ), Ngāti Kahungunu Iwi Incorporated (NZ),

Decision Making Process

24. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the "*Update on the Whakaheke o Te Wai (TWOTW): MBIE Funded Endeavour Programme and Heretaunga Plains Groundwater Case Studies*" staff report.

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Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: UPDATE ON IRG FLOOD CONTROL RESILIENCE FUNDED PROJECTS

Reason for Report

1. This report provides an update on the four projects approved for funding as part of the Crown's Flood Control Resilience Funding with the Infrastructure Reference Group managed by Kānoa – Regional Economic Development & Investment Unit, formerly known as the Provincial Development Unit.

Background

2. Council has received IRG funding for a total amount of up to $19.2m (plus GST, if any) which is a 64% contribution to four projects.

3. Works commenced on all four projects in late November 2020.

Discussion

Project 1: Heretaunga Plains Flood Control Scheme (HPFCS) Levels of Service - $20m

4. The HPFCS Levels of Service project will review and upgrade sites across the Tūtaekurī, Ngaruroro, Lower Tukituki and Clive rivers, to increase flood protection across the scheme to a 1 in 500-year event.

5. This project is programmed over a three-year with IRG funding but will carry on after this period and will build upon existing river modelling, condition assessment and property analysis undertaken as part of the Heretaunga Plains Flood Control Scheme level of service review.

6. HBRC co-funding of $7.2 million is required to match IRG funds of $12.8 million.

7. Prioritisation of 39 stop bank sites is being established by Asset Management based on freeboard levels, risk of overtopping, consequence of failure and value of assets protected. Sites are being assessed in order of priority and at least 8 sites will be upgraded through the course of this project. Assessment and upgrade of remaining sites will continue beyond the 3-year programme.

8. HBRC has commenced works on the priority sites and 3 sites are in advanced phases with Taradale being designed by HBRC and consultants engaged to undertake investigation for Ngatarawa and Roy's Hill. Consultants are being appointed for further 2 sites, based on HBRC's Panel for Engineering Services which will be fully established mid-September.

9. To date, works completed are:

Site Name & Location	River	Works Completed to Date	Proposed Works**
Taradale Stopbank Strengthening (XS 17 - 22 LHS)	Tūtaekurī	Archaeology assessment, geophysical testing, Geotechnical investigation, Topographical survey, Preliminary Design	Increase height of stopbank for overtopping, increased width of stopbank,
Moteo Stopbank Strengthening (XS 43b - 47 RHS)	Tūtaekurī	Archaeology assessment, geophysical testing, Geotechnical investigation scoping, Topographical survey	TBC pending output from geotechnical testing and ground model

Site Name & Location	River	Works Completed to Date	Proposed Works**
Omaranui (XS 23-41 RHS)	Tūtaekurī	Archaeology assessment, Topographical survey	Increase height of stopbank for overtopping
Haumoana Stopbank Strengthening (XS 1 - 4 RHS)	Lower Tukituki	Archaeology assessment, Geotechnical investigation scoping, Topographical survey	Increase height of stopbank for overtopping
East Clive Stopbank Strengthening (XS 1 - 4 LHS)	Lower Tukituki	Archaeology assessment, Geotechnical investigation scoping, Topographical survey	Increase height of stopbank for overtopping
Pakowhai Park (XS 15-20 RHS)	Ngaruroro	Geophysical testing, Topographical survey	
Raupare Lower (XS 20-27 RHS)	Ngaruroro	Geophysical testing, Topographical survey	
Ngatarawa (XS 49 - 51 RHS)	Ngaruroro	Archaeology assessment, Geotechnical investigation underway, Topographical survey	
Roy's Hill (XS 41 - 44 RHS)	Ngaruroro	Archaeology assessment, Geotechnical investigation underway, Topographical survey	
Meeanee d/s motorway (XS 13-17 LHS)	Tūtaekurī	Topographical survey	
Haumoana Upstream of Blackbridge (XS 4 - 10 RHS)	Lower Tukituki	Archaeology assessment, Topographical survey	Increase height of stopbank for overtopping
Farndon Road Erosion	Clive	Works scoped for Engineering Panel	Scour protection to Farndon Road

*** Subject to outputs from site investigations, geotechnical modelling and any additional hydraulic modelling*

10. Another key part of work in FY 2020-21 was engagement of an ecologist to provide a biodiversity management plan and increase biodiversity at key sites, initial plans have been developed for Taradale, Moteo, Ngatarawa, Roy's Hill and East Clive berms. This work maintains a link with proposed Public Use of Rivers (PUR) project.

11. HBRC have committed to deliver eight stop bank strengthening projects over the three-year period through IRG funded works. Further, by undertaking integrity investigations of similar or higher priority sites in tandem, HBRC provides confidence in the resilience of our flood protection assets and thus achieve the objective of increasing climate resilience of HPFCS systematically. Should these investigations lead to physical work requirement, this will add to the below list.

Year	Committed Projects
1	Taradale Stop Bank (earthworks, stop bank upgrade, PUR)
1	Moteo Stop Bank (berm improvement – groynes or strategic planting; earthwork requirement being assessed as part of design)
1/2	East Clive (stop bank upgrade required following overtopping assessments; landfill on riverside presented additional challenges)
2	Clive River @ Farndon Road (erosion protection - potentially sheet piling)
2	Omarunui (stop bank upgrade required & archaeological complications being worked through)

Year	Committed Projects
2	Haumoana (stop bank upgrade required & archaeological complications being worked through)
2/3	Pakowhai Park (earthworks, stop bank upgrade, PUR)
3	Haumoana upstream of Blackbridge (earthworks, stop bank upgrade)

12. FY 20-21 expenditure was $832k against a projection of $944k.

13. The estimated value of FY 2021-22, 2022-23 and 2023-24 planned works is $10.68 million, $4.62 million and $3.9 million respectively. In 2021-22 this includes stop bank strengthening construction works on two sites (Taradale and East Clive), detailed design of five sites (based on results from geotechnical investigations), commencement of investigative work on further six sites.

14. FY 2022-23 planned works includes stop bank strengthening construction works on at least further four sites, detailed design of two sites (based on results from geotechnical investigations) and completion of environmental enhancement of 5 sites.

15. FY 2023-24 planned works includes stop bank strengthening construction works on at least further two sites and completion of environmental enhancement of 3 sites. The Upper Tukituki (UTT) Gravel Extraction project will seek opportunities to subsidise gravel extraction from this scheme with a focus on competitive tendering and supporting the local economy. Gravel extraction is required to maintain existing nameplate capacity of 1:100 level of protection within this scheme.

Project 2: Upper Tukituki Gravel Extraction Flood Control Scheme - $8 million

16. The Upper Tukituki (UTT) Gravel Extraction project will seek opportunities to subsidise transportation of gravel from this scheme with a focus on competitive tendering and supporting the local economy. Gravel extraction is required to maintain existing nameplate capacity of 1:100 level of protection within this scheme. As a consultation topic in the 2020 Long Term Plan, Council agreed to fund the HBRC co-contribution of $2.88m from the UTT scheme through a long term loan allowing the project to proceed.

17. HBRC have engaged a consultant to assist with Expressions of Interest (EOI) which will form a pre-qualification for extraction contractors to tender on reaches for extraction. The EOI shall provide contractors with testing data and prioritisation maps in order to confirm industry's demand for gravel extraction volumes both locally and further afield and give context to timeframes. It is expected that the EOI data will dictate a detailed extraction programme based on industry demand.

18. EOI's are expected to be sent out to industry late September with contract documentation to be finalised within the same timeframe. Contracts for extraction and gravel removal partially funded under the IRG programme anticipated in October 2021 for a period of 25 months.

19. To date, HBRC has completed:

    19.1. Gravel material testing programme - results will be made available to all tenderers as part of the EOI. This information has been requested and shared with several local contractors and is generally available upon request prior to submission of the EOI

    19.2. Prioritisation of key reaches – Determined on the following criteria: Freeboard (related to 100 year flood risk), Average annual flood risk (related to availability), Lateral erosion risk. This allows extraction to focus on areas which are critical to the flood protection of the UTT scheme

    19.3. Availability of gravel – based on prioritisation, data to be provided as part of EOI to tenderers and shall assist with programming. This data has also been shared with local contractors, upon request, following the last public meeting

19.4. Identification of additional access – HBRC Schemes Team assisting with landowner discussions for critical accesses

19.5. Request for Information from industry – 17 submissions received relating to cost for extraction and transportation. This data will underpin the project's rationale for reasonable subsidised costs, specifically relating to transportation of material

19.6. Public meetings with both ratepayers and contractors to provide updates on project status. Contractor representation at public meetings was attended by small and medium sized local businesses as well as larger businesses from out of the region. HBRC have also met on site with a small local contractor to better understand their business and how they might support any potential Chilean Needle Grass (CNG) studies

19.7. Assessment of known archaeological assessment sites – Working with New Zealand Archaeological Association (NZAA) to map known sites on HBRC GIS with buffer zones based on site type

19.8. Liaison with HBRC Biosecurity and AgResearch to scope a testing programme to manage CNG within the UTT scheme. Works are likely to benefit out with this programme and external funding is being considered to achieve successful outcomes

19.9. Met with both Heretaunga Taiwhenua and NKII and discussed a permanent HBRC "Kaitiaki" role funded by for supervision of the works.

20. FY 2020-21 expenditure was $298,000 and FY 2021-22 costs are estimated at $2.99 million.

21. In FY 2022-23 costs for gravel extraction are estimated at $4.712 million.

Project 3: Upper Tukituki Flood Control Scheme SH50/Waipawa Erosion - $1 million

22. This one-year project provided engineered erosion protection works on the right and left bank of the Waipawa river, immediately upstream of SH50 bridge.

23. To complete the project, HBRC Works Group installed 75 precast concrete akmon units on the left bank of the Waipawa river, carried out earthworks to cut and fill gravel to form the new river channel, including excavation, carting and shaping approximately 70,000m^3 of gravel, and installed 3,166 lineal metres of rail irons and 8,100 lineal metres of wire rope to form permeable groynes on the left and right banks.

24. An independent ecological impact assessment undertaken at the site concluded that the completed project has resulted in an overall net positive effect on biodiversity.

25. The planting of 4,700 pole trees in the berm area and a further 1,000 native trees was undertaken in partnership between Kaitiaki Rangers (Waiohiki Marae) and Works Group. Training and upskilling was provided to the Kaitiaki Rangers on this collaborative project which has received positive feedback from Kānoa due to HBRC fulfilling its social procurement outcomes to engage and upskill Māori/Pasifika businesses.

26. Project completion was completed at a total value of $1.25 million.

Project 4: Wairoa River, River Parade Erosion - $1 million

27. This one-year project programme will provide steel sheet piled erosion protection works on left bank of the Wairoa River.

28. Geotechnical investigations, design optioneering and preliminary design and detailed of the proposed sheet pile wall have been completed and the physical works contractor has procured the necessary steel sheet piles to enable a Mid-September start date (notwithstanding further delays from COVID).

29. The relocation of the Wairoa District Council watermain has been completed in collaboration with Wairoa District Council

30. The proposed steel sheet piled wall is 73 lineal metres with 12 metre screw anchors which are drilled below the existing River Parade Road.
31. The local civil engineering contracting company Lattey's Civil and Precast have been appointed to as main contractor with Wairoa based QRS providing sub-contracting services relating to civil works.
32. Planting of the upstream riverbank with the appropriate trees and bush will provide stability to the rivers edge whilst also contributing to the biodiversity of the river. This will allow safe access for the public to the river's edge and popular whitebating (Inanga) area.
33. HBRC have been engaging with local groups Tātau Tātau o Te Wairoa Trust, Wairoa Reserves Board – Matangirau (WRB) and Wairoa District Council to identify the aspirations and requirements of this project on the cultural values to the region. HBRC are in the process of undertaking a cultural impact assessment of the local Iwi groups, as well as an assessment of environmental impacts on the fish, birds and plants of the river and surrounding area.
34. FY 2020-21 expenditure was $98k, and FY 2021-22 costs are estimated at $902k.

Decision Making Process

35. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the *"Update on IRG Flood Control Resilience Funded Projects"*.

Authored by:

Martina Groves
MANAGER REGIONAL ASSETS

David Keracher
MANAGER REGIONAL PROJECTS

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: PUBLIC USE OF RIVERS

Reason for Report

1. In February 2019, a paper "Management of Public use of river berm lands update" was presented to the Environment and Services Committee advising of updating the investigation into Management of Public Use of River Berms (PUR) within the Heretaunga Plains Flood Control Scheme.

2. The purpose of this paper is to provide an update to the Committee on progress and next steps. Our intent is that this project will partly integrate with the Heretaunga Plains Flood Control Scheme Level of Service (HPFCS LoS) upgrade work co funded by the Covid Recovery Infrastructure Reference Group fund.

Executive Summary

3. In 2016 HBRC undertook a review of how its key river corridors are managed, and how our management obligations and their use by the public can be best accommodated. This was in response to increased expectations by the community in regard to the provision of space for recreational activities and the effects associated with those activities. In particular, how Council balances such effects with their other management responsibilities such as flood protection and biodiversity outcomes.

4. The primary goal of this project was to explore various management and maintenance methods for the river corridors and a review of existing and potential public use activities. The report would then provide provision of guidance on the most appropriate management methods and outline a long term plan for management.

5. An analysis report was prepared in 2018 which identifies:

   5.1. Existing activities that are undertaken in the rivers

   5.2. Effects associated with public use and access

   5.3. Preliminary assessment of methods that could be employed to manage such effects

   5.4. Preliminary assessment of potential capital projects to enhance and develop such areas.

6. The Asset Management Group has already implemented some changes to existing practice, for example:

   6.1. Grazing has been reduced and other activities trialed and changed to mowing or planting. No grazing on the Karamū Stream

   6.2. Widespread trials have been conducted on the Ngaruroro including hay bailing in areas above Chesterhope Bridge and increased planting (native) on the right bank above the SH2 bridge and Chesterhope Bridge

   6.3. A portion of the right bank of the Ngaruroro has been retired between Fernhill Bridge and the mouth and grazing has ceased here

   6.4. Ongoing planting with different natives and exotics to enhance biodiversity value

   6.5. Restricted vehicle access to some reaches of the river to decrease rubbish dumping and vandalism.

7. The PUR project has been put on hold after the adoption of the report in 2019 due to:

    7.1. Insufficient detail of the HPFCS LoS project in identifying the improvements required to deliver a resilient scheme to a 1:500 year of projection. This is to ensure that the primacy of the scheme is maintained and informs the PUR work. This will assist in minimizing an inefficient use of capital.

    7.2. It has been identified that no comprehensive iwi engagement had been undertaken and a consultation has only taken place with existing recreation groups. Effective iwi consultation was required to inform the PUR project in terms of sites of importance, iwi culture and aspirations.

8. When the HPFCS LoS project was accelerated due to IRG funding in November 2020, the PUR project was identified as the key component to inform the project of likely future use of any component of the scheme that was upgraded. HBRC commenced work to develop a consultation document. This document (attached to the paper) has been developed to better understand the values people associate with the rivers, concerns people may have about the use of rivers and aspirations for future use.

9. It is noted that some consultations have already commenced as part of the ongoing planting and flood protection work with different iwi groups and other river users (4W drivers club, motocross club, BMX users).

10. As part of this work we are identifying known culturally sensitive sites. The project team has mapped all known sensitive cultural sites and engaged an archaeologist to work with us through the project planning.

11. A planting strategy has also been commenced to identify not only how to enhance biodiversity on the berm areas but also to look into options of commercial forest planting which will have potential benefit in the future for carbon credit and also additional income for the scheme.

12. The project area being considered for both LoS and Public Use of rivers are:

    12.1. Tūtaekurī River – priority area as per attached map

    12.2. Ngaruroro River – priority areas as per attached map

    12.3. Lower Tukituki River - priority areas as per attached map.

13. The project is restricted to the land that is owned and manged by the Council. It does not cover any privately owned land.

14. High level planning for some of the river access points as part of the Level of Service upgrade work is now underway with consultation to be scheduled prior construction.

15. The final PUR report will:

    15.1. identify a long term strategy for managing our river berms for scheme requirements, cultural, biodiversity and recreational outcomes

    15.2. Provide a recommended 30-year capital investment plan to deliver 15.1

    15.3. Provide a recommended 30-year operational budget to deliver 15.1.

Background

16. HBRC's Asset Management Group is responsible for managing the flood protection schemes including access points and public spaces within the scheme areas. There are existing issues of vandalism, antisocial behaviour, rubbish dumping, undesirable vehicle use, freedom camping and illegal or antisocial activities have been ongoing for too long and appear to be escalating. These issues often involve health and safety matters as well as environmental damage, at an increasing cost to ratepayers.

17. In December 2016, a paper and report "Review of use of Heretaunga Plains Scheme River Berm Land" was presented to the Environment and Services Committee advising of an investigation into Management of Public Use of River Berms within the Heretaunga

Plains Flood Control Scheme followed by an update to the 13 September 2017 meeting on investigations to understand and / or respond to:

17.1. Perceived declining regional community tolerance over some aspects of river berm management, such as berm grazing.

17.2. Increasing community level of service expectations as berm land has become both more accessible through higher public use such as cycle trails and more visible due to expressway developments.

17.3. Pressures on scheme land area to accommodate new activities and infrastructure such as horse trails, jet-ski/ boat ramps, carparks and sports grounds whilst not compromising flood protection services and the continued opportunity for existing public use and activity.

17.4. Inappropriate public use and activity such as rubbish dumping, vehicle hooning, freedom camping and illegal activity.

17.5. The need to consider the above in the context of multiple use opportunities such as flood control and drainage objectives, iwi aspirations, biodiversity and ecological enhancements.

18. There are various Māori accounts regarding naming, settlement and use of the awa. This stage of the project is to engage with iwi to enrich understanding of the cultural values and find ways in which to celebrate and share appropriate cultural histories.

Discussion

19. The next step of this project seeks to achieve the following key outcomes:

19.1. Enhance the understanding of cultural values and history

19.2. Engaged coordinator to start the process on engaging with mana whenua

19.3. Work with mana whenua to understand their aspirations for this area

19.4. Focus on the priority areas and integrate this project with Level of Services review (IRG).

Next Steps

20. To optimise the use of capital the Asset Management Group intends to integrate outcomes of the PUR project into HPFCS LoS program. This will coordinate deliverables of both programmes at key prioritised sites, identified as part of the IRG funded projects.

21. Key outcomes are also to:

21.1. Enhance the understanding of cultural values and history

21.1.1. Work with mana whenua and archaeologists to map significant sites

21.1.2. Incorporate existing Hapu management Plans into this project

21.1.3. Invite input from iwi and hapu into priorities managing the HPFCS that reflects the culture and aspirations of iwi

21.1.4. Develop opportunities for education celebrate appropriate cultural history.

22. The next steps are Iwi engagement and public consultation.

23. Focused early consultation for specific sites may be led through HPFCS LoS upgrade projects and later incorporated into the greater PUR project.

Decision Making Process

24. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendations

That the Environment and Integrated Catchments Committee receives and considers the "*Public Use of Rivers*" staff report and supports the staff proposal to proceed with the iwi consultation with the assistance of the Māori Partnerships group.

Authored by:

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Martina Groves
MANAGER REGIONAL ASSETS

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

1⇩ Public Use of Rivers Consultation Document

2⇩ Executive Summary - Review of Public Use of Rivers - February 2018

3⇩ Map - HPFCS - LoS Priority Areas

HAWKES BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

PUBLIC USE OF RIVERS CONSULTATION DOCUMENT

30 August 2021

Whakataka te ahu ki te uru	Cease o winds from the west
Whakataka te hau ki te tonga	Cease o winds from the south
Kia mākinakina ki uta	Bring calm breezes over the land
Kia mātaratara ki tai	And let the red-tipped dawn come
E hī ake ana te atakura	With a touch of frost, a sharpened air
He tio, he huka, he hau hū	And promise of a glorious day
Tīhei mauri ora!	Behold we live!

Introduction

Hawke's Bay Regional Council (the Council) is undertaking a review of how its key river corridors are managed, and how their use by the public can be best accommodated. This is primary as a result of the increase in expectations by the regional community in regard to the provision of space for recreational activities and the effects associated with those activities – particularly in regard to how the Council balance such effects with their other management responsibilities such as flood protection and biodiversity outcomes.

The primary purpose of the project is to explore various management and maintenance methods for the river corridors. This is to include a review of existing and potential public use activities, and the provision of guidance on the most appropriate management methods.

As part of this process, the Council is seeking input from partners and stakeholders to better understand the values people associate with the rivers, what requests or concerns people may have about the use of rivers, and how best to ensure that all groups can engage with the ongoing use and management.

Enhancing our **environment** together | Te whakapakari tahi i tō tātau **taiao**
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Project Extent

The project area being considered at this time is as follows (refer to Figure 1):

- Tutaekuri River from the confluence with the Mangaone Stream to the coast;
- Ngaruroro River from Matipiro Road to the coast; and
- Tukituki River from River Road to the coast.

The project is limited to the land that is owned and managed by the Council. It does not cover any privately owned land, but may include land that is held or managed by Territorial agencies.

Other Council owned river areas, such as the Clive River or Karamu Stream, may be included at a later date, but do not form part of the project at this time.

Figure 1: Public Use of Rivers - Project Extents

Background

There are various Māori accounts in regard to the naming, settlement and use of the awa. It is a goal of this project to engage with iwi to enrich understanding of the cultural values, and find ways in which to celebrate and share appropriate cultural histories.

From a pākehā perspective, the rivers became a matter for local authorities to manage through the Hawke's Bay Rivers Act 1910, which was established to "provide for the improvement of unproductive lands within the District" and for "more effectual control" of the rivers.

The 1931 earthquake lifted the land and significantly changed the course of the rivers, making flood protection work urgent. The effects on the Tutaekuri River was do pronounced that the whole district united in seeking authority to carry out emergency diversion work. The Hawke's Bay Rivers Amendment Act 1933 provided for flood control and diversion works to be undertaken. In 1959, the Catchment Board commenced further works on the lower Ngaruroro and lower Tutaekuri Rivers to further improve flood mitigation (resulting in the formation of the Clive River), particularly to reduce the impacts of flooding on the state highway.

In more recent times, the Council has promoted the public use of the river corridors through the establishment of cycle paths and walkways on the berms, and various enhancements of public access points. As a result, over the past 20 years there has been a noticeable increase in the number of people recreating within the river corridors, including cycling, walking, 4WDs, motocross, fishing, jet boating, swimming, and shooting. Such activity has also resulted in an increase in public commentary in regard to the way in which Council manages the berm areas (particularly in regard to grazing), and an increase in issues associated with public use (such as vandalism, litter, fly-tipping, activity conflict, etc).

Analysis

To support the advancement of this project, Council has engaged consultants to undertake an analysis of the project area. This has included physical visits to all key public activity areas, and an aerial survey of the whole project area. In addition, the consultants and staff visited other Councils to discuss and review best practice approaches. An analysis report has been prepared that identifies:

- Existing activities that are undertaken in the rivers
- Effects associated with public use and access
- Preliminary assessment of methods that could be employed to manage such effects
- Preliminary assessment of potential capital development projects

Further site work is anticipated through the engagement and design process.



Policy

Any guidance developed through this project will need to reference and be prepared in the context of various existing policies and procedures:

- Environmental Code of Practice for River Control and Waterway Works (currently being updated)
- Hawke's Bay Biodiversity Strategy (2015-2050)
- Ngaruroro Ecological Management and Enhancement Plan (2011)
- Rivers Plant Establishment Trials (2009/2010)
- Hawke's Bay Trails Asset Management Plan (2013)
- Tutaekuri Ecological Management and Enhancement Plan (2015)
- HB Gravel Management Study (2016)
- Hastings District LTP and District Plan
- Napier City LTP and District Plan

Further policies and procedures are also likely to come to light during the engagement process, particularly those held by other agencies.

Outcomes Sought

The project seeks to achieve the following key outcomes:

Enhance the understanding of cultural values and history

- Work with mana whenua to learn about the cultural value of the rivers
- Work with mana whenua and archaeologists to map significant sites (where appropriate)
- Understand how to appropriately manage the use of rivers in a manner that is respectful of their cultural value
- Understand how to better inform others and celebrate appropriate cultural histories

Identify appropriate activities and locations

- Understand what types of activities can be supported or accommodated by Council within the river areas, and what types (or levels) or activities are best delivered by others in other areas
- Prepare a map of where best to accommodate such activities (noting that not all activities can be undertaken in all locations) – noting this will also require involvement of other disciplines (such as flood control and ecology) to determine "no-go" areas
- Understand the effects of such activities (including conflicts between activities) and how these effects can be best avoided or mitigated

Identify appropriate management methods

- Consider ways in which activities can be best managed by Council in the context of other management responsibilities (such as flood control)
- Consider what tools could be developed or enhanced to support such management
- Consider how other agencies or stakeholders might contribute to such management

Identify appropriate Capital Development projects

- Consider how capital development could enhance the rivers
- Prepare a scope of various capital development projects, including identification of location, size and budget
- Rank capital development projects in order of importance or ability to complete

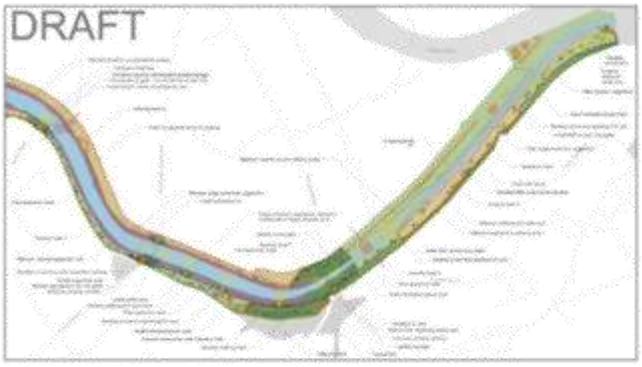

Figure 2: Preliminary Draft Concept for Ngaruroro River

Requirements from Partners & Stakeholders

Council will arrange a time to meet with Partners and Stakeholders to discuss the project and identify the strategy for the long term management of public use of the Heretaunga Rivers. Until this time, all that is required is for everyone who has an interest in the project area, whether this be

cultural and/or physical, to consider their requirements and goals. It's important that everyone has an opportunity to consider how they might contribute to the project, and that Council engages effectively so that everyone is heard and understood. In some cases it is anticipated that several hui or meetings will be required throughout the length of the project.

Timeframes

Council is seeking to commence engagement on this project in May 2021, and aims to complete a draft report for final comment by partners and stakeholders by August 2021.

Contact

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HAWKE'S BAY
REGIONAL COUNCIL
Review of the Public Use of Rivers
Prepared for Hawke's Bay Regional Council
Wayfinder Landscape Planning and Strategy Ltd
February 2018
WAYFINDER
Landscape Planning & Strategy

HAWKE'S BAY
REGIONAL COUNCIL

WAYFINDER
Landscape Planning & Strategy

Title: Review of the Public Use of Rivers
Prepared for: Hawke's Bay Regional Council
Date: February 2018

Prepared by: Wayfinder Landscape Planning and Strategy Ltd
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Cover photograph: Ngaruroro River by Shannon Bray

Review of the Public Use of Rivers

February 2018

Contents

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Executive Summary

The Hawke's Bay Regional Council (the Council) is undertaking a review of how the Heretaunga Plains scheme river corridors are being managed and maintained by the Council, and how they are used by public. This is being driven by the community becoming less tolerant of some existing management practices (such as river corridor grazing), and increasingly demanding in terms of their expectations of access, use, services and infrastructure.

The primary purpose of the project, and this document, is to:

- Establish an inventory of public use across the project area
- Identify, discuss and evaluate issues arising from existing use
- Identify and explore options to resolve issues including alternative management and maintenance strategies for the river corridors
- Identify opportunities to enhance and / or expand public use / recreation within the river corridors
- Document the potential adverse effects associated with such activities
- Provide guidance on the most appropriate management methods.

The project focusses on the Tutaekuri, Ngaruroro and Tukituki Rivers, within the Flood Control Scheme Area only. It is recognised that the primary purpose of this scheme is flood protection, and public use / recreation must be appropriate in this context.

A detailed legislation and policy overview is provided within the report. This traverses relevant laws which might affect (or assist) the management of public use within the river corridors, and the existing regional and territorial policies that shape how the rivers and public use are currently managed.

As part of the project a detailed inventory of the project area was carried out. This involved mapping the river corridors from a public use perspective, documenting the location of tracks, entry points, vegetation and other relevant infrastructure, and providing a commentary on the environment, use, and management of each mapped area. The full inventory is attached as Appendix 1 to this document, and a summary of quantities is included as a table within this report.

An analysis of the inventory is provided, outlining the various recreational activities that are currently undertaken within the project area. These include Walking, Running, Trekking, Cycling, Dog-Walking, Swimming, Picnics, Motorsport, Fishing, Whitebaiting, Horse Trekking, Guns/Shooting, Jet Boating, Jet Skiing, Freedom Camping, and Volunteering. Further, a range of concessionary activities is outlined, including grazing, organised recreational events, bee keeping, gravel and silt extraction, and organised clubs.

Ormond Road, Ngaruroro River

Ormond Road, Ngaruroro River

It is noted that there is currently a lack of any significant cultural recognition within the project area.

The document then traverses a number of identified issues arising from the public use of the river corridors, including grazing, undesirable motor vehicle use, litter and rubbish dumping, undesirable behaviours (including graffiti, vandalism and excessive alcohol use), poor signage, and problems associated with whitebaiting and fishing. Several key areas within the project area are singled out as being more significantly affected than others.

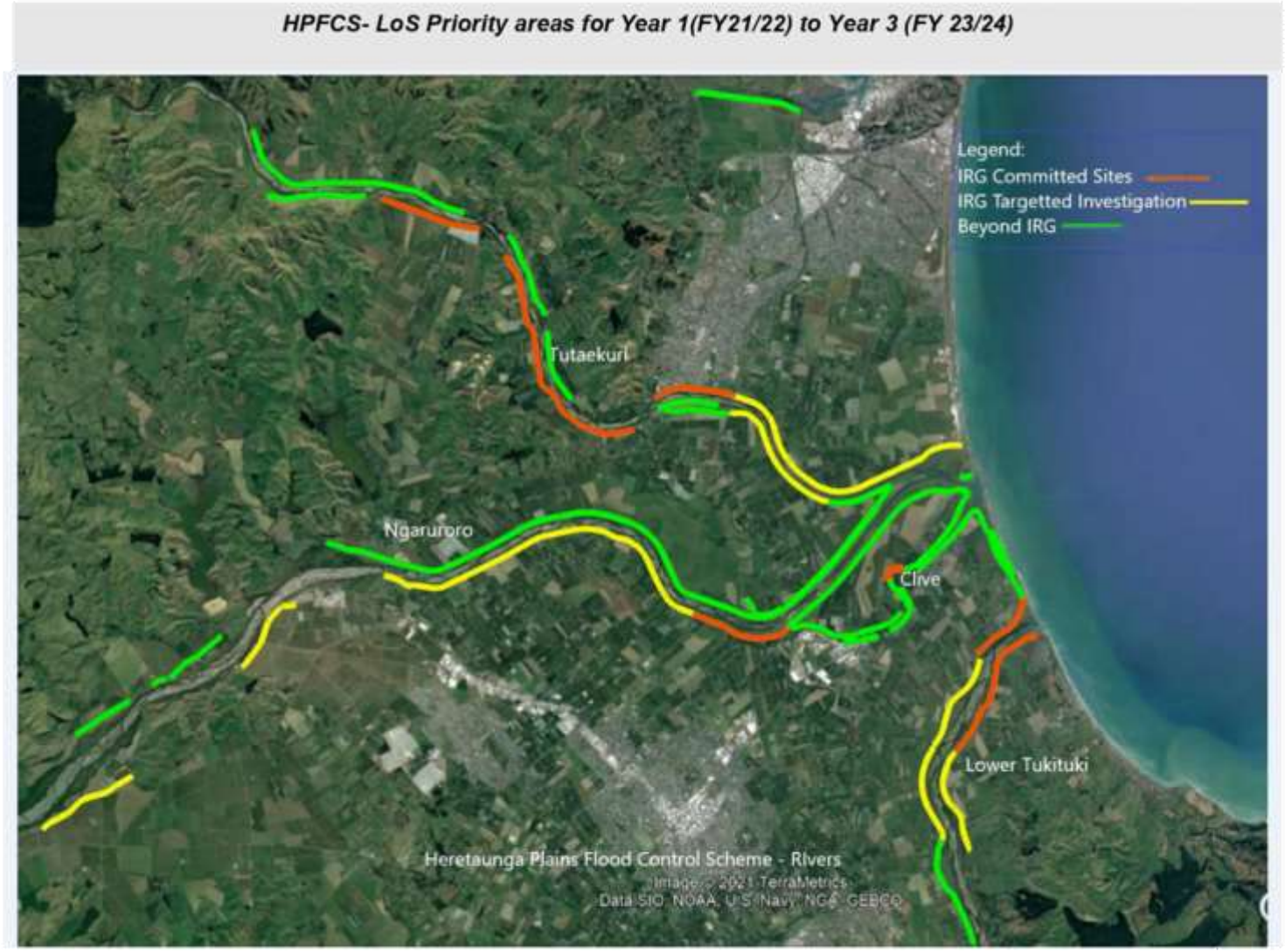
During the preparation of the document, Council staff (together with the author) undertook several visits to other Councils to learn about similar experiences, and explore best-practice solutions. These visits included time with Environment Canterbury around the Waimakariri River Regional Park, Western Bay of Plenty and Tauranga City Councils around the TECT All Terrain Park, and Auckland Council around various Auckland Regional Parks. Key lessons from these visits are set out, with common themes of 'there is no one, single solution' and 'good parks take time'.

The document considers a wide range of potential ideas for helping to manage the adverse effects of public use within the river corridors. These are broadly grouped into five key focus areas, as follows:

- Reduce or eliminate cattle from being seen in waterbodies (including flood water)
- Reduce undesirable behavior across the whole river corridor
- Manage the adverse effects of recreational activities, particularly conflicts
- Reflect and celebrate kaitiakitanga
- Improve amenity and landscape values in key locations

In conclusion, it is recognised that there are a wide range of measures that can be employed to both promote public use in the river corridors, and reduce its potential effects. However, it is unfeasible to adopt all the measures in the short term due to the resource and budget requirements. A smaller project area (Ngaruroro River, from Carrick Road to Waitangi Regional Park) has been identified as a preliminary case study for further planning – taking into account the contents of this report. It is intended that this detailed study will provide a clearer understanding of potential development and management costs, along with providing an opportunity to trial some of the suggestions made in this report (such as cropping).

In addition, a variety of non-tangible measures are recommended to be explored, including the appointment of Regional Park Rangers and a review of the Council locks system.


HPFCS- LoS Priority areas for Year 1(FY21/22) to Year 3 (FY 23/24)
Legend:
IRG Committed Sites
IRG Targetted Investigation
Beyond IRG
Tutaekuri
Ngaruroro
Clive
Lower Tukituki
Heretaunga Plains Flood Control Scheme - Rivers
Image © 2021 TerraMetrics
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: CALL FOR CERTIFICATE OF APPRECIATION NOMINATIONS

Reason for Report

1. To call for nominations by Committee members, for HBRC environmental certificates of appreciation.

Background

2. At its meeting on 24 April 2018, the Regional Council resolved:

   2.1. Creates three categories for nomination to recognise environmental stewardship, being:

      2.1.1. **Environmental Leadership in Business – Te Hautūtanga Taiao me te Pakihi:** Recognises businesses or local authorities that demonstrate kaitiakitanga, innovation or efficiency, or an ongoing commitment to environmental best practice.

      2.1.2. **Environmental Leadership in Land Management – Te Hautūtanga Taiao me te Whakahaere Whenua:** Recognises land users who are committed to environmental stewardship and sustainability in their meat, fibre, forestry or other land use operations.

      2.1.3. **Environmental Action in the Community – Te Oho Mauri Taiao ki te Hapori:** Recognises not-for-profit organisations or individuals that are taking action to protect or enhance the environment, or are increasing understanding of environmental issues.

   2.2. Calls for nominations to the above categories from Councillors at the Environment and Services Committee held in September each year, with the Award being presented to the recipient at the November or December Regional Council meetings with a morning or afternoon tea event.

3. The awards were initiated as a result of councillors' desire to recognise valuable contributions to environmental enhancement by people and organisations in the community in a semi-formal manner as 'nominated' by councillors themselves. Past recipients, by way of example, include:

   3.1. ***Forest & Bird Hastings and Napier*** for Environmental Action in the Community in recognition of their involvement in and sponsorship of community and HBRC led planting events, in particular, riparian planting at Pekapeka and along the Karamu Stream

   3.2. ***Bostocks*** for Environmental Leadership in Business in recognition of planting carried out along the Karamu as well as leadership of the GMO Free Hawke's Bay movement

   3.3. ***James Hunter*** for Environmental Leadership in Land Management in recognition of his protection of 51 hectares in QEII Covenants, including 9ha wetlands and regenerating bush/scrublands that would have been lost without intervention. He was also recognised for representing farmers as a member of a group involved with the Massey University award winning study on getting farmers to understand and adopt the newest ideas and innovations from agricultural science, as well as the Huatokitoki Landcare Community Project "Creating a climate for successful catchment management".

   3.4. **Jill Snelling** for Environmental Leadership in Land Management, in recognition of her work turning her farm into a reserve with minimum use of chemicals and a

reliance on the old ways of doing things, willingly sharing her knowledge with others and welcoming groups to gather heirloom seeds/seedlings from her property, as well as supporting the Wairoa nursery project.

1.1. Karituwhenua Reserve Trust received the certificate of appreciation for Environmental Action in the Community in recognition of a long history of work stretching back to 1992, planting trees, enhancing the reserve area around the Karituwhenua stream and encouraging birdlife, creating pathways and addressing erosion issues.

Next Process Steps

4. The proposed process leading to the awarding of Certificates is that:

   4.1. Councillors email any nominations, including full details of the initiative and supporting information, location, award category and person or group/organisation being nominated, to Peter Martin, Senior Governance Advisor, by 4pm on Thursday 30 September 2021.

   4.2. Nominees' details, including reasons for the nomination and award category, will be collated as an agenda item for councillors' consideration, discussion, and resolution of award winners in public excluded session at the Regional Council meeting on 27October 2021.

   4.3. Successful award recipients will be invited to the 15 December 2021 Regional Council meeting for formal awarding of certificates.

Decision Making Process

5. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and considers the *"Call for Certificate of Appreciation Nominations"* staff report and requests that Councillors endeavour to provide nominee details as requested, to Peter Martin by 4pm on Thursday, 30 September 2021.

Authored by:

Leeanne Hooper
TEAM LEADER GOVERNANCE

Approved by:

Desiree Cull
STRATEGY & GOVERNANCE MANAGER

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 08 September 2021

Subject: DISCUSSION OF MINOR ITEMS NOT ON THE AGENDA

Reason for Report

1. This document has been prepared to assist Committee Members note the Minor Items Not on the Agenda to be discussed as determined earlier in Agenda Item 6.

Topic	Raised by