



greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

If calling please ask for: Democratic Services

14 September 2017

Environment Committee

Order Paper for the meeting of the Environment Committee to be held in the Level 2 East meeting room, Westpac Stadium, Waterloo Quay, Wellington on:

Wednesday, 20 September 2017 at 10.00am

Membership

Cr Kedgley (Chair)
Cr Brash (Deputy)

Cr Blakeley
Cr Gaylor
Cr Laidlaw
Cr McKinnon
Cr Ponter
Cr Swain

Cr Donaldson
Cr Laban
Cr Lamason
Cr Ogden
Cr Staples

Peter Gawith

Ihaia Puketapu

Recommendations in reports are not to be construed as Council policy until adopted by Council

Environment Committee

Order Paper for meeting to be held on Wednesday, 20 September 2017 in the Level 2 East meeting room, Westpac Stadium, Waterloo Quay, Wellington at 10.00am

Public Business

| | | Page No |
|----|---|-------------------------|
| 1. | Apologies | |
| 2. | Declarations of conflict of interest | |
| 3. | Public participation | |
| 4. | Confirmation of the minutes of 9 August 2017 | Report 17.286 3 |
| 5. | Regional Climate Change Working Group | Report 17.336 7 |
| 6. | Regional Pest Management Strategy 2002-2022 Operational Plan 2017/18 | Report 17.343 14 |
| 7. | Regional Trails Framework | Oral |
| 8. | General Managers' report to the Environment Committee meeting 20 September 2017 | Report 17.306 36 |



Please note that these minutes remain unconfirmed until the meeting of the Environment Committee on 20 September 2017

Report 17.286

9/08/2017

File: CCAB-10-363

Minutes of the Environment Committee meeting held on Wednesday, 9 August 2017 in the Level 2 East meeting room, Westpac Stadium, Waterloo Quay, Wellington at 10.00am

Present

Councillors Kedgley (Chair), Brash (Deputy), Blakeley, Donaldson, Gaylor, Laban (10.00am – 11.00am and 12.05pm – 12.58pm), Laidlaw, Lamason, McKinnon, Ogden, Ponter, Staples and Swain.

Ihaia Puketapu.

Public Business

1 Apologies

There were no apologies.

2 Declarations of conflict of interest

There were no declarations of conflict of interest.

3 Public Participation

There was no public participation.

4 Confirmation of the public minutes of 21 June 2017

Moved

(Cr Staples/ Cr McKinnon)

That the Committee confirms the public minutes of the meeting of 21 June 2017, Report 17.223.

The motion was **CARRIED.**

5 **Climate Change Strategy Implementation Plan progress**

Richie Singleton, Climate Change Advisor, spoke to the report.

Report 17.194

File ref: CCAB-10-335

Moved

(Cr Donaldson / Cr Blakeley)

That the Committee:

1. *Receives the report.*
2. *Notes the content of the report.*

The motion was **CARRIED**.

Noted: The Committee requested that Councillors and their responsibilities be added to the table of actions in Attachment 1, and that officers create a version of the annual Sustainability Survey that is specifically tailored for Councillors.

6 **Review and audit of flood hazard information**

Mark Hooker, Team Leader - Investigations, Strategy and Planning, spoke to the report.

Report 17.259

File ref: CCAB-10-353

Moved

(Cr Laidlaw/ Cr Donaldson)

That the Committee:

1. *Receives the report*
2. *Notes the content of the report*
3. *Endorses the new procedure for peer review and independent audit of flood hazard information as set out in Attachment 1 to this report.*
4. *Requests GWRC officers review the policy for Climate Change Design Criteria for flood hazard investigations/design as referenced in report 13.720.*

The motion was **CARRIED**.

Councillor Laban left the meeting at 11.00am during consideration of this report.

7 **Waiohine Floodplain Management Plan governance and project delivery structure – recommendations from Wairarapa Committee**

Mark Hooker, Team Leader - Investigations, Strategy and Planning, spoke to the report.

Report 17.275

File ref: CCAB-10-359

Moved

(Cr Staples/ Cr Donaldson)

That the Committee:

- 1. Receives the report*
- 2. Notes the content of the report*
- 3. Endorses the recommendations of the Wairarapa Committee to Council as set out in section 2 of this report.*

The motion was **CARRIED**.

8 Whaitua Programme Update - August 2017

Alastair Smaill, Project Manager - Whaitua, spoke to the report.

Report 17.256

File ref: CCAB-10-352

Moved

(Cr Laidlaw/ Cr Staples)

That the Committee:

- 1. Receives the report*
- 2. Notes the content of the report*

The motion was **CARRIED**.

Councillor Laban returned to the meeting at 12.05pm during consideration of this item.

The meeting adjourned at 12.08pm and reconvened at 12.18pm.

9 General Managers' report to the Environment Committee meeting 9 August 2017

Michael Bassett-Foss gave an update to the Committee on the Water Wairarapa project.

Dr Iain Dawe, Senior Policy Advisor (Hazards), gave an update to the Committee on the Wellington Region Natural Hazards Management Strategy.

Al Cross, Manager, Environmental Regulation, and Nick Boyens, Team Leader, Hydrology, gave an update to the Committee on the Waiwhetu Aquifer.

Report 17.248

File ref: CCAB-10-351

Moved

(Cr Lamason/ Cr Brash)

That the Committee:

- 1. Receives the report.*
- 2. Notes the content of the report.*

The motion was **CARRIED**.

The meeting closed at 12.58pm.

Cr S Kedgley
(Chair)

Date:



Report 2017.336
Date 11 September 2017
File CCAB-10-369

Committee Environment
Author Richie Singleton, Climate Change Advisor

Regional Climate Change Working Group

1. Purpose

For the Committee to consider the proposal to establish a Wellington Region Climate Change Working Group and recommend to Council that two representatives (a representative and an alternate) be appointed to act as Climate Change Action Leader/s and represent this Council on the Working Group.

2. Background

On Monday 7 August 2017, a report was presented by NIWA to a meeting of the Chair of the Greater Wellington Regional Council (GWRC) and Mayors of city and district councils in the Greater Wellington Region, and subsequently released to the public and media.

The report is titled 'Climate change and variability - Wellington Region'. It describes the climatic changes that may occur across the Region over the rest of this century, with snapshots at 2040 and 2090. The resolution at which the information is presented (i.e. climate change maps) sets this report apart from any others that have preceded it. There has never been a report with such detailed information available for the Wellington Region and the results further emphasise the urgency with which climate change should be addressed.

Impacts for the Wellington Region include:

- Autumn is likely to warm the most of all seasons.
- Annual temperature increases of up to 1°C by 2040 and up to 3°C by 2090.
- Reduction in spring rainfall of up to 15% for eastern areas by 2090.
- Increased risk of drought in Wairarapa.
- Some areas may experience 70 more hot days (>25°C) per year by 2090.

Implications of those impacts include:

- Warmer temperatures may allow different crops to be grown.
- More droughts may limit pasture production and crop growth.
- Sea level rise may impact coastal communities and infrastructure.
- Changes to river flow and rainfall may have an impact on native biodiversity.
- Current water supplies may be under pressure if there is no additional storage.

The full report, a summary document and explanatory video are all available at www.gw.govt.nz/climatechange

At the same meeting on Monday, 7 August 2017, a proposal was made by GWRC to establish a Wellington Region Climate Change Working Group with members from all councils in the Region, to enable a regional response to climate change issues, including the implications outlined in the NIWA report. There was unanimous support for this.

3. Reasons for proposal of Wellington Region Climate Change Working Group

The reasons for proposing a Wellington Region Climate Change Working Group are as follows:

- Many local authorities in the Region have their own strategies, including mitigation strategies (focused on reducing greenhouse gas emissions) and adaptation plans (focused on adapting to impacts such as sea level rise). Those strategies reflect councils' responses to their local needs.
- There are benefits to sharing ideas, policies and strategies among councils in the Region, and identifying where councils can collaborate for more effective action, where appropriate. The regional approach could provide support for individual councils addressing issues such as sea level rise and coastal hazards.
- It would allow advocacy to central government from a strong regional base, and provide a single forum for central government to connect with.
- It would allow the full range of skills and capabilities in local authorities in the Region on climate change issues and natural hazards to be aligned to best effect, in a way that could reduce demands on individual councils.
- Work progressed under the Natural Hazards Management Strategy can be reported to the regional working group.
- It could assist individual councils in preparing for their 2018/28 long term plans, enabling consistent information to be applied when

considering infrastructure investment (e.g. roading, water, wastewater and stormwater).

- There could be benefits in looking at how various regional strategy documents contribute to mitigation and adaptation responses to climate change, for example:
 - Regional Land Transport Strategy
 - Wellington Region Waste Management and Minimisation Plan
 - Regional Natural Hazards Management Strategy.

There could be opportunities for engagement with key regional stakeholder groups which have interests and expertise in climate change mitigation and/or adaptation.

4. Proposed membership and arrangements

It is proposed that the core membership of the Wellington Region Climate Change Working Group include:

- Greater Wellington Regional Council
- Wellington City Council
- Hutt City Council
- Upper Hutt City Council
- Porirua City Council
- Kapiti Coast District Council
- Masterton District Council
- Carterton District Council
- South Wairarapa District Council

The Wellington Region Climate Change Working Group may choose to have meetings with wider government, business and NGO representatives on specific themes, for example:

- Transport
- Forestry
- Water
- Coastal effects
- Insurance
- Adaptive policy pathways planning.

The Wellington Region Climate Change Working Group would be supported by:

- a new officer level 'low carbon transition steering group' focused on mitigation
- and the existing officers level Natural Hazards Management Strategy Steering Group.

The Wellington Region Climate Change Working Group could take a regional leadership role in regard to Climate Change mitigation and adaptation, and considering the regional implications of significant reports and their recommendations. Examples of such reports include:

- LGNZ Climate Change Declaration 2017
- GLOBE-NZ Net Zero New Zealand, Scenarios to achieve domestic emissions neutrality by the second half of the century
- PCE Preparing New Zealand for Rising Sea Levels”, November 2015.

It is envisaged that the arrangements for the Working Group would be as follows:

- It would be a collaborative Working Group of the councils of the Region, not a formal joint committee. Recommendations of the Working Group would be considered by each council.
- It would support and build on existing mechanisms, not duplicate them, with any changes to planning documents being done as part of their natural review cycles.
- The workload would be shared across the councils of the Region, subject to agreement with the Chair/Mayors and chief executives.
- It would seek to reduce net workload on councils, e.g. by collaboration across councils to prepare joint submissions on central government policy proposals, rather than each council having to produce its own submission.

It is possible that some councils will want to appoint different political leaders to address seismic hazards as opposed to climate change related hazards, and if this is the case, a separate political group will need to be established to address seismic related issues.

5. Scope and principles for proposed terms of reference

It is intended that the terms of reference for the Working Group will be developed at their first meeting. The terms of reference will then be brought back to councils for approval. Based on discussions at the meeting of 7 August, the terms of reference for the Wellington Region Climate Change Working Group are likely to be based on the following:

Scope

The Working Group will address issues relating to climate change mitigation (reducing emissions) and adaptation (adapting to impacts such as sea level rise) and will encompass the Regional Natural Hazards Management Strategy, including its guidelines for action in key areas like coastal hazard management.

Principles

Empowering by supporting individual council's needs, for example:

- providing a platform for local authorities to share knowledge and build capacity
- enabling initiation of joint projects/initiatives/campaigns that impact on, or require the active involvement of more than one local authority
- Input to central government policymaking on climate change mitigation and adaptation including consideration of a possible National Policy Statement (NPS) on natural hazards and/or sea level rise, and the implications this has for planning, both local and regional.

Collaborating by providing coordination of initiatives that are effective at the regional level where that will add value, for example:

- research across local authorities on climate change impacts and implications
- ensuring consistent, integrated and coherent messaging for climate change-related outreach and awareness-raising activities
- advocacy to central government.

Action focused by providing practical recommendations for implementation within a timeframe that meets councils' needs, for example:

- identifying a coherent regional pathway for reducing greenhouse gas emissions e.g. by articulating these via a Regional 2050 calculator¹.

Providing leadership on regional challenges and opportunities for climate change mitigation and natural hazards management. This approach would be consistent with that set out in the LGNZ Local Government Leaders Climate Change Declaration 2017.

6. Next steps

It is proposed that the next steps would be:

¹ A 2050 calculator is a website that enables users to explore how energy and transport choices will shape a population's emissions footprint. Users vary 'levers' that affect how energy is used and produced – e.g. improving public transport, increasing the amount of electric vehicles on the road or the amount of renewable energy being produced. The calculator will help users understand what changes can be made between the present time and 2050 to enable the Region to transition to a low carbon economy. A calculator of this type was recently developed by the National Energy Research Institute (NERI) and Enspiral for the Wellington City Council and is online at <http://climatecalculator.org.nz/>. GWRC have done preliminary modelling work to develop a 2050 Pathways calculator for the Wellington Region and the next step is to work with other councils and stakeholders to test the assumptions and develop the optimal configuration of the calculator.

1. Councils each nominate two representatives (a representative and an alternate) to act as Climate Change Action Leader/s and represent this Council on the Working Group.
2. GWRC will convene the Wellington Region Climate Change Working Group to prepare recommended Terms of Reference.
3. The Climate Change Action Leaders will seek the agreement of their councils to the recommended terms of reference.
4. GWRC will convene a meeting with relevant officers from each Council to establish the new officer level 'low carbon transition steering group' (focused on climate change mitigation / emissions reduction).
5. Once all councils have agreed the Terms of Reference, GWRC will formally convene the Working Group to commence its task by agreeing priorities and a work plan.
6. The Working Group will meet every three months.
7. A schedule for the quarterly meetings will be determined with a different council hosting each meeting.
8. The Climate Change Action Leader/s will keep their councils informed of progress.
9. The Working Group will report to councils after one year.

7. Consideration of Climate Change

The matter requiring decision in this report has been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

7.1 Mitigation assessment

Mitigation assessments are concerned with the effect of the matter on the climate (i.e. the greenhouse gas emissions generated or removed from the atmosphere as a consequence of the matter) and the actions taken to reduce, neutralise or enhance that effect.

The proposed working group will address mitigation issues as discussed above.

7.2 Adaptation assessment

Adaptation assessments relate to the impacts of climate change (e.g. sea level rise or an increase in extreme weather events), and the actions taken to address or avoid those impacts.

The proposed working group will address mitigation issues as discussed above.

8. The decision-making process and significance

Officers recognise that the matters referenced in this report may have a high degree of importance to affected or interested parties.

The matter requiring decision in this report has been considered by officers against the requirements of Part 6 of the Local Government Act 2002 (the Act). Part 6 sets out the obligations of local authorities in relation to the making of decisions.

8.1 Significance of the decision

Part 6 requires Greater Wellington Regional Council to consider the significance of the decision. The term ‘significance’ has a statutory definition set out in the Act.

Officers have considered the significance of the matter, taking the Council's significance and engagement policy and decision-making guidelines into account. Officers recommend that the matter be considered to have low significance because the proposed Working Group will be a collaborative Working Group of the councils of the Region, not a formal Joint Committee. Recommendations of the Working Group would be considered by each council.

Officers do not consider that a formal record outlining consideration of the decision-making process is required in this instance.

8.2 Engagement

Engagement on the matters contained in this report aligns with the level of significance assessed. In accordance with the significance and engagement policy, no engagement on the matters for decision is required.

9. Recommendations

That the Committee

1. ***Receives the report.***
2. ***Notes the content of the report.***
3. ***Recommends that Council:***
 - i. ***Agrees to the establishment of the Wellington Region Climate Change Working Group.***
 - ii. ***Appoints Cr to the Wellington Region Climate Change Working Group and Cr as the alternate.***
 - iii. ***Notes that recommended terms of reference for the Wellington Region Climate Change Working Group will be brought back to the Council and the Region's territorial authorities for agreement.***

Report prepared by:
Richie Singleton
Climate Change Advisor

Report approved by:
Nicola Shorten
Manager Strategic &
Corporate Planning

Report approved by:
Luke Troy
General Manager, Strategy



Report 17.343
Date 13 September 2017
File BIOST-9-76

Committee Environment
Author Davor Bejakovich, Manager, Biosecurity

Regional Pest Management Strategy 2002-2022: Operational Plan 2017/18

1. Purpose

To seek adoption of the 2017/18 Operational Plan (the Plan) for the implementation of the Regional Pest Management Strategy 2002-2022 (RPMS).

2. Background

The Council approved the Regional Pest Management Strategy 2002 – 2022 (RPMS) on 17 September 2002. The current version of the Strategy underwent a statutory five year review and was approved by Council on 12 June 2009. A formal review of the Strategy is currently underway by the Biosecurity Department.

Operational Plans are prepared annually for Committee approval, followed by an annual report on performance against the objectives. An Operational Report on the success of the Strategy for 2016/17 will be available in November 2017.

The Biosecurity Act 1993 specifies a number of requirements for an Operational Plan. The Council must:

- Review the Plan annually and, if deemed appropriate, amend it
- Provide a copy of the Plan to the responsible Minister or the Council
- Prepare an annual report on the Plan, including the effectiveness of implementation, not later than five months after the end of each financial year
- Make copies of the Plan and annual report available to the public.

3. The Operational Plan

The proposed Operational Plan 2017/18 is attached as [Attachment 1](#).

During 2017/18 Biosecurity resources will continue to be focused on the key aspects of strategy implementation. These include:

- Regional Surveillance and Total Control species, all of which are capable of becoming significant regional pests if establishment occurs
- Ensuring that containment pests are maintained within their current infestation zones
- Continuing the extensive site-led biodiversity programmes in Key Native Ecosystems (KNE) across private land, local authority reserves and regional parks
- Implementation of the seventh year of the expanding Regional Possum and Predator Control Programme
- Working with landowners, care groups, iwi, local and national government on a range of regional and national projects.

The successful KNE programme continues to protect and enhance the best sites of biodiversity in the Wellington Region. It is equally important for building and maintaining relationships with private landowners and Territorial Local Authorities (TLA) within the region. Alongside the KNE programme there are formal agreements to deliver additional pest control for a number of TLAs.

Public awareness and education remains an important aspect of implementing the Strategy. A range of paper and electronic resources are available to the public, with Biosecurity staff continuing to give presentations to schools and community and interest groups on RPMS related topics.

4. Review of the Strategy

A statutory review of the Regional Pest Management Strategy is underway. The reviewed document will be known as the Regional Pest Management Plan (RPMP).

The review is guided by a National Policy Direction (NPD) from the Ministry for Primary Industries. Regional Councils are also working together collectively to ensure that RPMPs are aligned to provide as much national consistency as possible.

The review is assessing the progress of the current management programmes and consulting with iwi, key stakeholders and the wider Wellington community. The proposed changes are clearly conveyed to the community through the RPMP discussion document.

5. Communication

The Biosecurity Act requires that copies of the Operational Plan be made available to the public. An electronic version of the document is available on the GWRC website and a printed version is available upon request.

6. Consideration of Climate Change

The matters requiring decision in this report have been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

6.1 Mitigation assessment

Mitigation assessments are concerned with the effect of the matter on the climate (i.e. the greenhouse gas emissions generated or removed from the atmosphere as a consequence of the matter) and the actions taken to reduce, neutralise or enhance that effect.

Operational emissions associated with biosecurity operations are measured and reported via the GWRC Carbon Inventory and subject to the emissions reduction initiatives set out in the GWRC Corporate Sustainability Action Plan.

GWRC's role in enabling forests in the region to draw CO₂ down from the atmosphere (carbon sequestration) is significant. Biosecurity operations contribute to protecting native forest and vegetation by maintaining large scale pest animal management programmes.

Possum control and KNE programmes help maintain the carbon sequestration capacity of forests located within the 129,000 ha under GWRC control (the KNE programme encompasses 48,000 ha of mostly forest ecosystems and regional possum control covers over 81,000 ha of the region). Trees planted through biodiversity and parks programmes along with erosion control initiatives have resulted in thousands of new trees being planted each year.

6.2 Adaptation assessment

Adaptation assessments relate to the impacts of climate change (e.g. sea level rise or an increase in extreme weather events), and the actions taken to address or avoid those impacts.

Biosecurity threats are expected to increase as the climate in the Wellington region continues to change. Future challenges will include new exotic pests, weeds and diseases which have previously not been able to flourish becoming established. The potential establishment of subtropical pests and current seasonal immigrants are of greatest concern, along with taxa that are already recognised as high risk.

The Operational Plan that is the subject of this paper is considered sufficient to address climate change induced changes in the dynamics of pest species over the coming year.

Biosecurity impacts related to climate change will be considered in greater detail when the Regional Pest Management Strategy is reviewed. Subsequent Operational Plans will address threats identified in that Strategy, as well as options for managing the effects climate change is expected to have on the departments operations (for example severe weather can impact service delivery of aerial and ground based pest control).

7. The decision-making process and significance

The matter requiring decision in this report has been considered by officers against the requirements of Part 6 of the Local Government Act 2002.

7.1 Significance of the decision

The matters for decision in this report do not trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the Local Government Act 2002. The matter can be considered to have low significance.

The Council is required to prepare an annual RPMS Operational Plan under Section 100B of the Biosecurity Act 1993. There is no formal requirement to have the Operational Plan approved by the Council, but it is considered appropriate to do so. This aligns with the Council's support of biosecurity matters in the region and transparency of expenditure.

8. Recommendations

That the Committee:

1. **Receives** the report.
2. **Notes** the content of the report
3. **Approves** the proposed Operational Plan 2017/18 (Attachment 1) for the Regional Pest Management Strategy 2002-2022.

Report prepared by:

Report Approved by:

Report Approved by:

Tim Gale
Biosecurity Policy Advisor

Davor Bejakovich
Manager,
Biosecurity

Wayne O'Donnell
General Manager, Catchment
Management Group

Attachment 1: Regional Pest Management Strategy – Operational Plan 2017/18



Attachment 1 to Report 17.343

Regional Pest Management Strategy – Operational Plan 2017/18



greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao



Biosecurity Department

COVER PHOTOGRAPHS:
Bush remnants in South Wairarapa
Thistle beetle
Apple of Sodom
Ferret: DOC
Possum: Nga Manu Images

Contents

| | | |
|--------------|--|-----------|
| 1. | Introduction | 4 |
| 1.1 | Background | 4 |
| 1.2 | Linkage to the Regional Pest Management Strategy | 4 |
| 1.3 | Implementation | 4 |
| 1.4 | Review | 5 |
| 1.5 | Integration with Annual Plan | 5 |
| 1.6 | Integration with GWRC biodiversity activities | 5 |
| 1.7 | Areas of responsibility | 5 |
| 1.8 | How the pest species are decided | 6 |
| 1.9 | Species in the Operational Plan | 7 |
| 1.10 | Pest Control Methods | 7 |
| 2. | Pest Animals | 8 |
| 2.1 | Performance targets and measures | 8 |
| 2.1.1 | Surveillance species | 8 |
| 2.1.2 | Total Control species – rooks | 8 |
| 2.1.3 | Suppression species – rabbits | 9 |
| 2.1.4 | Site-Led species – human health - magpies | 9 |
| 2.1.5 | Site-Led species – human health - wasps | 10 |
| 2.1.6 | Site-Led – biodiversity – possum | 10 |
| 2.1.7 | Site-Led – Regional Possum Predator Control Programme | 11 |
| 2.1.8 | Site-Led – Key Native Ecosystems, Reserves and Forest Health | 11 |
| 3. | Pest Plants | 12 |
| 3.1 | Performance targets and measures | 12 |
| 3.1.1 | Surveillance species | 12 |
| 3.1.2 | Total Control species | 12 |
| 3.1.3 | Containment species | 13 |
| 3.1.4 | Site-Led - boundary control, suppression and human health species | 13 |
| 3.1.5 | Site-Led – Key Native Ecosystems, Reserves and Forest Health | 14 |
| 4. | Indicative funding sources | 14 |
| 5. | Implementation report | 15 |
| | Appendices | 16 |

1. Introduction

1.1 Background

Greater Wellington Regional Council (GWRC) biosecurity activities involve the control of unwanted plants and animals for environmental, economic and social reasons:

- **Environmental:** Many of New Zealand's native plants and animals cannot co-exist with introduced species. In areas of high biodiversity value, pest plants and pest animals need to be controlled to protect vulnerable ecosystems
- **Economic:** The impact of pest plants and pest animals leads to considerable economic loss in many of New Zealand's primary industries. Pest management is essential to the success of industries such as agriculture
- **Social:** Pest organisms create a range of social problems within our communities. Pest plants and pest animals cause a considerable nuisance in many aspects of rural and urban life, inhibiting the ability of people to enjoy their property, lifestyle and wellbeing.

The Greater Wellington Regional Council Pest Management Strategy 2002 – 2022 (the strategy) was prepared in accordance with the Biosecurity Act 1993. The original strategy was approved by GWRC on 17 September 2002. The five year review of the current strategy was adopted by resolution on 9 March 2009 and became operative on 12 June 2009. The current strategy is under review following the release of the National Policy Direction (NPD) by the Ministry for Primary Industries. The reviewed document will be known as the GWRC Regional Pest Management Plan (RPMP).

1.2 Linkage to the Regional Pest Management Strategy

This Operational Plan has been prepared in accordance with section 100B of the Biosecurity Act 1993. The plan identifies and outlines the nature and scope of activities GWRC intends to undertake in the implementation of its Regional Pest Management Strategy (RPMS) for the financial year 2017/18.

The strategy contains objectives specific to individual pests and outlines the means by which GWRC, as the Management Agency, will achieve those objectives.

The strategy has clearly defined rules to be met by all land occupiers. GWRC has responsibility to ensure land occupiers are aware of, and meet, their obligations for pest management on their properties. GWRC can also undertake pest control operations where there is recognised regional benefit.

1.3 Implementation

The purpose of the plan is to implement the RPMS for the Wellington region. The principal objectives are to minimise the actual and potential adverse and unintended effects of pests on the environment, the economy and the community, and maximise the effectiveness of individual pest plant and pest animal management via a regionally coordinated response.

1.4 Review

The plan will be reviewed and reported on annually. The plan may be amended to ensure that the objectives of the strategy will be achieved within its terms. Section 100G of the Biosecurity Act allows GWRC to make minor changes to the strategy, provided that it is satisfied that the changes will not have any significant effects on the rights and obligations of any persons.

1.5 Integration with Annual Plan

As far as practicable, the Operational Plan has been integrated with GWRC'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 2017/18 year. Implementation costs are included in the Annual Plan.

1.6 Integration with GWRC biodiversity activities

GWRC has responsibilities to manage biodiversity under the Resource Management Act 1991. Various council programmes that contribute to the management of biodiversity have been consolidated into the Biodiversity Department. Biodiversity related activities and the role of the Biodiversity Department are guided by the Greater Wellington Biodiversity Strategy 2011-21.

The management of high value biodiversity areas across the region is coordinated by the Biodiversity Department. Pest plant and pest animal control is a key method for managing native biodiversity, requiring ongoing investment of council resources, with a significant amount allocated to the Key Native Ecosystems programme. This programme focuses on managing the areas of highest biodiversity value, predominately through ongoing coordinated pest control for sites. This work is complemented by other efforts such as fencing to exclude farm stock and advocating for legal protection.

Site-led pest plant and pest animal programmes for biodiversity or ecological benefit are largely funded by the Biodiversity Department and implemented by the Biosecurity Department as part of the Key Native Ecosystem Programme.

1.7 Areas of responsibility

This plan and the strategy are based on the following core areas of GWRC'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**

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

- **Direct control**

GWRC funds and undertakes 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 is 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, GWRC may elect to utilise them. Biocontrol is currently a key tool in the management of rabbits and various pest plant species.

1.8 How the pest species are decided

A cost-benefit analysis (CBA) is undertaken for all species proposed for the strategy. This process decides what control, if any, is to be undertaken and what level of management is needed for the species. The CBA works in conjunction with the infestation curve, which designates the different management policies.

Expanded infestation curve for the proposed RPMS:

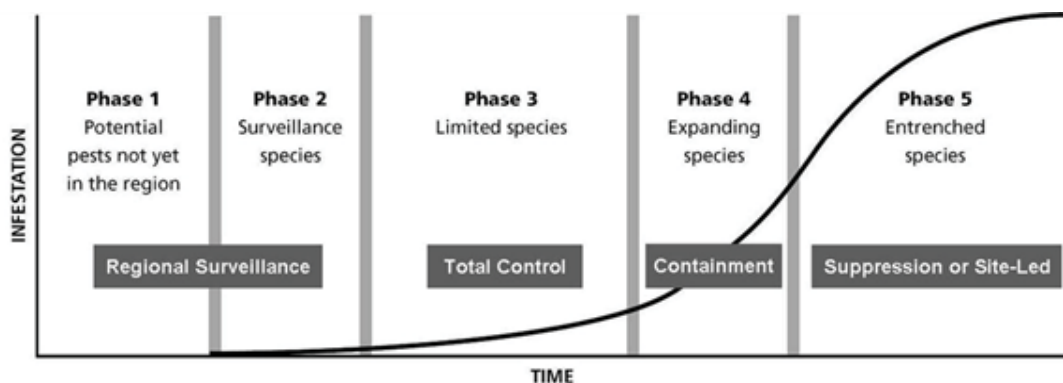


Figure 1: Phases of a pest through time in relation to its appropriate management. Adapted from Greater Wellington's Regional Pest Management Strategy, published April 2003.

| Infestation phase | Phase characteristics | Management policies |
|--------------------------|---|----------------------------|
| Phase 1 | Potential pest not currently in the region | Regional Surveillance |
| Phase 2 | Recent arrival limited in distribution | Regional Surveillance |
| Phase 3 | Limited in distribution and density | Total Control |
| Phase 4 | Established but have not reached full distribution | Containment |
| Phase 5 | Widespread or entrenched in most or all available habitat | Suppression or Site-Led |

1.9 Species in the Operational Plan

The species in the plan are generally collated by category, but individual species or projects with a considerable investment or public interest are listed separately to provide greater transparency of expenditure.

1.10 Pest Control Methods

Greater Wellington Regional Council uses a range of methods and tools to control pest plants and pest animals within the region. All control operations are undertaken by trained staff, contractors or volunteers using industry accepted best practice techniques. This methodology considers environmental and humane factors alongside cost-effectiveness and practicality. Chemical based pest control methods are utilised only when non-chemical methods are impractical or inadequate. All GWRC control operations aim to minimise the amount of chemical used in the natural environment. For a full list of the pesticides used by GWRC refer to Appendix 1.

2. Pest Animals

2.1 Performance targets and measures

2.1.1 Surveillance species

Aim: To prevent the establishment or minimise the impact, and prevent the further spread, of animal surveillance species in the region at a cost of \$12,000

| Objective | Means of Achievement |
|---|--|
| <ol style="list-style-type: none"> 1. Monitor for the presence of Surveillance species within the Wellington region. 2. Monitor and manage those Surveillance species already present in the Wellington region. | <ul style="list-style-type: none"> • Provide information and publicity to enhance public awareness of Surveillance species. • Record and report any incidences of Surveillance species in the region. • Investigate the feasibility of eradication if a Surveillance species is detected within the region. |

2.1.2 Total Control species – rooks

Aim: Total control of rooks in the Wellington region at a cost of \$108,000

| Objective | Means of Achievement |
|--|---|
| <ol style="list-style-type: none"> 1. Manage rooks to levels that protect economic values in the region. 2. Achieve total control of rooks within 25 years in the Wellington region. | <ul style="list-style-type: none"> • Undertake direct control by service delivery where rooks are known to exist. • Survey rook populations annually in areas where they are known to exist, and where new infestations are reported. • Support appropriate research initiatives, including biological control should it become available. • Ensure compliance with the strategy rules in order to achieve the strategy objectives. • Encourage Horizons and Hawke's Bay Regional Councils to actively pursue management of rooks within their regions that complements the GWRC Total Control programme. • Annually inspect pet shops and rook keepers to prevent sale and/or breeding of rooks. |

2.1.3 Suppression species – rabbits

Aim: To minimise the adverse impacts of feral rabbits at a cost of \$216,000

| Objective | Means of Achievement |
|--|--|
| <p>1. Ensure that no area in the region exceeds Level 5 on the Modified McLean Scale at any one time.</p> <p>Refer to Appendix 2 for the Modified McLean Scale of rabbit infestation.</p> | <ul style="list-style-type: none"> • Undertake direct control by service delivery to control rabbits on riverbeds, esplanades or similar public commons to ensure that rabbits do not exceed Level 5 of the Modified McLean Scale. • Ensure compliance with the strategy rules in order to achieve the strategy’s objectives. • Survey land in high to extreme rabbit prone areas to determine the extent of rabbit infestation. • Make occupiers aware of their responsibilities for rabbit control. • Provide information and publicity to enhance public awareness of the threat rabbits pose to the region. • Release biological control agents for the control of feral rabbits when appropriate. • Support research initiatives including biological control. • Annually inspect pet shops to prevent the sale of feral rabbits. |

2.1.4 Site-Led species – human health - magpies

Aim: To manage magpies to minimise adverse human health and environmental impacts in the Wellington region at a cost of \$65,000

| Objective | Means of Achievement |
|--|--|
| <ol style="list-style-type: none"> 1. Respond to reports of magpies attacking members of the public within 10 working days. 2. Supply traps to occupiers wishing to undertake their own control. 3. Establish representative population trend monitoring sites for magpies. | <ul style="list-style-type: none"> • Undertake direct control by service delivery of magpies within 10 working days where there is known to be a threat of injury to members of the public, or complaint(s) are made to that effect. • Respond to landowners wanting to undertake magpie control within 15 working days of receiving a request for information and/or assistance. • Provide advice, education and assistance to occupiers wanting to undertake magpie control. • Support appropriate research initiatives into magpie impacts. • Annually inspect pet shops to prevent the sale of magpies. |

2.1.5 Site-Led species – human health - wasps

Aim: To minimise the adverse human health and environmental impacts of wasps at selected sites at a cost of \$7000

| Objective | Means of Achievement |
|--|--|
| 1. Reduce the anti-social and adverse environmental impacts of common and German wasps in the Wellington region. | <ul style="list-style-type: none"> • Provide advice and education to occupiers wanting to undertake wasp control. • Provide a referral service to landowners/occupiers who require wasp control. • Support research initiatives into the human health impact of wasps in the Wellington region. |

2.1.6 Site-Led – biodiversity – possum

Aim: To minimise the adverse impacts of possums in areas of ecological significance and maintain accrued biodiversity and economic gains in the Wellington region at a cost of \$132,000

| Objective | Means of Achievement |
|--|--|
| 1. Address the adverse impacts of possums in selected areas for catchment functions, biodiversity and economic prosperity. 2. Minimise the adverse environmental impact of possums in areas of ecological significance in the region. | <ul style="list-style-type: none"> • Undertake direct control by service delivery in sites of ecological significance in agreement with the landowner/occupier. • Support the establishment of new possum control programmes, in collaboration with landowners, in areas which have historically received bovine Tb vector control and now meet the Animal Health Board criteria to be declared Tb free. • Provide information and publicity to enhance public awareness of the threat possums pose to the region. • Provide advice, education and assistance to occupiers wanting to undertake possum control. • Provide a referral or cost recovery service to landowners/occupiers who require possum control. • Support research initiatives including biological control. • Annually inspect pet shops and other outlets to prevent the sale of possums. |

Explanatory note:

1. The cost of possum control associated with this Site-Led – biodiversity – possum category will only be for possum control conducted outside the Key Native Ecosystem (KNE) programme.
2. This Operational Plan has a Site-Led category for KNEs, Reserves and Forest Health with the aim of protecting indigenous biodiversity in a comprehensive range of KNEs throughout the Wellington region.
3. Possums, together with rats and mustelids are the principal target species in KNE management areas. This holistic management regime through multi species control makes it impracticable to separate and allocate specific costs to specific pests.

2.1.7 Site-Led – Regional Possum Predator Control Programme

Aim: To minimise the adverse impacts of possums in areas declared Bovine Tb free at a cost of \$1,395,000

| Objective | Means of Achievement |
|--|---|
| 1. Address the adverse impacts of possums in Bovine Tb free areas for catchment functions, biodiversity and economic prosperity. | <ul style="list-style-type: none"> • Maintain a possum residual trap catch of 5% or lower across 90,000 ha of the Wellington region. |

2.1.8 Site-Led – Key Native Ecosystems, Reserves and Forest Health

Aim: To protect indigenous biodiversity in a comprehensive selection of Key Native Ecosystems and Reserves at a cost of \$1,654,000

| Objective | Means of Achievement |
|--|--|
| 1. Achieve a measurable improvement in the ecological health and diversity of Key Native Ecosystems (KNEs) and reserve areas using a range of suitable indicators. | <ul style="list-style-type: none"> • Ensure KNEs are legally protected into perpetuity. • Establish and implement integrated pest management plans for all KNEs and selected reserves. • Undertake direct control by service delivery of pests identified in the management plan for KNEs and reserves. • Facilitate the involvement of community groups where appropriate. • Coordinate site management with other biodiversity initiatives where possible. • Use biological control agents where appropriate, and support relevant biological control research initiatives. • Monitor site recovery using a range of ecological indicators. • Manage external pressures that are inconsistent with KNE and reserve management objectives. • Provide public education and advice to foster biodiversity management outside formal KNE and reserve areas. • Maintain holistic management in existing managed KNE and reserve areas. • Where KNEs are identified on Territorial Local Authority land, seek funding from the relevant authority to form financial partnerships. |

3. Pest Plants

3.1 Performance targets and measures

3.1.1 Surveillance species

Aim: To determine the distribution and means of control for Regional Surveillance pest plants within the Wellington region at a cost of \$270,000

| Objectives | Means of Achievement |
|--|---|
| <ol style="list-style-type: none"> 1. Carry out a Regional Surveillance pest plant programme to determine the status of these species within the Wellington region. 2. Carry out a trial control programme to ascertain the best method(s) for controlling selected Regional Surveillance pest plants within the region. | <ul style="list-style-type: none"> • Identify new sites of Regional Surveillance pest plants by GWRC Biosecurity staff, the public, or through the Regional Surveillance pest plant programme. • Undertake a control trial programme on selected Regional Surveillance pest plants within the region. • Undertake training and research to be conversant with the identification and biological characteristics of all Regional Surveillance pest plants. • Provide information and publicity to enhance public awareness of the threat posed by Regional Surveillance pest plants to the region. • Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of Regional Surveillance pest plants. • Report outcomes of investigations into new incursions or species known to be established in the region. • Use biological control agents where appropriate, and support relevant biological control research initiatives. |

3.1.2 Total Control species

Aim: To control all Total Control species within the Wellington region at a cost of \$363,000

| Objective | Means of Achievement |
|---|---|
| <ol style="list-style-type: none"> 1. Control all Total Control species at all known sites on an annual basis. | <ul style="list-style-type: none"> • On an annual basis undertake direct control by service delivery of all Total Control species at all known sites within the region. • Provide information and publicity to enhance public awareness of the threat posed by Total Control species to the region. • Identify new sites of Total Control species through incidental reports by GWRC Biosecurity staff, the public, or through the Regional Surveillance pest plant programme delimiting known infestation sites. • Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of Total Control species. • Use biological control agents where appropriate, and support relevant biological control research initiatives. |

3.1.3 Containment species

Aim: To control all Containment species outside the Containment zones within the Wellington region at a cost of \$179,000

| Objective | Means of Achievement |
|---|--|
| <p>1. Control all Containment species at known sites outside the Containment zones on an annual basis subject to successful control trials.</p> | <ul style="list-style-type: none"> • Undertake direct control by service delivery of Containment species outside the Containment zone within the region on an annual basis. • Provide information and publicity to enhance public awareness of the threat posed by the Containment species to the region. • Identify new sites of Containment species outside the Containment zones through incidental reports by GWRC Biosecurity staff, the public, or through the Regional Surveillance pest plant programme. • Annually inspect all plant, animal outlets and markets in the region to prevent the sale and/or propagation of the Containment species. • Use biological control agents where appropriate, and support relevant biological control research initiatives. |

3.1.4 Site-Led - boundary control, suppression and human health species

Aim: To minimise the adverse impacts of Site-Led boundary control species and the risk to human health of species in specific situations throughout the Wellington region at a cost of \$194,000

| Objective | Means of Achievement |
|--|---|
| <p>1. Prevent the spread of Site-Led boundary control species onto properties that are clear, or being cleared of boundary control species.</p> <p>2. Prevent the spread of Site-Led human health species onto properties that are clear, or being cleared, of human health species.</p> | <ul style="list-style-type: none"> • Action complaints received within the parameters of the Regional Pest Management Strategy. • Provide information and publicity to enhance public awareness of the threat posed by Site-Led boundary control and human health species to the region. • Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of Site-Led boundary control and human health species. • Use biological control agents where appropriate and support relevant biological control research initiatives. |

3.1.5 Site-Led – Key Native Ecosystems, Reserves and Forest Health

Aim: To protect indigenous biodiversity in a comprehensive selection of Key Native Ecosystems and Reserves at a cost of \$1,199,000

| Objective | Means of Achievement |
|---|---|
| <p>1. Achieve a measurable improvement in the ecological health and diversity of KNEs and Reserve areas using a range of suitable indicators.</p> | <ul style="list-style-type: none"> • Ensure KNEs are legally protected into perpetuity. • Establish and implement integrated pest management plans for all KNEs and selected Reserves. • Undertake direct control by service delivery of pests identified in the management plan for KNEs and Reserves. • Facilitate the involvement of community groups where appropriate. • Coordinate site management with other biodiversity initiatives where possible. • Use biological control agents where appropriate and support relevant biological control research initiatives. • Monitor site recovery using a range of ecological indicators. • Manage external pressures that are inconsistent with KNE and Reserve management objectives. • Provide public education and advice to foster biodiversity management outside formal KNE and Reserve areas. • Maintain holistic management in existing managed KNE and Reserve areas. • Where KNEs are identified on Territorial Local Authority land, seek funding from the relevant authority to form financial partnerships. |

4. Indicative funding sources

The table below outlines indicative funding sources:

| Revenue Sources | Pest Animals \$ | Pest Plants \$ | Regional Possum Predator Control \$ |
|-------------------------|--------------------|-------------------|---|
| General Rate and Levies | 1,320,360 | 1,598,306 | 708,000 |
| Internal Income | 698,140 | 584,550 | 472,000 |
| External Revenue | 175,500 | 22,144 | |
| Reserves | | | 215,000 |
| Total Revenue | 2,194,000 | 2,205,00 | 1,395,000 |

5. 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. Copies of the report will be made available to the public.

Appendices

Appendix 1

Chemical Controls in use by Greater Wellington Regional Council

Herbicides:

Diaquat (Reglone, Dy-Quat)
Glyphosate 360, 450, 510, 540 (Roundup, Agpro Glyphosate, Cut and Treat Gel)
Haloxypop-P-Methyl (Gallant Ultra, Agpro Haloxypop, Ignite)
Imazapyr (Arsenal)
Metsulfuron-Methyl 600 (Escort, Agpro Meturon, Zeal)
Picloram (Tordon Brushkiller, Vigilant Gel)
Triclopyr 600 EC (Grazon, Tordon Brush Killer, Agpro Triclopyr 600)

Vertebrate Toxic Agents and insecticides:

1080 pellets (RS5, No 7)
1080 Paste
Alphachloralose (paste, wheat)
Brodifacoum (Pestoff pellets, Pestoff High Strength, rodent blocks)
Bromadiolone (Confrac blocks)
Cholecalciferol (cereal pellets and Feracol paste)
Coumatetralyl (blocks)
Cyanide (Feratox, paste)
Diphacinone (50D, Ratabate, Ditrac)
DRC 1339 paste (rook nest baiting) and bread dripping baits, macaroni baits
Fipronil (Xtinquish ant bait, Vespex wasp bait)
Magtoxin (fumigant pellets)
Permethrin (Permex, Dust2Dust powder)
Pindone (possum pellets, rabbit pellets, liquid concentrate)
Difethialone (rodent paste bait)
Sodium Nitrate (possum and pig bait)
PAAP (stoat control)

Appendix 2

Modified McLean Scale

| Scale | Rabbit Infestation |
|-------|--|
| 1 | No sign seen. No rabbits seen. |
| 2 | Very infrequent sign seen. Unlikely to see rabbits. |
| 3 | Sign infrequent with faecal heaps more than 10 metres apart. Odd rabbit may be seen. |
| 4 | Sign frequent with some faecal heaps more than 5 metres apart, but less than 10 metres apart. Groups of rabbits may be seen. |
| 5 | Sign very frequent with faecal heaps less than 5 metres apart in pockets. Rabbits spreading. |
| 6 | Sign very frequent with faecal heaps less than 5 metres apart over the whole area. Rabbits may be seen over whole area. |
| 7 | Sign very frequent with 2-3 faecal heaps often less than 5 metres apart over the whole area. Rabbits may be seen in large numbers over the whole area. |
| 8 | Sign very frequent with 3 or more faecal heaps less than 5 metres apart over the whole area. Rabbits likely to be seen in large numbers over the whole area. |

The Greater Wellington Regional Council's purpose is to enrich life in the Wellington Region by building resilient, connected and prosperous communities, protecting and enhancing our natural assets, and inspiring pride in what makes us unique

For more information, contact the Wellington Regional Council:

Masterton office
34 Chapel Street
PO Box 41
Masterton 5840
T 06 378 2484

Upper Hutt office
1056 Fergusson Drive
PO Box 40847
Upper Hutt 5140
T 04 526 4133

Follow the Wellington Regional Council



pest.plants@gw.govt.nz
pest.animals@gw.govt.nz
www.gw.govt.nz



Please recycle
Produced sustainably

GW/BIO-G-17/84
August 2017



Report 17.306
Date 12 September 2017
File CCAB-10-365

Committee Environment Committee
Author Nigel Corry, General Manager, Environment Management
Wayne O'Donnell, General Manager, Catchment Management
Luke Troy, General Manager, Strategy

General Managers' report to the Environment Committee meeting 20 September 2017

1. Purpose

To inform the Environment Committee of Greater Wellington Regional Council (GWRC) activities relating to the Committee's areas of responsibilities.

2. Catchment Management

2.1 Biosecurity

2.1.1 Regional Pest Management Plan (RPMP) Review

A cost-benefit analysis to determine the appropriate control programmes for species is well under way. There are many proposed changes to what species will be included in the plan, taking into account data since the last review in 2007, recent or current distribution surveys, and changes in legal classification of certain species. Predator Free 2050 and the increasing community response is also a big influence on decision making moving forward.

A summary of the discussion document feedback was produced with the 'strongest' theme being the desire for increased engagement and consultation with community groups.

For pest plant species, property surveys are underway to determine infestation levels so informed decisions can be made as to which species should be selected for inclusion in the new RPMP. Information obtained from recent surveys combined with existing records will provide the raw data we need as we work through the various species in the CBA.

2.1.2 NZ Biosecurity Institute NETS2017 Conference

July saw the National Education and Training Seminar (NETS) conference being held in Wellington. The theme for NETS2017 was Birds, the Beehive and Biosecurity: Capital Results, Working Together and the emphasis was on collaboration between agencies, councils, government departments, NGOs and the community in biosecurity.

Wayne Cowan (GWRC Biosecurity) was awarded the Peter Ingram award for his contribution to pest plant education. A number of Biosecurity and Biodiversity staff showcased GWRC achievements in well received presentations.

2.1.3 Aerial Wilding Pine Control Using Firearms

There has been nationwide interest in a new wilding pine control method using helicopters and shotguns to shoot pesticide into trees. A specially designed projectile containing Metsulfuron herbicide was developed by local helicopter pilot/engineer Maurice Wooster and our own Wayne Cowan. Initial small scale trials conducted over Christmas 2016 proved incredibly successful.

The new process has several advantages over traditional control techniques including reducing the cost, and safety risks associated with accessing and controlling isolated trees in mountainous terrain. This method also significantly reduces the amount of herbicide applied into the environment.

More trials are now being proposed for November, with the necessary Site Safety Management Plans and Standard Operating Procedures currently being developed.

2.1.4 Rabbits – new variant of Rabbit Haemorrhagic Disease Virus (RHDV1 K5)

A cross agency project team has been working nationally to gain approval to import and release a new variant of RHDV1 K5 in New Zealand. The project is well advanced. On the assumption that all the necessary approvals will be obtained, the project team have commenced planning for a national coordinated release that spans the importation of RHDV1 K5, through to a strategic release in the field in March/April 2018.

GWRC plan to be involved in this national initiative and aim to release the virus at 30 sites region wide. The proposed K5 release points will be mapped by Landcare Research to ensure we optimise geographic coverage across the rabbit prone areas of New Zealand. Post release monitoring will be undertaken to monitor virus spread. Protocols for handling, mixing and releasing K5, as well as monitoring spread, will be shared with councils and land occupiers once they have been developed and approved by Agricultural Compounds and Veterinary Medicines Agency.

2.1.5 Rook control Programme

Planning for the rook control programme is underway, with Medical Officer of Health approval being sought, and the rookery survey planned from the third week in September 2017.

A central/lower North Island regional council meeting was held to discuss progress to date, plans for the coming season and analyse successes and failures over the past year. One innovative outcome of the meeting was to establish the use of drones as a new and valuable tool to assess the progression of eggs and chicks.

2.1.6 Predator Free Wellington and PF2050

Biosecurity staff developed a draft plan for eradicating rats and mustelids from Miramar Peninsula. This plan has now been reviewed by two separate external eradication experts. The findings are going to be collated to determine a chosen method (ie, types of trap or bait station) so that a comprehensive eradication plan can be developed.

The original plan developed by our expert, Glen Falconer, has proven to be a very good platform to work from. Predator Free Miramar was formally launched on 12 August 2017. GWRC was involved with assisting the launch.

DOC has employed its Predator Free 2050 rangers, and an inaugural meeting was held with DOC, WCC, Predator Free Wellington and NEXT Foundation's community champion to gain a better understanding of current regional initiatives, agency activities and who to direct people and communities to for help. Establishing agency co-ordination came through as an essential component, as well as best practise information and better tools for communities.

2.1.7 Regional Possum Predator Control Programme (RPPCP)

Work has commenced on the 2017/18 programme which covers 90,000 hectares. Our team has completed control over 15,000 ha to date.

2.1.8 TBfree New Zealand Programme

BioWorks had been contracted to deliver the Southern Rimutaka Aerial project on behalf of TBfree New Zealand (13,350 ha aerial and 4,200 ha of ground control). Planning for this operation commenced early in the 2015/16 year.

Part two of the aerial operation was completed on Sunday, 30 July, following the prefeed application which had been applied on 16 and 17 June. On the final day, four helicopters treated 10,300 hectares in 4.5 hours. A load of bait was leaving the aerial site every five minutes, each load treating approximately 185 hectares.

Following the aerial baiting, staff working in pairs checked 90 km of tracks twice, removing baits to minimise risks to the public. Staff are checking poison warning signs weekly and this will continue until all baits are non-toxic. Damaged or missing signs are replaced during these checks.

The final delivery of this operation marked the end of 28 years of GWRC's intimate involvement with bovine TB eradication, with great success achieved in the eradication of the disease in our Region.

2.2 Land Management

2.2.1 Works Programme

In total 14,822 poplar and willow 3m A grade poles and 84,901 seedlings were contract planted in July and August this year. This is a great effort considering the amount of rain that continues to make access to planting areas difficult.

It is anticipated that planting will be completed by the end of September. As soon as the weather allows, the release spraying of trees across a number of sites will commence. It is important to complete the spraying before the flush of spring grass growth occurs.

2.2.2 Akura

For the months of July and August a total of 76,877 native plants were sold. 56,120 were sold as Wairarapa eco-sourced, which represents 73% of total native plants sold. An additional 4,566 Eucalypts, 78,200 pines and 7,993 other exotics were also sold during this two month period.

The pole nursery has produced 17,000 3m A grade poplar and willow poles for July and August. A further 800 2.5m A grade poles have also been sold. Demand has been strong for poplar and willow material and unfortunately a significant number of orders have had to be declined due to a shortage of 3m A grade material.

2.2.3 Farm and Environment Plans (FEP's)

The FEP programme has started the first quarter of 2017/18 seeking to engage new landowners into the programme. Although interest from landowners wanting an FEP developed around Lake Wairarapa remains high, Land Management Advisors will begin to actively engage with farmers in the Parkvale catchment as it has been identified in the Proposed Natural Resources Plan (pNRP) and the FEP programme strategy as a priority catchment.

Between 10 to 15 FEPs will aim to be developed across the region by the end of 2017/18 with a works budget of \$500,000 in the contestable fund. A brief review of the contestable fund is planned to be undertaken by the end of the first quarter to refine the model, based on some of what was learned from its first year of operation. This may include capping the contestable fund spend on individual farms to allow the fund to be more evenly allocated across the region.

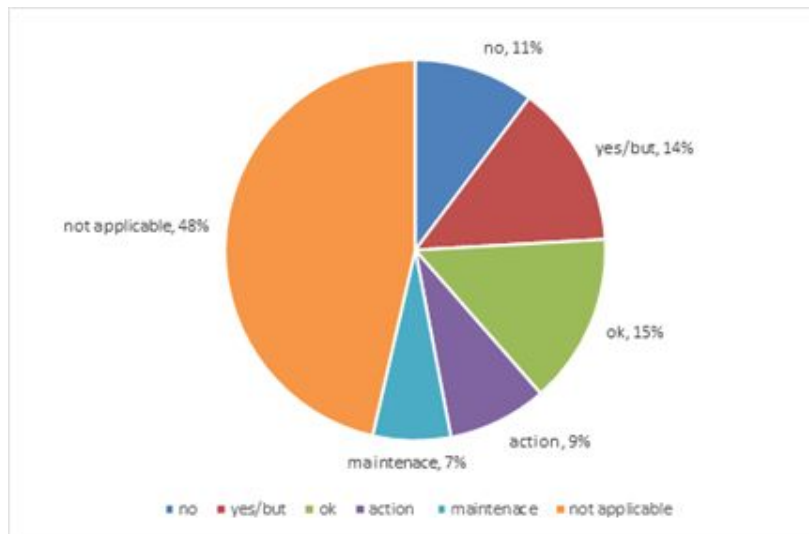
2.2.4 Riparian Programme

The Riparian Programme supports landowners to achieve water quality and biodiversity outcomes through the management of stock access to waterways. Part of this programme is to work with landowners to identify waterways and sites that meet the definitions for Category 1 (sites of significance under the pNRP).

There are 251 Category 1 sites identified in the pNRP, 214 of these sites have been classed as complex and as such have been prioritised for site inspections. The tables below show the progress of the programme to date using the stage of behaviour change method.

| Complex Sites Project Progress | |
|---------------------------------------|-----|
| Number of Sites | 214 |
| Initial site Assessment Complete | 109 |
| Confirmed No stock | 45 |
| Already in Action | 13 |
| Still to contact | 46 |

| Behavioural change monitoring- Stages of change (sample size = 166) | |
|--|------|
| No | 11 % |
| Yes/but | 14% |
| OK | 15% |
| Action | 9% |
| Maintenance | 7% |
| No Stock | 48% |



In this quarter, the project will focus on shifting the landowners forward along the behaviour change spectrum through to implementation of their stock exclusion plans.

2.3 Flood Protection Implementation

2.3.1 RiverLink

The Hutt Valley Flood Management Subcommittee will participate in workshops in August, September and November this year. This will refine the preliminary design and costs, and assist further development of an outline programme for the project.

The RiverLink shipping container was placed at the Dowse Square for the duration of the Hutt Winter Festival. The purpose of this was to maintain the profile of the project with a focus on the Making Places elements of the project. Despite the poor weather, attendance to the container was between 50-100 people while the Facebook posts for this event reached 10,506 people.

The RiverLink information container will be set up on the following dates at these locations;

- 17 Aug – 28 Aug Avalon Park
- 2 Oct – 19 Oct Melling Train Station
- 20 Oct – 23 Oct High Light – Carnival of Lights
- 30 Oct – 10 Nov Belmont School
- Summer Popup Beach

Newsletter No.7 will be sent out in September, the theme of this newsletter is transport links.

2.3.2 Pinehaven Stream Floodplain Management Plan

Wellington Water is project manager for delivery of the Pinehaven Stream Flood Capacity improvements. Jacobs Ltd is the design consultancy completing technical design components. Preliminary design and modelling has been completed and an engagement plan is being developed to re-engage with properties adjacent to the areas of work, and inform and update the wider Pinehaven and Silverstream communities.

The further submission period for Plan Change 42 – Mangaroa and Pinehaven Flood Hazard Extents closed on 8 June 2017. Hearings are scheduled for the last week of September 2017.

2.3.3 Hutt River Environmental Strategy Review

The first stage of stakeholder review of the Hutt River Environment Strategy Action Plan is underway, this includes both Upper Hutt City Council (UHCC) and Hutt City Council (HCC). Community engagement regarding the updated plan has been postponed until summer to try and capture a greater interest in the review outputs from people who use the area and participated in earlier survey work to support the review. A draft has been developed and will be used as a basis for the community engagement later in the year. The draft environmental strategy action plan will be presented to the Hutt Valley Flood Management subcommittee prior to community consultation commencement.

2.3.4 Taita Park and Robin Maud Memorial Planting

In July an event was held to plant a living memorial for Robin Maud and to celebrate the 25th anniversary of the Hutt River Trail. This project will be a springboard to engage with recreation users and the local community to further develop design improvements for the riverbank and berms in the Taita reach of Te Awa Kairangi/Hutt River.

GWRC and HCC officers are working to connect this project with HCC's Transformation Taita initiative.

2.3.5 Jim Cooke Park Stopbank Upgrade Project

The Jim Cooke Park project has set a practical completion date for mid-September. This completes the stopbank upgrade works, and starts the environmental planting works. The project team is currently working with

adjacent property owners in regard to reinstatement and amenity planting, and working with the contractor to tidy remaining finishing items for the project.

The project has maintained a good working relationship with iwi representatives, and looks forward to building on the relationship in future work along the Waikanae River.

2.3.6 Waitohu Stream

Land entry agreements relating to the construction of a low level stopbank adjacent to Convent Road have been reconfirmed. Work continues to bring alignment of the downstream land entry agreements required to provide an interim level of protection.

An enquiry from a property owner has been received in relation to accessing house raising assistance for a property identified as eligible for this assistance by the Otaki River Floodplain Management Plan.

2.3.7 Lower Wairarapa Valley Development Scheme

Scour protection works on a property in the Hikunui Floodway were completed.

Planning work for the Pukio East Dairies Ltd stopbank project, on the left bank of Ruamahanga River, was progressing. An engineering design report along with the development of Rural Stopbank Standard and project plan has been prepared. Work on a draft land entry agreement has commenced. Meetings with the landowner will be held in September 2017 with the aim of commencing the first stage of construction work in October 2017.

2.4 Operations, Delivery and Planning

2.4.1 Western Operations

The works programmes in the Western rivers are progressing as planned, Willow and native planting programmes are now almost complete in all the western river schemes, with community groups in Kapiti still busy completing the last of the native planting programmes. As a note last year we planted approximately 5,000 willows and 13,000 natives in the river corridors in the western part of the region.

The drain clearing weed boat has now completed work in the Waimeha and Rangiuru Streams and other streams have been cleared either by hand or by using an excavator.

Waikanae River access tracks, affected by the Jim Cooke Park stopbank project, are being repaired and berm areas are being reinstated to a suitable mowing standard.

Stream clearance runs have also been undertaken in the Waitohu Stream, Kenepuru Stream and Wainuiomata River to remove fallen trees following recent storm events.



Kenepuru Stream blockages

2.4.2 Wairarapa Operations

Willow planting programmes are continuing in the Wairarapa rivers and will make up most of the workload going into the next month.

400 tonnes of rock has been delivered to the Waiohine River for flood repairs and a further 500 tonnes is currently being delivered for Ruamahanga Te Ore Ore Scheme repairs.

River maintenance work continues with contractors building gravel groynes in the Waiohine and Tauherenikau Rivers and beach clearing over a 7 kilometre reach in the Waingawa River. Repairs to floodgate structures are continuing.

Inspections of flood protection assets following the July flood showed assets generally coped well. Significant erosion was evident in the Kopuaranga River and further damage was observed to the Ruamahanga right bank at Tuckers. This also will be repaired once ground conditions improve.

2.4.3 Asset Management and Operations Planning

Work continues on reviewing and updating the Flood Protection Asset Management Plan to support the Council's 2018-28 Long Term Plan. Staff have also been involved in the development and roll out of a National Code of Practice for Flood Protection Asset Performance. An inaugural meeting of a User Group will be held in Wellington in September.

2.4.4 River management resource consents

We have made contact with all submitters to the consent applications and have held a number of meetings with all but 2 submitters in opposition to the resource consent applications. A decision has been jointly made with ourselves, Environmental Policy and Environmental Regulation not to proceed to a hearing this year. This gives us more time to reach agreement with submitters which will be valuable and has freed up some resources within the Environment Group to focus on the pNRP hearings.

The key areas of focus for the project continue to be developing operational plans and work programming, cultural health monitoring, gravel extraction, code of practice and ongoing environmental monitoring.

2.5 Investigations, Strategy and Planning

2.5.1 Floodplain Management Plan (FMP) Development

Waiohine FMP

A project governance and delivery structure has been approved by Council. We are planning to arrange a Steering Group meeting in late September, at which the Steering Group will appoint a Project Team.

In the meantime, our hydraulic modelling consultant has been revising the hydraulic model in line with the recommendations of the Independent Auditor. He has been consulting with technical representatives of the Waiohine Action Group (WAG) on details of the floodplain and historical flood observations for calibrating the model. We expect to continue working with the WAG (through the Project Team, once established) on different inputs, assumptions and uncertainties with the modelling and to agree the flood hazard before proceeding with options development.

Te Kāuru Upper Ruamāhanga River FMP

The Waipoua Masterton Urban Area Project Group (WMUAPG) has held its first meeting in August and will meet again in September. Calibration of the flood model is underway and we have received additional information from Masterton District Council (MDC) on flooding upstream of Masterton during the 1998 flood.

A number of items have been reported to, and will be workshopped with, the TKURFMP Subcommittee on 12 September in preparation for inclusion in the next draft of the FMP. The most significant of these is the proposed approach to buffer management, which allows for rivers to have more space to move by erosion of the edges within a defined envelope. Consultation with specific landowners affected by the major project responses is also underway.

An updated project programme has been reported to the Subcommittee that avoids the 2019 local government election period. There are risks associated with meeting this shortened deadline that include consultation outcomes and being able to agree a preferred option for the Masterton urban area within this time.

2.5.2 Investigations and Strategy

(a) Environmental Planning

Our Environmental Planner and other GWRC staff have been working with Porirua City Council and a community group on their project to use native plantings to hide graffiti around the river and rail corridors approaching Porirua. We are advising on opportunities that will not obstruct maintenance of the stream or worsen flooding.

(b) Otaki River walkover

Preparation is underway for the Otaki River public walkover on Friday, 22 September. All Councillors are welcome to attend and details have been circulated via the Councillors' Bulletin. This is an annual event and an opportunity both for the Friends of the Otaki River to showcase their work and recognise achievements, and for GWRC to discuss last years and next year's work programmes and activities on the river.

(c) Policy/District Plan input

GWRC will be speaking to or submission on UHCC Plan Change 42 (Pinehaven and Mangaroa) at the hearing at the end of September.

We are working with Porirua City Council on having updated flood maps for the Porirua Stream, in combination with flood hazard information from Wellington Water, for consultation on its District Plan review in February 2018.

We have been working with district and city councils on inputs to their LTPs where there are overlaps or linkages with GWRC's Flood Protection activities.

(d) Te Awa Kairangi / Hutt River Flood Forecasting

The initial trial of the flood forecasting tool is now complete and it's clear that the forecast reliability is very closely related to how accurate the rain forecasts are. The model itself shows good potential for being operationalised. The software provider will provide a proposal for next steps that will include options for incorporating more detailed forecasts and also better assimilating the information from our own gauge network. We are also going to trial using NIWA rainfall forecasts in addition to those provided by the MetService.

3. Biodiversity

3.1 General

3.1.1 Mahi Waiora

A workshop was held with farming industry representatives and the Farming Reference Group to get their views about how to engage with farmers on the new pNRP stock access rules. Feedback was generally positive with representatives keen to work with us, agreeing on co-branding and messaging and using their channels to publicise the availability of wetland funding.

A media campaign is underway to raise public awareness of GWRC's support packages available for fencing and planting of waterbodies identified in the pNRP. Filming took place at the Kourarau Dam in the Wairarapa for a video featuring a local farmer. A short video will be produced to use for the Water Story campaign, while a longer interview-style video will be used for the media promotion of the riparian and wetland programmes and support.

3.2 Biodiversity Management

3.2.1 Key Native Ecosystem (KNE) programme

Goat control has started for the year with Akatarawa Forest and Wainuiomata/Orongorongo KNE sites being first in line. Parangarahu Lakes Area KNE site continues to have goats in moderate numbers due to the boundary fence being inadequate in stopping feral animals immigrating into the area. Biosecurity control these immigrating goats every two months.

Pig numbers are expected to be high in the Wainuiomata mainland island this year as a result of the mast event. Pigs are attracted into the area by the large amounts of fruit that ends up on the ground following the intense fruiting of native trees. High pig numbers will result in large amounts of disturbance of the forest floor and damage to understory plants. Pig control will be undertaken by contractors in the mainland island during early September.

3.2.2 QEII Programme

QEII have provided a summary report of how they spent GWRC funding in the 2016/17 financial year. \$35,000 was used to assist with the establishment of new QEII covenants and \$15,000 was used in maintenance of QEII covenants. A further \$12,000 was allocated to QEII to engage a contractor to control Old Man's Beard in a covenant with a significant population of the Threatened – Nationally Critical plant species *Olearia gardneri*.

3.2.3 Wetland programme

Landowners of two significant natural wetlands signed up to the Wetland Programme; Bushgate wetland north of Masterton and Te Hapua E wetland on the Kāpiti coast. Restoration Management Plans are currently being developed for these two sites and funding will be provided for ecological weed control, revegetation planting and pest animal control.

3.2.4 Fish Passage

The GWRC Fish Passage Programme has been renamed to the 'Freshwater Fish Programme'. This reflects a recent decision to broaden the scope of the programme to provide advice and support for fish passage and habitat restoration in our region.

3.3 Biodiversity Advice and Advocacy

3.3.1 Biodiversity Advice

Biodiversity staff are scoping potential options for expanding our regional leadership role on biodiversity issues, including the possibility of instigating a regional biodiversity forum. We are also investigating what our role should be in delivering the Predator Free 2050 initiative. Staff carried out an informal survey on these matters with the Biodiversity Working Group, discussing the results at the last meeting. This discussion helped to inform the GM's deliberations with Councillors and a summary will also be circulated to BioManagers and the Biosecurity Working Group for their reference.

A regional biodiversity planning group is being developed to enable GWRC and territorial authorities to work more closely together in future on regional

biodiversity planning. The formation of the group was an outcome of a workshop, delivered by Biodiversity staff, to help inform the process for identifying and protecting significant biodiversity. The aim of the group is to formulate shared policies for city and district plans that align with the objectives of the Regional Policy Statement.

3.3.2 Collaborative Restoration: Wairarapa Moana Wetlands Project

The report on the third kākahi (freshwater mussel) survey for the Wairarapa Moana Wetlands Kākahi Monitoring programme has been published. Twenty seven new and returning volunteers participated in the 2017 survey, which was coordinated by Biodiversity staff with support from a freshwater ecologist. The report has been distributed to interest groups and posted on the Wairarapa Moana Wetlands website.

As part of completing the Wairarapa Moana Whitebait Connection environmental education programme, student representatives from Featherston, South Featherston and Tauherenikau Schools have started planting for their Donald's Creek restoration project. Biodiversity staff have provided support to plan and prepare for the planting as a kaitiaki/action project.

At the recent Wairarapa Moana Governance Group meeting it was agreed to establish a process to brief the incoming iwi statutory board following Treaty settlements. A workshop will also be held to determine the Governance Board's role in engaging with the wider community to inform them about the project and about future challenges for Wairarapa Moana.

3.3.3 Collaborative Restoration: Te Awarua-o-Porirua Harbour and Catchment Project

Porirua City Council (PCC) and GWRC planted approximately 1500 additional plants into the newly constructed sand dune along the Porirua Harbour Foreshore. This planting event completes the planting stage of the Porirua Stream Mouth and Estuary Edge Enhancement Project (PSMEEP). The design and installation of a sign illustrating the significance of the project and maintenance of the site will be overseen by PCC.



Fig 1. PCC and GWRC staff planting on newly created sand dunes along the Porirua Harbour Foreshore

4. Enabling Catchment Communities

4.1.1 Launching a Catchment Communities Programme

We are developing a new cross-Group programme to support catchment communities, defined by shared watersheds, respond to increasing complexity and change. This is driven by community concern in relation to water quality and security, climate change, biosecurity and the challenge of implementing new national and regional regulation. Jamie Falloon recently spoke to the Committee about this approach as well; we were supportive of his presentation.

The Enabling Catchment Communities programme is an investment in community capability and resilience. GWRC will partner with other organisations including central government, territorial authorities and industry to support catchment communities to identify their own needs and set programmes of action for improving water quality and other catchment priorities.

It is important that catchment communities initiate and lead their own process. A catchment community might focus on optimising land use, improving water quality, internet access, pest management or new economic opportunities. GWRC's role is to partner with others to ensure catchment communities receive support.

We are initially focussing on the Ruamāhanga and Te Awarua-o-Porirua whitua. In the Ruamāhanga, catchment communities are already becoming established through landowner networks. We are working with a core inter-

agency group to build a support structure that will enable these catchment community initiatives to flourish.

A team of three staff from Catchment Management and Environment groups have been tasked with leading the design and development phase of this programme.

4.1.2 Catchment Community Groups

(a) Kourarau Community Group

The Marketing and Communications team visited the Kourarau community group to do some filming for a number of upcoming projects. A 15 second video will be made for the “Our Region” Project, looking at what GWRC is doing for water quality with a total of 5 videos being produced. Kourarau will also feature as the stock exclusion story with its utilisation of the Riparian Fund. This video will be going out on social media and in front of YouTube Videos with links to the GWRC website if people wish to find out more.

Another video will also be produced that will involve an interview with David Blackwood (landowner at Kourarau) and how he has found working with GWRC. He has not had a longstanding relationship with GWRC, so it is a relatively new experience for him and it is evident that a strong landowner – GWRC relationship has developed in a short timeframe. Topics covered include the pre-hearing submitters’ meetings and the support provided by GWRC to him personally, and more generally to the Kourarau Catchment Community group. At this point the video is intended for the Farmer Reference Group but may be placed on YouTube and the GWRC Website.

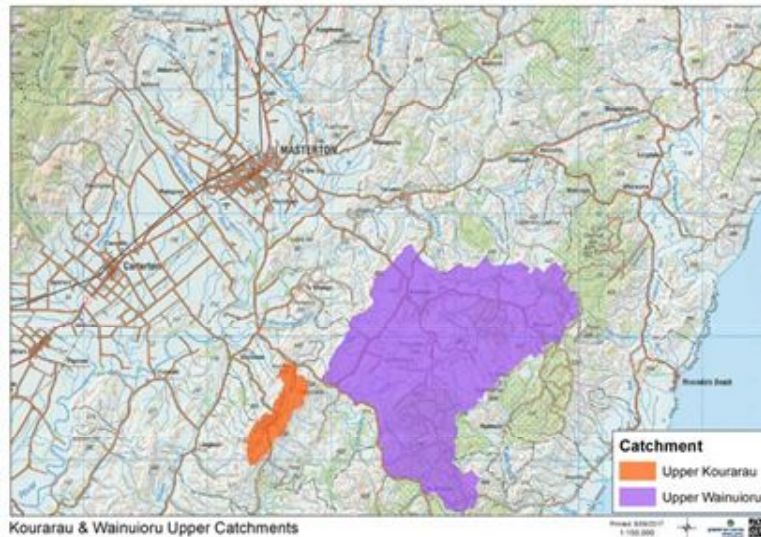
A third video/piece of content will be developed to circulate internally to help convey to staff what is happening in this space, and what goes into producing this sort of communication content.

The videos should be released sometime between Mid-September and Mid-October.



(b) New catchment groups forming

Along with the great progress achieved by the Kourarau community group, a second group is progressing through its formative stages. The catchment area for this new group is located to the east of Masterton and covers the upper reaches of the Pahaoa and Wainuioru River catchments. The total catchment is similar in size to Te Awa Kairangi / Hutt River catchment, with the upper catchment occupying about 34% of the total catchment.



A public meeting was held on 7 September at the Wainuioru Hall to better understand what the drivers are for catchment groups and to formulate some over-arching goals and objectives. An early focus for the group will be on water quality monitoring. With support from Environmental Science staff in the design of the monitoring programme it is envisaged that this example of citizen science will add value to GWRC's own SOE monitoring network. Also of interest to this group is the future management of willows in the main river channels and the establishment of riparian areas with a specific focus on biodiversity.

5. Environment Management

5.1 Harbours

Beacon Hill signal station has been repainted. This work was carried out earlier than expected due to some small leaks in the building, possibly due to the earthquakes. While this was done we took the opportunity to have international code signal flag K, "I wish to communicate with you" painted on the south wall of the station. As well as adding a nautical theme to the building, this is also a good lead into our summer safety campaign based around carrying and using, communications on vessels. We have applied for and have been granted funding from the fuel tax fund, via Maritime NZ, for various aspects of our summer safety campaign.

Staff have been attending Maritime NZ workshops on the summer funding and participation in the "No Excuses" compliance initiative over summer.

Educating recreational boaties is a key part of our risk control for small boat safety issues identified in our Safety Management System.



On 26 July the Harbourmaster's direction excluding vessels from the Port area due to post-earthquake risks was lifted and the marker buoys were removed on 1 August.

On August 30 the harbour rangers and staff from Vega Industries (a Porirua company that makes navigation aids) installed a new solar powered light and mounting system on the Thorndon Pile light. This product is on loan from the maker for testing. This working arrangement gives us access to some of the best quality navigation aids available on the market and allows us to collaborate with a local company.



On Monday, 4 September, Centreport's new pilot vessel "Te Haa" (the Breath) arrived in Wellington from Wanganui and was blessed at a function on Queens Wharf. This vessel is slightly longer but substantially larger, faster and more comfortable than her predecessor. The new vessel will reduce work stress, fatigue and minimise time on the water, leading to safer working conditions for pilots and launch crews. These were issues raised by the Safety Management System and the risk assessment.



Existing pilot launch *Tarakina* alongside new launch *Te Haa*, in the background is the 1925 Auckland built *Arahina* a former Wellington pilot launch, now in private ownership

At the end of July, our new Harbour Ranger, James Allen, attended a 3 day Marine Oil Spill Regional Responder Training Course in Auckland and GWRC Oil Wildlife representative, Dr Roger Uys, attended the two day Marine Oil Spill Wildlife Training Course held at Massey in Palmerston North.

Waste Management's Tier 1 oil spill contingency plan was approved in early August, under authority delegated to us by Maritime New Zealand. This covers that company's assessment of its risk of an oil spill through its activities and how they would respond to that.

In August the Harbourmaster attended a "Bridge Resource Management" course. This 4-day course looks at the human factors in safety critical operations and how to reduce and manage errors. One of the central themes is all parties involved in an operation having a "shared mental model", in some respect similar to the GW Way tenant of "on the same side". A practical reflection of this is the regular fortnightly meeting between the Harbourmaster and Centreport's Marine manager, as part of the ongoing commitment both organisations have to good communication as part of the Safety Management System for the port.

The draft report on the updated Risk Assessment was received from our consultants in late August. This appears to be a very comprehensive report on the risks and controls around Wellington Harbour. GWRC and Centreport are currently reviewing the draft document for accuracy, any corrections will be made and then we will further discuss the content and recommendations of the report. Once this further discussion has taken place the report will be presented to Council.

5.2 Environmental Regulation

5.2.1 Lower Hutt Water Supply: Waiwhetu Aquifer Investigations

An integrated work programme continues with Wellington Water Limited (WWL) (alongside the Environmental Science team) to investigate and respond to Waiwhetu Aquifer contamination risk. This stage of our regulatory work is

coming to a conclusion (which included a desktop analysis and site visits). We have now confirmed that most bores have been decommissioned and backfilled to the required standard/ or are effectively decommissioned and present a negligible risk to groundwater. We will be running our conclusions past the expert consultant panel, and will consider any key recommended actions coming back from the panel.

We are now rolling out a bore assessment exercise in (aquifer) water supply protection areas on the Kapiti Coast and the Wairarapa to determine the bore or land use related risks. While this is a natural extension of our findings and process development from our Hutt Valley work, it is more centrally linked to the Phase One recommendations of the Havelock North Enquiry.

5.2.2 T and T Landfill

Substantial compliance and construction work continues for T and T (construction and demolition fill) Landfill. The stormwater diversion works are ahead of target, with the focus now being on completing the dam in the larger of the two catchments – designed to intercept water that would otherwise flow into the landfill.

Engagement with media and community (via our dedicated webpage) continues on an ‘as needed’ basis – and usually after our monthly onsite inspections with our expert stormwater engineer.

A site visit for Councillors’ is scheduled for 9 October 2017.



Photo of stormwater diversion channel from August site visit

5.2.3 Transmission Gully and PCC Link Roads

Consenting, compliance and management plan review and approval work continues. The project requires a substantial additional amount of earthworks; currently in the order of an additional 4.1 million cubic metres and 83 hectares from that consented by the board of inquiry (BOI). The additional earthworks

have been sought through a series of consent applications, some of which have been granted, some which are being processed currently, and some yet to be lodged. Other notable applications being processed presently include the redesign of Bridge 19 in the Duck Creek catchment and consent for construction dewatering across the Project.

The Stream Mitigation Working Group are conducting ongoing discussions regarding mitigation requirements and availability, including legal protection of mitigation, discussed in the last report. The Group has not met recently as clarity around roles and responsibilities, including NZTA's role, is being determined.

The first Earthworks Compliance Reference Group (ECRG) meeting (set up as a requirement of the November 2016 authorisation to undertake an unlimited area of earthworks across the Project site within the Porirua Harbour/Pauatahanui Inlet catchments) occurred in early September. The ECRG purpose is to review the earthwork's related performance of the project and identify current and potential issues and actions to resolve these to ensure works are appropriately managed. The ECRG includes representatives from CPB HEB Joint Venture (JV), NZTA, independent Sediment Management Peer Review Panel and GWRC.

Current works on the Porirua Link Roads include access track construction, vegetation clearance, and temporary culvert installation associated with the Waitangarua Link Road.

5.2.4 Peka Peka to Otaki

One of the four overarching management plans has been certified, with remainder anticipated to be certified in time for enabling works commencement on 18 September 2017. Two enabling works SSEMPs have also been lodged for certification to meet this commencement date. The project team expects permanent construction works to commence early November.

5.2.5 Marine and Coastal Area Act 2011 (MACA)

A cross-GWRC project team (including Te Hunga Whiriwhiri, Environment Regulation, Environment Policy, Environment Science, Flood Protection, Climate Change and the Legal Team) has been established to identify the implications of MACA for GWRC and take our MACA implementation work forward.

It is anticipated that MACA may significantly change the landscape in which we engage with our iwi partners.

There are two phases in the MACA application processes. Officers are currently designing measures to meet our immediate Phase one obligations and plan for the Phase two requirements in a more considered way. We are in Phase one now, effective from 3 April 2017, with an exclusive focus on:

- Our coastal pre-consent lodgement functions

- Coastal MACA applicants' requirements to engage with relevant Customary Marine Title applicants during the pre-consent lodgement process.
- Signalling GWRC's interest in High Court proceedings through the MACA application process.

This phase is expected to last at least a decade unless the Crown and High Court streamline their existing processes to consider MACA applications. A report has been prepared that outlines the background and implications of the legislation, and officers are currently providing briefings to ELT, Ara Tahi and Council.

5.2.6 Porirua Pilot Project

The Porirua Wastewater collaboration project (known as the PPP) between GWRC and WWL continues to develop a shared understanding of the complex wastewater issues in the Porirua Whaitua. We are looking at existing issues from an integrated whole-of-network and plant perspective – which will inform future consenting options. The plant's consent to discharge to the sea at Rukutane Point expires in 2020, so we have a looming deadline to also maintain the momentum of the group's work.

5.3 Environmental Science

A regional climate change report, as well as a short video highlighting the major changes and potential impacts, was produced for us by NIWA. The findings were rolled out to council, staff, partner agencies, stakeholders and our communities. The report, one of the most detailed of its kind, describes specific changes in weather patterns for Wellington, the Kapiti Coast, Hutt Valley and the Wairarapa. While the projections sound quite scary, this report means we have a solid foundation for discussions with stakeholders and landowners about the potential future impacts of climate change, leading to better decision-making and ultimately ensuring we are doing everything we can to future-proof the region's communities and infrastructure.

To see a presentation on the report findings by Dr Alex Pezza (Senior Scientist, Climate) go to:

https://www.youtube.com/watch?v=JAbLWrEcQSo&feature=youtu.be&list=P LAZhxVEUY_Hc8_OmpRJZTBoM-kDMwb-be

Wellington Regional Integrated Buoy Observations (WRIBO) is a high-tech buoy and string of instruments which will feedback real-time data on water quality and movement in Wellington Harbour. Deployed in July 2017 south east of Matiu/Somes Island, WRIBO is a joint venture the National Institute of Water and Atmospheric Research (NIWA). WRIBO will help us to understand the effects of the biggest freshwater inflow to Wellington Harbour – Te Awa Kairangi/Hutt River.

<https://www.stuff.co.nz/environment/94574262/water-monitoring-buoy-deployed-in-wellington-harbour-most-complicated-of-its-kind>

Ongoing work with Wellington Water to develop an investigation programme into the contamination of the Waiwhetu Aquifer and why the water quality of the aquifer has changed (to see more about what this means in practise for public water supply refer to section 5.2.1 above).

The Waingawa groundwater quality investigation has been completed. This study was required under Method 10 of the pNRP. It was found that land use (as opposed to the historic freezing works) is the main contributor to the high levels of nitrate in water being recorded at Lowes Bush.

A microbial forecasting model for predicting 'swimmability' in Porirua Harbour has been tested in-house, and has reliably predicted when sites in the harbour have been suitable for swimming. The model will be trialled in the 2017/18 summer in conjunction with selected recreational groups and Porirua City Council.

Preparation for the Wellington and Hutt Valley whitua is ramping up as we work with the Aqualinc consortium to reflect on the learnings from the first two whitua, and co-develop a process to better integrate the committee and modelling components, and improve community engagement.

5.4 Environmental Policy

5.4.1 Central government water policy direction

The National Policy Statement for Freshwater Management has been amended with effect from 6 September 2017. The major changes are outlined below:

(a) National swimming targets

The Government has set a target to make 90 per cent of New Zealand's rivers and lakes swimmable by 2040. The new requirements in the Freshwater NPS that support this target include:

- Requirements for regional councils to improve water quality
- Requirements for regional councils to report on contributions to achieving regional targets every five years.

(b) Monitoring requirements

In addition to the existing monitoring requirements, regional councils are now required to monitor progress towards freshwater objectives and values using macroinvertebrates, indigenous flora and fauna, and mātauranga Māori. We are required to establish methods for responding to monitoring, and to make monitoring information publicly available.

(c) Managing nutrients in rivers

There are new requirements for regional councils to follow when managing the level of nutrients – such as nitrogen and phosphorus – which can go into waterways. We are now required to specify the nutrient levels they are aiming for in their regional plans.

(d) **Te Mana o te Wai**

The concept of Te Mana o te Wai recognises fresh water as a natural resource that is integral to the social, cultural, economic and environmental well-being of communities. The Freshwater NPS has been updated to clarify the meaning of Te Mana o te Wai in freshwater management.

(e) **Economic well-being**

Changes make it clear that regional councils should consider the economic well-being of communities at all stages of decision-making under the Freshwater NPS, as well as the environmental, social and cultural well-being. It makes it explicit that this consideration is within the context of setting environmental limits.

(f) **Maintaining or improving freshwater quality**

New provisions clarify requirements for regional councils about maintaining or improving overall water quality, to make the requirements clearer.

The amendments come into force on 6 September 2017; section 55 of the Resource Management Act 1991 requires amendments to regional planning documents to be made as soon as practicable (potentially being Plan Change 1 which will incorporate changes to the Ruamāhanga and Te Awarua-o-Porirua whitua chapters).

In particular, we will need to:

- Identify, in our regional plans which parts of specified rivers and lakes are used or should be managed for primary contact.
- Develop regional targets to improve the quality of freshwater in time to have draft targets publicly available by 31 March 2018. Final targets need to be publicly available by 31 December 2018.
- Set up monitoring programmes to give effect to the new requirements.

We will still need to set environmental limits by 2025 and our Whaitua Programme remains our method for delivering these limits.

5.4.2 Proposed Natural Resources Plan update

Hearing Stream 3 began on 4 September 2017. This stream considers water allocation and natural form and function with 35 submitters heard by the panel.

We have also updated the timeline to ensure there is sufficient quality policy and planning advice for the water quality stream. The updated schedule looks like this:

- Hearing Stream 4: Now due to commence on 12 February 2018 (rather than 16 October 2017):
 - Water Quality (including the discharge of wastewater to water)

- Stormwater
- Hearing Stream 5: Now due to commence on 26 March 2018 (rather than 4 December 2017):
 - Beds of Lakes and Rivers
 - Wetlands and Biodiversity
 - Discharges to Land
 - Contaminated Land, and Hazardous Substances
- Hearing Stream 6: Now due to commence on 7 May 2018 (rather than during March 2018):
 - Coast
 - Natural Hazards
 - Significant Historic Heritage Values.

5.5 Parks

5.5.1 Regional Trails Framework

Following presentations to the Regional CE Forum and Mayoral Forum in August, all eight local councils, GWRC, Department of Conservation and Wellington Regional Economic Development Agency have now agreed to fund and work together on implementing the Framework over the next three years.

The working group is currently drafting Terms of Reference for a Regional Coordinating Committee, Regional Trails Coordinator position (in conjunction with the Rimutaka Cycle Trail) and Community Engagement Forum

5.5.2 Queen Elizabeth Park

Construction of the Queen Elizabeth Park Visitor Hub is continuing. Graphic design specialists have been contracted to fabricate Māori panel designs that will adorn the new buildings (designed by Ngati Toa carvers). The entranceway gate has been upgraded with a new automated gate designed in keeping with the existing historic gate structure.

Planning is well underway to ensure that the Visitor Hub is “open for business” by opening day on Saturday 2 December. Tasks such as installation of security, ICT and video presentation facilities, kitchen fit out and furniture procurement, booking protocol development, signage and open day event planning are all running concurrently across various GWRC departments. Some aspects including signage and booking systems will be interim solutions, with more advanced services to come on line in 2018.



The new automated gate at Mackays entranceway to Queen Elizabeth Park

GWRC Councillors and officers and attended the Friends of Queen Elizabeth Park Annual General Meeting during August. This was a chance to present progress on the park environmental restoration work, including the low cost planting trials. Following a question from the audience, we also had the opportunity to provide more background on farming in the park, and longer term intentions for it. The current farm licence holder is renovating pasture – which involves ground spraying – to build more weed resilient swards that will mean less spraying over time.

The winter restoration programme across the parks network will be completed by the end of September, after one of the most challenging seasons in recent memory. While we are planting across the network, most of the activity is taking place at QEP, which has seen the highest number of trees ever planted in a single year - 26,600 over nearly 6 hectares.

This has been accomplished by building on the strong support from local schools and the community which together planted 12,000 trees. This included the highly popular Spade Aid, which drew a lot of attention on social media, and very positive feedback on the day. Another 4,000 were put in by corporate volunteers, working on separately organised events.

New initiatives have produced excellent results in terms of both enriching already planted areas and achieving revegetation on a larger scale. This year has seen the nursery restoration group extend from weekly “potting up” to plant a total 2,500 trees including emergent species amongst some of the existing pioneer plantings. This is the beginning of re-establishing the forest trees that would have once been part of the park landscape.

Contractors planted a further 8,100 trees in the first year of implementing the results of the “low cost” restoration trials carried out over the last 4 years. Monitoring plots and photo points will be established to check growth and survival rates of the low cost and community plantings.

Fencing to create a new wetland at the southern end of the park has been completed and weed control will be undertaken in the spring.

The old farm race culverts have been replaced; improving fish passage was a key consent condition. The new culverts are twice the size of the old ones, and we are noticing a vast increase in flows through them. A larger area around the culverts has been fenced and riparian planting completed. GWRC Consent have inspected the works and rated the project as fully complying with all conditions.



Newly installed culverts on Whareroa Stream tributaries. All the area in the foreground is now planted and fenced from stock

5.5.3 Akatarawa Forest

Visitor safety work at the Birchville Dam is now complete. A new viewing area and scour valve chamber cover were installed, and the existing timber stairs upgraded.

Specialist engineers Damsafety Intelligence recently visited the sites to review progress, and were very complimentary about the efforts to date. They have recommended a number of actions to so that debris is kept clear, flow levels maintained and downstream erosion is minimised.



**Birchville Dam – safety work:
a) new viewing area and
barrier, b) new scour valve
chamber, c) upgraded stairs**

5.5.4 Battle Hill Farm Forest Park

Fencing work continues in Swampy Gully, Battle Hill Farm Forest Park to meet the requirements of a category 1 wetland under the pNRP.

Public consultation has finished on the Wellington Riding for the Disabled proposal for a covered arena and long term horse grazing on the park. Sixteen submissions have been received, 14 for and 2 opposing and will be analysed before making a final recommendation to Council.

5.5.5 Belmont Regional Park

Track upgrade work is now complete at Oakleigh Street (Korokoro Loop).

The Woollen Mills Dam stability repairs are complete. Contractors have withdrawn from this site during the spawning period, and will re-convene work on the new fish-pass in January next year. The Environmental Science Hydrology team has installed an automatic stream level gauge at this site.



Woollen Mills Dam (Korokoro Stream) showing: a) the foundation repair-work in progress and b) the completed spillway repairs, shear bracket and scour protection work

The new Dry Creek toilet was installed, providing for both campers and day visitors. Landscaping has commenced now the site is drying out, grass hydroseeding will finish the works. We have noticed budget camper numbers slowly increasing as daylight lengthens, and received very positive feedback on the new units.



Landscaping around Dry Creek toilets begins

5.5.6 Kaitoke Regional Park

Planning for the Just So family arts festival continues, in preparation for the event in February 2018. The public response has been very positive with the entire allocation of EarlyBird tickets (300) sold by the due date. This was a key milestone to ensure that the event could exclusively occupy the designated area in the campground.

6. Climate Change

6.1 Regional Climate Change Working Group

GWRC convened a meeting of Mayors and Councillors with a climate change related portfolio, from all councils in the region on 7 August. The meeting participants were presented with the results of the NIWA 2017 Climate Change and Variability – Wellington Region Report, which sets out the climatic changes projected for the Wellington region to 2090, and a proposal to establish a Regional Climate Change Working Group.

The proposed group would be a collaborative Working Group of the councils of the region, not a formal joint committee. Recommendations of the Working Group would be considered by each council. The proposal was met with unanimous support and nominations (a representative and an alternate) from each council are currently being sought. Officers are organising an initial meeting at which a draft terms of reference will be discussed. More information is provided in the Regional Climate Change Working Group report to the 20 September 2017 GWRC Environment Committee (report 2017.336).

7. Responses to public participation

8 August 2017

There was no public participation at this meeting.

8. The decision-making process and significance

No decision is being sought in this report.

8.1 Engagement

Engagement on this matter is not necessary.

9. Recommendations

That the Committee:

- 1. Receives the report.*
- 2. Notes the content of the report.*

Report approved by:

Report approved by:

Report approved by:

Nigel Corry
General Manager, Environment
Management

Wayne O'Donnell
General Manager,
Catchment Management

Luke Troy
General Manager,
Strategy