**Notice of Meeting:**
I hereby give notice that an ordinary Meeting of the West Coast Catchments Committee will be held on:

- **Date:** Wednesday 7 November 2018
- **Time:** 10.00am
- **Meeting Room:** Council Chambers
- **Venue:** Waikato Regional Council, 401 Grey Street, Hamilton East

VRJ Payne  
*Chief Executive Officer*

---

### West Coast Catchments Committee

**Open Agenda**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td>Weo Maag</td>
</tr>
<tr>
<td>Deputy Chair</td>
<td>Mark Brough</td>
</tr>
<tr>
<td>Members</td>
<td></td>
</tr>
<tr>
<td><strong>Waikato Regional Council</strong></td>
<td>Cr Fred Lichtwark</td>
</tr>
<tr>
<td><strong>Waikato District Council</strong></td>
<td>Cr Lisa Thomson</td>
</tr>
<tr>
<td><strong>Otorohanga District Council</strong></td>
<td>Cr Deborah Pilkington</td>
</tr>
<tr>
<td><strong>Waitomo District Council</strong></td>
<td>Cr Sue Smith</td>
</tr>
<tr>
<td><strong>Department of Conservation</strong></td>
<td>Natasha Hayward</td>
</tr>
<tr>
<td><strong>Local Community Representatives</strong></td>
<td>Mark Brough</td>
</tr>
<tr>
<td></td>
<td>Catherine Holland</td>
</tr>
<tr>
<td></td>
<td>Tom Mandeno</td>
</tr>
<tr>
<td></td>
<td>John Reeves</td>
</tr>
<tr>
<td></td>
<td>Mike Moss</td>
</tr>
<tr>
<td></td>
<td>Kristel van Houte</td>
</tr>
<tr>
<td></td>
<td>Stephen Reid</td>
</tr>
<tr>
<td><strong>Te Tokanganui-a-noho</strong></td>
<td>Weo Maag</td>
</tr>
<tr>
<td><strong>Maniapoto Maori Trust Board</strong></td>
<td>Ray Wi</td>
</tr>
<tr>
<td><strong>Waikato-Tainui</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Co-Chairman Integrated</strong></td>
<td>Maxine Moana-Tuwbangai</td>
</tr>
<tr>
<td><strong>Catchment Management Committee</strong></td>
<td>Cr Stu Kneebone</td>
</tr>
<tr>
<td><strong>Chairman of Council, or</strong></td>
<td>Cr Alan Livingston or</td>
</tr>
<tr>
<td><strong>Deputy Chairman of Council</strong></td>
<td>Cr Tipa Mahuta</td>
</tr>
<tr>
<td><strong>Quorum</strong></td>
<td>Chair or Deputy Chair of the Committee, one Constituent Councillor and 2 Members of the Committee.</td>
</tr>
</tbody>
</table>

---

**Gavin Dawson**  
*Democracy Advisor*

**Telephone:** 0800 800 401  
gavin.dawson@waikatoregion.govt.nz

**Website:** [www.waikatoregion.govt.nz](http://www.waikatoregion.govt.nz)
TERMS OF REFERENCE

OBJECTIVE: To provide advice to the Integrated Catchment Committee and support catchment management activities.

QUORUM: Chair or Deputy Chair of the Committee, one Waikato Regional Council appointed Councillor and two members of the committee.

SCOPE OF ACTIVITY:

1. The Catchment Committees each have an assigned geographical area of interest, representing catchment interests in one of Coromandel, Waihou-Piako, Taupō, Upper Waikato, Central, Waipa, West Coast and Lower Waikato catchments.

2. Each Committee has the opportunity to provide advice to the Integrated Catchment Committee and support Council’s catchment management activities related to:
   (a) Asset management
   (b) Flood control programmes
   (c) Biodiversity and natural heritage operations
   (d) Biosecurity operations
   (e) Harbour and catchment management
   (f) Hazard management and community safety activities
   (g) River systems management
   (h) Soil conservation and land management programmes

3. As provided for in Council’s Standing Orders, the Chair may consider requests for deputations in relation to specific agenda items and at the discretion of the Chair, a public forum may be included in committee meeting agendas.

POWER TO ACT:

1. To consider and approve annual work programmes for catchment management activities within the relevant catchment area, consistent with Council policy, zone plan priorities and approved annual budgets.

2. To monitor progress of catchment management activities, zone plans including asset management plans against current year budgets.

POWER TO RECOMMEND:

1. To develop zone plans, including asset management plans.

2. Input to locally relevant Council plans to advance the catchment zone plan priorities.

3. Assessment of feasibility and development of (flood protection) capital works proposals in response to community need.

CHIEF EXECUTIVE – POWER TO ACT

1. Refer to Section 2.3.3 of the Procedural Delegations Manual
<table>
<thead>
<tr>
<th>Item</th>
<th>Table of Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apologies</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Confirmation of Agenda</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Disclosures of Interest</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Confirmation of Minutes</td>
<td>4 - 11</td>
</tr>
<tr>
<td></td>
<td>Doc #12994356</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minutes of the previous meeting to be reviewed and accepted as a true and accurate record.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Waikato Regional Pest Management Plan Annual Report &amp; Operational Plan</td>
<td>12 - 89</td>
</tr>
<tr>
<td></td>
<td>Doc #13223139</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Report to provide the Committee with the Waikato Regional Pest Management Plan Annual Report for 2017/18 and Operational Plan for 2018/19.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Issues and Actions Report</td>
<td>90 - 91</td>
</tr>
<tr>
<td></td>
<td>Doc #13224123</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Report to report back on actions and issues discussed at previous West Coast Catchments Committee meetings.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Chairs Report</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>Doc #13223323</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Verbal report from the Chair of the Committee regarding matters related to the Committee and its Terms of Reference.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>West Coast Catchments – Hill Country Erosion Fund Application</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Doc #13282903</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Report on the application for Hill Country Erosion Fund Application for the West Coast Zone.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>West Coast Zone Status Report</td>
<td>94 - 102</td>
</tr>
<tr>
<td></td>
<td>Doc #13224715</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Report to provide the Committee on the Zone work programme and other matters.</td>
<td></td>
</tr>
</tbody>
</table>

Doc #13292746
Minutes of a meeting of the West Coast Catchments Committee held on 5 September 2018 in the Council Chambers of the Waikato Regional Council, 401 Grey Street, Hamilton East at 10.00am.

Present:
Chair
Weo Maag (from 10.15am)
Deputy Chair
Mark Brough (from 10.17am)
Waikato Regional Council
Cr Fred Lichtwark
Otorohanga District Council
Cr Deborah Pilkington
Waitomo District Council
Cr Sue Smith
Local Community Representatives
Mark Brough
Tom Mandeno
Mike Moss
Stephen Reid
Catherine Holland
John Reeves
Kristel van Houte
Te Tokanganui-a-noho
Weo Maag (Chair)
Maniapoto Maori Trust Board
Ray Wi
Co-Chairman Integrated Catchment Management Committee
Cr Stu Kneebone (Chair from 10.00am to 10.15am)
Waikato Regional Council
Jolene Francis, Zone Catchment Manager – West Coast and Central Waikato
Grant Blackie, Acting Lower Waikato West Coast Catchments Manager
Gavin Dawson, Democracy Advisor
SECTION A: UNDER DELEGATION FOR THE INFORMATION OF COUNCIL

The meeting was opened and chaired by the Chair, Integrated Catchment Management South (Councillor S Kneebone) to item four of the meeting. A new Chair was provisionally appointed in item four of the meeting.

Apologies

The apologies from Councillor Alan Livingston, Councillor Tipa Mahuta, and Councillor Lisa Thomson for Absence were accepted.

WCC18/17

RESOLVED

THAT the apologies from Councillor Alan Livingston, Councillor Tipa Mahuta, and Councillor Lisa Thomson for absence were accepted.

The motion was put and carried (WCC18/17)

Confirmation of Agenda

(Agenda Item 2)

It was proposed and agreed that an agenda item ‘Members Reports’ be added to the end of the agenda.

Cr Kneebone moved/M Moss seconded.

WCC18/18

RESOLVED

THAT the agenda of the meeting of the West Coast Catchments Committee of 5 September 2018, as circulated, with the addition of Members Reports, be confirmed as the business for the meeting.

The motion was put and carried (WCC18/18)

Disclosures of Interest

(Agenda Item 3)

Members discussed disclosures that had been declared in the register already. It was noted that these did not need to be disclosed.

SECTION B: FOR RECOMENDATION TO COUNCIL

Appointment of Chairperson and Deputy Chairperson to the West Coast Catchments Committee

(Agenda Item 4) Doc #12970309

This agenda item and report was introduced by the Chair, Integrated Catchment Management (Councillor S Kneebone). The process for the election and appointment of a provisional Chair and Deputy Chair was described and explained, along with the formal adoption process that would be used at the Integrated Catchment Management Committee.
The following discussion points were raised:

- The Integrated Catchment Management Chair (Councillor S Kneebone) welcomed all members and staff present, especially new members to the Committee. Those present introduced themselves to the assembled.
- The role and responsibilities of the Committee was discussed in relation to the wider Council governance system, including the ways in which all members could be most effective in the advancement of the Zone, according to the Terms of Reference of the Committee.
- The work and plans completed to date was discussed. It was noted that the Committee had achieved many positive results in its planning and work programmes, and it demonstrated the effectiveness of the Committee to date.

The Chair of the Integrated Catchment Management Committee called for nominations for Chair of the West Coast Catchment Committee.

Councillor Sue Smith nominated Weo Maag as Chair for the West Coast Catchment Committee. The nomination was seconded by Councillor Fred Lichtwark.

In the absence of any other nominations, the Chair of the Integrated Catchment Management Committee declared Weo Maag Chair for the West Coast Catchment Committee.

Cr Smith moved/Cr Lichtwark seconded.

WCC18/19 RESOLVED
THAT the report “Appointment of Chairperson and Deputy Chairperson to the West Coast Catchment Committee” (Doc #12970309 dated 24 August 2018) be received.

The motion was put and carried (WCC18/19)

Cr Smith moved/Cr Lichtwark seconded.

WCC18/20 RECOMMENDED
THAT Weo Maag be appointed as Chairperson of the West Coast Catchments Committee.

The motion was put and carried (WCC18/20)

Councillor Kneebone vacated the Chair and Weo Maag assumed the chair at 10.15am.

The Chair of the West Coast Catchments Committee (W Maag) called for nominations for Deputy Chair of the West Coast Catchment Committee.

Weo Maag nominated Mark Brough as Deputy Chair for the West Coast Catchments Committee. The nomination was seconded by Mike Moss.

In the absence of any other nominations, the Chair of the West Coast Catchments Committee declared Mark Brough Deputy Chair for the West Coast Catchments Committee.
W Maag moved/ M Moss seconded.

WCC18/21

RECOMMENDED
THAT Mark Brough be appointed as Deputy Chairperson of the West Coast Catchments Committee.

The motion was put and carried (WCC18/19)

SECTION A: UNDER DELEGATION FOR THE INFORMATION OF COUNCIL

Minutes of Previous Meeting
(Agenda Item 5) Doc #12493381

The minutes of previous meeting of the West Coast Catchments Committee dated 21 May 2018 were received and accepted as a true and accurate record.

The following discussion points were raised:
- It was noted that Mike Moss was an apology.
- It was noted that Councillor Lisa Thomson was not present at the meeting.
- It was noted that written reports were preferred to allow members of the Committee to better understand and prepare for meetings, and to meet other legal requirements.
- It was noted that the Benching best practice matter was ongoing and update was requested at the next meeting.

Cr Kneebone moved/T Mandeno seconded.

WCC18/20

RESOLVED
THAT the Minutes of the West Coast Catchments Committee meeting of 21 May 2018 be received and approved as a true and correct record.

The motion was put and carried (WCC18/20)

Issues and Actions from the Previous Meeting
(Agenda Item 6) Doc #12981546

This report was presented by the Zone Manager (J Francis). The report provided the Committee an update on issues and actions that have arisen since the previous meeting.

The following discussion points were raised:
- The Working Group on Whitebait Fisheries that has been formed by the Minister for Conservation was discussed. It was noted that the construction and use of white baiting stands were a permitted activity under the Regional Plan and that there were conditions in place that regulated the location and design of the stands.
- The political, social, cultural, and economic challenges and issues of whitebait fishing was discussed.
- The desire to have the Waikato Regional Council send a letter to the Minister for the Environment in support of a moratorium on whitebait fishing was discussed. It was noted that the Committee could not write to the Minister as directly, rather the
Committee would need to write through the Office of the Chair of the Waikato Regional Council.

M Moss moved/Cr Kneebone seconded.

**WCC18/21**

**RESOLVED**

THAT the report “Issues and Actions Report” (Doc#12981546, dated 27 August 2018) be received.

The motion was put and carried (WCC18/21)

**Chair’s Report**

(Agenda Item 7) Doc #12415302

This report was presented by the newly appointed provisional Chair (W Maag). A verbal update was provided for the information of the Committee on matters of particular relevance to the Zone.

The following discussion points were raised:

- The regular content that should be included in his future reports was discussed. It was noted that a majority of the report in the future would focus mainly around the activities and decisions that are made at the Integrated Management Catchment Committee, and other periodic matters as they arise.

W Maag moved/Cr Kneebone seconded.

**WCC18/22**

**RESOLVED**

THAT the “West Coast Catchments Committee Chair report - verbal update” (Doc#12970780 dated 24 August 2018) be received.

The motion was put and carried (WCC18/22)

**West Coast Zone Status Report**

(Agenda Item 8) Doc #12979779

This report was presented by the Zone Manager (J Francis). The report updated the Committee on the Zone financials, activities and work programmes since the last Committee meeting.

The following discussion points were raised:

- The Zone Plan review process and timeframes were described and discussed.
- It was noted that the Zone was performing well financially and delivering a high level of service across all work programmes. The need to reprioritise work plans was ongoing as needs of the Zone changed overtime.
- The matter of the riparian planting projects was discussed. Discussion centred on the sourcing and procurement approach and criteria that was currently used, and other possible improvements or approaches that could be considered in the future.

Cr Kneebone left the meeting room at 11.15am.
Mike Moss left the room at 11.20am.
Cr Kneebone entered the meeting room at 11.22am.
• The Hill Country Erosion Fund was described, explained, and discussed. It was noted that the work to date had achieved a high number of positive outcomes and has a high level of landowner uptake.
• It was noted that the successes to date have been possible due to effective collaborative relationships between the Waikato Regional Council and stakeholders.
• It was noted that an application would be made to the Hill Country Erosion Fund in October that would include the whole Waikato Region. This application was still being formulated and could not be presented presently.
• It was noted that a workshop may be held in the future on the proposed application to the Hill Country Erosion Fund.
• It was requested that the Committee receive a report on the progress to date on the eradication of possums at the next meeting.

M Brough moved/Cr Pilkington seconded.

WCC18/23

RESOLVED

THAT this report ‘West Coast Zone Status Report to 30 June 2018’ (Doc #12979779, 24 August 2018) be received.

The motion was put and carried (WCC18/23)

Biodiversity Report
(Agenda Item 9) Doc #12971468

This report was presented by the Senior Biodiversity Officer (A Julian). The report provided the Committee with information on biodiversity issues and priorities within the West Coast Zone.

The following discussion points were raised:
• The role of the Council in the protection and enhancement of biodiversity throughout the Waikato region was explained and discussed, along with the challenges and constraints that the Council faced in order to meet its statutory and regional commitments.
• Aspects of the Willis Report was discussed in relation to Local Government and the Resource Management Act.
• It was noted that Waikato Regional Council takes a balanced approach to biodiversity and must consider a range of factors such as resourcing levels, funding sources, and other policy or political factors that have an impact on an issue.

W Maag moved/Cr Lichtwark seconded.

WCC18/24

RESOLVED

THAT the report ‘West Coast Catchments – Biodiversity’ (Doc # 12971468, dated 24 August 2018) be received.

The motion was put and carried (WCC18/24)

The meeting adjourned for lunch at 1.05pm.
The meeting reconvened at 1.25pm.
Cr Pilkington left the meeting at 1.28pm.
Cr Kneebone left the meeting at 1.28pm.
SECTION B: FOR RECOMMENDATION TO COUNCIL

Pest Plant Survey in Riparian Margins
(Agenda Item 10) Doc #12971391

This report was presented by the Biosecurity Officer – Pest Plants (H Hodgson). The report updated the Committee on the recent survey within the Waikato region of the occurrence of pest plants occurring in riparian margins.

The following discussion points were raised:
- It was noted that the survey intent was to establish baseline data that could be used for future surveys that would take place every five years.
- The approach and methodology that was used in the survey, along with the way in which it integrated with the Regional Pest Management Plan (RPMP).
- Concern was raised that there needed to be a more comprehensive and proactive approach to the implementation of the RPMP and the eradication of other pests plants that are not listed in the report. The Committee expressed a desire to make a recommendation to reflect their concerns.
- The Committee discussed how the reports that have been provided to the Committee could be strengthened and provide more relevant information.

W Maag moved/M Moss seconded.

WCC18/25

RESOLVED
1. THAT the report ‘Pest Plant Survey in Riparian Margins’ (Doc #12971391, dated 24 August 2018) be received.

RECOMMENDED
2. THAT the West Coast Catchment Committee recommends that the Integrated Catchment Committee support and enable Waikato Regional Council staff to use a proactive and measurable approach to eradicate Woolly Nightshade and Tutsan, throughout the West Coast Catchment Zone and the wider Waikato Region.

The motion was put and carried (WCC18/25)

Cr Kneebone entered the room at 1.45pm.

SECTION A: UNDER DELEGATION FOR THE INFORMATION OF COUNCIL

Kauri Dieback National Pest Management Plan
(Agenda Item 11) Doc #12975475

This report was introduced by presented by Zone Manager (J Francis), the Deputy Chair of the Committee (M Brough) provided relevant information, and the Senior Biodiversity Officer (A Julian) answered questions. The report updated the Committee on recent Ministry for Primary Industry led changes to the national kauri dieback programme, including the proposed development of a National Pest Management Plan for kauri dieback.

The following discussion points were raised:
• It was noted that there was a new treatment that could be used to treat and eradicate Kauri Dieback, however, it has not been tested and the effectiveness of the treatment was unknown due to the lack of knowledge on the history and evolution of the virus.

• Locations where the virus had infected Kauri was discussed, along with spread and evolution of the virus. It was noted that the development of the Kauri Dieback management and eradication plan was ongoing and the Committee would be informed as more information was released by Central Government.

Cr Kneebone moved/M Moss seconded.

WCC18/26

RESOLVED
THAT the report “National kauri dieback changes and Tairua update” (Doc#12975475, dated 8 August 2018) be received.

The motion was put and carried (WCC18/26)

SECTION B: FOR RECOMMENDATION TO COUNCIL

Regional Asset Management Plan
(Agenda Item 12) Doc #1 12972927

This report was presented by the Acting Lower Waikato West Coast Catchments Manager (G Blackie). The report outlined the purpose of the plan, as it relates to the protection of and the investment in river and catchment management infrastructure throughout the Waikato region by the Council.

The following discussion points were raised:
• The value and role of flood protection and biodiversity was discussed. It was noted that wetlands played an important role in the storage and holding of water.
• The legal and illegal clearing and draining of wetlands was discussed. It was noted that it was important to promote the positive benefits that wetlands offered.

Cr Lichtwark moved/Cr Smith seconded.
M Moss voted against the motion.

WCC18/27

RESOLVED
1. THAT the document titled Regional Asset Management Plan – Recommendation for Adoption (Doc #12972927 dated 24 August 2018) be received.

RECOMMENDED
2. THAT the West Coast Catchment Committee recommend to Integrated Catchment Management Committee that the ‘Regional Asset Management Plan’ be finalised for adoption by Council.

The motion was put and carried (WCC18/27)

Meeting closed at 2.20pm.
Report to West Coast Catchment Committee November 2018

Date: 26 October 2018

2018 Author: Patrick Whaley, Manager Integrated Catchment Services

Authoriser: Greg Ryan, Acting Director Integrated Catchment Management

Subject: Waikato Regional Pest Management Plan Annual Report 2017/18 and Operational Plan 2018/19

Section: A (Committee has delegated authority to make decision)

Purpose

1. The purpose of this report is to provide the committee with the Waikato Regional Pest Management Plan (RPMP) Annual Report for 2017/18 and Operational Plan for 2018/19.

Staff Recommendation:


2. That the Waikato Regional Pest Management Plan Annual Report 2017/2018 (Document #12653506) be received; and

3. That the Waikato Regional Pest Management Plan 2018/2019 Operational Plan (refer Document #12654183) be received.

Background

2. The current Waikato Regional Pest Management Plan (RPMP) has been operative since 28 August 2014 and remains in force until 27 August 2024 unless reviewed earlier. Under section 100B of the Biosecurity Act, council must prepare an operational plan for the RPMP and report annually on its implementation within five months of the end of the financial year.

2017/18 Financial Year

3. The Annual Report covers the work programme undertaken for the period 1 July 2017 to 30 June 2018, under the RPMP 2014-2024. It notes progress made against objectives and performance measures contained in the council’s 2017/18 Waikato RPMP Operational Plan. Financial information is in summary form only.

4. Enclosed with this agenda paper is the 2017/18 RPMP Annual Report document for information (refer Attachment 1). The annual report will be placed on the council’s website.
2018/19 Financial Year

5. An Operational Plan has been developed for the 2018/19 financial year (refer Attachment 2). The Plan details pest plant and pest animal programme activities and performance measures for the period 1 July 2018 to 30 June 2019 under the five management categories; exclusion, eradication, progressive containment, sustained control and site-led as well as other complimentary biosecurity activities.

6. The operational plan will be placed on the council’s website once received by the committee.

Attachments:
Waikato Regional Pest Management Plan
Annual report 2017/18
Front cover photo: Using a kauri dieback cleaning station to clean footwear before entering the bush.

Prepared by Integrated Catchment Services

For Integrated Catchment Management Directorate
Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
HAMILTON

19 September 2018

Document #: 12653506
Table of contents

Executive summary v

1 Introduction 6
  1.1 Background 6
  1.2 RPMP implementation programmes 6
  1.3 Giving effect to the Plan 8
  1.4 Report format 9

2 Progress in implementing the plan 10
  2.1 The financials 10
  2.2 Pest plants 12
    2.2.1 Exclusion species 12
    2.2.2 Advisory species 12
    2.2.3 Eradication species 13
    2.2.4 Progressive containment species 15
    2.2.5 Sustained control species 19
    2.2.6 Site-led species 20
    2.2.7 National partnerships 21
  2.3 Pest Animals 25
    2.3.1 Eradication species 25
    2.3.2 Progressive containment species 26
    2.3.3 Sustained control species 27
    2.3.4 Site-led species 27
    2.3.5 Advisory species 31
    2.3.6 Regional Priority Pest Control (PPCA) 32
    2.3.7 National partnerships 39
  2.4 Crown RPMP obligations 41
    2.4.1 The Crown, the Biosecurity Act and regional councils’ expectations 41
    2.4.2 Department of Conservation (DOC) funded projects – 2017/18 41

Appendices

Appendix 1 Agrichemicals used by the Biosecurity team in implementation of the RPMP 42
Appendix 2 VTA Toxins used by project in the 2017/18 financial year. 43

Photos

Photo 1: African feather grass site near Tirau – November 2014 14
Photo 2: African feather grass site near Tirau – November 2017 14
Photo 3: Alligator weed infestation in a pond at Te Kauwhata 16
Photo 4: Rusty the detector dog finds several small velvetleaf seedlings 18
Photo 6: Single sea spurge plant found in January 2018 at the northern end of Aotea beach 22
Photo 7: Tradescantia leaf and tip beetles found more than a kilometre from the release site. 24
Photo 8: Contractors hunting for goats using specially trained indicator bailer dogs. 29
Photo 9: Contractor applying RHDV1 K5 carrot (rabbit virus) in Cambridge 30
Photo 10: Seven dead possums under one bait station in the Nukuhaikari-Awakino Sector 2 Farmland PPCA (initial control) 34
Photo 11: Sabella spallanzanii on a vessel in Coromandel being hauled out for cleaning (photo: www.marinepests.nz) 40

Figures

Figure 1: Rook Control 2010 to 2017 25
Figure 2: Look for Rooks advertorial published in local newspapers 26
Figure 3: Insight Newsletter - Autumn 2018 37
Figure 4: Priority Possum Control & Halo Areas 2017/18 38
Executive summary

This Annual Report records progress made by the Waikato Regional Council (‘the Council’) in implementing the 2014-2024 Waikato Regional Pest Management Plan (‘the Plan’), previously referred to as the Regional Pest Management Strategy (RPMS). It covers the period from 1 July 2017 to 30 June 2018. The Annual Report is a statutory requirement under section 100B(2) of the Biosecurity Act 1993.

Key highlights and challenges for the year are summarised below:

- Woolly nightshade is widespread in the Waikato and difficult to control. The woolly nightshade lace bug was released in 2008 to assist control. The lace bug has now spread throughout the region, with defoliation and canopy collapse of woolly nightshade increasingly evident.

- The velvetleaf management programme is in its third year of ‘ramped up’ management after a significant increase in infected properties were identified in 2016. This year’s programme involved property inspections, trialling control options for maize and barley crops as well as working with landowners to manage their velvetleaf infestations. Several new infested sites in the north-west Waikato were identified and are now under tight management. The continued success of the velvetleaf programme with landowners is underpinned by strong ongoing collaboration between partners, including central government, industry and regional neighbours.

- Waikato Regional Council collaborates with the Department of Conservation (DOC) to undertake landscape feral goat control in the Coromandel, Kaimai Range, Mt Pirongia, Westcoast/Whareorino and Rangitoto Range this year. Over the last five years, this programme has resulted in over 20,000 feral goats being managed.

- Successful possum control was completed across 211,075 hectares of the Waikato region. Through the 2018-2028 Long Term Plan new funding for the Priority Possum Control Areas programme was secured to continue the management of 83,700 hectares of land previously managed by OSPRI-TBfree programme which ceased around Southern Pureora and Taupo. This will help ensure the excellent biodiversity gains made by OSPRI-TBfree.

Challenges and opportunities for 2018/19 include:

- National accelerating Kauri protection project will significantly change the Kauri dieback programme. Staff are working closely with MPI to ensure the National Pest Management Plan compliments relevant policy frameworks including Waikato RPS, RP and all district plans as well as the Councils operational catchment programmes.

- Developing a 10 year Management Agreement for landscape scale pest management in Mt Pirongia, Mt Karioi and the Whareorino/Herangi Ranges.

- Increasing focus on regionally threatened ecosystems (geothermal and coastal forests/dunes) from wilding conifers.

- Increasing emphasis on the containment programme for the highly invasive pest plants alligator weed and yellow flag iris with additional focus on Lake Whangapae.

- Working closely with our partners, Bay of Plenty Regional Council, the Department of Conservation and Biosecurity New Zealand to contain the spread of wallabies into the Waikato region. A research project will be undertaken with Landcare Research looking at the detecting wallabies at low densities.
1 Introduction

1.1 Background

The Biosecurity Act 1993 (‘the Act’) guides pest management in New Zealand. The Act’s main purpose is to prevent new pests from entering the country through border control surveillance and to facilitate management of pests that are already established in the country. Regional councils are responsible for the latter task. The Act enables the Waikato Regional Council (‘the Council’) to develop an approach to pest management specific to the region’s needs and expectations by developing a Regional Pest Management Plan (RPMP).

Under the Plan the responsibility for most pest control work lies with landowners and occupiers. Council has responsibilities to ensure land occupiers are aware of, and meet, their obligations for pest management on their properties. The council will also undertake direct pest control where there is clear justification and regional benefit. The biosecurity function is funded by a targeted rate on all properties, shown specifically on rate invoices.

Under section 100B(1) of the Biosecurity Act, the Council, as management agency, for a pest management plan must prepare an operational plan for the RPMP and report annually on its implementation, within five months of the end of the financial year (section 100B(2)).

In September 2012, the Biosecurity Law Reform Act was passed into law, bringing a wide range of amendments to the Biosecurity Act. One of the most significant changes is that regional pest management plans must be consistent with the National Policy Direction for Pest Management (NPD) which came into force on 24 September 2015.

The RPMP 2014-2024 was adopted in August 2014 and remains in force until August 2024. An assessment against the NPD was undertaken during the 2016/17 financial year and identified a range of inconsistencies. Given the finding of the assessment, council made a declaration to the Ministry of Primary Industries (MPI) that the Plan is inconsistent with the NPD. A review of the Plan is will be initiated in late 2019.

This Annual Report covers the work programme undertaken for the period 1 July 2017 to 30 June 2018, under the RPMP 2014-2024. It notes progress made against objectives and performance measures contained in the Council’s 2017/18 Waikato Regional Pest Management Plan Operational Plan. Financial information is in summary form only.

1.2 RPMP implementation programmes

Each pest in the RPMP was placed into one of five management categories, based on different criteria (for example, effects, distribution, density and the control methods available):

- **Exclusion**
  Pests that are present but not yet established in New Zealand or in the Waikato region. The goal is to prevent the establishment of the pest.

- **Eradication**
  Pests with limited distribution or density. The eventual goal is eradication at known sites in the region, although ‘zero density’ is more practicable. The Council will fund and undertake control of these pests, such as rooks and alligator weed, and provide advice, information and monitor progress.
- **Progressive Containment**
  Pests that are well established in the region. The goal is to contain and reduce the geographic distribution of the pest to an area over time. Land occupiers may be required to control pest plants under this category on their property.

- **Sustained control**
  Where the outcome for the programme is to provide for the sustained control of the pest in an area to a level where externality impacts are manageable. Land occupiers may be required to control pest plants under this category along a property boundary (boundary control).

- **Site-led control**
  Where the outcome for the programme is to exclude, eradicate, contain, reduce or control the pest that is capable of causing damage to a place and its values.

Waikato Regional Council achieves practical pest management objectives using the following approaches:

- **Direct control**
  The council funds and undertakes the control of 23 high threat pest plants and up to six pest animals in a ‘pest-led’ management approach. Control of relevant pests will also be undertaken in areas of high ecological significance on private land in the region, under a ‘site-led’ approach.

- **Community initiatives**
  Communities addressing pest issues are increasingly interested in making a combined local effort. Council can assist communities through the provision of technical advice, facilitation and limited funding. WRC may also help with initial pest control actions to reduce numbers (‘initial knock-downs’) to manageable levels, or provide ‘seed’ money to help get the group started.

- **Information and advice**
  Council provides practical advice through factsheets, the council’s website (www.waikateregion.govt.nz), field or demonstration days, and through a direct freephone link to authorised staff or pest contractors in the region (0800 BIOSEC - 0800 246 732).

- **Monitoring/surveillance**
  WRC also undertakes property inspections to make sure Plan rules are being adhered to. Monitoring is also undertaken before and after most pest control operations to confirm that control targets have been achieved. Surveillance allows for new pest incursions to be promptly detected and appropriate responses initiated.

- **Enforcement**
  A set of rules prescribed in the Plan require landowners to control pests to specific standards. Every effort is made to encourage and assist landowners to achieve voluntary compliance. Appropriate enforcement action will be taken against landowners who fail to comply.

- **Biological control**
  Council participates in a national collective which funds research into biological control agents for plant pests, such as pampas and tutsan. Council will consider further releases of approved plant pest biological control agents where appropriate.
1.3 Giving effect to the Plan

Monitoring the performance of the council
This RPMP Annual Report documents whether Council’s Integrated Catchment Services group is:

- Undertaking the stated work programmes;
- Achieving stated objectives;
- Acting on enquiries and complaints; and,
- Implementing the RPMP within budget.

The RPMP Annual Report may be subject to the scrutiny of Audit New Zealand. A copy of Council’s Annual Report for 2017/18 is available to the public and should be read to give a wider picture of Council’s roles, responsibilities and achievements in managing the region’s environment. While there is no formal channel for submissions to be made or heard, Council welcomes feedback on the content of either report at any time.

Monitoring effects of the Plan
The RPMP must specify how the effects of the Plan are to be monitored. The term ‘effect’ covers two areas:

- the effectiveness of the Plan in terms of achieving the objectives; and,
- the environmental effects of Plan implementation.

The bulk of this report is intended to satisfy the first point. The second point, however, is more difficult to quantify. The subsequent discussion looks at a number of environmental effects of implementation of the Plan.

Monitoring the effects of pest management activities on the environment is a requirement under the Biosecurity Act and is consistent with the Resource Management Act 1991. While some monitoring has been carried out as part of internal audit checks, a comprehensive investigation or report has not been compiled by the council. However, the following points indicate positive and negative environmental effects of pest management activities.

Positive effects

- **Pest populations controlled to target levels** – in many cases it is not practicable to eradicate the majority of pest plant and animals from the region. However, significant gains are being made in protection of primary industries and the environment at a regional and inter-regional scale with specific pests such as rooks and velvetleaf.

- **Output/outcome monitoring** – demonstrating the success of operations to reduce the target animal pest populations down to low levels where their impacts are negated is relatively straightforward. It is more difficult and expensive to determine whether native ecosystems are being satisfactorily restored. Nationally there has been many years of research and monitoring to determine the outcomes associated with changes in animal pest densities. This work can be used to correlate the results of animal pest management to positive changes in habitat condition.

- **Environmental education** - Council advocates for best practice protocols and management options such as GROWSAFE® certification of pest plant contractors. The training and educational programmes undertaken contribute to positive environmental outcomes by attempting to change attitudes and behaviour. However, measuring the success of these programmes remains problematic.
Negative effects

- Council uses a range of pesticides, herbicides and biological control agents to effectively manage a range of pests. There is a wealth of information on the actual and potential costs and benefits in using these methods and Council aims to remain at the forefront of new knowledge and technology. Council applies a corporate sustainability policy which aims to better manage toxins/herbicides used in the environment and as sustainably as possible. For a full list of the pesticides used by Council in implementation of the RPMP refer to Appendix 1 and 2.

- When using controlled substances such as cyanide, 1080 and DRC 1339 the Council adheres to rigorous standards from legislation including the Hazardous Substances and New Organisms Act (HSNO). This includes consultation and public notification requirements, and Residues in the environment and deaths of non-target species are important issues. Policies and procedures are in place to minimise environmental risks and to learn from any non-target effects detected.

- The issue of spray drift is addressed in the Waikato Regional Plan. Contractors employ best practices and adhere to regional plan requirements when controlling pest plants on the Council’s behalf.

Overall, the Council’s view is that the positive benefits of implementing the Plan outweigh the negative effects.

1.4 Report format

This Annual Report should be read in conjunction with the Operative Waikato Regional Pest Management Plan 2014-2024, and the 2017/18 RPMP Operational Plan.

The implementation of the RPMP is undertaken by the Integrated Catchment Services team with reporting based on two main categories – pest plants and pest animals.

Section two of this report deals with pest management projects under the RPMP management categories. The objective, cost, means of achievement and the actual performance is reported on for each pest category or species.

Appendix one contains a summarised list of the agrichemicals used by Council in relation to implementing the RPMP for direct control pests. The list is split into those used for pest plant and pest animal control.
2 Progress in implementing the plan

2.1 The financials

The original RPMP expenditure budget for 2017/18 was $6,931,497. A number of changes were made within budgets during the year which explains some variances. Council is required to report against budgeted annual plan figures, not revised figures.

Actual expenditure for the year was $7,496,572 a deficit of $565,075 on that budgeted. However, an overall operational surplus of $511,638 was achieved when taking into account additional revenue received and carried forward expenditure. The table below summarises the end of year financial positions under the two programme headings.

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Original Budget($)</th>
<th>Actual Expenditure($)</th>
<th>Difference ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pest plants</td>
<td>2,608,578</td>
<td>3,038,459</td>
<td>429,881</td>
</tr>
<tr>
<td>Eradication species</td>
<td>236,206</td>
<td>223,323</td>
<td>(12,883)</td>
</tr>
<tr>
<td>Progressive containment species</td>
<td>1,547,238</td>
<td>1,808,440</td>
<td>261,202</td>
</tr>
<tr>
<td>Sustained control species</td>
<td>343,574</td>
<td>127,626</td>
<td>(215,948)</td>
</tr>
<tr>
<td>Site-led species</td>
<td>96,630</td>
<td>107,535</td>
<td>10,905</td>
</tr>
<tr>
<td>Advisory species</td>
<td>0</td>
<td>39,154</td>
<td>39,154</td>
</tr>
<tr>
<td>National partnerships</td>
<td>384,930</td>
<td>732,381</td>
<td>347,451</td>
</tr>
<tr>
<td>National Pest Plants</td>
<td>54,500</td>
<td>295,873</td>
<td>241,373</td>
</tr>
<tr>
<td>Kauri Dieback</td>
<td>194,747</td>
<td>269,088</td>
<td>74,341</td>
</tr>
<tr>
<td>Biological control</td>
<td>135,683</td>
<td>167,420</td>
<td>31,737</td>
</tr>
<tr>
<td>Pest Animals</td>
<td>4,322,919</td>
<td>4,458,113</td>
<td>135,194</td>
</tr>
<tr>
<td>Eradication species</td>
<td>64,374</td>
<td>83,205</td>
<td>18,831</td>
</tr>
<tr>
<td>Progressive containment species</td>
<td>165,430</td>
<td>170,404</td>
<td>4,974</td>
</tr>
<tr>
<td>Sustained control species</td>
<td>1,798</td>
<td>344</td>
<td>(1,454)</td>
</tr>
<tr>
<td>Site-led species</td>
<td>463,404</td>
<td>433,467</td>
<td>(29,937)</td>
</tr>
<tr>
<td>Advisory species</td>
<td>0</td>
<td>118</td>
<td>118</td>
</tr>
<tr>
<td>Regional Priority Pest Control (PPCA)</td>
<td>3,421,216</td>
<td>3,481,494</td>
<td>60,278</td>
</tr>
<tr>
<td>National partnerships</td>
<td>206,697</td>
<td>289,081</td>
<td>82,384</td>
</tr>
<tr>
<td>Totals</td>
<td>6,931,497</td>
<td>7,496,572</td>
<td>565,075</td>
</tr>
</tbody>
</table>

An operational deficit of $565,075 resulted at 30 June 2018, however $747,402 of 2017/18 expenditure related to budget that was carried forward from 2016/17 which is not reflected in the original budget. Taking this into account, and along with additional unbudgeted revenue of $329,311, there is an operational surplus of $511,638 from the 2017/18 budget. These unspent funds were primarily a result of carry-overs of $336,178 which have been approved for implementing as part of 2018/19 programmes as detailed below:
Regional Priority Possum Control
- $105,048 for Ngaroma 2 implementation delay due to negotiations of a potential predator free programme.
- $53,966 for Pirongia North Buffer portion of work to be completed in 2018/19 year.
- $68,373 for Whareorino Farmland portion of work to be completed in 2018/19 year.

Pest Animals
- $48,525 for wallabies surveillance and detection trial due to start in 2018/19 year.
- $13,935 portion of goat control to be completed as part of 2018/19 programme.

Pest Plants
- $21,331 to complete construction of alligator weed boom in 2018/19.
- $25,000 for the development of kauri dieback regional operations plan which has been delayed due to national programme changes.
2.2 Pest plants

2.2.1 Exclusion species

Objective: Undertake direct control leading to eradication of all new occurrences in the Waikato region.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Identify new sites through passive and active surveillance by Council Pest Plant Officers (PPOs), the public, or through regional surveillance.</td>
<td>The pest plant team have undertaken excellent surveillance and communications with the community which has led to a number of key biosecurity finds -</td>
</tr>
<tr>
<td>• Collaborate with neighbouring Regional Councils to prevent spread into the Waikato.</td>
<td>• Freshwater eel grass infestation discovered on a property at Te Kowhai was controlled using Endothall in December 2017. A follow up inspection will be carried out next season to determine if another treatment is required.</td>
</tr>
<tr>
<td>• If detected undertake direct control of all exclusion species at all known sites within the region.</td>
<td>• Horsetail was also found growing next to a pond at the same site – controlled by injecting stems with X-Tree Basal.</td>
</tr>
<tr>
<td>• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of eradication species.</td>
<td>The majority of plant supply outlets have an excellent track record at compliance with the National Pest Plant Accord and RPMP. While audits are still carried out, the majority of inspections are focussed on suppliers operating on TradeMe identified by MPI.</td>
</tr>
</tbody>
</table>

Budget $0 – as required
Actual expenditure $0

2.2.2 Advisory species

Objective: Raise awareness and promote voluntary control of advisory pest plants. As practicable, reduce the establishment and spread of advisory plants into high value biodiversity sites.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide information and publicity to enhance public awareness of the threat posed by advisory species to the region.</td>
<td>• Carried out community talks, radio talks (MoreFM), university lectures, provided information to the public and external meetings. Attended the National Fieldays.</td>
</tr>
<tr>
<td></td>
<td>• 232 customer enquiries were logged in Council’s IRIS database and responded to by the pest plants team.</td>
</tr>
</tbody>
</table>

Budget $0
Actual expenditure $39,154

---

1 Any exclusion species identified is considered on a case by case assessment and an incursion response is initiated.
### 2.2.3 Eradication species

**Objective:** Undertake direct control of all known sites on an annual basis

<table>
<thead>
<tr>
<th>Budget</th>
<th>Actual expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>$236,206</td>
<td>$223,323</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- On an annual basis undertake direct control of all eradication species at all known sites within the region.</td>
<td>The pest plants team are extremely pleased with the fantastic results for the 2017/18 year. This year a total 12 eradication species were managed across 538 properties. The number of properties varies from year to year as these species are checked on different intervals.</td>
</tr>
<tr>
<td>- Provide information and publicity to enhance public awareness of the threat posed by eradication species to the region.</td>
<td>Number of properties visited to manage these species were:</td>
</tr>
<tr>
<td>- Identify new sites through passive surveillance by WRC Pest Plant Officers (PPOs), the public, or through regional surveillance.</td>
<td>- African feather grass – 13</td>
</tr>
<tr>
<td>- Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of eradication species.</td>
<td>- Cathedral bells – 4</td>
</tr>
<tr>
<td></td>
<td>- Japanese knotweed – 7</td>
</tr>
<tr>
<td></td>
<td>- Evergreen buckthorn – 422</td>
</tr>
<tr>
<td></td>
<td>- Lantana – 66</td>
</tr>
<tr>
<td></td>
<td>- Mile a minute – 12</td>
</tr>
<tr>
<td></td>
<td>- Nassella tussock – 7</td>
</tr>
<tr>
<td></td>
<td>- Noogoora bur – 8</td>
</tr>
<tr>
<td></td>
<td>- Sagittaria – 2</td>
</tr>
<tr>
<td></td>
<td>- Senegal tea – 3</td>
</tr>
<tr>
<td></td>
<td>- Variegated Thistle - 1</td>
</tr>
<tr>
<td></td>
<td>- Water poppy – 2</td>
</tr>
</tbody>
</table>

**Surveillance**

Surveillance can be very difficult due to the scale of potential habitat. This year’s surveillance was undertaken during winter months involving road surveys, boat surveys (on lakes and rivers) and aerial surveys. Many different pest plants are detected during the surveys with each requiring a different management approach, some may be controlled as they are seen whereas others may require a control programme to be put in place. An example of effective surveillance and awareness for evergreen buckthorn picked up a new site in Pauanui, which was delimited and controlled.

**Surveillance included:**

- Intensive survey within Hamilton city for all RPMP pest plants, including Dinsdale, Frankton, Maeroa, Deanwell, Glenview, Fitzroy and Hamilton East.
- Wide scale survey of road reserves, Hamilton city boundary, 400 riparian areas and many lakes, streams and rivers including Lake Whangape, Lake Waikare, Waikato River (including small tributaries and hydro lakes), Port Waikato, Waikou River, Piako River.
Provide information and publicity
Refer to advisory species section 2.2.2.

**Nursery Inspections**
Refer to eradication species section 2.2.1.

**Biocontrol**
Biological control is covered in the Biocontrol section 2.2.7.3.

---

Photo 1: African feather grass site near Tirau – November 2014

Photo 2: African feather grass site near Tirau – November 2017
2.2.4 Progressive containment species

**Budget**  
$1,547,238

**Actual expenditure**  
$1,808,440

### 2.2.4.1 Direct control

**Objective:** Undertake direct control of priority sites.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• On an annual basis undertake direct control at priority sites within the region.</td>
<td>The pest plant team are extremely pleased with the fantastic results for the 17/18. There are 3 main pest plants that WRC undertakes direct for progressive containment. A brief summary of these is detailed below.</td>
</tr>
</tbody>
</table>
| • Provide information and publicity to enhance public awareness of the threat posed by these species to the region. | **Alligator weed**  
Alligator weed management is our largest pest plant programme. The infestations covers large areas of the Lower Waikato river basin. The majority of the control occurs on riparian areas of the lower Waikato river and delta and around key lakes e.g., whangapae. This programmes has very rigorous regulatory responsibilities due to the aquatic habitat they invade. The team works extremely hard to meet these requirements and praise needs to be given to the highly professional pest plant officers and contractors that undertake this work.  
Direct control and/or inspections were undertaken on 205 properties this year:  
• Alligator weed – 106  
**Old man’s beard and climbing spindle berry.**  
Working with these three pest plant can be very difficult as they are hard to find and difficult to destroy.  
Direct control and/or inspections were undertaken on 205 properties this year:  
• Old man’s beard – 63  
• Climbing spindleberry – 36  

• Identify new sites through passive surveillance by WRC PPO’s, the public, or through regional surveillance.  

• Annually inspect plant outlets within the region to prevent the sale and/or propagation of these species.  

• Use biological control agents where appropriate, and support relevant biological control research initiatives.  

| Surveillance                                                                                   | Passive surveillance undertaken throughout the year by Council staff and the public.  
Active surveillance carried out during winter months involving drive-by, boat and aerial surveys.  
Any findings are followed-up by the direct control programme.  

| Provide information and publicity                                                                 | Refer to advisory species section 2.2.2.  

**Nursery Inspections**  
Refer to eradication species section 2.2.1.  

**Biocontrol**  
Biological control is covered in the Biocontrol section 2.2.7.3.
Photo 3: Alligator weed infestation in a pond at Te Kauwhata
**Landowner control**

**Objective:** Control all Progressive Containments species (landowner control) at known sites outside the Containment zones on an annual basis subject to successful control trials.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Monitor and record compliance with the plan rules and good neighbour rules.</td>
<td>The pest plant team work very hard with the community to get voluntary compliance. In most cases the community are unaware of their RPMP responsibilities until notified by one of the PPO's. The team prides themselves on good communication and collaboration with the community which is evident in a very low number of pest programmes leading to prosecution or default action.</td>
</tr>
<tr>
<td>- Undertake direct control of outlier populations.</td>
<td></td>
</tr>
<tr>
<td>- Provide information and publicity to enhance public awareness of the threat posed by these species to the region.</td>
<td></td>
</tr>
<tr>
<td>- Identify outliers through passive surveillance by WRC PPO's, the public, or through regional surveillance.</td>
<td></td>
</tr>
<tr>
<td>- Annually inspect plant outlets in the region to prevent the sale and/or propagation of these species.</td>
<td></td>
</tr>
<tr>
<td>- Use biological control agents where appropriate, and support relevant biological control research initiatives.</td>
<td></td>
</tr>
</tbody>
</table>

**Compliance with Plan and Good Neighbour Rules**

a) **Property inspections**
A total of 1,035 properties were inspected and follow up inspections or programmes were undertaken:
- 7 banana passionfruit
- 45 boneseed
- 2 chocolate vine
- 9 climbing asparagus
- 3 contorta pine
- 5 giant gunnera
- 38 wild ginger
- 6 mignonette vine
- 32 moth plant
- 5 pampas
- 1 tutsan
- 594 woolly nightshade
- 50 yellow flag iris
- 105 velvetleaf

b) **Pest Control Programmes issued**
553 Pest Control Programmes were issued for non-compliance with plan rules.

c) **Notice of Directions**
10 Notice of Directions were issued for non-compliance with programmes (s122).

d) **Defaults**
2 default action notices were issued (s128).

**Direct control of species outside containment zones**
Controlled outlying populations of the following species:
- Banana passionfruit
- Boneseed
- Climbing asparagus
- Contorta pine
- Dally pine
- Pampas
- Privet
- Tutsan
- Wild ginger
- Woolly nightshade
- Yellow flag Iris

**Provide information and publicity**
Refer to advisory species section 2.2.2.

**Nursery Inspections**
Refer to eradication species section 2.2.1.

**Biocontrol**
Biological control is covered in the Biocontrol section 2.2.7.3.

---

**Photo 4:** Rusty the detector dog finds several small velvetleaf seedlings
2.2.5 Sustained control species

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budget</strong></td>
<td>$343,574</td>
</tr>
<tr>
<td><strong>Actual expenditure</strong></td>
<td>$127,626</td>
</tr>
</tbody>
</table>

2.2.5.1 Boundary control species

**Objective:** Prevent the spread of sustained control species onto properties that are clear, or being cleared, of boundary control species.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Action complaints received within the parameters of the RPMP.</td>
<td>Council receives many complaints with regard to widespread pest plants. PPO’s follow up these enquires and in many cases will inspect and issue a property programme. Once again, the team prides themselves on good communication and collaboration with the community which is evident in a very low number of pest programmes leading to prosecution or default action.</td>
</tr>
<tr>
<td>• Monitor and record compliance with the plan rules and good neighbour rules.</td>
<td></td>
</tr>
<tr>
<td>• Provide information and publicity to enhance public awareness of the threat posed by these species to the region.</td>
<td></td>
</tr>
<tr>
<td>• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of sustained control species.</td>
<td></td>
</tr>
<tr>
<td>• Use biological control agents where appropriate and support relevant biological control research initiatives.</td>
<td></td>
</tr>
</tbody>
</table>

**Compliance with Plan and Good Neighbour rules**

a. **Inspections**
A total of 247 properties were inspected that required follow-up actions:
- 170 for privet
- 24 for ragwort
- 37 for gorse
- 10 for nodding and plumeless thistle
- 6 for broom

b. **Notice of Direction**
9 Notice of Directions were issued for non-compliance of programmes (s122).

c. **Defaults**
No default notices were issued (s128).

**Provide information and publicity**
Refer to advisory species section 2.2.2.

**Nursery Inspections**
Refer to eradication species section 2.2.1.

**Biocontrol**
Biological control is covered in the Biocontrol section 2.2.7.3.
## 2.2.6 Site-led species

**Objective:** Prevent the spread and minimise the adverse impacts of site-led species at high value biodiversity sites throughout the Waikato region

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budget</strong></td>
<td>$96,630</td>
</tr>
<tr>
<td><strong>Actual expenditure</strong></td>
<td>$107,535</td>
</tr>
</tbody>
</table>

### Means of Achievement

-Council may undertake direct control of site led species.
- Provide information and publicity to enhance public awareness of the threat posed by site led species to the region.
- Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of site-led species.
- Use biological control agents where appropriate and support relevant biological control research initiatives.

### Actual performance

The site-led programme is critical to managing threats to high value biodiversity sites. The site-led direct control projects undertaken were:

- Desert Road Legume project
- Wilding conifers (Central North Island, Geothermal sites Taupo area), supported community groups to manage this pest in coastal forests.
- Dally pine (Mount Karioi)
- Contractor support of restoration programme at Hikuai Te Kouka forest
- Dune Care Coromandel
- Ferry Landing restoration

**Provide information and publicity**
Refer to advisory species section 2.2.2.

**Nursery Inspections**
Refer to eradication species section 2.2.1.

**Biocontrol**
Biological control is covered in the Biocontrol section 2.2.7.3.
2.2.7 National partnerships

2.2.7.1 National pest plants

Objective: In conjunction with MPI, undertake direct control of all known sites on an annual basis (Chinese knotweed, Manchurian wild rice, sea spurge, spartina, white bryony).

| Budget | $54,500 |
| Actual expenditure | $295,873 |

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• On an annual basis undertake direct control by Council of all Eradication species at all known sites within the region.</td>
<td>Sea spurge</td>
</tr>
<tr>
<td>• Provide information and publicity to enhance public awareness of the threat posed by Eradication species to the region.</td>
<td>• Aotea infestation site visited in September, January and April. One large stem was found and removed during the January visit (see Photo 5).</td>
</tr>
<tr>
<td>• Identify new sites of Eradication species through passive surveillance by Council PPO’s the public, or through regional surveillance.</td>
<td>• Delimiting survey carried out on beaches 15km either side of the infestation. No plants were found.</td>
</tr>
<tr>
<td>• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of eradication species.</td>
<td>Manchurian wild rice</td>
</tr>
<tr>
<td></td>
<td>• A Manchurian wild rice 10 year control plan was submitted to MPI in November 2017. This has resulted in an increase in operational budget for available from MPI in the Waikato.</td>
</tr>
<tr>
<td></td>
<td>• All active and surveillance sites visited, with active sites controlled from November to June.</td>
</tr>
<tr>
<td></td>
<td>• The majority of the main infestation on the banks of the Waihou River at Turua were controlled twice. This control was a mix of aerial, ground and boat.</td>
</tr>
<tr>
<td></td>
<td>• One site at Cambridge remains under surveillance and is on track to be declared eradicated in 2021 provided no new plants are found.</td>
</tr>
<tr>
<td></td>
<td>• Aerial surveillance at Horahora discovered one small site within the wider infestation area. Another large new plant was found on the roadside near Turua, and a surveillance site near Turua was discovered to still contain live plants.</td>
</tr>
<tr>
<td></td>
<td>• Other activities included:</td>
</tr>
<tr>
<td></td>
<td>- A Best Practice Day held in October 2017 and attended by representatives from Auckland, Greater Wellington, Waikato and Northland Regional Councils, MPI and NIWA. This was the first such day for several years and positive feedback was received.</td>
</tr>
<tr>
<td></td>
<td>- Manchurian wild rice programme was audited in April 2018. MPI staff reviewed programme documentation and visited the Puriri site. The audit report had not been received by the Council at the time of writing this report.</td>
</tr>
</tbody>
</table>
White Bryony

- One round of surveillance and control carried out in January/February with three plants found – two at Aria and one at Mokauiti. All these plants had large kumara size tubers.
- These results continue the overall downward trend in plants found in recent years. The absence of any seedling plants is an encouraging sign that mature plants are not setting seed and the objective of eradication is achievable.
- One plant was found in a grazed paddock. There may be other plants in the area that have had their foliage grazed by livestock, making tubers very difficult to find. Increased passive surveillance by occupiers would be useful in finding plants outside of the main control period.

Provide information and publicity
Refer to advisory species section 2.2.2.

Nursery Inspections
Refer to eradication species section 2.2.1.

Photo 5: Single sea spurge plant found in January 2018 at the northern end of Aotea beach
2.2.7.2 Kauri dieback

**Objective:** Work with MPI, DOC, iwi and the community to manage the spread of kauri dieback.

<table>
<thead>
<tr>
<th>Budget</th>
<th>$194,747</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure</td>
<td>$269,088</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide information and publicity to enhance public awareness of the threat posed by kauri dieback to the region.</td>
<td>• Council continues to work with National partners to protect Kauri from the deadly disease Kauri Dieback.</td>
</tr>
<tr>
<td>• Identify new sites of kauri dieback through passive surveillance by Council staff and contractors, the public, and through proactive regional surveillance.</td>
<td>• GIS layer of kauri locations in Waikato region completed.</td>
</tr>
<tr>
<td>• Undertake soil samples as appropriate.</td>
<td>• The aerial surveillance identified 44 sites on private land that required groundtruthing. This has been partly completed.</td>
</tr>
<tr>
<td>• Support landowners to manage vectors of kauri dieback.</td>
<td>• Surveillance and groundtruthing has confirmed one new Kauri dieback infection area in Tairua. Council staff are working with DOC, iwi and the community on a management plan.</td>
</tr>
</tbody>
</table>

**National Pest Management Plan**

- Staff are supporting the Accelerating Kauri Project which aims to:
  - (i) Refresh Kauri Dieback Strategy
  - (ii) Develop a National Pest Management Plan and
  - (iii) Establish a new management agency to implement Kauri dieback programme

2.2.7.3 Biological control

**Objective:** Implement a biological control programme for pest plants where appropriate, throughout the region.

<table>
<thead>
<tr>
<th>Budget</th>
<th>$135,683</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure</td>
<td>$167,420</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Undertake biological control agent releases in the region. Planned releases include:</td>
<td>Releases carried out:</td>
</tr>
<tr>
<td>- 1 x privet lace bug</td>
<td>• <strong>Privet lace bug</strong> – three releases carried out north of Huntly, Karapiro and Whenuakite.</td>
</tr>
<tr>
<td>- 1 x <em>Tradescantia</em> yellow leaf spot fungus</td>
<td>• <strong>Tradescantia yellow spot leaf fungus</strong> – one release carried out in Hamilton.</td>
</tr>
<tr>
<td>- 1 x tutsan moth</td>
<td>• <strong>Green thistle beetle</strong> – 11 releases throughout the region.</td>
</tr>
<tr>
<td>- 10+ x green thistle beetle</td>
<td>• <strong>White admiral butterfly</strong> – one release near</td>
</tr>
</tbody>
</table>
Putaruru to control Japanese honeysuckle.

- **Japanese honeysuckle stem beetle** – one release by Landcare Research near Putaruru.
- **Tutsan moth** – unable to secure a release due to difficulties in rearing by Landcare Research.

**Observations form previous releases**

*Tradescantia* beetles continue increasing and spreading. Leaf and tip beetles have been found more than a kilometre away from the original release site (see Photo 6).

Moth plant beetles (*Freudita cupripennis*) and moth plant fly (*Toxotrypana australis*) were collected by Landcare Research in Uruguay. Releases are planned for the 2018/19 season.

Around 20 historical nodding thistle crown weevil and gall fly sites were visited as part of an assessment program lead by Landcare Research. The results were not available at the time of writing this report.

Woolly nightshade lace‐bug has been observed many kilometres from release sites, and is increasing in number across the region. Council can now confirm this biocontrol is established in the region and starting to show good signs of impacting woolly nightshade populations.

**National programme**

WRC contributed $60,000 to the National Biocontrol Collective programme along with other Councils, DOC and MPI. The programme funds research and applications for the release of new biocontrol organisms, managed under a contract with Landcare Research.

---

**Photo 6:** *Tradescantia* leaf and tip beetles found more than a kilometre from the release site.
2.3 Pest Animals

2.3.1 Eradication species

2.3.1.1 Rooks

Objective: Progressively manage rooks to zero density in the Waikato region.

<table>
<thead>
<tr>
<th>Budget</th>
<th>Actual expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>$64,374</td>
<td>$83,205</td>
</tr>
</tbody>
</table>

Means of Achievement

- Provide advice and education on the threats of rooks to occupiers and other interested parties.
- Survey rook populations annually in areas where they are known to exist (Hauraki, Waikato, Waipa, Matamata-Piako, South Waikato, and Taupo Districts), and where new infestations are reported.
- Undertake direct control at known rookeries.

Actual performance

- Maintained rook sighting and surveillance spreadsheet. Advice, education and factsheets provided to landowners and those reporting rook sightings.
- Annual rook survey completed, involving approximately 300 hours in August and September 2017.
- Advertisements placed in the Taupo Times, South Waikato News and Cambridge Edition (see Figure 2 for an example).
- Three new rookeries were found. A large new rookery in Tihoi of over 30 birds and smaller rookeries near Taupo and Atiamuri.
- A total of seven rookeries were located and controlled – Tihoi (1), Hamilton (2), Kaihua (1), Cambridge (1), Taupo (1) and Atiamuri (1). See Figure 1 for the last seven years rook control.

---

Figure 1: Rook Control 2010 to 2017
2.3.2 Progressive containment species

2.3.2.1 Wallabies

**Objective:** Progressively manage dama wallabies to zero densities in the Waikato region.

**Budget** $165,430

**Actual expenditure** $170,404

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work collaboratively with Bay of Plenty Regional Council (BOPRC), DOC and MPI to effectively implement the dama wallaby management plan.</td>
<td>• Wallaby Operations Planning Application has been developed and implemented across Bay of Plenty and Waikato regions. This allows members of the public to report sightings online and locate sightings on a map. It also acts as a single repository for the three agencies surveillance data.</td>
</tr>
<tr>
<td>• Continue the population delimiting survey to confirm the extent of the dama wallabies’ feral range.</td>
<td>• 13 priority delimiting sites identified in conjunction with BOPRC and surveys undertaken.</td>
</tr>
<tr>
<td>• Undertake control of dama wallabies at the edge of feral range to halt expansion population.</td>
<td>• A wallaby was sighted in Hamilton City. Investigations found the wallaby had been present as a pet but had already been disposed of.</td>
</tr>
<tr>
<td>• Investigate and record sightings of dama wallaby outside the feral range, and if required eradicate.</td>
<td>• Two dead wallabies were dumped outside the containment area, and one reported outside the containment area, which was immediately checked with nothing found.</td>
</tr>
</tbody>
</table>

---

Figure 2: Look for Rooks advertorial published in local newspapers
2.3.3 **Sustained control species**

### 2.3.3.1 Magpies

**Objective:** Reduce the antisocial and adverse environmental impacts of magpies in the Waikato region.

<table>
<thead>
<tr>
<th>Budget</th>
<th>$1,798</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure</td>
<td>$344</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All enquiries/complaints are responded to within two working days.</td>
<td>• 23 enquires were received concerning magpies. Advice was provided around who is responsible for control, instructions to build a trap and how to undertake control.</td>
</tr>
<tr>
<td>• Undertake direct control 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.</td>
<td>• No site visits were required</td>
</tr>
<tr>
<td>• Provide advice and education to occupiers wanting to undertake magpie control.</td>
<td></td>
</tr>
<tr>
<td>• Provide a referral service to occupiers who require magpie control.</td>
<td></td>
</tr>
<tr>
<td>• Log enquiries in the Council’s IRIS database and close off when complete.</td>
<td></td>
</tr>
</tbody>
</table>

---

### 2.3.4 Site-led species

#### 2.3.4.1 Wasps

**Objective:** Reduce the anti-social and adverse environmental impacts of common and German wasps in the Waikato region.

<table>
<thead>
<tr>
<th>Budget</th>
<th>$3,596</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure</td>
<td>$2,497</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All enquiries/complaints are responded to within two working days.</td>
<td>• 51 enquires/complaints were received for Asian, Australian paper wasps and Common, German wasps.</td>
</tr>
<tr>
<td>• Undertake direct control of wasps 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.</td>
<td>• Advice was provided on where to purchase products, links to factsheets, and information on how to undertake control.</td>
</tr>
<tr>
<td>• Provide advice and education to occupiers wanting to undertake wasp control.</td>
<td>• No site visits were required.</td>
</tr>
<tr>
<td>• Provide a referral service to occupiers who require wasp control.</td>
<td></td>
</tr>
<tr>
<td>• Log enquiries in the Council’s IRIS database and close off when complete.</td>
<td></td>
</tr>
</tbody>
</table>
2.3.4.2 Rats

Objective: Reduce the adverse environmental impacts of rats at high value sites in the Waikato region.

| Budget | $0 |
| Actual expenditure | $0 |

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All enquiries/complaints are responded to within two working days.</td>
<td>• 44 enquiries/complaints were received concerning rats and how to undertake control.</td>
</tr>
<tr>
<td>• Provide advice and education to occupiers wanting to undertake rat control.</td>
<td>• Advice was provided on how to undertake control, where to purchase products, product advice and industry best practise.</td>
</tr>
<tr>
<td>• Provide a referral service to occupiers who require rat control.</td>
<td>• No site visits were required.</td>
</tr>
<tr>
<td>• Log enquiries in the Council’s IRIS database and close off when complete.</td>
<td></td>
</tr>
</tbody>
</table>

2.3.4.3 Feral goats

Objective: Reduce the adverse environmental impacts of feral goats at high value sites in the Waikato region.

| Budget | $287,704 |
| Actual expenditure | $204,846 |

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Collaborate with DOC to control feral goats at high value sites on private land (e.g. Coromandel Peninsula, Kaimai ranges, Mamaku, Pirongia, Whareorino and Pureora).</td>
<td>DOC and Council undertake a regional feral goat control programme to protect high value sites. The programme is collaborative with DOC funding control on public conservation land and WRC on private land. DOC manage all the contracts.</td>
</tr>
<tr>
<td></td>
<td>This year in joint operations:</td>
</tr>
<tr>
<td></td>
<td>• Coromandel – 1,124 hunter hours for 523 goats (0.47 goats/hr)</td>
</tr>
<tr>
<td></td>
<td>• Kaimai Ranges – 200 hunter hours for 34 goats (0.17 goats/hr)</td>
</tr>
<tr>
<td></td>
<td>• Mt Pirongia – 1352 hunter hours for 604 goats (0.45 goats/hr)</td>
</tr>
<tr>
<td></td>
<td>• West Coast/Whareorino – 2845 hunter hours for 2,584 goats (0.91 goats/hr)</td>
</tr>
<tr>
<td></td>
<td>• Rangitoto – 1,300 hunter hours for 1,108 goats (0.85 goats/hr)</td>
</tr>
<tr>
<td></td>
<td>• Over the last five years 16,299 goats have been shot on PCL and private land.</td>
</tr>
</tbody>
</table>
2.3.4.4 Rabbits

Objective: Ensure that no area in the region exceeds Level 4 on the Modified McLean Scale.

<table>
<thead>
<tr>
<th>Budget</th>
<th>$10,789</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure</td>
<td>$74,685</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide technical advice and support to district/city councils and occupiers.</td>
<td>• 85 enquiries/complaints were received concerning rabbits.</td>
</tr>
<tr>
<td>• Work with occupiers to ensure they are aware of their responsibilities for rabbit control.</td>
<td>• 6 visits/inspections occurred. No enforcement action was required.</td>
</tr>
<tr>
<td>• Site assessments of rabbit prone sites upon receiving complaints from affected occupiers, and followed up by using the three step enforcement process outlined in the RPMP, if assessments exceed level four of the scale.</td>
<td>• RHDV1 K5 rabbit biocontrol agent was released in April 2018 at Matarangi, Pauanui, Whangamata, Thames, Karapiro, Cambridge, Hamilton, Kinoch, Taupo and Omori/Kuratau in partnership with territorial authorities.</td>
</tr>
<tr>
<td>• Log enquiries in the Council’s IRIS database and close off when complete.</td>
<td>• Council, contractors and landowners continue to visually monitor rabbit numbers at the release sites. Anecdotal feedback is that while no dead rabbits have been found, rabbit numbers have reduced.</td>
</tr>
<tr>
<td></td>
<td>• With the discovery of a new strain of virus RHDV2 in New Zealand, Council has committed, where possible, to supply Landcare Research/MPI with samples from around the region to verify the extent of the RHDV2 range. Note: This strain was discovered in BOP prior to the release of RHDV5.</td>
</tr>
<tr>
<td></td>
<td>• The rabbit management agreement for Taupo between WRC, Taupo District Council and DOC will be reviewed in 2018/19.</td>
</tr>
</tbody>
</table>
### 2.3.4.5 Koi carp

**Objective:** Continue the direct control trial of koi carp in Lake Waikare to reduce the adverse environmental impacts.

<table>
<thead>
<tr>
<th>Budget</th>
<th>$161,315</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure</td>
<td>$151,439</td>
</tr>
</tbody>
</table>

#### Means of Achievement
- Continue to operate the Lake Waikare pest fish trap and digester.
- Record the weight of pest fish removed from the trap and the volume of dry fish product from the digestion process.

#### Actual performance
- The Lake Waikare pest fish trap is still operating effectively whereas the digester has been decommissioned due to it no longer been able to be maintained. Investigations continue into future management options for Koi carp in Lake Waikare and Whangamarino.
- 6 enquires where received for Koi Carp.
- 1,327 kg of pest fish was removed from the fish trap this year.
- Council are currently engaged with NZ Dune Restoration Trust to trial various formulations of carp fertiliser for dune restoration planting.

---

Photo 8: Contractor applying RHDV1 K5 carrot (rabbit virus) in Cambridge
2.3.5 **Advisory species**

<table>
<thead>
<tr>
<th>Budget</th>
<th>Actual expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$118</td>
</tr>
</tbody>
</table>

### 2.3.5.1 Argentine and Darwin’s Ants

**Objective:** Reduce the risk of Argentine and Darwin’s ants affecting the environment, production and people in the Waikato region.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
</table>
| • Provide advice and information regarding the threats of Argentine and Darwin’s ants to occupiers and other interested parties. | • No enquiries were received for the year.  
• Enquiries are entered into the Council’s IRIS database and closed off when complete. |
| • Enquiries are entered into the Council’s IRIS database and closed off when complete. | • No site visits were required. |

### 2.3.5.2 Canada goose

**Objective:** Work collaboratively with landowners and stakeholders to promote landowner control of Canada goose.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
</table>
| • Provide advice and information regarding the threats of Canada goose to occupiers and other interested parties. | • 11 enquiries were received for the year.  
• Work collaboratively with agencies and groups of occupiers to control Canada goose. |
| • Work collaboratively with agencies and groups of occupiers to control Canada goose. | • Advice was provided on the control options available and the optimum time to implement control methods.  
• Enquiries are entered into the Council’s IRIS database and closed off when complete. |
| • Enquiries are entered into the Council’s IRIS database and closed off when complete. | • No site visits were required. |

### 2.3.5.3 Red-eared slider turtle

**Objective:** Raise public awareness about the threats wild red-eared slider turtles pose to the environment and advocate for responsible ownership.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
</table>
| • Provide advice and information regarding the threats of red-eared slider turtles to occupiers and other interested parties. | • Two enquiries were received for the year, from people who noticed turtles in waterways on their properties. Advice was provided on control options.  
• Enquiries are entered into the Council’s IRIS database and closed off when complete. |
| • Enquiries are entered into the Council’s IRIS database and closed off when complete. |
2.3.6 Regional Priority Pest Control (PPCA)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>$3,421,216</td>
</tr>
<tr>
<td>Actual expenditure</td>
<td>$3,481,494</td>
</tr>
</tbody>
</table>

Possum control, a major regional service provided by Waikato Regional Council under the RPMP, is carried out for a number of reasons:

- Protection and enhancement of indigenous biodiversity values (e.g. forests and species);
- Protection of economic values, such as reducing direct competition with pasture growth and farming, forestry;
- Added benefit to the enhancement of catchment values, by maintaining healthy canopies and strong understories; and
- Maintain momentum of community TBfree New Zealand pest control programmes that align with Council’s priorities.

The focus of the RPMP is on developing landscape-scale control across large areas, for example Port Waikato to Raglan, Pirongia to Waitomo and Piopio to Awakino. This is achieved by working closely with DOC, TBfree New Zealand, community and landowners creating synergies through the various annual work programmes.

Council currently funds and undertakes work in 37 priority possum control areas (PPCAs), covering 472,130 hectares and involving approximately 5,620 land owners. This includes nine former TBfree New Zealand vector control areas which have transitioned into the Council’s PPCA programme. The frequency of possum control in PPCA’s is dependent on actual possum densities which are determined through monitoring of possum numbers.

Developing and maintaining professional relationships with landowners is critical to the long term success of the PPCA programme. Consultation and engagement are ongoing via regular face to face visits, letters and newsletters. As well as this contractors are audited to ensure their operational plans, legislative requirements and best practice are adhered to.

The possum control operations outlined below summarise the projects delivered during the 2017/18 financial year. Figure 4 shows a map of control work carried out during 2017/18.
### 2.3.6.1 Maintenance possum control

**Objective:** Maintenance possum control carried out in PPCA’s as determined through trend monitoring results in prior periods.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- All PPCA possum maintenance projects are implemented following a robust process involving community engagement, transparent business processes and within set budgets and timeframes.</td>
<td>Staff are extremely pleased with the fantastic results for the 17/18, with a total 211,075 hectares of possum control completed throughout the region. All the operational targets met, and each contractor was successfully completed easily meeting the tough legislative standards. Credit needs to be given to the highly professional contractors that undertake this work, crucial for the regions biodiversity.</td>
</tr>
<tr>
<td>- All ground control operations achieve a mean 5% RTC² with no high line over 3 possums within the contract timeframes.</td>
<td><strong>Mt Karioi North Buffer</strong> achieved – 0.33% RTC</td>
</tr>
<tr>
<td>- Any aerial control operations achieve a mean 3% RTC with no high line over 3 possums within the contract timeframes.</td>
<td><strong>Mt Karioi South Buffer</strong> achieved – 1.22% RTC</td>
</tr>
<tr>
<td>- Areas identified include:</td>
<td><strong>Nukuhakari Sector 2</strong> — control in this sector was split by the contractor into a ground and aerial operation achieving:</td>
</tr>
<tr>
<td>- Mt Karioi North*</td>
<td>- Nukuhakari sector 2 (Farmland) – 2.24%</td>
</tr>
<tr>
<td>- Mt Karioi South*</td>
<td>- Nukuhakari sector 2 (Aerial) – 0.70%</td>
</tr>
<tr>
<td>- Nukuhakari – Sector 2*</td>
<td><strong>Mt Pirongia West Buffer</strong> achieved – 4.19% RTC</td>
</tr>
<tr>
<td>- Mt Pirongia North Buffer</td>
<td><strong>Ngutunui</strong> achieved – 1.33% RTC</td>
</tr>
<tr>
<td>- Mt Pirongia West Buffer</td>
<td><strong>Honikiwi</strong> achieved – 0.26% RTC</td>
</tr>
<tr>
<td>- Oparau</td>
<td><strong>Oparau</strong> achieved – 3.18% RTC</td>
</tr>
<tr>
<td>- Ngutunui</td>
<td><strong>Otahu</strong> achieved – 2.28% RTC</td>
</tr>
<tr>
<td>- Honikiwi</td>
<td><strong>Whareorino Farmland</strong> achieved – 1.99% RTC</td>
</tr>
<tr>
<td>- Nukuhakari – Awakino sector 1</td>
<td><strong>Piopio West</strong> achieved – 3.99% RTC</td>
</tr>
<tr>
<td>- Whareorino</td>
<td><strong>Mt Pirongia North Buffer</strong> - No result in this financial year – control straddles the 2017/18 &amp; 2018/19 financial years.</td>
</tr>
<tr>
<td>- Piopio West</td>
<td><strong>Ngaroma</strong> – control deferred until 2018/19.</td>
</tr>
<tr>
<td>- Ngaroma 2**</td>
<td></td>
</tr>
<tr>
<td>- Otahu</td>
<td></td>
</tr>
</tbody>
</table>

Refer to Figure 4 Priority Possum Control Areas 2017/18.

*Operations straddle the 2016/17 and 2017/18 financial years to coincide with DOC operations on Karioi Mountain.

---

² The residual trap-catch (RTC) index is a simple method of determining relative possum abundance. Lines of 10 leg-hold traps, spaced 20 metres apart, are set for three consecutive nights in random locations within the treatment area, before and after control. The number of lines used is determined by the size of the management area. The standard performance target commonly set for a reduction in possum densities, is a residual trap catch of < 5% (i.e. less than 5 possums caught for every 100 trap-nights).
Photo 9: Seven dead possums under one bait station in the Nukuhakari-Awakino Sector 2 Farmland PPCA (initial control)
2.3.6.2  **Possum Plus Project**

**Objective:** Reduce the adverse impacts of possums at Possum Plus\(^3\) areas to enhance biodiversity and protect catchments and production.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Contracts in these sectors have been extended into 2017/18.</td>
<td>• Contract extensions were granted and the contracts were completed in the 2017/2018 financial year.</td>
</tr>
<tr>
<td>• All ground control operations achieve a mean 5% RTC with no high line over 3 possums within the agreed contract timeframes.</td>
<td>• All reporting requirements fulfilled.</td>
</tr>
<tr>
<td>Refer to Figure 4 Priority Possum Control Areas 2017/18.</td>
<td>• No landowner queries and/or complaints were received during this period.</td>
</tr>
<tr>
<td></td>
<td>• North West Waikato Northern sector – the contractor, in this sector, split the sector into six sub sectors and achieved a 2.27% average RTC across the sector.</td>
</tr>
<tr>
<td></td>
<td>• North West Waikato Central Sector – the contractor in these areas split the central sector into four sub sectors and achieved a 3.85% average RTC across the sector.</td>
</tr>
<tr>
<td></td>
<td>• North West Waikato Southern sector was also split into four sub sectors and achieved a 4.25% average RTC across the sector.</td>
</tr>
</tbody>
</table>

2.3.6.3  **Monitoring**

**Objective:** Residual trap catch (RTC) trend monitoring implemented within:

**PPCA areas**
- Waipa Puniu II
- Hauturu Farmland
- Arohena 1
- Arohena 2
- Waotu
- Mahoenui
- Mokauiti 1 Farmland
- Mokauiti 2 Farmland
- Ngaroma 1

**Halo projects**
- Pukemako
- Te Miro

Trend monitoring determines pre-control possum populations which assists forecasting maintenance control for the coming financial years.

---

\(^3\) The Possum Plus Project is an amalgamation of 17 PPCAs into three sectors (North, Central and South), involving multi-year contracts for possum control in the North West Waikato.
### Means of Achievement | Actual performance
---|---
- All trend monitoring completed and monitoring results received in accordance with current National Pest Control Agencies (NPCA) protocols. | All trend monitoring was undertaken as per the requirements of the NPCA RTC Monitoring protocol.
The following jobs were undertaken:
- **Waipa Puniu II** - April 2018 – 12.80%
- **Hauturu Farmland** – March 2018 – 3.15%
- **Arohena 1**- November 2017 – 9.61%
- **Arohena 2** – November 2017 – 8.27%
- **Waotu** – March 2018 – 15.67%
- **Mahoenui** – January 2018 – 5.35%
- **Mokauiti 1 Farmland** - March 2018 – 3.59
- **Mokauiti 2 Farmland** – March 2018 3.96%
- **Ngaroma 1** – December 2017 – 2.44%
- **NW Waikato West June** 2018 – 7.54%

### 2.3.6.4 Auditing

**Objective:** A selected number of PPCA control areas (covering both ground and aerial based control) will be audited using the Councils auditing standard operating procedures.

| Means of Achievement | Actual performance |
---|---|
- All auditing requirements are met within the timeframes of each PPCA project. | All pest control contractors with active contracts received at least one audit as per the Council’s auditing SOP.|
- Any breaches are resolved within the timeframes of each PPCA project and following the Councils auditing SOP guidelines. | 19 field audits were completed for the year:
- EPA reporting for aerial 1080 operations submitted within four months of completion of aerial work. | - Two monitoring audits were undertaken in Otahu and NW Waikato South sector.
- All aerial operations are audited. Every contractor is audited at least once per year. New Contractors are audited on their first contract. | - Nine ground control audits were carried out in Otahu, Pirongia North, Pirongia West, Ngutunui, PioPio West, Moehau, Nukuhakari 1, NW Waikato central sector and Old Mt Road – Halo.
- One audit of aerial Rook control was undertaken. | - Seven post control audits were undertaken in Nukuhakari 1 and 2, Otahu, PioPio West, Aria, Te Miro – Halo and Old Mt Road – Halo.
These audits are undertaken to identify any areas for improvement in the delivery of the Animal Pest programme. Our contractors exhibit a continuing commitment to health and safety practices in a high risk industry. Over the past year there has been no notifiable incidents or reported risks to the public or landowners in the programme.
### 2.3.6.5 Hamilton Halo Project

**Objective:** Undertake ship rat and possum control to enhance native bird nesting success at selected sites within the Hamilton Halo Project area by 1 October 2017.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pre control monitoring (in May/June) is undertaken if requested by contractors to help inform their operation.</td>
<td>The 3 active HALO sites for the 2017/18 financial year achieved the operational targets, specifically:</td>
</tr>
</tbody>
</table>
| - Post control monitoring is undertaken at all sites to ensure the 5% RTI (rat) contract performance measure has been met by contractors. | - Old Mountain Road – Hope  
  - RTI - 0%  
  - RTC – 0.67% |
| - The active sites in 2017/18 are:  
  - Old Mountain Road – Hope  
  - Old Mountain Road – Johnstone  
  - Bridal Veil Falls | - Old Mountain Road – Johnstone  
  - RTI – 0%  
  - RTC – 1.48% |
| | - Bridal Veil Falls  
  - RTI – 4.29%  
  - RTC – 0% |

Refer to Figure 4 Priority Possum Control Areas 2017/18.

### 2.3.6.6 Communications

**Objective:** The ‘Insight’ PPCA newsletter circulated to all occupiers in the PPCA areas.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Insight newsletter will be reduced to a single publication released every autumn.</td>
<td>Autumn 2018 edition of Insight produced.</td>
</tr>
</tbody>
</table>

![Figure 3: Insight Newsletter - Autumn 2018](image-url)
Figure 4: Priority Possum Control & Halo Areas 2017/18

<table>
<thead>
<tr>
<th>MAP NUMBER</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NW Waikato North</td>
</tr>
<tr>
<td>2</td>
<td>NW Waikato Central</td>
</tr>
<tr>
<td>3</td>
<td>NW Waikato South</td>
</tr>
<tr>
<td>4</td>
<td>Mt Karori North Block</td>
</tr>
<tr>
<td>5</td>
<td>Mt Karori South Block</td>
</tr>
<tr>
<td>6</td>
<td>Nukuakari - Awakino Sec 2</td>
</tr>
<tr>
<td>7</td>
<td>Mount Pirongia North Buffer</td>
</tr>
<tr>
<td>8</td>
<td>Mount Pirongia West Buffer</td>
</tr>
<tr>
<td>9</td>
<td>Oparau</td>
</tr>
<tr>
<td>10</td>
<td>Ngutunui</td>
</tr>
<tr>
<td>11</td>
<td>Honikii</td>
</tr>
<tr>
<td>12</td>
<td>Nukuakari - Awakino Sec 1</td>
</tr>
<tr>
<td>13</td>
<td>Whareorino</td>
</tr>
<tr>
<td>14</td>
<td>Pio Pio West</td>
</tr>
<tr>
<td>15</td>
<td>Ngaroma 2</td>
</tr>
<tr>
<td>16</td>
<td>Otahu</td>
</tr>
<tr>
<td>17</td>
<td>Old Mountain Road (Johnstones)</td>
</tr>
<tr>
<td>18</td>
<td>Old Mountain Road (Hope Bush)</td>
</tr>
<tr>
<td>19</td>
<td>Bridal Veil Falls</td>
</tr>
</tbody>
</table>

Acknowledgements and Disclaimers
Topographic Maps sourced from LINZ. Crown Copyright Reserved.

DISCLAIMER: While Waikato Regional Council has exercised all reasonable skill and care in compiling the contents of this information, Waikato Regional Council accepts no liability in contract, tort or otherwise howsoever, for any error, omissions, inaccuracy or for any loss resulting from any use of this information. It is used at your own risk.

Waikato Region Priority Possum Control Areas 2017 - 2018
For Waikato Regional Council staff only

Created by: NICE
Date: 14/05/2017
Version: 1
File: RCO2013A Regional
PPCA 2017: 2018.indd
by Waikato Regional Council

Legend
- PPCA that Straddles Financial Year
- PPCA 2017 - 2018
- Initial Control
- Halo Projects

Scale at A3
= 1:500,000

Figure 4: Priority Possum Control & Halo Areas 2017/18
2.3.7 National partnerships

<table>
<thead>
<tr>
<th>Budget</th>
<th>$206,697</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure</td>
<td>$289,081</td>
</tr>
</tbody>
</table>

2.3.7.1 National Pet Trade Accord

**Objective:** To contribute to the prevention of the establishment of wild populations of pest species.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Progress the establishment of a National Pet Trade Accord with other regional councils, MPI, Pest Industry Association of NZ and the NZ Companion Animal Council.</td>
<td>This project did not progress this year. As MPI had to reprioritise staff resourcing because of the number and scale of national biosecurity incursions throughout the year.</td>
</tr>
</tbody>
</table>

2.3.7.2 National Biosecurity Capability Network (NBCN)

**Objective:** To contribute to national biosecurity preparedness

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- To provide staff to NBCN training courses.</td>
<td>No NBCN training was undertaken this year.</td>
</tr>
<tr>
<td>- To provide staff and assistance to NBCN responses as required.</td>
<td>Staff have assisted in the following MPI led national responses:</td>
</tr>
<tr>
<td></td>
<td>- Newts</td>
</tr>
<tr>
<td></td>
<td>- Myrtle rust</td>
</tr>
<tr>
<td></td>
<td>- Mycoplasma bovis (North &amp; South Island)</td>
</tr>
<tr>
<td></td>
<td>- Lindavia</td>
</tr>
</tbody>
</table>
2.3.7.3  *Sabella spallanzanii* (Sabella) Response

**Objective:** To prevent the spread of *Sabella* within the region.

<table>
<thead>
<tr>
<th>Means of Achievement</th>
<th>Actual performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide advice and information regarding the threats of <em>Sabella</em> to marine industry groups, boat owners, marinas, the aquaculture industry and other interested parties.</td>
<td>• Attendance at the 2017 Auckland On Water Boat Show and Waikato Aquaculture Forum.</td>
</tr>
<tr>
<td>• Promote wider education of marine biosecurity and effective pathway management.</td>
<td>• <em>Sabella</em> awareness signage erected at Coromandel Harbour.</td>
</tr>
<tr>
<td>• Attend marine biosecurity agency forum ‘Top of the North’ (TON) with regional councils and MPI.</td>
<td>• ‘Clean Below Good to Go’ marine pest pathway brand created. Collateral distributed via Coromandel marinas and WRC Harbour Masters.</td>
</tr>
<tr>
<td></td>
<td>• Ongoing marine surveillance carried out at Coromandel visitor ‘hotspots’ (including 717 vessel hulls, 37kms of pontoons, 629 piles, 731m of rockwall, 136 moorings). One vessel turned away from Whangamata with <em>Sabella</em>.</td>
</tr>
<tr>
<td></td>
<td>• Survey of Coromandel vessel hulls for marine pests. Ongoing program of work with MPI with vessel owners.</td>
</tr>
<tr>
<td></td>
<td>• Attendance at TON meetings throughout year.</td>
</tr>
</tbody>
</table>

Photo 10: *Sabella spallanzanii* on a vessel in Coromandel being hauled out for cleaning (*photo*: www.marinepests.nz)
2.4 Crown RPMP obligations

2.4.1 The Crown, the Biosecurity Act and regional councils’ expectations

The Council spends approximately $6 million a year on pest control, spending that is an important part of its work to protect the health of the regional economy and the environment. This money helps deal with a range of animal pests that threaten primary production and biodiversity and with pest plants that infest pasture and clog waterways.

The Waikato’s reliance on agriculture, forestry and tourism makes it particularly vulnerable to the economic threats posed by any uncontrolled introduced pests. Council wants to make sure the region is well prepared to handle these existing pests and any new threats that may emerge in the future. The council is also determined to extract the greatest value from the spending on pest control, particularly by ensuring that central government is paying its fair share.

2.4.2 Department of Conservation (DOC) funded projects – 2017/18

Council currently has an informal annual agreement with DOC to a contribution which specifically targets animal and plant pest problems on public conservation land which exacerbate pest problems on neighbouring privately owned land.

The total amount of funding under this programme is limited to $141,000 per annum. The following table outlines the RPMP/DOC works programme completed during 2017/18.

<table>
<thead>
<tr>
<th>Area or name of reserve</th>
<th>Pest species</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Waikato Wetlands</td>
<td>Alligator weed/yellow flag iris</td>
<td>$30,000</td>
</tr>
<tr>
<td>TDC Rabbit Management Plan (Taupo lake shore reserves)</td>
<td>Rabbits</td>
<td>$2,000</td>
</tr>
<tr>
<td>Maniapoto aerial pampas (coastal)</td>
<td>Pampas, woolly nightshade</td>
<td>$15,000</td>
</tr>
<tr>
<td>Waikato general boundary and roadside control</td>
<td>Woolly nightshade, gorse, privet, ginger, pampas</td>
<td>$1,000</td>
</tr>
<tr>
<td>Cathedral Cove</td>
<td>Woolly nightshade, gorse, moth plant</td>
<td>$4,500</td>
</tr>
<tr>
<td>DOC Reserves within PPCAs</td>
<td>Possums</td>
<td>$18,000</td>
</tr>
<tr>
<td>Desert Road</td>
<td>Broom, gorse</td>
<td>$10,000</td>
</tr>
<tr>
<td>Hahei dunes</td>
<td>Moth plant, passionflower, Tasmanian Ngaio</td>
<td>$3,000</td>
</tr>
<tr>
<td>Okahutahi catchment, behind Sandy Bay</td>
<td>Ginger and climbing asparagus</td>
<td>$5,000</td>
</tr>
<tr>
<td>Port Jackson</td>
<td>Boneseed</td>
<td>$8,000</td>
</tr>
<tr>
<td>Karioi</td>
<td>Dally pine</td>
<td>$5,000</td>
</tr>
<tr>
<td>Ferry Landing</td>
<td>Climbing asparagus</td>
<td>$7,000</td>
</tr>
<tr>
<td>Waitaia Road Otama RR Kuaotunu</td>
<td>Ginger</td>
<td>$1,000</td>
</tr>
<tr>
<td>Raglan</td>
<td>Boneseed</td>
<td>$11,500</td>
</tr>
<tr>
<td>Firth of Thames</td>
<td>Spartina</td>
<td>$10,000</td>
</tr>
<tr>
<td>Mokau</td>
<td>Pampas</td>
<td>$10,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$141,000</strong></td>
</tr>
</tbody>
</table>
Appendix 1 Agrichemicals used by the Biosecurity team in implementation of the RPMP

**Herbicides** – *used in relation to Council direct control work*

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Brand name</th>
<th>Target species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metsulfuron</td>
<td>Associate</td>
<td>Alligator weed, yellow flag iris</td>
</tr>
<tr>
<td>Picloram</td>
<td>Conquest, Tordon Brush, Vigilant (gel)</td>
<td>Boneseed, ginger, woolly nightshade (shrubs)</td>
</tr>
<tr>
<td>Haloxyfop</td>
<td>Gallant, Hurricane, Agpro Haloxyfop</td>
<td>Grass specific – Manchurian wild rice, spartina, African feather grass</td>
</tr>
<tr>
<td>Imazapyr</td>
<td>Unimaz</td>
<td>Alligator weed, Japanese knotweed</td>
</tr>
<tr>
<td>Triclopyr</td>
<td>Grazon, X-Tree Basal</td>
<td>Contorta, woolly nightshade</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>Orion glyphosate 360, Roundup Renew, Weedmaster</td>
<td>Various uses, mainly in conjunction with metsulfuron</td>
</tr>
<tr>
<td>Endothall</td>
<td>Aquathol-K</td>
<td>Freshwater eel grass</td>
</tr>
</tbody>
</table>

**Pesticides** (*vertebrate toxic agents*) – *used in relation to Council direct control work*

<table>
<thead>
<tr>
<th>Pesticide</th>
<th>Brand name</th>
<th>Format</th>
<th>Application</th>
<th>Target species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Cyanide</td>
<td>Feratox</td>
<td>Encapsulated pill</td>
<td>Biodegradable bait bag or device, bait stations</td>
<td>Possum</td>
</tr>
<tr>
<td>Brodifacoum</td>
<td>Pestoff</td>
<td>Cereal pellets</td>
<td>Bait stations</td>
<td>Possum, rats</td>
</tr>
<tr>
<td>Cholecalciferol</td>
<td>Feracol, Decal</td>
<td>Paste</td>
<td>Biodegradable devices, bait stations</td>
<td>Possum, rats</td>
</tr>
<tr>
<td>Sodium Monofluoroacetate</td>
<td>1080</td>
<td>Cereal pellets,</td>
<td>Bait stations, aerial application</td>
<td>Possum, rats</td>
</tr>
<tr>
<td>Diphacinone</td>
<td>Rat-a-bate, Pestoff 50D</td>
<td>Paste, cereal pellets</td>
<td>Biodegradable devices, bait stations</td>
<td>Rats</td>
</tr>
<tr>
<td>2-pivaloyl-1,3-indandione</td>
<td>Pindone</td>
<td>Cereal pellets</td>
<td>Bait stations</td>
<td>Possum, rats</td>
</tr>
<tr>
<td>3-Chloro-p-toluidine hydrochloride</td>
<td>DRC1339</td>
<td>Powder mixed into paste</td>
<td>Applied to nests</td>
<td>Rooks</td>
</tr>
</tbody>
</table>
### Appendix 2 VTA Toxins used by project in the 2017/18 financial year.

<table>
<thead>
<tr>
<th>Operation / Toxin</th>
<th>Hectares</th>
<th>Cereal 1080 baits</th>
<th>PestOff possum or rat bait (brodifacoum)</th>
<th>Feratox pellets, biobags or strikers (encapsulated cyanide)</th>
<th>Decal in biobags (Cholecalciferol)</th>
<th>Feracol in biobags (Cholecalciferol)</th>
<th>Rat-a-bate strikers, Pestoff 50D (Diphacinone)</th>
<th>Pindone possum and rat bait</th>
<th>Traps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maintenance Possum Control Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mt Karioi North</td>
<td>674</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Mt Karioi South</td>
<td>1,983</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Nukuhakari – Sector 2</td>
<td>5,046</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Mt Pirongia West Buffer</td>
<td>4,629</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Oparau</td>
<td>11,453</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Ngutunui</td>
<td>6,696</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Honikiwi</td>
<td>6,825</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Nukuhakari – Awakino sector 1</td>
<td>5,215</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Whareorino</td>
<td>18,803</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Piopio West</td>
<td>7,079</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Otahu</td>
<td>4,677</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Possum Plus Project</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Sector</td>
<td>48,757</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Central and South Sectors</td>
<td>97,841</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Halo Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Mountain Road – Hope</td>
<td>175</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Old Mountain Road – Johnstone</td>
<td>194</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Bridal Veil Falls</td>
<td>254</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Waikato Regional Pest Management Plan 2018/19 Operational Plan
Front Cover Photo: Council contractor spraying African feather grass near Tirau, April 2018.

Prepared by Integrated Catchment Services

For Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
HAMILTON 3240

19 September 2018

Document # 12654183
Contents

Executive summary iv

1 Introduction 1
  1.1 Background 1
  1.2 Purpose of the operational plan 1
  1.3 Linkages 1
  1.4 Report format 1

2 Implementation programmes 2
  2.1 Introduction 2
  2.2 Methods and resources 2
  2.3 Financial summary 4
  2.4 Pest plants ($3,097,132) 5
    2.4.1 Advisory species ($30,642) 5
    2.4.2 Exclusion species ($17,360 – as required) 5
    2.4.3 Eradication species ($181,440) 5
    2.4.4 Progressive containment species ($1,911,008) 6
    2.4.5 Sustained control species ($195,703) 7
    2.4.6 Site-led species ($86,673) 7
    2.4.7 National partnerships ($674,306) 8
  2.5 Pest animals ($4,669,006) 10
    2.5.1 Eradication species ($72,285) 10
    2.5.2 Progressive containment species ($387,675) 10
    2.5.4 Sustained control species ($0) 11
    2.5.5 Site-led species ($535,402) 11
    2.5.6 Advisory species ($0) 13
    2.5.7 Regional Priority Pest Control (PPCA) ($3,441,921) 15
    2.5.8 National Partnerships ($231,723) 18

3 Crown (DOC) funded projects for RPMP objectives 19
  3.1 Background 19
  3.2 Projects for 2018/19 19

Appendix 1 Lists of plants and animals in five management categories 21

Appendix 2 Biosecurity rating information 2018/19 29
  What it funds 29
  How it is applied 29
  The 2018/19 rate 29

Figures

Figure 1 Priority Possum Control Areas 2018/19 17
Executive summary

This Operational Plan is a requirement under section 100B of the Biosecurity Act 1993, in relation to having an operative Regional Pest Management Plan (RPMP) in place.

The plan outlines the pest management work the Waikato Regional Council (the Council) intends to carry out from 1 July 2018 to 30 June 2019.

Funding for this work is $7,766,137 and is allocated via the Council’s Annual Plan process.

The following projects are some of the key initiatives to be carried out during the year in the implementation of the RPMP:

- Working with the Ministry for Primary Industries (MPI) to undertake regional management of velvetleaf and implement the National Pest Pet Trade Accord.
- National accelerating Kauri protection project will significantly change the Kauri dieback programme. Staff are working closely with Ministry for Primary Industries to ensure the National Pest Management Plan compliments relevant policy frameworks including Waikato RPS, RP and all district plans as well as the Councils operational catchment programmes.
- Undertake an increased level of alligator weed management in Lake Whangape.
- Increased surveillance and operational management of old man’s beard and climbing spindleberry.
- Supporting community groups control wild ginger on the Coromandel Peninsula.
- Develop a 10 year Management Agreement with Department of Conservation for possum and goat control operations in Pirongia/Karioi and the Whareorino/Herangi Ranges.
- Finally, a number of separate pest control operations will be carried out on Crown land (and funded by the Crown) to address pest issues which exacerbate neighbouring private land, costing $141,000.
- Implementation of the Dama Wallaby Management Programme with DOC, BOP and MPI.
1 Introduction

1.1 Background

The Biosecurity Act 1993 (‘the Act’) guides pest management in New Zealand. Its two main purposes are to prevent new pests (‘unwanted organisms’) from entering the country through border control surveillance, and to manage pests that are already established in the country. Regional councils are responsible for the latter. The Act enables Waikato Regional Council (the Council) to develop an approach to pest management specific to the region’s needs and expectations by developing a Regional Pest Management Plan (RPMP).

The Waikato Regional Pest Management Plan 2014-2024 (RPMP) was adopted in August 2014 and remains in force until August 2024. Under section 100B of the Biosecurity Act, the management agency for a pest management plan must prepare an operational plan. The plan must be reviewed and reported on annually, no later than five months after the end of each financial year.

In terms of this Operational Plan (the Plan), responsibility for much of the pest control work lies with landowners and occupiers. The Council has responsibilities to ensure land occupiers are aware of and meet their obligations for pest management on their properties. The Council will also undertake direct pest control in priority pest control areas, where there is clear justification and regional benefit.

Funding of the RPMP is achieved through the Long Term Plan (LTP) and Annual Plan process.

1.2 Purpose of the operational plan

The purpose of this Plan is to implement the RPMP for the Waikato region. This document outlines the nature and scope of activities the Council intends to undertake in the implementation of the RPMP for the period 1 July 2018 to 30 June 2019. Objectives and the means of achievement can be reviewed by the Council and key stakeholders.

1.3 Linkages

The Council has chosen to develop an annual Operational Plan rather than one document to cover the whole RPMP implementation period. This Operational Plan is integrated with the Council’s LTP, in that the latter provides only an overview of its pest management activities, while the former provides greater detail of what work will be undertaken in the given year.

1.4 Report format

The Operational Plan (the Plan) should be read in conjunction with the operative (2014-2024) Waikato Regional Pest Management Plan (RPMP). It focuses on pest control implementation in two categories – pest plants and pest animals.

Department of Conservation (DOC) pest management responsibilities under the RPMP are also noted (Section 3). This section provides an overview of the types of pest control work DOC will fund or undertake, where there are exacerbating pest problems on Crown land for neighbouring landowners and DOC are required to control pests to the RPMP standards.
2 Implementation programmes

2.1 Introduction

Each pest in the Plan has been placed into one of five management categories based on different criteria (for example, its effects, distribution, density and control methods available):

- **Exclusion** – where the goal is to prevent the establishment of a pest that is present but not yet established in New Zealand or the region.

- **Eradication** – pests with limited distribution or density. The eventual goal is eradication at known sites in the region, although ‘zero density’ is more practical to achieve. The Council will fund and undertake control of these pests, such as rooks and alligator weed, and provide advice, information and monitoring progress.

- **Progressive containment** – pests that are well established in the region. The goal is to contain and reduce the geographic distribution of the pest to an area over time. Land occupiers may be required to control pest plants under this category on their property.

- **Sustained control** – where the outcome for the programme is to provide for the sustained control of the pest in an area to a level where externality impacts are manageable. Land occupiers may be required to control pest plants under this category along a property boundary (boundary control).

- **Site-led control** – where the outcome for the programme is to exclude, eradicate, contain, reduce or control the pest that is capable of causing damage to a place and its values.

Appendix 1 lists the plant and animal pests in the various categories.

The Plan also identifies several advisory plants and animals which are not legally declared pests, but are of concern because they exhibit invasive or nuisance characteristics. There is no requirement for landowners to control infestations and no expectation on council to fund control programmes. The objective is to raise awareness of their impacts and to encourage community-led control initiatives where relevant.

2.2 Methods and resources

The Council achieves practical pest management through the following methods:

- **Direct control** – the Council funds and undertakes control of 24 high-threat plant pests and six animal pests in a ‘pest-led’ management approach. Control of relevant pests will also be undertaken in areas of high ecological importance on private land in the region, under a ‘site-led’ biodiversity enhancement approach.

- **Community initiatives** – Communities with particular pest problems sometimes want to make a combined local effort. The Council can assist communities with group facilitation, initial pest control to get numbers down to manageable levels or the provision of seed money to help get the group started.
• **Information and advice** – To help landowners control pests, the Council provides practical advice through fact sheets, its website (www.waikatoregion.govt.nz) and a direct free phone link (0800 BIOSEC – 0800 246 732).

• **Monitoring/surveillance** – Regular property inspections ensure that Plan rules are being adhered to. Monitoring is also undertaken before and after pest control operations to ensure that control targets are achieved. Surveillance activities identify new pest problem issues in other regions and ensure that current problems are not getting worse.

• **Enforcement** – Fair and reasonable rules are prescribed in the Plan requiring landowners to control pests to a specific standard. Every effort is made to achieve voluntary compliance. However, an enforcement procedure is available and used when necessary.

• **Biological control** – The Council will assist national research into biological control agents for pest plants such as *Tradescantia* and woolly nightshade. The release and assessment of a number of known and approved plant pest biological control agents is also undertaken.

Biosecurity pest plant officers in seven areas have primary responsibility for monitoring, advisory, surveillance and enforcement activities for pest plants. West Coast, Waipa-Central, Waihou-Piako and Lower Waikato areas are contracted. Coromandel, Taupo and Hamilton city pest plant functions are carried out by staff. Direct control is undertaken by qualified contractors.

Animal pest contractors vie for a number of one-off or multi-year contracts that arise during the year.

Sustainability practices are playing an ever increasing role in pest animal and plant management activities. One result of this is that animal pest contractors are using fewer vertebrate toxic agents (VTA) during control operations by better targeting of VTAs to pests through practices such as; the use of non-toxic pre-feeds to get the target animals feeding on baits, filling bait stations with less bait per visit, purchasing and using only fresh bait to ensure the animals consume the product, decontamination of bait stations once the pest control target is achieved, and through the use of trapping.

Pest plant contractors keep regular spray diaries and endeavour to use the least amount of herbicide that will do the job effectively. From an economic perspective, it makes sense to use as little herbicide as possible to reduce costs. However, the pests must be controlled effectively: it would not be sensible to use too little herbicide initially, only to have to go back multiple times to complete the job.

Waikato Regional Council also is a strong advocate of biocontrols. We already contribute significantly to biocontrol research that ultimately reduces pesticide use. In the 2018/19 financial year we will continue to advocate for development a National Biocontrol Strategy that would advance biocontrol development even more effectively.
2.3 Financial summary

For 2018/19 the targeted biosecurity rate is based on a dollar figure per $100,000 of capital value and is on a differential basis according to the location of the land within the Waikato region – refer to Appendix 2 for further details. The 2018/19 RPMP expenditure budget is $7,766,137 as detailed in the following table.

Table 1 2018/19 RPMP expenditure budget

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Plant Pests ($'000)</th>
<th>Animal Pests ($'000)</th>
<th>Totals ($'000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosecurity separate rate</td>
<td>2,872</td>
<td>3,831</td>
<td>6,703</td>
</tr>
<tr>
<td>Direct charges &amp; other income</td>
<td>95</td>
<td>33</td>
<td>128</td>
</tr>
<tr>
<td>Interest on reserve income</td>
<td>92</td>
<td></td>
<td>92</td>
</tr>
<tr>
<td>Drawdown on reserves</td>
<td>130</td>
<td>713</td>
<td>843</td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td><strong>3,097</strong></td>
<td><strong>4,669</strong></td>
<td><strong>7,766</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Plant Pests ($'000)</th>
<th>Animal Pests ($'000)</th>
<th>Totals ($'000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>444</td>
<td>462</td>
<td>906</td>
</tr>
<tr>
<td>Other direct costs</td>
<td>2,116</td>
<td>3,596</td>
<td>5,712</td>
</tr>
<tr>
<td>Indirect costs</td>
<td>537</td>
<td>611</td>
<td>1,148</td>
</tr>
<tr>
<td><strong>Total expenditure</strong></td>
<td><strong>3,097</strong></td>
<td><strong>4,669</strong></td>
<td><strong>7,766</strong></td>
</tr>
</tbody>
</table>

% of total expenditure 39.9 %  60.1 %  100%

In terms of expenditure, direct costs (i.e. contracted services, materials, advertising) account for almost three quarters of the programmed expenditure. Labour accounts for 12 per cent and indirect costs (i.e. overheads, rate collection costs, depreciation) cover 15 per cent.
2.4 Pest plants ($3,097,132)

2.4.1 Advisory species ($30,642)

Aim: To minimise adverse impacts of advisory pests at high value biodiversity sites throughout the region.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise awareness and promote voluntary control of advisory pest plants.</td>
<td>• Provide information and publicity to enhance public awareness of the threat posed by advisory species to the region.</td>
</tr>
<tr>
<td>As practicable, reduce the establishment and spread of advisory plants into high value biodiversity sites.</td>
<td></td>
</tr>
</tbody>
</table>

2.4.2 Exclusion species ($17,360 – as required1)

Aim: Prevent the establishment of exclusion species in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undertake direct control leading to eradication of all new occurrences in the Waikato region.</td>
<td>• Identify new sites through passive and active surveillance by Council Pest Plant Officers (PPOs), the public, or through regional surveillance.</td>
</tr>
<tr>
<td></td>
<td>• Collaborate with neighbouring Regional Councils to prevent spread into the Waikato.</td>
</tr>
<tr>
<td></td>
<td>• If detected undertake direct control of all eradication species at all known sites within the region.</td>
</tr>
<tr>
<td></td>
<td>• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of eradication species.</td>
</tr>
</tbody>
</table>

2.4.3 Eradication species ($181,440)

Aim: Reduce to zero density all known infestations within the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undertake direct control of all known sites on an annual basis.</td>
<td>• On an annual basis undertake direct control of all eradication species at all known sites within the region.</td>
</tr>
<tr>
<td></td>
<td>• Provide information and publicity to enhance public awareness of the threat posed by eradication species to the region.</td>
</tr>
<tr>
<td></td>
<td>• Identify new sites through passive surveillance by Council Pest Plant Officers (PPOs), the public, or through regional surveillance.</td>
</tr>
</tbody>
</table>

1 Means of achievement for exclusion species is undertaken across the pest plant programme. Any exclusion species identified will be considered on a case by case assessment and an incursion response will be initiated.
Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of eradication species.

See appendix 1 for a list of eradication species.

### 2.4.4 Progressive containment species ($1,911,008)

#### 2.4.4.1 Direct control

**Aim:** Reduce to zero density priority infestations of Progressive Containment species (direct control) in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Undertake direct control of priority sites. | • On an annual basis undertake direct control at priority sites within the region.  
• Provide information and publicity to enhance public awareness of the threat posed by these species to the region.  
• Identify new sites through passive surveillance by Council PPO’s, the public, or through regional surveillance.  
• Annually inspect plant outlets within the region to prevent the sale and/or propagation of these species.  
• Use biological control agents where appropriate, and support relevant biological control research initiatives. |

#### 2.4.4.2 Landowner control

**Aim:** Reduce the risk of the spread of progressive containment species and, where practicable reduce current infestations in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Control all Progressive Containments species (landowner control) at known sites outside the Containment zones on an annual basis subject to successful control trials. | • Monitor and record compliance with the plan rules and good neighbour rules.  
• Undertake direct control of outlier species.  
• Provide information and publicity to enhance public awareness of the threat posed by these species to the region.  
• Identify outliers through passive surveillance by Council PPO’s, the public, or through regional surveillance.  
• Annually inspect plant outlets in the region to prevent the sale and/or propagation of these species.  
• Use biological control agents where appropriate, and support relevant biological control research initiatives. |
See Appendix 1 for a list of progressive containment species.

### 2.4.5 Sustained control species ($195,703)

#### 2.4.5.1 Boundary control species

**Aim:** Reduce adverse effects of sustained control species on properties with neighbouring infestations in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Prevent the spread of sustained control species onto properties that are clear, or being cleared, of boundary control species. | • Action complaints received within the parameters of the RPMP.  
• Monitor and record compliance with the plan rules and good neighbour rules.  
• Provide information and publicity to enhance public awareness of the threat posed by these species to the region.  
• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of sustained control species.  
• Use biological control agents where appropriate and support relevant biological control research initiatives. |

See Appendix 1 for a list of sustained control species.

### 2.4.6 Site-led species ($86,673)

**Aim:** Reduce the adverse effects of site-led species at priority sites

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Prevent the spread and minimise the adverse impacts of site-led species at high value biodiversity sites throughout the Waikato region | • Council may undertake direct control of site led species.  
• Provide information and publicity to enhance public awareness of the threat posed by site led species to the region.  
• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of site led species.  
• Use biological control agents where appropriate and support relevant biological control research initiatives. |

See Appendix 1 for a list of site-led species.
2.4.7 National partnerships ($674,306)

2.4.7.1 National Pest Plants ($186,927)

Aim: In conjunction with MPI and/or DOC as lead agency, reduce national pest plants to zero density.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>In conjunction with MPI, undertake direct control of all known sites on an annual basis.</td>
<td>• On an annual basis undertake direct control by Council of all Eradication species at all known sites within the region.</td>
</tr>
<tr>
<td>• Chinese knotweed</td>
<td>• Provide information and publicity to enhance public awareness of the threat posed by Eradication species to the region.</td>
</tr>
<tr>
<td>• Manchurian wild rice</td>
<td>• Identify new sites of Eradication species through passive surveillance by Council PPO’s the public, or through regional surveillance.</td>
</tr>
<tr>
<td>• Sea spurge</td>
<td>• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of eradication species.</td>
</tr>
<tr>
<td>• Spartina</td>
<td>• Support landowners to manage vectors of kauri dieback.</td>
</tr>
<tr>
<td>• White bryony</td>
<td>• Work with programme partners.</td>
</tr>
<tr>
<td>• Velvetleaf</td>
<td></td>
</tr>
</tbody>
</table>

2.4.7.2 Kauri Dieback ($296,947)

Aim: In conjunction with MPI as lead agency and DOC, manage the risk of Kauri Dieback.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work with MPI, DOC, iwi and the community to manage the spread of kauri dieback.</td>
<td>• Provide information and publicity to enhance public awareness of the threat posed by kauri dieback to the region.</td>
</tr>
<tr>
<td></td>
<td>• Identify new sites of kauri dieback through passive surveillance by Council staff and contractors, the public, and through proactive regional surveillance.</td>
</tr>
<tr>
<td></td>
<td>• Undertake soil samples as appropriate.</td>
</tr>
<tr>
<td></td>
<td>• Support landowners to manage vectors of kauri dieback.</td>
</tr>
<tr>
<td></td>
<td>• Work with programme partners.</td>
</tr>
</tbody>
</table>
2.4.7.3 Biological control ($140,431)
Aim: In conjunction with the national biological control collective release agents to manage pest plants.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Implement a biological control programme for pest plants where appropriate, throughout the region. | • Undertake biological control agent releases in the region. Planned releases include:
- 3 x *Tradescantia* yellow spot fungus
- 1 x tutsan beetle
• Collect green thistle beetles and *Tradescantia* beetles at established sites and re-release them at new sites.
• Support the biological control national collective. |

2.4.7.4 Lake weeds ($50,000)
Aim: In conjunction with the stakeholder group, manage the recreational impacts of lake weeds at Lake Karapiro.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work with the stakeholder group (LINZ, Waipa District Council and the community) to manage the long-term recreational impacts of Hornwort at Lake Karapiro.</td>
<td>• Fund direct control of hornwort at Lake Karapiro</td>
</tr>
</tbody>
</table>
2.5 Pest animals ($4,669,006)

2.5.1 Eradication species ($72,285)

2.5.1.1 Rooks ($72,285)

Aim: Reduce to zero density all known and new rook sites in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Progressively manage rooks to zero density in the Waikato region. | • Provide advice and education on the threats of rooks to occupiers and other interested parties.  
• Survey rook populations annually in areas where they are known to exist (Hauraki, Waikato, Waipa, Matamata-Piako, South Waikato, and Taupo Districts), and where new infestations are reported.  
• Undertake direct control at known rookeries. |

2.5.2 Progressive containment species ($387,675)

2.5.2.1 Wallabies ($387,675)

Aim: Achieve zero density of wallabies in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Progressively manage dama wallabies to zero densities in the Waikato region. | • Work collaboratively with Bay of Plenty Regional Council (BOPRC), DOC and MPI to effectively implement the dama wallaby management plan.  
• Continue the population delimiting survey to confirm the extent of the dama wallabies' feral range.  
• Undertake control of dama wallabies at the edge of feral range to halt expansion population.  
• Investigate and record sightings of dama wallaby outside the feral range, and if required eradicate. |
2.5.4  Sustained control species ($0)

2.5.4.1 Magpies ($0)

**Aim:** Reduce the risk of magpies adversely affecting any person and reduce the adverse effects of magpies on indigenous fauna in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Reduce the antisocial and adverse environmental impacts of magpies in the Waikato region. | • All enquiries/complaints are responded to within two working days.  
• Undertake direct control 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.  
• Provide advice and education to occupiers wanting to undertake magpie control.  
• Provide a referral service to occupiers who require magpie control.  
• Log enquiries in the Council’s IRIS database and close off when complete. |

2.5.5 Site-led species ($535,402)

2.5.5.1 Wasps ($40,383)

**Aim:** Reduce the adverse impacts of wasps at high value sites in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Reduce the anti-social and adverse environmental impacts of common and German wasps in the Waikato region. | • All enquiries/complaints are responded to within two working days.  
• Undertake direct control of wasps 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.  
• Provide advice and education to occupiers wanting to undertake wasp control.  
• Provide a referral service to occupiers who require wasp control.  
• Log enquiries in the Council’s IRIS database and close off when complete.  
• Use biological control agents where appropriate, and support relevant biological control research initiatives. |
2.5.5.3 Rats ($0)

**Aim:** Reduce the adverse impacts of rats at high value sites in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the adverse environmental impacts of rats at high value sites in the Waikato region.</td>
<td>• All enquiries/complaints are responded to within two working days.</td>
</tr>
<tr>
<td></td>
<td>• Provide advice and education to occupiers wanting to undertake rat control.</td>
</tr>
<tr>
<td></td>
<td>• Provide a referral service to occupiers who require rat control.</td>
</tr>
<tr>
<td></td>
<td>• Log enquiries in the Council’s IRIS database and close off when complete.</td>
</tr>
</tbody>
</table>

2.5.5.4 Feral Goats ($323,062)

**Aim:** Reduce the adverse impacts of feral goats at high value sites in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the adverse environmental impacts of feral goats at high value sites in the Waikato region.</td>
<td>• Collaborate with DOC to control feral goats at high value sites on private land (e.g. Coromandel Peninsula, Kaimai ranges, Mamaku, Pirongia, Whareorino and Pureora).</td>
</tr>
</tbody>
</table>

2.5.5.5 Rabbits ($12,115)

**Aim:** Reduce the adverse impacts of rabbits at high value sites in the Waikato region

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure that no area in the region exceeds Level 4 on the Modified McLean Scale.</td>
<td>• Provide technical advice and support to district/city councils and occupiers.</td>
</tr>
<tr>
<td></td>
<td>• Work with occupiers to ensure they are aware of their responsibilities for rabbit control.</td>
</tr>
<tr>
<td></td>
<td>• Site assessments of rabbit prone sites upon receiving complaints from affected occupiers, and followed up by using the three step enforcement process outlined in the RPMP, if assessments exceed level four of the scale.</td>
</tr>
<tr>
<td></td>
<td>• Log enquiries in the Council’s IRIS database and close off when complete.</td>
</tr>
</tbody>
</table>
### 2.5.7 Koi carp ($94,842)$^2$

**Aim:** Trial capture of koi carp via a trap at the outlet of Lake Waikare.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Continue the koi carp trap trial in Lake Waikare. | - Continue to operate the Lake Waikare pest fish trap and digester.  
- Record the weight of pest fish removed from the trap and the volume of dry fish product from the digestion process. |

### 2.5.8 Freshwater pest fish ($65,000)$^3$

**Aim:** Ecological integrity of freshwater ecosystems at high value biodiversity sites is maintained or enhanced

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Reduce the adverse impacts of pest fish populations in freshwater ecosystems at high value biodiversity sites in the Waikato region. | - Provide advice and information regarding the threats of pest fish to other interested parties.  
- Work collaboratively with agencies and groups of occupiers to reduce adverse impacts of pest fish.  
- Enquiries are entered into the Council's IRIS database and closed off when complete. |

### 2.5.6 Advisory species ($0$)

#### 2.5.6.1 Argentine and Darwin’s Ants

**Aim:** Work collaboratively with landowners and stakeholders to promote landowner control of Argentine and Darwin’s ants, and increase the knowledge about the impact of advisory animals on farm production and the environment

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Reduce the risk of Argentine and Darwin’s ants affecting the environment, production and people in the Waikato region. | - Provide advice and information regarding the threats of Argentine and Darwin’s ants to occupiers and other interested parties.  
- Log enquiries in the Council’s IRIS database and close off when complete. |

---

$^2$ This includes $50,000 for Contracted Service's, $30,000 Digester maintenance and $14,000 labour costs.  
$^3$ This includes $60,000 for a co-funded Regional Pest Fish co-ordinator with DOC and $5,000 existing budget.
2.5.6.2 **Canada goose**

**Aim:** Work collaboratively with landowners and stakeholders to promote landowner control of Canada goose, and increase the knowledge about the impact of advisory animals on farm production and the environment

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Work collaboratively with landowners and stakeholders to promote landowner control of Canada goose. | • Provide advice and information regarding the threats of Canada goose to occupiers and other interested parties.  
• Work collaboratively with agencies and groups of occupiers to control Canada goose.  
• Enquiries are entered into the Council’s IRIS database and closed off when complete. |

2.5.6.3 **Wild red-eared slider turtle**

**Aim:** Take steps so that the negative impacts from wild red-eared slider turtles on biodiversity in the region is minimised.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| Raise public awareness about the threats wild red-eared slider turtles pose to the environment and advocate for responsible ownership. | • Provide advice and information regarding the threats of wild red-eared slider turtles to occupiers and other interested parties.  
• Enquiries are entered into the Council’s IRIS database and closed off when complete. |
## 2.5.7 Regional Priority Pest Control (PPCA) ($3,441,921)

**Aim:** Reduce the adverse impacts of possums at selected Priority Pest Control Areas (PPCA) to enhance biodiversity, protect catchments and protect primary production.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
</table>
| 1. Maintenance Possum Control | • All PPCA possum maintenance projects are implemented following a robust process involving community engagement, transparent business processes and within set budgets and timeframes.  
• All ground control operations achieve a mean 5% RTC with no high line over 3 possums within the contract timeframes.  
• Any aerial control operations achieve a mean 3% RTC with no high line over 3 possums within the contract timeframes.  
• Areas identified include:  
  - NW Waikato  
  - Waipa Puniu II  
  - Arohena Sector 1  
  - Arohena Sector 2  
  - Waotu  
  - Ngaroma 1  
  - Ngaroma 2  
  - Mt Pirongia North Buffer*
| Refer to Figure 1. Priority Possum Control Areas 2017/18.

*This is operation is a carryover from 2017/18.* |

2. Monitoring | • All trend monitoring completed and monitoring results received in accordance with current NPCA protocols. |

**Residual trap catch (RTC) trend monitoring implemented within:**

**PPCA areas**
- Mt Karioi North
- Mt Karioi South
- Hauturu – Awaroa Farmland
- Te Miro – Whitehall
- Aria
- Piopio East Farmland
- Mokauti 1 Farmland
- Mokauti 2 Farmland

---

*The residual trap-catch (RTC) index is a simple method of determining relative possum abundance. Lines of 10 leg-hold traps, spaced 20 metres apart, are set for three consecutive nights in random locations within the treatment area, before and after control. The number of lines used is determined by the size of the management area. The standard performance target commonly set for a reduction in possum densities, is a residual trap catch of < 5% (i.e. less than 5 possums caught for every 100 trap-nights).*
### Objective
- North Taupo
- NW Waikato North
- Mangakino

#### Halo projects
- Tirohanga Road

Note: Trend monitoring determines pre-control possum populations which assists forecasting maintenance control for the coming financial years.

### 3. Auditing
A selected number of PPCA control areas (covering both ground based and aerial control) are audited using the Council’s auditing standard operating procedures (SOP).

- All auditing requirements are met within the timeframes of each PPCA project.
- Any breaches are resolved within the timeframes of each PPCA project and following the Council’s Auditing SOP guidelines.
- EPA reporting for aerial 1080 operations submitted within four months of completion of aerial work.
- All aerial operations are audited. Every contractor is audited at least once per year. New contractors are audited on their first contract.

### 4. Hamilton Halo Project
Undertake ship rat and possum control to enhance native bird nesting success at selected sites within the Hamilton Halo Project area.

- Pre control monitoring (in May/June) is undertaken if requested by contractors to help inform their operation.
- Post control monitoring is undertaken at all sites to ensure the 5% RTI (rat) contract performance measure has been met by contractors.
- The active sites in 2018/19 are:
  - Old Mountain Road (Hope Bush)
  - Old Mountain Road (Johnstones)
  - Te Miro Reserve
  - Pukemako

Refer to Figure 1. Priority Possum Control Areas 2018/19.

### 5. Communications
The ‘Insight’ PPCA newsletter circulated to all occupiers in the PPCA areas.

- Insight newsletter publication released once per year in autumn.
Figure 1  Priority Possum Control Areas 2018/19
### 2.5.8 National Partnerships ($231,723)

**Aim:** To work with other agencies and contribute to national partnership animal biosecurity programs

<table>
<thead>
<tr>
<th>Objective</th>
<th>Means of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>National Pet Trade Accord</strong></td>
<td>• Progress the establishment of a National Pet Trade Accord with other regional councils, MPI, Pest Industry Association of NZ and the NZ Companion Animal Council.</td>
</tr>
<tr>
<td>To contribute to the prevention of the establishment of wild populations of pest species.</td>
<td></td>
</tr>
<tr>
<td>2. <strong>National Biosecurity Capability Network (NBCN).</strong></td>
<td>• To provide staff to NBCN training courses.</td>
</tr>
<tr>
<td>To contribute to national biosecurity preparedness</td>
<td>• To provide staff and assistance to NBCN responses as required.</td>
</tr>
<tr>
<td>3. <strong>Sabella spallanzanii Response</strong></td>
<td>• Provide advice and information regarding the threats of Sabella to marine industry groups, boat owners, marinas, the aquaculture industry and other interested parties.</td>
</tr>
<tr>
<td>To prevent the spread of Sabella within the region.</td>
<td>• Promote wider education of marine biosecurity and effective pathway management.</td>
</tr>
<tr>
<td></td>
<td>• Attend marine biosecurity agency forum ‘Top of the North’ with regional councils and MPI.</td>
</tr>
<tr>
<td>4. <strong>Interregional Marine Pest Management Plan</strong></td>
<td>• Progress the establishment of an Interregional and National Marine Pathway Pest Management Plans with Northland, Auckland and Bay of Plenty Regional Councils, and MPI.</td>
</tr>
</tbody>
</table>
3 Crown (DOC) funded projects for RPMP objectives

3.1 Background

The Biosecurity Law Reform Act 2012 was enacted in September 2012. It provides for, among other issues, stronger leadership roles for pest management agencies, assignment of responsibilities for decisions on managing harmful organisms or pest pathways and the development of a new instrument referred to as a National Policy Direction for Pest Management (NPD). MPI consulted on the draft of the National Policy Direction in 2014. It was amended in response to submissions and came into force on 24 September 2015.

Of importance to the Council is the binding of the Crown to good neighbour rules with regard to pest management. Prior to the Act’s enactment, the Crown was not legally bound to any RPMP. This position is now changed. The setting of good neighbour rules in the RPMP are the subject of directions in the NPD.

In the meantime the Council has an annual agreement with DOC to a contribution (as the main Crown land occupier) specifically targeting animal and plant pest problems on the conservation estate, which exacerbate pest problems on neighbouring privately owned land. For the Waikato regional 2018/19 programme the amount allocated is $141,000.

Land Information New Zealand (LINZ) also undertakes biosecurity works in the region. However, these are generally smaller control works and are negotiated on a project by project basis.

3.2 Projects for 2018/19

The following table outlines the proposed RPMP/DOC projects which will cover the 2018/19 allocation:

<table>
<thead>
<tr>
<th>Area or Name of Reserve</th>
<th>Pest Species</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOC Reserves with PPCAs</td>
<td>Possum</td>
<td>$18,000</td>
</tr>
<tr>
<td>Cathedral Cove</td>
<td>Woolly nightshade, gorse, moth plant</td>
<td>$4,500</td>
</tr>
<tr>
<td>Hahei dunes</td>
<td>Moth plant, passionflower, Tasmanian Ngaio</td>
<td>$3,000</td>
</tr>
<tr>
<td>Okahutahi catchment, behind Sandy Bay</td>
<td>Ginger and climbing asparagus</td>
<td>$5,000</td>
</tr>
<tr>
<td>Port Jackson</td>
<td>Boneseed</td>
<td>$8,000</td>
</tr>
<tr>
<td>Ferry Landing</td>
<td>Climbing asparagus</td>
<td>$7,000</td>
</tr>
<tr>
<td>Waitaia Road Otama RR Kuaotunu</td>
<td>Ginger</td>
<td>$1,000</td>
</tr>
<tr>
<td>Mokau</td>
<td>Pampas</td>
<td>$10,000</td>
</tr>
<tr>
<td>Desert Rd</td>
<td>Broom and Gorse</td>
<td>$10,000</td>
</tr>
<tr>
<td>Maniapoto aerial pampas</td>
<td>Pampas, woolly nightshade</td>
<td>$15,000</td>
</tr>
<tr>
<td>TDC Rabbit Management Plan (Taupo lake shore reserves)</td>
<td>Rabbits</td>
<td>$2,000</td>
</tr>
<tr>
<td>Location</td>
<td>Pest Control</td>
<td>Cost</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------</td>
<td>--------</td>
</tr>
<tr>
<td>Karioi</td>
<td>Daily pine</td>
<td>$5,000</td>
</tr>
<tr>
<td>Waikato general boundary and roadside control</td>
<td>Woolly nightshade, gorse, privet, ginger, pampas</td>
<td>$1,000</td>
</tr>
<tr>
<td>Raglan</td>
<td>Boneseed</td>
<td>$11,500</td>
</tr>
<tr>
<td>North Waikato Wetlands</td>
<td>Alligator weed, yellow flag iris</td>
<td>$30,000</td>
</tr>
<tr>
<td>Firth of Thames</td>
<td>Spartina</td>
<td>$10,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$141,000</strong></td>
</tr>
</tbody>
</table>

This above work is essentially carried out on lower priority DOC managed areas. Under its core funding programmes, DOC undertakes a significant amount of plant and animal pest management work which complements the RPMP.
Appendix 1 Lists of plants and animals in five management categories

Pest plant management
The RPMP identifies management programmes for 68 pest plants in five pest categories that warrant some level of regional intervention:

Exclusion pest plants
The goal is to prevent the establishment of these eight plants or classes of plants that are present but not yet established in the region.

- Bat-wing passion flower (*Passiflora apetala*)
- Broom corn millet (*Panicum miliaceum*)
- Freshwater eel grass (*Vallisneria australis*)
- Fringed water lily (*Nymphoides peltata*)
- Horsetail (*Equisetum species*)
- Hydrilla (*Hydrilla verticillata*)
- Kudzu vine (*Pueraria montana*)
- Marshwort (*Nymphoides geminata*)

Eradication pest plants
Waikato Regional Council will directly manage and control these 21 plants or classes of plants. The Council will also undertake monitoring of these pests and provide information to the community on identification of the pests and progress of control.

- African feather grass (*Pennisetum macrourum*)
- Cathedral bells (*Cobaea scandens*)
- Chilean flame creeper (*Tropaeolum speciosum*)
- Evergreen buckthorn (*Rhamnus alaternus*)
- Horse nettle (*Solanum carolinense*)
- Lantana (*Lantana camara*)
- Knotweed: Chinese (*Persicaria chinensis*)
- Knotweed: Japanese and giant knotweed (*Fallopia japonica* and *Fallopia sachalinensis*)
- Manchurian wild rice (Zizania latifolia)
- Mile-a-minute (Dipogon lignosus)
- Nassella tussock and fine stemmed needle grass ('Mexican feather grass') (Nassella trichotoma and N. tenuissima)
- Noogoora bur (Xanthium strumarium)
- Purple loosestrife (Lythrum salicaria)
- Rhododendron (Rhododendron ponticum)
- Sagittaria (all Sagittaria species except S. subulata in lake Waahi only)
- Sea spurge (Euphorbia paralias)
- Senegal tea (Gymnocoronis spilanthoides)
- Spartina\(^5\) (Spartina species and hybrids)
- Thistle: variegated (Silybum marianum)
- Water poppy (Hydrocleys nymphoides)
- White bryony (Bryonia cretica)

\(^5\) DOC is the lead agency for spartina control.
Progressive containment pest plants

The table below summarises 20 plants or classes of plants classified as ‘progressive containment.’ The goal is to contain and reduce the geographic distribution of these pests to an area over time. Land occupiers may be required to control pest plants under this category on their property. The Council monitors all these pests and will provide information and advice when required.

<table>
<thead>
<tr>
<th>Progressive containment pest plants</th>
<th>Plan rules</th>
<th>Other council assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total control</td>
<td>Boundary control</td>
</tr>
<tr>
<td>Alligator weed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Alternanthera philoxeroides)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banana passionfruit</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Passiflora tripartita and P. mixta)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boneseed</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Chrysanthemoides monilifera ssp. monilifera)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate vine</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Akebia quinata)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climbing asparagus</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Asparagus scandens)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climbing spindleberry</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Celastrus orbiculatus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contorta pine</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Pinus contorta)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Darwin’s barberry</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Berberis darwinii)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giant gunnera</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Gunnera tinctoria and G. manicata)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexican devil</td>
<td>✓ 6</td>
<td></td>
</tr>
<tr>
<td>(Ageratina adenophora)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mignonette vine</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Anredera cordifolia)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mistflower</td>
<td>✓ ?</td>
<td></td>
</tr>
<tr>
<td>(Ageratina riparia)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moth plant</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Araujia sericifera)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old man’s beard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Clematis vitalba)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pampas</td>
<td>✓ 8</td>
<td></td>
</tr>
<tr>
<td>(Cortaderia jubata, C. selloana and cultivars)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tutsan</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>(Hypericum androsaemum)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 Excluding Thames Coromandel area.
7 Excluding Thames Coromandel area.
8 Total control in parts of region only (Taupo, Rotorua, South Waikato, and parts of Waitomo and Hauraki districts). See RPMP section 5.44 for map of total control area.
### Progressive containment pest plants

<table>
<thead>
<tr>
<th>Progressive containment pest plants</th>
<th>Plan rules</th>
<th>Other council assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total control</td>
<td>Boundary control</td>
</tr>
<tr>
<td>Velvetleaf (Abutilon theophrasti)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Wild ginger (kahili and yellow) (Hedychium gardnerianum and H. flavescens)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Woolly nightshade (Solanum mauritianum)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Yellow flag iris (Iris pseudacorus)</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Sustained control pest plants

The table below summarises seven plants or classes of plants where the outcome for the programme is to provide for the sustained control of the pest in an area, to a level where externality impacts are manageable. Land occupiers may be required to control pest plants under this category on their property, or along a property boundary (boundary control).

<table>
<thead>
<tr>
<th>Sustained control pest plants</th>
<th>Plan rules</th>
<th>Other council assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total control</td>
<td>Boundary control</td>
</tr>
<tr>
<td>Australian sedge (Carex longebrachiata)</td>
<td>✓</td>
<td>✓ (20 metres)</td>
</tr>
<tr>
<td>Broom (Cytisus scoparius)</td>
<td>✓</td>
<td>✓ (20 metres)</td>
</tr>
<tr>
<td>Gorse (Ulex europaeus)</td>
<td>✓</td>
<td>✓ (20 metres)</td>
</tr>
<tr>
<td>Privet (Chinese and tree privet) (Ligustrum species)</td>
<td>✓ 9</td>
<td>✓ (20 metres)</td>
</tr>
<tr>
<td>Purple nutseed/nutgrass (Cyperus rotundus)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ragwort (Senecio jacobaea and Jacobaea vulgaris)</td>
<td>✓ 10</td>
<td>✓</td>
</tr>
<tr>
<td>Thistle: nodding and plumeless (Carduus nutans and C. acanthoides)</td>
<td>✓ 11</td>
<td>✓ (50 metres)</td>
</tr>
</tbody>
</table>

---

9 Total control where the Council receives a positive allergy test from an occupier living or working within 50 metres of the privet. Total control on roadsides and rail corridors.

10 Total control in intensively farmed areas, boundary control in less intensive areas. See RPMP section 5.48 for map of areas.

11 Total control in intensively farmed areas, boundary control in less intensive areas. See RPMP section 5.58 for map of areas.
Site-led pest plants
Where the outcome for the programme is to exclude, eradicate, contain, reduce or control the pest that is capable of causing damage to a place and its values.

- Asparagus: busy and fern (*Asparagus aethiopicus* excluding ‘Foxtail’ cultivar)
- Californian bulrush (*Schoenoplectus californicus*)
- Cherry: Japanese (*Prunus serrulata*) and rum (*Prunus serotina*)
- Japanese walnut (*Juglans ailantifolia*)
- Mexican water lily (*Nymphaea mexicana*)
- Reed sweetgrass (*Glyceria maxima*)
- Royal fern (*Osmunda regalis*)
- Saltwater paspalum (*Paspalum vaginatum*)
- Strawberry dogwood, also known as Himalayan dogwood (*Cornus capitata*)
- Wild kiwifruit (*Actinidia spp.*)
- Wilding conifers
- Willow: grey (*Salix cinerea*) and crack (*Salix fragilis*)
**Pest animal management**

**Eradication and containment pest animals**

The table below summarises 35 animals, or classes of animal pests, which the Council and land occupiers are responsible for controlling under the production threat, public threat (affecting human health) and environmental threat pest groups.

<table>
<thead>
<tr>
<th>Animal pests</th>
<th>Plan rules</th>
<th>Production threat</th>
<th>Environmental threat</th>
<th>Public threat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentine ant (Linepithema humile)</td>
<td>n</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Asian paper wasp (Polistes chinensis)</td>
<td>y</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Australian paper wasp (Polistes humilis)</td>
<td>y</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Brown bullhead catfish (A. nebulous)</td>
<td>y</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada goose (Branta canadensis maxima)</td>
<td>n</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Common wasp (Vespula vulgaris)</td>
<td>y</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><em>Darwin’s ant</em> (Doleromyrma darwiniana)</td>
<td>n</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Feral cat (Felis catus)</td>
<td>y</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feral goat (Capra hircus)</td>
<td>y</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feral pig (Sus scrofa)</td>
<td>y**</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambusia (Gambusia affinis)</td>
<td>y</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>German wasp (Vespula germanica)</td>
<td>y</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hedgehog (European) (Erinaceus europaeus)</td>
<td>y</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koi carp (Cyprinus carpio)</td>
<td>y</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Lesser banded hornet (Vespa affinis)</td>
<td>n</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>*Little fire ant (W. auropunctata)</td>
<td>n</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Magpie (Gymnorhina tibicen)</td>
<td>y</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

---

12 The first population recorded in Auckland in 1959 was eradicated, but the species is now established in Christchurch and additional populations are known from the northern and eastern North Island and the northern South Island.
<table>
<thead>
<tr>
<th>Animal pests</th>
<th>Means of achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plan rules</td>
</tr>
<tr>
<td>*Median wasp (Dolichovespula media)</td>
<td>n</td>
</tr>
<tr>
<td>Mustelids</td>
<td></td>
</tr>
<tr>
<td>Ferret (Mustela furo), stoat (Mustela erminea) and weasel (Mustela nivalis vulgaris)</td>
<td>y</td>
</tr>
<tr>
<td>Perch (Perca fluviatilis)</td>
<td>n</td>
</tr>
<tr>
<td>Possum (Trichosurus vulpecula)</td>
<td>y</td>
</tr>
<tr>
<td>Rabbit (Oryctolagus cuniculus)</td>
<td>y</td>
</tr>
<tr>
<td>Rainbow lorikeet (T. haematodus)</td>
<td>y</td>
</tr>
<tr>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>Ship rat (Rattus rattus), Norway rat (Rattus norvegicus)</td>
<td>y</td>
</tr>
<tr>
<td>*Red imported fire ant (S. invicta)</td>
<td>n</td>
</tr>
<tr>
<td>Rook (Corvus frugilegus)</td>
<td>y</td>
</tr>
<tr>
<td>Rudd (Scardinius erythrophthalmus)</td>
<td>n</td>
</tr>
<tr>
<td>Tench (Tinca tinca)</td>
<td>n</td>
</tr>
<tr>
<td>*Tropical fire ant (S. geminata)</td>
<td>n</td>
</tr>
<tr>
<td>Wallaby – dama wallaby (Macropus eugenii), Bennett’s wallaby (Macropus rufogriseus rufogriseus), parma wallaby (Macropus parma), brushtailed rock wallaby (Petrogale penicillata penicillata) and swamp wallaby (Wallabia bicolor)</td>
<td>y</td>
</tr>
<tr>
<td>Wild deer (Cervus and Dama species)</td>
<td>y**</td>
</tr>
<tr>
<td>Wild goldfish (Carassius auratus)</td>
<td>y</td>
</tr>
<tr>
<td>Wild red-eared slider turtle (Trachemys scripta elegans)</td>
<td>y</td>
</tr>
<tr>
<td>*Yellow crazy ant (A. gracilipes)</td>
<td>n</td>
</tr>
<tr>
<td>*Yellow flower wasp (Radumeris tasmaniensis)</td>
<td>n</td>
</tr>
</tbody>
</table>

* Although these ant species are not yet in the Waikato region, they are harmful animals that could have considerable negative impacts on the region’s biodiversity.

** Only within the Hunua Ranges Pest Management Area.
Appendix 2 Biosecurity rating information 2018/19

What it funds

The biosecurity rate funds the cost of plant and animal control works across the region. The total biosecurity rate revenue requirement for 2018/19 is $7,709,436 (plus GST).

How it is applied

The biosecurity rate is set on a differential capital value basis, using equalised capital value and the location of the land within the Waikato region. An equalisation process is undertaken on an annual basis to take account of the different revaluation cycles of the territorial authorities in the region. The rate in the dollar per $100,000 of capital value of a property (rating unit) is determined by dividing the Biosecurity rate revenue requirement by the capital value of all rateable properties in the Waikato region, taking account of the differential. The capital value of the region used for the 2018/19 year is $144.359 billion.

The 2018/19 rate

<table>
<thead>
<tr>
<th>Local Authority Boundary</th>
<th>Percentage of Region</th>
<th>Rate per $100,000CV (GST inclusive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton City</td>
<td>24.36</td>
<td>6.009</td>
</tr>
<tr>
<td>Matamata-Piako</td>
<td>9.29</td>
<td>5.773</td>
</tr>
<tr>
<td>Otorohanga</td>
<td>2.94</td>
<td>5.435</td>
</tr>
<tr>
<td>Rotorua</td>
<td>1.46</td>
<td>4.851</td>
</tr>
<tr>
<td>South Waikato</td>
<td>4.11</td>
<td>5.468</td>
</tr>
<tr>
<td>Taupo</td>
<td>10.02</td>
<td>5.311</td>
</tr>
<tr>
<td>Thames-Coromandel</td>
<td>12.42</td>
<td>4.842</td>
</tr>
<tr>
<td>Waikato</td>
<td>16.91</td>
<td>4.800</td>
</tr>
<tr>
<td>Waipa</td>
<td>12.01</td>
<td>5.524</td>
</tr>
<tr>
<td>Waitomo</td>
<td>2.13</td>
<td>5.663</td>
</tr>
<tr>
<td>Hauraki</td>
<td>4.35</td>
<td>6.171</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
<td></td>
</tr>
</tbody>
</table>
Report to West Coast Catchments Committee

November 2018

Date: 24 October 2018
Authors: Jolene Francis, Zone Manager - West Coast and Central Waikato Catchments
Authoriser: Greg Ryan, Acting Director - Integrated Catchment Management
Subject: Issues and Actions Report
Section: A (Committee has delegated authority to make a decision)

Purpose
1. The purpose is to report back on actions and issues discussed at previous West Coast Catchments Committee meetings.

Staff Recommendation:
2. That the report “Issues and Actions Report” (Doc#13224123, dated 24 October 2018) be received.

Report Back
3. Table 1 lists both resolutions and matters arising and issues raised from previous meetings that are tracked over time.

Key

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>On plan / work in progress</td>
<td></td>
</tr>
<tr>
<td>Issues being addressed</td>
<td></td>
</tr>
<tr>
<td>Not completed / on hold / at risk</td>
<td></td>
</tr>
</tbody>
</table>
Matters Arising
4. Table 1 below is a summary of the key matters which were raised at the last catchments committee meeting and the actions that followed.

Table 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Matters Arising</th>
<th>Actions</th>
<th>Status update</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/09/2018</td>
<td><strong>West Coast Zone Status Report</strong></td>
<td>The committee requested an overview of the possum eradication programme at the next meeting.</td>
<td>In progress</td>
<td>Zone Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To be included in the RPMP annual report from the biosecurity team.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21/05/2018</td>
<td><strong>Harbour Catchment Planning</strong></td>
<td>Presentation and/or workshop on sub-catchment prioritisation required due to agenda running overtime at the May committee meeting.</td>
<td>Complete</td>
<td>Zone Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peter Singleton presented this work at the September 2018 meeting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21/05/18</td>
<td><strong>West Coast Zone Status Report</strong></td>
<td>The committee would like an overview of total project costs not just WRC costs</td>
<td>Complete</td>
<td>Zone Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total costs will be included in the annual review of the works completed in the 2017/18 financial year presented at the September meeting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23/03/18</td>
<td><strong>West Coast Zone Status Report</strong></td>
<td>Scorecard – it would be also be good to identify the completed works on the ground since inception of the zone in 2010</td>
<td>Complete</td>
<td>Zone Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Completed works are reported in the status report within this agenda report. Waikato Regional Council is developing a pilot graphic display of catchment works that can be presented by zone, which can be shown to the committee at a future committee meeting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30/8/2016</td>
<td>A joint study was underway with Waikato Tainui and NIWA on whitebait. Once results were available these would be made available to the Committee, but no substantial findings were available yet. The Committee requested a presentation on whitebait management from the Department of Conservation (DOC) at their next meeting.</td>
<td>No results are available yet from the Waikato Tainui/NIWA whitebait study. Information will be made available to the committee once results are available.</td>
<td>In progress</td>
<td>Zone Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DOC presented at the 8 March 2017 committee meeting.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Report to West Coast Catchments Committee – Chairperson’s Report November 2018

Date: 1 November 2018

Author: Jolene Francis, Zone Manager - West Coast and Central Waikato Catchments

Authoriser: Greg Ryan, Acting Director – Integrated Catchment Management

Subject: Chairperson’s Report

Section: A (Committee has delegated authority to make a decision)

Purpose
1. A verbal update for the information of the committee will be provided by the West Coast Catchments Committee Chairperson. The update will include any matters of particular relevance to the zone.
2. Members are asked to pre-read the minutes from the previous Integrated Catchment Management Committee meetings, and raise questions as required during the Chairperson’s Report.
3. Minutes and Agendas can be found on Waikato Regional Council’s website at Agendas and minutes.

Staff Recommendation:
That the verbal report ‘Chairperson’s Report’ (Doc #13223323, dated 1 November 2018) be received.
Report to West Coast Catchment Committee

November 2018

Date: 28 October 2018

Authors: Jolene Francis, Zone Manager Central Waikato/West Coast Catchments

Authoriser: Greg Ryan, Acting Director - Integrated Catchment Management

Subject: West Coast Catchments – Hill Country Erosion Fund 19-23 application

Section: A (Committee has delegated authority to make decision)

Purpose

1. The West Coast Zone Manager will give a presentation on the application for Hill Country Erosion Fund application for the West Coast Zone.

Staff Recommendation:

2. That this report ‘Hill Country Erosion Funding 19-23 application’ (Doc # 13282903, dated 28 October 2018) be received.
Report to West Coast Catchment Committee

November 2018

Date: 26 October 2018

Authors: Jolene Francis, Zone Manager – West Coast and Central Waikato Catchments

Authoriser: Greg Ryan, Acting Director – Integrated Catchment Management

Subject: West Coast Zone Status Report to 30 September 2018

Section: A (Committee has delegated authority to make a decision)

Purpose
1. This report outlines the status for West Coast Zone activities and work programmes, covering the period 1 July 2018 to 30 September 2018, including:
   - Financial performance (River, Catchment and Zone Management) to 30 September 2018.
   - Key project updates.
   - Non-financial status to 30 September 2018:
     • Long Term Plan (LTP) measures and
     • Zone based measures (Catchment Management).

Executive Summary
2. This report outlines the status for West Coast Zone activities, work programmes and financials covering the period to 30 September 2018.

Staff Recommendation
3. That this report ‘West Coast Zone Status Report to 30 September 2018’ (Doc #13224715, 26 October 2018) be received.

Zone Overview
3. This report outlines the status for West Coast Zone activities and work programmes covering the period to 30 September 2018.

4. The focus for the West Coast Zone in the 2018/19 year continues in the following areas:
   - Increased work within the northern part of the zone in the priority harbour catchments of Aotea, Kawhia and Whaingaroa, targeting particular properties with significant values to maximise external funding opportunities.
   - The potential continuation of the Hill Country Erosion Fund Programme in the southern part of the zone, focusing on raising awareness with landowners and implementation of soil conservation, water quality and biodiversity projects within the Awakino, Lower Mokau and Mangaotaki priority catchments. (Note: this is dependant on our application for funding being approved - confirmed December 2018)
   - Continuation of ‘business as usual’ work within the wider West Coast catchments.
**Continued collaboration with key stakeholders including Department of Conservation, Ministry for Primary Industries, Iwi, Nga Whenua Rahui, QEII Trust, Local Territorial Authorities, and Beef+Lamb New Zealand.**

5. Strategic initiatives to increase the uptake of work within the West Coast catchments have included:
   - Raising the Waikato Regional Council contribution threshold from $10K to $35K before an encumbrance binding future landowners to the current landowner agreements is required.
   - Completion of the West Coast Zone Plan in 2016 to guide internal work programmes and external collaboration.
   - Establishing a record of success for the Hill Country Erosion Fund to facilitate future funding and raising community awareness through advertising, newsletter, drop-in days, presentations and field days, as well as the one-on-one farm visits.

6. The general work areas and priorities for 2018/19 were a continuation of existing priority catchment work in the harbour and hill country catchments (funding dependant). Catchment planning for the West Coast Harbours commenced.

7. 2018/19 is the final year of the Hill Country Erosion programme – an application for the next HCEF funding round is in the process of being finalised.

8. Our Harbour catchment planning process will continue with the recruitment of a Harbour Catchment Management Advisor and the development of our first harbour catchment plans.

**Expenditure to 30 September 2018**

9. Summarised budget information is presented in Figure 1 and Table 1. Budget expenditure is on track.
Table 1: West Coast Zone Financial Summary through to 30 September 2018 - by activity

West Coast Catchment
Sep 18 NZD

<table>
<thead>
<tr>
<th></th>
<th>YTD Actual</th>
<th>YTD Budget (Revised)</th>
<th>Variance</th>
<th>FY Budget (Revised)</th>
<th>FY Budget Ann Plan</th>
<th>% Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAINTENANCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catchment Oversight</td>
<td>30,930</td>
<td>53,294</td>
<td>12,364</td>
<td>226,688</td>
<td>226,688</td>
<td>18%</td>
</tr>
<tr>
<td>Information and Advice</td>
<td>19,303</td>
<td>23,131</td>
<td>3,828</td>
<td>75,587</td>
<td>75,587</td>
<td>26%</td>
</tr>
<tr>
<td>Catchment Maintenance</td>
<td>2,588</td>
<td>2,746</td>
<td>158</td>
<td>35,700</td>
<td>35,700</td>
<td>7%</td>
</tr>
<tr>
<td>Catchment New Works</td>
<td>89,738</td>
<td>83,245</td>
<td>(6,493)</td>
<td>454,586</td>
<td>454,586</td>
<td>20%</td>
</tr>
<tr>
<td>River Management</td>
<td>31,779</td>
<td>6,021</td>
<td>(25,758)</td>
<td>256,431</td>
<td>256,431</td>
<td>12%</td>
</tr>
<tr>
<td>Hill Country Erosion</td>
<td>62,603</td>
<td>54,078</td>
<td>(8,525)</td>
<td>617,926</td>
<td>617,926</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>246,815</td>
<td>233,331</td>
<td>(13,484)</td>
<td>1,848,350</td>
<td>1,848,350</td>
<td>13%</td>
</tr>
<tr>
<td>Interest on reserve expense</td>
<td>(1,076)</td>
<td>(471)</td>
<td>605</td>
<td>(1,887)</td>
<td>(1,887)</td>
<td>57%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL OPERATING EXP (OPEX)</strong></td>
<td>245,739</td>
<td>232,860</td>
<td>(12,879)</td>
<td>1,846,463</td>
<td>1,846,463</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CAPITAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FUNDED BY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Rate</td>
<td>218,989</td>
<td>218,989</td>
<td>0</td>
<td>875,948</td>
<td>875,948</td>
<td>(25)%</td>
</tr>
<tr>
<td>Targeted Rates</td>
<td>169,924</td>
<td>174,130</td>
<td>(4,206)</td>
<td>696,515</td>
<td>696,515</td>
<td>(24)%</td>
</tr>
<tr>
<td>Government Grant</td>
<td>185,658</td>
<td>24,783</td>
<td>160,875</td>
<td>274,000</td>
<td>274,000</td>
<td>(98)%</td>
</tr>
<tr>
<td>Direct Charges</td>
<td>7,022</td>
<td>7,022</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>n/m</td>
</tr>
<tr>
<td>Royalties</td>
<td>(185,658)</td>
<td>0</td>
<td>(185,658)</td>
<td>0</td>
<td>0</td>
<td>n/m</td>
</tr>
<tr>
<td><strong>TOTAL REVENUE</strong></td>
<td>395,935</td>
<td>417,902</td>
<td>(21,967)</td>
<td>1,846,463</td>
<td>1,846,463</td>
<td>(21)%</td>
</tr>
</tbody>
</table>

Notes to Table: MPI Hill Country Erosion Fund (HCEF) and Department of Conservation (DOC) partnership funding are displayed in the ‘government grant’ line.
Key Projects

10. A summary of the key projects for the West Coast Zone is provided below.

11. In the northern half of the zone, a range of catchment new works have been agreed to under Environmental Programme Agreements. These new works are spread across the three priority harbour catchments: Kawhia, Aotea, and Whaingaroa, with the majority of new works occurring in the Waitetuna sub-catchment of the Whaingaroa (Raglan). Works include riparian retirement and planting, stream bank erosion control, bush retirement, harbour edge retirement and wetland protection.

The Harbour catchment planning project is progressing with the draft sub-catchment prioritisation updated with feedback from the staff and catchment committee workshops. Next steps include the development of an engagement/communication strategy with the local community, iwi and key stakeholders.

12. Other catchment work (outside of priority catchments) is being undertaken on numerous properties throughout the wider West Coast catchments, involving channel spraying, riparian retirement and planting, and also land retirement. Routine maintenance activities include blockage/tree removal and weed spraying, while erosion control using tree laying was also undertaken.

13. The hill country erosion fund (HCEF) programme is almost fully subscribed in this last year of funding. Works include bush retirement, pole planting soil conservation, riparian retirement and planting and wetland protection works.

Field Days
A successful catchment group/field day was held in the Awakino catchment at the Profitt farm station on 9th October. Discussions were held on fencing stock from waterways and methods to minimise contaminated runoff waterways, funding available from the HCEF and a demonstration of the SHMAK (Stream health monitoring and assessment kit) was carried out. Approximately 30 landowners attended which was a great turnout.
### Performance Measures

14. Progress toward the performance measures against the 2018-2028 Long Term Plan and the West Coast Zone Plan Measures are presented in Tables 2 and 3.

#### Key

<table>
<thead>
<tr>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
</tr>
<tr>
<td>On plan / work in progress</td>
</tr>
<tr>
<td>Issues being addressed</td>
</tr>
<tr>
<td>Not completed / on hold / at risk</td>
</tr>
</tbody>
</table>

#### Table 2. 2018 – 2028 Long Term Plan measures and performance through 30 O 2018

<table>
<thead>
<tr>
<th>Group of Activity</th>
<th>Sub activity</th>
<th>Level of service</th>
<th>Performance measure</th>
<th>Target</th>
<th>Commentary</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood Protection</td>
<td>River management</td>
<td>To achieve a balance between maintaining channel capacity, channel stability,</td>
<td>Proactive monitoring (inspections, surveys and scheme reviews) of priority rivers and</td>
<td>Achieved</td>
<td>Desk-top/field inspections and forward planning for Waitetuna and Marokopa completed. An aerial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and streams in the management of priority rivers and streams in each management zone.</td>
<td>streams on a cyclical basis as per the agreed work programme.</td>
<td></td>
<td>drone survey was completed for Waikawau in September 2018 which will be used to inform future management approaches.</td>
<td></td>
</tr>
<tr>
<td>Integrated Catchment Management</td>
<td>Biosecurity</td>
<td>To control plant and animal pests within the Waikato region to maintain and enhance biodiversity and protect agricultural productivity and community health.</td>
<td>Average number of possums caught for every 100 traps set for possum operations - aerial control.</td>
<td>Less than 5% residual trap catch (RTC) for ground control Less than 3% RTC aerial control.</td>
<td>The 2014-2024 Regional Pest Management Plan, Annual Report to be presented at the November 2018 meeting. Whareorino PPCA completed with average 1.99% across 3 sectors. Pirongia West PPCA completed 4.19% RTC. Mahoenui PPCA control operation to commence before the end of the year. NW Waikato West out for tender.</td>
<td></td>
</tr>
<tr>
<td>Group of Activity</td>
<td>Sub activity</td>
<td>Level of service</td>
<td>Performance measure</td>
<td>Target</td>
<td>Commentary</td>
<td>Status</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Feral goats are maintained at low numbers in priority catchments.</td>
<td>Regeneration</td>
<td>Council has continued to work collaboratively with DOC undertaking feral goat control at high value sites across the region. DOC focuses control on public conservation land and Council on private land.</td>
<td></td>
</tr>
</tbody>
</table>
|                  |              |                  |                                                                                     |                            | • West Coast/Whareorino: – 2845hr complete for 2584 goats (1705 on those on private land). Control ongoing.  
• Mt Pirongia: – 1352 hours for 604 goats (244 of those on private land). Control ongoing                                                                                          |                    |
|                  |              |                  | Reducing trend in the number of known sites for each species of **eradication** pest plant pests with limited distribution or density. | Eradication                | Integrated Catchment Services Pest Plant Officers undertake passive and active surveillance to find and destroy Regional Pest Management Plan eradication species. Any eradication pest plant species found is surveyed and destroyed.                                                                                                           |        |
| **Biodiversity** |              |                  |                                                                                     | **Achieved**               | In the absence of national agreement about appropriate Tier 2 monitoring methods, a regional impact monitoring plan is being prepared. This plan will outline methods to be trialled for measuring the changes in habitat condition resulting from active management.  
Specific site management undertaken includes: **Toreparu Wetland**- Financial support for fencing, provision of technical advice, liaison with community, and repeat activities |        |
|                  |              |                  |                                                                                     |                            |                                                                                                                                                                                                                                                                                                                                                                                                                             |        |
vegetation monitoring. More fencing is planned for the next two years, and a willow control management plan has been endorsed by the community and formed the basis of a Ministry for the Environment Freshwater Improvement Fund application that unfortunately was unsuccessful. Ongoing discussions will determine alternative funding options going forward.

**Beachcare projects** - Ongoing planting and pest plant control planned for all Beachcare sites. Planting was completed at all West Coast Beachcare sites in May 2018.

**Lake Harihari** - Following the placement of a fish-friendly culvert and planting of 7500 natives, further agreement in place with landowner to fence off flax wetland and outlet stream. A further 1800 plants have been planted around the culvert outlet. A maintenance programme is currently being implemented for all plantings.

**Taharoa lakes** – A Management plan (which primarily involves weed control, planting and fencing) ratified with Taharoa Trust and has attracted DOC funding of $70k. Currently in the planning phase to start works this year.

**Te Kopua marae** - A draft site Restoration Plan has been developed with project partners; Tainui hapu, Whaingaroa ki te Whenua, WDC and Waikato Regional Council. The intention is to develop an environmentally friendly and sustainable option to alleviate and/or adapt to coastal erosion. This may be used as a case study for similar incidents of coastal erosion.
<table>
<thead>
<tr>
<th>Group of Activity</th>
<th>Sub activity</th>
<th>Level of service</th>
<th>Performance measure</th>
<th>Target</th>
<th>Commentary</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To collaborate with other agencies and the people of the Waikato to fund projects that deliver economic, environmental and social outcomes for the region.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Projects funded through the Environmental Initiatives Fund achieve milestones as per the funding agreement.</td>
<td>100%</td>
<td>Natural Heritage Fund (NHF) There were no grants made in this Zone during this period. Environmental Initiative Fund (EIF) There were no grants made in this Zone during this period. Small Scale Community Initiative Fund (SSCIF) No SSCIF grants were awarded over the last financial year to groups in the West Coast Zone.</td>
<td></td>
</tr>
<tr>
<td>Catchment planning and management</td>
<td></td>
<td></td>
<td>Identify priority sub-catchments and sites for soil conservation and remediation</td>
<td></td>
<td>A workshop will be carried out with the committee in 2019 to review the West Coast Zone Plan including associated priorities for the Zone.</td>
<td></td>
</tr>
</tbody>
</table>

16. **Table 3. Zone based measures and performance through 30 September 2018**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Zone Strategic Objectives/Outcomes</th>
<th>Measure/Targets</th>
<th>Commentary</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial management</td>
<td>Manage operational and capital activities within budget. Demonstrated by monthly financial reports and end of year full result.</td>
<td>Target equal or less than 102% variance from budget.</td>
<td>Zone expenditure for this financial year is on track.</td>
<td></td>
</tr>
<tr>
<td>Catchment oversight</td>
<td>To provide a high standard of support and servicing to the catchments committee.</td>
<td>4 effective Catchments Committee meetings per year.</td>
<td>The first meeting of the 2018/19 financial year was held on 5th September 2018.</td>
<td></td>
</tr>
<tr>
<td>Information and advice</td>
<td>Respond effectively to zone enquiries and information requests.</td>
<td>Enquiries received are recorded in asset management system and are responded to appropriately.</td>
<td>Enquiries are predominantly related to the management of streams/rivers and request for assistance in dealing with erosion or the protection/enhancement of areas with high biodiversity</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Zone Strategic Objectives/Outcomes</td>
<td>Measure/Targets</td>
<td>Commentary</td>
<td>Status</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Report on the outcomes of the annual zone environmental monitoring programme.</td>
<td></td>
<td>values. The latest edition of the West Coast Newsletter was released in September 2018.</td>
<td></td>
</tr>
<tr>
<td>Catchment maintenance</td>
<td>Continue maintenance and catchment new works programmes with a focus in high priority areas.</td>
<td>Continue to develop three year maintenance works programmes with property owners within the zone.</td>
<td>A zone-wide maintenance programme has been initiated, with the first stages of the discovery, and inspection programmes underway. A maintenance works programme has been undertaken at Lake Harihari, and a maintenance plan developed for Waitetuna catchment works, with some works undertaken in the last financial year.</td>
<td></td>
</tr>
<tr>
<td>Catchment new and river management works</td>
<td>To complete new riparian, coastal and land protection measures across management zones according to established priorities in zone management plans and within budget estimates.</td>
<td>Promote new catchment works and river management according to the agreed zone priorities of;</td>
<td>Catchment new works and river management has been actively promoted through newsletters, presentations and field days, and agreed works have been completed in partnership with landowners in the following areas:</td>
<td></td>
</tr>
</tbody>
</table>
|                                | • Priority Catchments                                                                            | Complete agreed works in partnership with landowners, constructed to a high standard within budget estimates. | • Awakino, Lower Mokau, Mangaotaki (Hill Country Erosion Fund programme).  
• Kawhia and Whaingaroa harbour catchment water quality, biodiversity and soil conservation projects undertaken.  
• Waitetuna and Marokopa works completed as planned. |        |
|                                | a. Awakino, Lower Mokau, Mangaotaki                                                              |                                                                                                |                                                                                                                                                                                                            |        |
|                                | b. Kawhia, Aotea, Whaingaroa                                                                     |                                                                                                |                                                                                                                                                                                                            |        |
|                                | c. Dunmore/Ruakiwi area                                                                          |                                                                                                |                                                                                                                                                                                                            |        |
|                                | d. Waitetuna, Marokopa, Waikawau                                                                 |                                                                                                |                                                                                                                                                                                                            |        |