



Bay of Plenty Regional Pest Management Plan 2011-2016

Annual Report for 2015/2016

Bay of Plenty Regional Council 5 Quay Street P O Box 364 Whakatāne NEW ZEALAND

Executive summary

The Biosecurity Act 1993 requires Council to report annual progress on the Regional Pest Management Plan (RPMP) Operational Plan. This report covers the period from 1 July 2015 to 30 June 2016.

Limited resources have meant biosecurity work has continued to focus on detecting and controlling of low-incidence pests rather than well-established pests. This has led to good progress against some new incursions and most exclusion/eradication RPMP species.

This report provides an overview of highlights and issues from the last year, as well as progress against each Agency, Exclusion/Eradication and Containment pest in the RPMP. The report also gives an overview of other Council activities carried out related to the implementation of the RPMP.

In general, the RPMP is considered to be progressing well.

Of the pest programmes, 72% are considered to be "on-track" to meet their management objectives, 19% are considered "at risk" of not meeting all management objectives and 9% (four pest programmes) are unlikely to achieve the objectives.

During 2015/2016 two noogoora bur sites, and a site each of rough horsetail, alligator weed and wild purple loosestrife were eradicated. This is pleasing progress against high risk pest species that can be very difficult to control.

Other highlights from the exclusion/eradication programme include three of four senegal tea sites being now at zero-density and, nassella tussock and white edged nightshade remaining at zero-density across the region for the third and second year, respectively.

Marine biosecurity and the Eastern Bay of Plenty feral goat programme also continue to make satisfactory progress despite challenging operating environments.

The aquatic pest programme had a mixed year. Hornwort eradication programmes at Lakes Ōkataina and Ōkāreka are progressing well, but it was disappointing to discover brown bullhead catfish in Lake Rotoiti. This is the first discovery of a live catfish in the region. Managing pest fish in large water bodies is an extremely challenging proposition and significant investment will be required in the coming years to manage the incursion.

Challenges remain with controlling alligator weed, woolly nightshade, wallabies, wild ginger, and green goddess lily. While progress has been achieved at some sites, these pests are at risk of failing to meet all their RPMP management objectives. This is primarily due to the fact that they are relatively widespread, difficult to control or contain, and/or control tools or resources have been limited.

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Part 1:

Introduction and overview

Introduction

The Regional Pest Management Plan for the Bay of Plenty 2011–2016 (RPMP) became operative on 30 September 2011. As Council is the Management Agency for the RPMP, it is required by Section 100B (2)(a) of the Biosecurity Act to report progress on its implementation annually.

Definitions and terminology

The terms and definitions of the RPMP also apply to this report. A glossary of definitions can be found on page 51 of the RPMP.

Part 2:

Monitoring performance and reporting progress

Progress against Regional Pest Management Plan indicators and Long Term Plan Key Performance Indicators

Reporting on RPMP indicators and Long Term Plan (LTP) Key Performance Indicators (KPIs) relies on the collection and analysis of surveillance and control data to measure reductions in pest distribution and/or density.

Council's Land Resources Database (LRDB) is used to manage biosecurity data. Unfortunately, this application is now at its end-of-life and is not able to support the current biosecurity reporting needs. This means several RPMP performance indicators cannot be reported. Council began the build of a new data management system in 2015/2016. This system should be operational in 2016/2017.

Progress against Regional Pest Management Plan Indicators

Intermediate plan outcome	Indicators	2015/2016 results
No new pests are established in the region.	Number of emerging pest threats identified.	Three that Bay of Plenty Regional Council are leading – Austrostipa ramosissima, Sagittaria montevidensis, brown bullhead catfish.
		Two that other agencies are leading – red vented bulbul, velvetleaf (MPI).
	Number of new pests detected in the region.	 One new pest incursion of Austrostipa ramosissima identified.
		 One new pest incursion of Sagittaria montevidensis identified.
		 One new pest incursion of brown bullhead catfish identified.
		 One new pest incursion of velvetleaf identified (MPI)
		Single red vented bulbul controlled.
	Number of new pests with management plans in place.	Three – BOPRC led new incursions have management plans in place.

Intermediate plan outcome	Indicators	2015/2016 results
Identified pest impacts are excluded, reduced or contained.	Number of new occurrences eradicated and monitoring plans in place.	 No new occurrences have been eradicated. All occurrences have site management plans in place, which are being implemented.
	Percent of eradication and containment pest species that have had their densities reduced.	Data not available.
	Percent of eradication and containment pest species that have had their distributions reduced.	Data not available.
Our regional communities are experienced and	Number of sites where community work is underway to control pests.	Data not available.
effective pest managers.	Number of reports and requests for advice made by the community.	1352 enquiries received and responded to.
	Percent of restricted pests that have had their spread reduced.	Data not available.

Biosecurity programme Long Term Plan Key Performance Indicators

Programme KPI	Status	Results
KPI 13 – The percentage of high-risk pests detected in the Bay of Plenty, that are already present elsewhere in New Zealand, that have management plans in place within three months outlining how the pests will be contained and controlled.		 Three new pest incursions were identified in 2015/2016, Austrostipa ramosissima, Sagittaria montevidensis, brown bullhead catfish that Bay of Plenty Regional Council is leading. Two new pest incursions were identified, velvetleaf, red vented bulbul that are being managed by other agencies. Site management plans have been developed for all sites and are being implemented for all new pests that Bay of Plenty Regional Council is leading.

Part 3:

2015/2016 highlights and issues

Highlights

Operational priorities in 2015/2016 included surveillance, monitoring and control of new incursions, exclusion/eradication pests and advisory services. Effort on containment pests focused on those with limited distributions, historical effectiveness of control programmes due to budget constraints.

The table below summarises biosecurity operational results and activities and compares results from the last two years.

Operational Activity summary	2014/15	2015/16
Number of new incursion pest sites being managed.	22	23
Number of new incursion pest sites reduced to zero-density.	4	1
Number of new incursion pest sites that remained at zero-density.	1	4
Number of new incursion pest sites that were reclassified as eradicated.	0	1
Number of exclusion/eradication pest sites being managed.	45	51
Number of exclusion/eradication pest sites reduced to zero density.	4	4
Number of exclusion/eradication pest sites that remained at zero-density.	5	5
Number of exclusion/eradication pest sites that were reclassified as eradicated.	2	4
Number of property inspections completed.	3,934	3,465
Number of pest plant infestations recorded.	4,080	3,544
Number of RPMP exemptions granted.	3	2
Number of Notices of Direction issued.	9	11
Number of public enquiries received ¹ .	1,240	1,352

New incursion management highlights

Marine biosecurity

Council formally adopted the Marine Biosecurity Management Plan for the Bay of Plenty in May 2014.

Council, with support from MPI and the University of Waikato, carried out comprehensive surveillance across the Bay of Plenty, with Tauranga Harbour being the priority.



¹ Data extrapolated based on Job Tracker statistics from 1 July 2015 – 30 June 2016

This year, a total of 1,008 dive hours over 42 days was spent searching for Mediterranean fanworm and *Styela clava*. Mediterranean fanworm was found and controlled at nine sites. Five of these sites were on vessels and four were on marina pontoons at both Bridge and Sulphur Point marinas. A summary of the sites where Mediterranean fanworm was discovered and controlled during the year is provided below:

Date	Site	Number controlled
25/08/2015	Bridge Marina - vessel	12
25/08/2015	Bridge Marina - vessel	1
30/11/2015	Bridge Marina - pontoon	1
29/02/2016	Bridge Marina - vessel	5
06/03/2016	Town reach pontoons - pontoon	1
09/03/2016	Town reach moorings - vessel	One vessel, many fanworm
10/03/2016	Sulphur Point Marina - pontoon	1
10/03/2016	Sulphur Point Marina - vessel	5
10/03/2016	Sulphur Point Marina - pontoon	1

Styela clava was detected and controlled at six sites around Tauranga Harbour. The majority of the sites were bridge piles and moorings and the discoveries are summarised below:

Date	Site	Number controlled
19/11/2015	Bridge moorings - vessel	5
30/11/2015	Pilot bay - vessel	50+
10/03/2016	Tauranga harbour bridge - concrete piles	6
10/03/2016	Town reach pontoons - pontoon 6	
10/03/2016	Tauranga rail bridge - concrete piles 14	
10/03/2016	Fisherman's wharf - timber piles	1

Another issue highlighted and dealt with during the year was the presence of *Styela clava* amongst live mussels for sale at a number of supermarkets and fish shops around the region. In total, *Styela clava* was identified amongst mussels for sale at eight of 26 shops visited. While not witnessed during inspections, another 11 shops told Council *Styela* was often present in mussels they are supplied and shop staff would remove them before offering them for sale.

A letter was sent to the all retailers informing them of the risk associated with the pest and their obligations under the Biosecurity Act. Follow-up inspections of all known mussel retail outlets will be carried in 2016/2017.

Delta arrowhead (Sagittaria platyphylla)

Delta Arrowhead (*Sagittaria*) is an emerging aquatic plant that invades slow-moving or static waterways forming dense mats. It was first discovered in the Bay of Plenty in 2012.

In the beginning of 2015/2016 Sagittaria was known to be present at five sites; all were being managed under the new incursion programme. Excellent progress has been made this year with no plants found at four of the five sites. The remaining site had an almost 50% reduction in plants compared to 2014/2015.



Another species of *Sagittaria* (*Sagittaria montevidensis*) was discovered at a site near Tauranga during the year, this is the first record of this plant in the region. At this stage seven plants have been detected; all have been controlled.

Velvetleaf

Velvetleaf is a serious weed which competes with crops and pasture for nutrients, space and water. It is classified as one of the world's worst cropping weeds and can cause significant yield losses.

In early 2016, Council was informed of a significant incursion of velvetleaf throughout New Zealand associated with contaminated fodder beet seed. The Ministry of Primary Industries (MPI) led the response with support from Regional Councils and other organisations. BOPRC supported the national response by sending staff to support surveillance efforts in the Southland region.

Initial detections were primarily in the South Island though it soon became apparent that contaminated seed had been distributed to many parts of the country, including the Bay of Plenty.

Based on information provided by MPI, surveillance was undertaken at one site in the region. Velvetleaf was confirmed at the site and four plants were controlled. This site was linked to contaminated fodder beat seed.

Waikato Regional Council (WRC) velvet leaf investigations discovered that two farms in the Bay of Plenty may have received maize silage contaminated with velvet leaf. Both farms have been inspected and no evidence of velvet leaf was detected.

Investigation continues into other potentially contaminated seed lines and linkages to contaminated grain. Additional sites may require attention next year. At this stage MPI continue to lead the national response.

Exclusion and eradication pest management highlights

Senegal tea

Senegal tea is a perennial aquatic herb that inhabits marginal and shallow freshwater habitat forming dense mats. It excludes other vegetation, can cause flooding, and rotting vegetation can cause water quality issues.

It is known to be present at four sites in the region. In 2015/2016 plants were found at only one of these sites, with 18 plants detected and controlled.

This is an excellent result and shows good progress towards eradication in the region.

All sites will continue to be managed intensively in the coming years to ensure eradication and prevent reinvasion at the site where plants continue to be found.



Nassella tussock, white edged nightshade and wild purple loosestrife

Nassella tussock has remained at zero density for the third year in a row and continues to track toward eradication.

For the second year in a row no white edged nightshade (photo) has been found at the two known sites in the region, which again is a great result.

The only previously known site of wild purple loosestrife remained at zero density for the third year and is now classified as eradicated at that site. Unfortunately, ornamental pond surveillance led to the discovery of another site toward the end of the year. While the discovery is disappointing the site is small and very manageable.



Noogoora bur

Noogoora bur is a fast growing annual plant capable of producing prolific amounts of seed. The key achievement in 2015/2016 was the confirmed eradication at two of the regions 15 noogoora bur sites.

In 2015/2016 fewer plants were controlled at 67% of sites compared to the previous year.

There was a noticeable increase in the number of plants controlled at the region's largest site, Bell Road (100 ha). The number of plants is still



significantly below what was found before a recent change in the management at the site. Confidence remains that the regime over time will attain the objectives of this species.

The increases at the other three sites were small (22, 5 and 2 plants respectively) and give no cause for concern.

The table below summarises the results for the 15 sites in the region under active management:

Site number	2014/2015 - plants controlled	2015/2016 - plants controlled	Outcome
NB1	43	22	Reduction (49%)
NB2	0	0	Remained at zero density, now classified as eradicated
NB4	12	1	Reduction (92%)
NB5	21	13	Reduction (38%)
NB7	3	25	Increase (22 plants)
NB8a	26	680	Increase (654 plants)
NB8b	0	5	Increase (5 plants)
NB8c	2	0	Reduction (100%), now zero density
NB9	8	0	Reduction (100%), now zero density
NB11	41	38	Reduction (7%)
NB12	0	0	Remained at zero density, now classified as eradicated
NB13	101	25	Reduction (75%)
NB14	0	2	Increase (2 plants)
NB15	142	42	Reduction (70%)
NB16	0	0	Remained at zero density

Containment pest management highlights

Hornwort eradication at Lakes Ōkataina and Okareka

In Lake Ōkataina, hornwort was found at only one site compared with three sites last year and this programme continues to progress well. These plants were controlled in March 2016 as part of the annual spray programme led by LINZ.

During the two rounds of surveillance in Lake Ōkāreka no hornwort was detected. While this result is positive, poor water visibility and prolific *Lagarosiphon* weed beds made detection of hornwort very challenging. Further spraying of *Lagarosiphon* was carried out to enable better surveillance next year.

Challenges

Exclusion/eradication pest management challenges

Alligator weed

One site in the western Bay of Plenty was classified as eradicated during the year. Despite this good result, an increased number of infestations were detected along the Rangitāiki River.

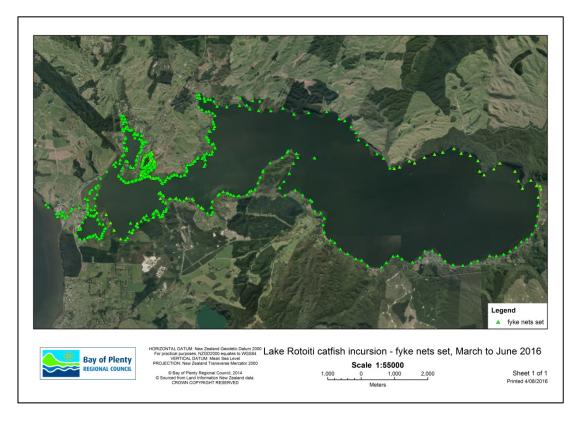
Another infestation of alligator weed was identified on a kiwifruit orchard near Ōpōtiki in early 2016 (photo). The site, approximately five hectares in size, will require novel approaches to control it as kiwifruit is sensitive to herbicides normally used to control alligator weed. Other complicating factors include the movement of machinery around and away from the site. This presents a risk of spreading the plant to other properties. Stringent decontamination protocols, and the installation of a decontamination platform, have been established to mitigate this risk.



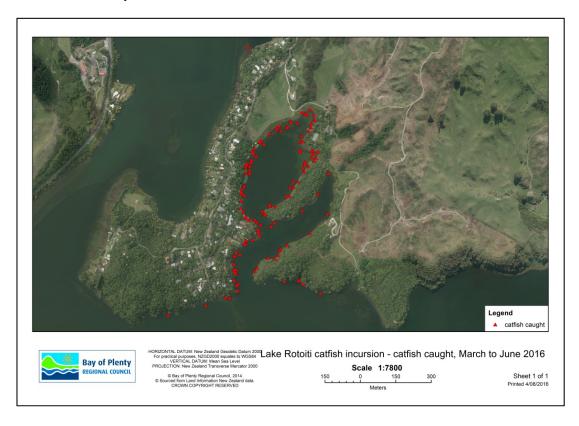
Brown bullhead catfish

Brown bullhead catfish were first discovered in Lake Rotoiti in March 2016. Delimitation surveys, using fyke nets, found large numbers of catfish present within the lake, with 391 catfish caught between March and June 2016.

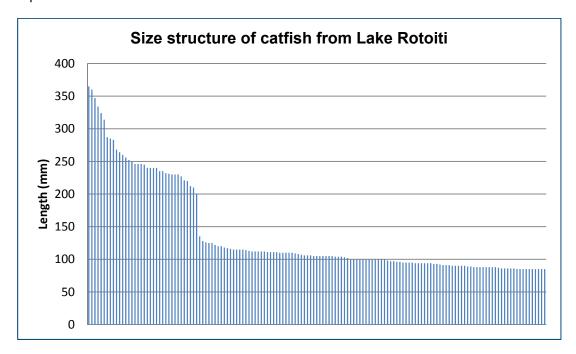
The map below shows all sites where fyke nets were set between March and June 2016. A total of 772 fyke nets were set over 34 nights.



The map below shows where catfish were caught, 382 of 391 (98%) of catfish caught were from within Te Weta Bay.



The graph below shows the size structure of a sub-set of catfish caught over four nights. Each bar represents an individual catfish.



The graph shows an established population with ages ranging from juvenile, to what is expected to be maximum size for catfish in New Zealand.

Surveillance was also undertaken in Lake Tarawera and parts of Lake Rotoehu based on historical sightings or recent information. No catfish were found during this work.

A number of management and research options are currently being discussed with the University of Waikato and NIWA.

Spartina

Department of Conservation are continuing control of Spartina within the Tauranga Harbour. Infestations are now under good control and work is on track for eradication.

Control of the infestation at Maketū has not begun. A recent plan change to the Bay of Plenty Regional Coastal Environment Plan allows the work to be undertaken without Resource consent.

Work is underway to get the project operational in the 2016/2017 financial year.

Containment pest management challenges

Woolly nightshade

The 2015/2016 programme focused on compliance work primarily in Western Bay of Plenty. Notices of Direction have been issued for significant infestations where the landowners have not undertaken adequate control work.

A biocontrol agent for this pest, the woolly nightshade lace bug (photo right), continues to spread around the region. The population is now well established and beginning to cause significant damage, including complete defoliation, at shaded sites.



Wallabies

The wallabies are managed collaboratively by BOPRC, Waikato Regional Council and the Department of Conservation.

Some progress has been made over the last year despite the ongoing challenges of limited effective control tools and surveillance methods.

A distribution survey has been carried out and will aid in the targeting of operations to areas where wallabies are expanding their range.



Initial control operations of a small population in Welcome Bay have produced good results with monitoring suggesting a 68% reduction in wallaby numbers. Other control operations were undertaken in the Waikato region.

Exclusion fencing has been installed to prevent wallabies using farm bridges to cross the Kaituna River. This aims to prevent wallaby spread to the western side of the river.

A number of sightings were received that were well beyond the limits of natural dispersal so are likely to be the results of people illegally liberating wallabies. Three of these reports were successfully resolved thanks to timely reports by the public. Eight other reports were unresolved due to information being received, in most cases, months after the actual sighting with no evidence of the wallaby being detected at these sites.

While challenges remain the wallaby programme is in good shape thanks to better coordination between agencies. The Ministry of Primary Industries is now also investigating options for better coordination at a national level for the management of wallabies in the central North Island and South Canterbury.

Climbing spindleberry and wild kiwifruit

A number of aerial surveillance flights were undertaken during late autumn to identify infestations of climbing species such as climbing spindleberry (photo right) and wild kiwifruit as their leaves yellow off.

Results showed that wild kiwifruit was much more common through the western Bay of Plenty than previously thought, particularly in the gullies behind Te Puke. This issue will be addressed through the collaborative programme with Kiwifruit Vine Health in the coming years.



New climbing spindleberry sites were also detected in the eastern Bay of Plenty and the Rotorua areas. These sites will be prioritised and programmed for control over the coming years.

Lodgepole pine

With the recent release of the New Zealand Wilding Conifer Management Strategy wilding conifers continue to gain plenty of national attention.

Good progress continues in the collaborative programme on Mount Tarawera. Council is also working with landowners that have significant infestations in the east Taupō area. The infestations cover multiple land tenure including Crown, private and Māori land. This is going to require long-term commitment and a coordinated approach to reduce infestations.



Part 4:

Operational progress and current pest status

This section provides an overview of activities completed for each pest programme. It also provides a current status for each programme relating to progress against management objectives. Status ratings are provided in the table below.

Status	Description
	Pest programme is considered on-track to meet RPMP pest classification management objectives.
	Pest programme is considered at risk of not meeting RPMP pest classification management objectives or will not meet some of the management objectives.
	Pest programme will not meet RPMP pest classification management objectives.

New pest incursion surveillance and control

Action	Results
Surveillance and monitoring	High risk areas were inspected.Regional surveillance plan for high risk sites developed.
Rough horsetail	Results
Surveillance and monitoring	 Pest detected following advocacy work. Six known sites in the region, three in the Western
	 Bay of Plenty and three in Ōpōtiki. One site in the Western Bay of Plenty classified as eradicated in 2015/2016.
	Twelve inspections completed.
Control pest	Site Management Plans in place for all sites.
	 All known sites controlled, 44 plants controlled in the Western Bay of Plenty.
Delta arrowhead	Results
Surveillance and monitoring	 One new site detected, different species. Five previously known sites monitored. Four sites currently at zero density. 44 inspections completed.
Control pest	 Site Management Plans in place for all sites. Seven plants controlled at new site. 17 plants controlled at only previously known site where plants were found.

Creeping gloxinia	Results
Surveillance and monitoring	Four sites monitored.
	23 inspections completed.
Control pest	Site Management Plans in place for all sites.
	 Despite control, plant numbers have increased at three sites. Management plans will be reviewed.
Spiny emex	Results
Surveillance and monitoring	Six sites monitored around the region.
	29 inspections completed.
	 Less than four plants found at three sites
Control pest	Site Management Plans in place for all sites.
	All sites controlled with reduction at three sites.
Total 2015/2016 expenditure	\$17,381.35
Programme status	

Marine pests

Action	Results
Surveillance and monitoring	4,911 boat hulls inspected.
	41 km of marina pontoons inspected.
	169 mooring blocks inspected.
	849 marine/wharf piles inspected.
	 5.3 km of hard structure inspected (rock wall).
	 Mediterranean fanworm was detected and controlled at nine sites (five vessels, four structures).
	 Styela clava detected at six sites (two vessels, four structures).
Control pest	All pests were controlled.
	 Small scale management programmes for Mediterranean fanworm and clubbed tunicate implemented.
2015/2016 expenditure	\$119,258.31
Programme status	

Agency pests and national programmes

Definition:

• Pests of national significance that are managed or subject to programmes co-ordinated by the Crown.

Management objective:

Support national pest management initiatives led by the Crown.

Agency pests

Action	Results
Surveillance and monitoring	Six sites currently being inspected.
	 One cape tulip site inspected three times, plants found on one occasion.
	 A single water hyacinth plant detected and controlled as part of ornamental pond surveillance work. Apart from this discovery, three sites inspected for water hyacinth, no plants found.
	 One site inspected for salvinia, no plants found. Two other sites were classified historic in 2014.
	Two reports of rainbow lorikeets investigated.
Control pest	Cape tulip controlled.
	 Didymo advocacy carried out as part of Aquatic Pest Awareness Programme.
	Contribution made to National Kauri Die-back Programme.
2015/2016 expenditure	\$30,209
Programme status	

National pest plant accord

Action	Results
Surveillance and monitoring	 118 nurseries and "points of sale" inspected. 18 instances of plants banned from sale detected. 44% decrease in number of banned plants detected compared to last year.
Control pest	 All detected pests were voluntarily destroyed. MPI notified, and all non-compliance entered into MPI database.
2015/2016 expenditure	\$9,980
Programme status	

Exclusion and eradication pests

Definition:

Pests we want to prevent from entering the region, or eradicate from the region.

Management objective:

- Immediate control leading to the eradication of new occurrences.
- Control pest plants to zero density.
- Eradication of currently known populations of pest animals.

Alligator weed

Action	Results
Surveillance and monitoring	16 active sites monitored.
	89 inspections for alligator weed completed.
	 Two sites in Western Bay of Plenty at zero density, one site was classified eradicated.
	Reduction in numbers at two other sites.
	 Significant issues remain in Eastern Bay of Plenty along Rangitāiki River and at Orchard near Ōpōtiki.
Control pest	Site Management Plans in place for all sites.
	 All known sites controlled apart from Orchard near Ōpōtiki due to kiwifruit harvesting.
2015/2016 expenditure	\$39,904
Programme status	

Horse nettle

Action	Results	
Surveillance and monitoring	 Three sites monitored. Reduction in numbers at two of the three sites. Third site classified as eradicated in 2015/2016. 	
Control pest	 Nine inspections for horse nettle completed. Site Management Plans in place for all sites. All plants were controlled. 	
2015/2016 expenditure		\$9,817
Programme status		

Kudzu vine

Action	Results
Surveillance and monitoring	Three sites monitored for kudzu vine.
	One site classified as eradicated in 2015/2016.
	 Reductions in numbers at two other sites including one reduced to zero density, one plant found at the third site.
	13 inspections for kudzu vine completed.
Control pest	Site Management Plans in place for all sites.
	All plants were controlled.
2015/2016 expenditure	\$3,471
Programme status	

Marshwort

Action	Results	
Surveillance and monitoring	No known populations in region.	
Control pest	No control work.	
2015/2016 expenditure		\$0
Programme status		

Nassella tussock

Action	Results
Surveillance and monitoring	One known site, no plants detected for third year in a row.
Control pest	No control work, site currently at zero density.
2015/2016 expenditure	\$320
Programme status	

Noogoora bur

Action	Results
Surveillance and monitoring	15 sites monitored for noogoora bur.
	37 inspections completed.
	Two sites classified as eradicated in 2015/2016.
	Reduction in plant numbers at 67% of sites.
	Three sites now at zero density.
Control pest	All sites controlled.
	Site Management plans in place for all sites.
2015/2016 expenditure	\$20,69
Programme status	

Wild purple loosestrife

Action	Results
Surveillance and monitoring	 One known site inspected for wild purple loosestrife, no plants detected for third year in a row, classified eradicated in 2015/2016.
	 New site found in Western Bay of Plenty late in the year as part of Ornamental pond surveillance.
Control pest	No control work, site currently at zero density.
	 Planning underway to manage new site.
2015/2016 expenditure	\$0
Programme status	

Senegal tea

Action	Results
Surveillance and monitoring	Four sites monitored for Senegal tea.
	Three sites at zero-density.
	22 inspections completed.
	 Reduction on number of plants found compared to previous year.
Control pest	All plants were controlled.
	One complaint investigated.
2015/2016 expenditure	\$2,160
Programme status	

Spartina

Action	Results
Surveillance and monitoring	One site managed by DOC, Tauranga Harbour.No inspections undertaken, infestation is well delineated.
Control pest	 Control work at Maketū was postponed pending changes to Coastal Plan.
	 Planning underway to control in 2016/2017.
2015/2016 expenditure	\$4,451
Programme status	

Water poppy

Action	Results
Surveillance and monitoring	No known populations in region.
Control pest	No control work.
2015/2016 expenditure	\$0
Programme status	

White edged nightshade

Action	Results
Surveillance and monitoring	 Two sites monitored for white edged nightshade. Four inspections completed. Both sites remained at zero density for the second year.
Control pest	No control work.
2015/2016 expenditure	\$3,185
Programme status	

Brown bullhead catfish

Action	Results
Surveillance and monitoring	 Population discovered in Lake Rotoiti Surveillance on Lake Tarawera and Lake Rotoehu found no catfish. Planning for long-term management underway.
Control pest	 391 catfish controlled between March and July 2016. Advocacy completed as part of Summer Aquatic Awareness Programme.
2015/2016 expenditure	\$94,087
Programme status	

Koi carp

Action	Results
Surveillance and monitoring	 No known populations in region. Numerous sightings investigated, no new populations identified.
Control pest	 No control work. Advocacy completed as part of Summer Aquatic Awareness Programme.
2015/2016 expenditure	\$225
Programme status	

Perch

Action	Results
Surveillance and monitoring	No known populations in region.
Control pest	 No control work. Advocacy completed as part of Summer Aquatic Awareness Programme.
2015/2016 expenditure	\$0
Programme status	

Rooks

Action	Results	
Surveillance and monitoring	 No rooks seen in east Taupō region last year. Small number of birds reported near Ōpōtiki. 	
Control pest	No control work.	
2015/2016 expenditure		\$3,869
Programme status		

Containment pests

Definition:

Pests we want to minimise the effects of and prevent their further spread.

Management objective:

Reduction in spread and density of known populations.

Budget constraints meant available funding was insufficient to fully and effectively deal with the full range of management actions required to achieve the RPMP objectives for containment pests. Effort was prioritised to pests based on their current distribution and effectiveness of current control programmes.

African feather grass

Action	Results
Surveillance and monitoring	89 inspections for African feather grass completed.
Control pest	All plants have been controlled. Good progress being made with general reduction in plant numbers.
2015/2016 expenditure	\$6,892
Programme status	

Apple of Sodom

Action	Results
Surveillance and monitoring	Four inspections for apple of sodom completed.
Control pest	Majority of plants controlled.
2015/2016 expenditure	\$3,534
Programme status	

Asiatic knotweed

Action	Results	
Surveillance and monitoring	217 inspections for Asiatic knotweed completed.	
Control pest	All plants have been controlled.	
2015/2016 expenditure		\$9,434
Programme status		

Blackberry

Action	Results
Surveillance and monitoring	No targeted surveillance carried out.24 inspections for blackberry completed.
Control pest	13 boundary complaints responded to which led to control.
2015/2016 expenditure	\$3,720
Programme status	

Boneseed

Action	Results
Surveillance and monitoring	38 inspections for boneseed completed.
Control pest	Control planned for 2015/2016
2015/2016 expenditure	\$655
Programme status	

Chilean rhubarb

Action	Results	
Surveillance and monitoring	No targeted surveillance carried out.Eight inspections for Chilean rhubarb completed.	
Control pest	Advisory services only.Pest distribution through Bay of Plenty is not well understood.	
2015/2016 expenditure		\$0
Programme status		

Climbing spindle berry

Action	Results
Surveillance and monitoring	 96 inspections for climbing spindle berry completed. Extensive aerial surveillance undertaken around the region. Multiple new sites detected around the region by aerial surveillance.
Control pest	 Sites controlled at Mourea and Lake Tarawera under Property Pest Control Plans. Good engagement by landowners at Tarawera for community control. Pest has extended its range around Rotorua Lakes and Eastern Bay of Plenty.
2015/2016 expenditure	\$31,641
Programme status	

Coast tea tree

Action	Results
Surveillance and monitoring	 Coast tea tree only present on Matakana Island. Surveillance undertaken during the year to check on control effectiveness and progress.
Control pest	Control programme negotiated with landowners and will be an ongoing operation.
2015/2016 expenditure	\$1,425
Programme status	

Darwin's barberry

Action	Results
Surveillance and monitoring	One site inspected for Darwin's barberry (Whakarewarewa Forest).
Control pest	Control undertaken in Whakarewarewa forest by Forest Manager.
2015/2016 expenditure	\$2,740
Programme status	

Egeria densa, hornwort, lagarosiphon

Action	Results
Surveillance and monitoring	 Lakes Rotomā, Tikitapu, Rerewhakaaitu, Rotokakahi inspected for hornwort, no detections.
	 Monitoring of hornwort control carried out in Lake Ōkāreka in 2015/2016 revealed no plants.
	 Monitoring of control work at Lake Ōkataina revealed a reduction in sites with hornwort found at only one site.
	 Monitoring to support LINZ Spray Programme completed.
	 Development of Lake Management plans underway in collaboration with LINZ.
Control pest	12 complaints responded to.
	Hornwort controlled at Lake Ōkataina.
	Control at other sites for amenity values.
	Six weed cordons maintained.
	Advocacy and awareness programme.
2015/2016 expenditure	\$155,645.24
Programme status	

Gorse

Action	Results
Surveillance and monitoring	No targeted surveillance carried out.75 inspections for gorse completed.
Control pest	31 boundary complaints responded to.
2015/2016 expenditure	\$5,074
Programme status	

Green goddess lily

Action	Results	
Surveillance and Monitoring	No targeted surveillance.96 inspections for green goddess lily completed.	
Control pest	 Advisory services only. Pest is widespread through Bay of Plenty – RPMP management objective will not be achieved. 	
2015/2016 expenditure		\$541
Programme status		

Italian buckthorn

Action	Results
Surveillance and monitoring	712 inspections for Italian buckthorn completed.
Control pest	Two complaints responded to.Good progress made controlling pest within Tauranga city.
2015/2016 expenditure	\$31,999
Programme status	

Lantana

Action	Results	
Surveillance and monitoring	 35 inspections for lantana completed as part of other surveillance. No proactive surveillance. 	
Control pest	 Reduction in plants at Rotorua. Sites in the region, outside of Rotorua appear to be spreading. 	
2015/2016 expenditure		\$327
Programme status		

Lodgepole pine

Action	Results
Surveillance and monitoring	 Surveillance work undertaken at various sites to delimit current populations. Included DOC, Kaingaroa Timberlands, Lochinver and Landcorp Rangitāiki Stations and on Māori land.
Control pest	 Control undertaken at numerous sites by various landowners. Good progress with shelterbelt removal in East Taupō area. Control work supported through Biodiversity Programme on Mount Tarawera. Engagement with neighbouring Councils and DOC to develop coordinated control programme.
2015/2016 expenditure	\$9,321
Programme status	

Old man's beard

Action	Results
Surveillance and monitoring	 Significant surveillance effort in the Western Bay of Plenty. Six new sites identified in the Western Bay of Plenty, previously known sites have spread in some instances. 84 inspections for old man's beard completed.
Control pest	 Landowner responsibility, letters sent to all landowners. Will require work in coming years to ensure landowners control recent discoveries.
2015/2016 expenditure	\$49,588
Programme status	

Ragwort

Action	Results
Surveillance and monitoring	No proactive surveillance or monitoring.
Control pest	One complaint responded to.
2015/2016 expenditure	\$436
Programme status	

Royal fern

Action	Results
Surveillance and monitoring	Seven inspections for royal fern completed.
Control pest	Control work completed through Biodiversity Programme in Eastern Bay of Plenty.
	 Spread by windblown spores, re-invasion very difficult to prevent.
	Significant issue on Matakana Island.
2015/2016 expenditure	\$0
Programme status	

Variegated thistle

Action	Results	
Surveillance and monitoring	26 inspections for variegated thistle completed.	
Control pest	All plants detected were controlled.	
2015/2016 expenditure	\$5	501
Programme status		

Wild ginger

Action	Results
Surveillance and monitoring	275 inspections for wild ginger completed.
Control pest	 Six complaints responded to. Plan for long-term management of ginger east of Ōpōtiki being developed by Consultant. Pest relatively widespread. Current focus remains containment east of Ōpōtiki.
2015/2016 expenditure	\$15,160
Programme status	

Wild kiwifruit

Action	Results
Surveillance and monitoring	 310 inspections for wild kiwifruit completed. A number of new sites detected as part of aerial surveillance.
Control pest	 One complaint responded to. Over 2,500 vines controlled over 33 properties as part of collaborative programme. Kiwifruit Vine Health now managing the control component of the programme.
2015/2016 expenditure	\$91,849
Programme status	

Woolly nightshade

Action	Results
Surveillance and monitoring	873 inspections for woolly nightshade completed.
Control pest	 19 complaints responded to. Eight Notices of Direction issued. Significant compliance issues on some properties. Pest relatively widespread through coastal Bay of Plenty - current focus is containment in the Rotorua and Ōpōtiki Districts.
2015/2016 expenditure	\$38,326
Programme status	

Yellow flag iris

Action	Results
Surveillance and monitoring	69 inspections for yellow flag iris completed.
Control pest	All plants detected were controlled.
2015/2016 expenditure	\$5,842
Programme status	

Feral goats

Action	Results
Surveillance and monitoring	 Mangaroa and Pohueroro remain at zero density (15,755 ha).
	 Infrared (thermal imaging) equipment trialled to detect animals.
Control pest	Reduction to very low numbers in Orete Forest (9,465 ha)
2015/2016 expenditure	\$143,408
Programme status	

Rudd

Action	Results	
Surveillance and monitoring	 Rudd are present in Lake McLaren. No new sites detected. Signage being developed to warn lake users of the risk. 	
Control pest	No control work.	
2015/2016 expenditure		\$0
Programme status		

Tench

Action	Results
Surveillance and monitoring	 Historical records of tench being present in Lake McLaren. Surveillance has not been able to confirm their presence. No new sites detected.
Control pest	No control work.
2015/2016 expenditure	\$0
Programme status	

Wallaby

Action	Results
Surveillance and monitoring	 Distribution survey largely completed, showed natural increases of spread continues to be slow. Numerous sightings investigated.
Control pest	 Control operations at Welcome Bay undertaken, monitoring suggests a reduction in population of at least 68%. Control operations completed in the Waikato region as part of collaborative programme. Research into dispersal, monitoring and control tools still needed.
2015/2016 expenditure	\$206,025.71
Programme status	

Restricted pests

Definition:

 Pests we want to reduce the further spread of and will support community and occupier efforts to control, in places where they are a problem.

Management objective:

- Residents understand the impacts of restricted pests and prevent their spread.
- Residents and community groups voluntarily participate in a wide range of activities that contribute towards managing the impacts of restricted pests.

Action	Results
Surveillance and monitoring	59 records of restricted pest plants entered into database.
Control pest	 146 complaints received. 601 public enquiries received and responded to. Presentations to stakeholder groups and weed- swap days held.
2015/2016 expenditure	\$23,172
Programme status	

Part 5:

Council activities to support the Regional Pest Management Plan

This section provides an overview of activities implemented to support RPMP outcomes.

Providing support, advice and information

Raising awareness of pests, the threats they pose and how they are spread, continues be a priority across the region. This section summarises key actions undertaken during the last year.

Providing advice and information

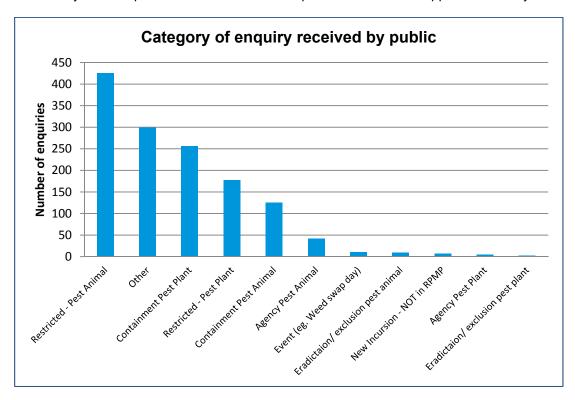
Responding to enquiries from landowners and community groups is a high priority activity. During the past year Council has responded to 1,352 enquiries from the public. Reports from the public are also an important part of Council's surveillance programme.

Council has organised workshops that provide technical advice to the public and industry regarding pest control. These workshops focus on pest identification and control techniques. Examples of workshops included:

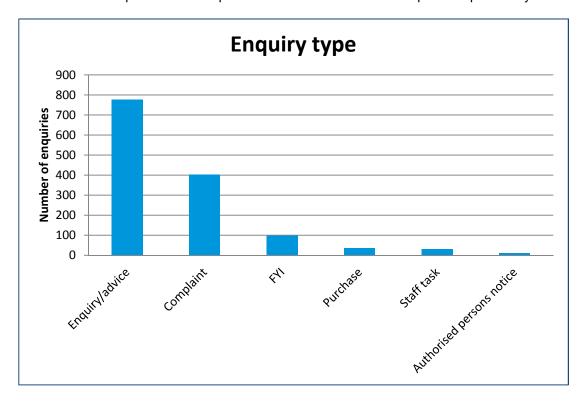
- Weed-swap days public are encouraged to bring weeds to swap for a native plant. During these events, educational material is provided to inform the public regarding effective pest control.
- Workshops were held at Council's Pest Plant Collection public taught how to identify pests of significance.
- Attendance at events (A&P shows, boat shows, expos) to educate the public on biosecurity issues.
- Presentations to a variety of stakeholders on biosecurity and technical aspects of pest management.



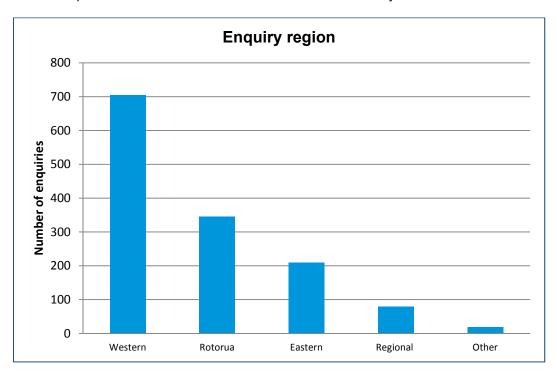
Analysis of enquires (see graph below) show that the majority of public concerns relate to common pests. Examples of animals under this category include wasps, rabbits, possums and rats. These pests are generally well established and because of this, are impacting on people's lives. The RPMP assumes that people or community groups will take voluntary action against these pests when and where they cause a problem. Council's role is to provide advice and support community action.



The graph below shows the majority of calls are for information and advice on pest identification and control. More complaints were responded to in 2015/2016 than compared to previous years.



The next graph shows the majority of calls received are related to pest issues in the Western Bay of Plenty. This reflects not only the population base, but also suitable climatic conditions and habitat for pests. This trend has been identified for a number of years.



Usage of the Biosecurity sections of the Councils website increased in 2015/2016 when compare to the previous year. Information analysed showed:

- an increase of 20% in people viewing the Biosecurity section of the website.
- an increase of 16% in people viewing the pest animal section of the website.
- more than twice as many people accessed the pest plant section of the website when compared to pest animals.
- a modest increase of 4% in people viewing the agautic pest section of the website.

The Council also issued 16 pest related media releases which were run by a wide range of print, online and radio news channels.

Aquatic Pest Advocacy Programme

The Aquatic Pest Awareness Programme aims to raise awareness of the threats aquatic pest plants, fish and didymo pose to our lakes and waterways. It also aims to educate people on how to prevent the spread of these pests.

Surveys were conducted at lake boat ramps and on the regions' rivers to assess waterway users' level of awareness of pest threats.

During the 2015/2016 advocacy campaign, a total of 1,248 individuals were surveyed and provided with promotional information, this is an increase of 422 from the previous year. Of those surveyed 69% claimed to have a medium to high level of knowledge when it came to aquatic pest awareness, this is an increase of 4%.

Despite this high level of awareness some individuals continue to be non-compliant. During the year 14 individuals were identified with weed fragments attached to their trailer or vessels, three of these were identified as they entered weed free lakes. All of these individuals were given formal warnings.

Supporting approved programmes

Council provides resources and funding, through approved programmes, to support landowners, occupiers and community groups, to control containment and restricted pests. Approved programmes such as Riparian Management Plans, Biodiversity Management Plans, Care Groups, and the Environmental Enhancement Fund are outside the scope of this report but provide significant pest control effort.

Other approved programmes supported such as, Eastern Bay of Plenty Feral Goat Programme, wallaby management, wild kiwifruit are covered in Part 4 of this report.

National Pest Programme support

As described in Part 3 of this report, Council was called upon to support the national response to the velvetleaf incursion. Staff were sent to assist with the detection and control of plants in the Southland region as per our agreement with the National Biosecurity Capability Network.

National interest pests

The Ministry of Primary Industries (MPI) leads the management of national interest pests. These pests are named as agency pests in the RPMP and Council support of these programmes is covered in Part 4 of this report.

National Pest Plant Accord inspections

Council is a party to the National Pest Plant Accord (NPPA). During 2015/2016, Council delivered on its roles under the accord. Details of inspection work are covered in Part 4 of this report.

Enforcement of rules

No formal enforcement actions were required during the last year. However, Notices of Direction were issued to 11 landowners requiring them to control a variety of species including woolly nightshade, gorse, wild ginger and wild kiwifruit. In these cases, the landowners had not voluntarily carried out control following property inspections. All notices have been complied with to date.

Exemptions

During the 2015/2016 year, two RPMP exemptions were granted. The exemptions are summarised below:

Date of exemption	01/07/2015
Individual/organisation granted exemption	John Page, TKC Holdings Ltd
Species listed on exemption	Coastal tea tree
Summary of exemption	Exemption granted to allow the harvest and sale of Coastal tea tree by local Contractors on Matakana Island. This exemption was granted on the understanding that all harvestable trees would be felled, limbed on-site and removed and that all other trees would be controlled as part of the operation. It is seen as a pragmatic solution to a pest problem in a community that viewed the pest as a resource.
Date of exemption	17/07/2015
Individual/organisation granted exemption	Jeff Archer, Nature Resource Network
Species listed on exemption	Wallaby
Summary of exemption	Exemption granted to allow the capture and transportation of wallaby for live export. This exemption is the second exemption for this company to fulfil order for international conservation programme.