# **Bay of Plenty Regional Pest Management Plan 2011-2016**

Annual Report for 2014/2015



Bay of Plenty Regional Council 5 Quay Street PO Box 364 Whakatāne 3158 NEW ZEALAND





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Prepared by Shane Grayling

## **Executive summary**

The Biosecurity Act 1993 requires Council to report progress on implementing the Regional Pest Management Plan (RPMP) Operational Plan annually. This report covers the period from 1 July 2014 to 30 June 2015.

It should be noted that funding allocated to biosecurity, through Council's Annual Plan for 2014/2015, was insufficient to effectively deliver all the outcomes and objectives of the RPMP. Therefore, for some pests, funding was only allocated to specific pest control projects or targeted areas. Others received little or no funding and effort.

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

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

Of pest programmes, 74% are considered to be "on-track" to meet their management objectives, 23% of pests are considered "at risk" of not meeting management objectives and 3% (one pest programme) will not achieve the objectives.

During the 2014/2015 financial year, focus has remained on the discovery and control of low-incidence pests rather than significant effort on well-established pests. This has led to major progress against some key RPMP species.

Key highlights include regional eradication of the exclusion/eradication pests marshwort and water poppy and the eradication of alligator weed from two sites in the Western Bay of Plenty. Another two exclusion/eradication pests, nassella tussock and purple loosestrife, are tracking well for eradication with both these pests at zero-density across the region for the second year in a row. It is also pleasing to report significant progress has been made in controlling noogoora bur and coast tea tree.

Despite significant challenges in the operating environment, marine biosecurity and feral goat programmes are also on track.

However, some pest programmes, such as woolly nightshade, wallabies, wild ginger, and green goddess lily, struggle to make progress or are at risk of failing to meet their RPMP management objectives. This is primarily due to the fact that they are relatively widespread and/or control tools or resources have been limited.

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#### 1 Introduction and overview

#### 1.1 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.

#### 1.2 **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.

## 2 Monitoring performance and reporting progress

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

Reporting on RPMP indicators and Long-Term Plan (LTP) KPI's relies on the collection and analysis of surveillance and control operation data to measure reductions in pest distribution 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 and LTP KPI's cannot be reported. Council is commencing the build of a new data management system in 2015/2016 that will become operational in 2016/2017.

## 2.1.1 Progress against Regional Pest Management Plan Indicators

| Intermediate plan outcome           | Indicators  | 201      | 4/2015 results  |
|-------------------------------------|---|----------|---|
| No new pests are established in the | Number of emerging pest threats identified.         | <b>©</b> | One – Rough horsetail.  |
| region                              | Number of new pests detected in the region.         | <b>©</b> | One new pest incursion, rough horsetail, detected at five sites.  |
|                                     |   | <b>©</b> | One new site of creeping gloxinia detected. Creeping gloxinia was first detected in the Bay of Plenty in 2013/2014. |
|                                     | Number of new pests with management plans in place. | ©        | One – All new incursions have management plans in place.  |

| Intermediate plan outcome                                  | Indicators   | 2014   | 4/2015 results  |
|--|--|--|---|
| Identified pest impacts are excluded, reduced or contained | Number of new occurrences eradicated and monitoring plans in place.                            | <ul><li>3</li><li>3</li><li>4</li><li>5</li><li>6</li><li>7</li><li>8</li><li>9</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><li>1</li><l< th=""><th>No new occurrences have been eradicated.  All occurrences have site management plans in place, which are being implemented.</th></l<></ul> | 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.     | <u> </u>   | Data not available.   |
|  | Percent of eradication and containment pest species that have had their distributions reduced. | <u>a</u>   | Data not available.   |
| Our regional communities are experienced and               | Number of sites where community work is underway to control pests.                             | <b>(2)</b>   | Data not available.   |
| effective pest<br>managers                                 | Number of reports and requests for advice made by the community.                               | <b>©</b>   | 1,240 enquiries received and responded to.  |
|  | Percent of restricted pests that have had their spread reduced.                                | <b>(2)</b>   | Data not available.   |

## 2.1.2 Biosecurity programme Long-Term Plan Key Performance Indicators

| Programme KPI  | Status | Results   |
|--|--------|---|
| KPI 13 – The percentage of new pests detected in the region with management plans in place |        | One new pest incursion,<br>rough horsetail, detected at<br>five sites.  |
|  |        | One new site of creeping gloxinia detected. Creeping gloxinia was first detected in the Bay of Plenty in 2013/2014. |
|  |        | Site management plans have<br>been developed for all sites<br>and are being implemented.                            |
| KPI 14 - Percentage of eradication pest species that have their densities reduced          |        | Data not available.   |
| KPI 15 - Percentage of containment pest species that have their densities reduced          |        | Data not available.   |

## 3 2014/2015 highlights and issues

### 3.1 Highlights

Operational priorities in 2014/2015 included surveillance, monitoring and control of new incursions, exclusion/eradication pests and advisory services. Effort on containment pests was prioritised on current distribution, effectiveness of control programmes and budget constraints.

The table below summarises biosecurity operational results and activities.

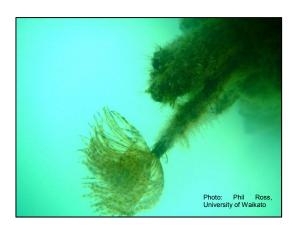
| Operational Activity summary for 2014/2015                            | Total |
|---|-------|
| Number of new incursion pest sites being managed.                     | 22    |
| Number of new incursion pest sites reduced to zero-density.           | 4     |
| Number of exclusion/eradication pest sites being managed.             | 45    |
| Number of exclusion/eradication pest sites eradicated.                | 4     |
| Number of exclusion/eradication pest sites currently at zero-density. | 5     |
| Number of property inspections completed.                             | 3,934 |
| Number of pest plant infestations recorded.                           | 4,080 |
| Number of RPMP exemptions granted.                                    | 3     |
| Number of Notices of Direction issued.                                | 9     |
| Number of public enquiries received <sup>1</sup> .                    | 1,240 |

#### 3.1.1 New incursion management highlights

#### **Marine biosecurity**

Council formally adopted the Marine Biosecurity Management Plan for the Bay of Plenty in May 2014. This was in response to the discovery of Mediterranean fanworm in the Tauranga Harbour in September 2013.

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. This year, another four vessels were found with



Mediterranean fanworm on their hulls, one of these vessels was also infested with clubbed tunicate (*Styela clava*). A number of fanworm were also discovered and controlled on structures within the Sulphur Point and Bridge Marinas.

The Monitoring and Surveillance Programme has contained the incursion of fanworm and clubbed tunicate to the two marinas located in the Tauranga Harbour. These sites are monitored monthly and risk assessments are carried out on new vessels visiting the marina.

<sup>&</sup>lt;sup>1</sup> Data extrapolated based on Job Tracker statistics from October 2014 – June 2015

Council also developed a Small Scale Management Programme (SSMP) for these pests under the Biosecurity Act. These SSMP's provide Council with powers under the Biosecurity Act to require vessel owners to take appropriate action to prevent the spread of these pests, it they do not do so willingly.

#### Delta arrowhead (Sagittaria)

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 2014/2015 Sagittaria was known to be present at five sites; all were being managed under the new incursion programme. Good progress has been made during the



year with plant numbers being reduced at three sites. No plants were found at the remaining two sites, indicating the current management approach is appropriate.

#### 3.1.2 Exclusion and eradication pest management highlights

#### Marshwort and water poppy

These two pests are deemed to have been eradicated from the region.

#### Nassella tussock and wild purple loosestrife

These two pests have remained at zero density for the second year in a row and are on-track to be eradicated.

#### Noogoora bur

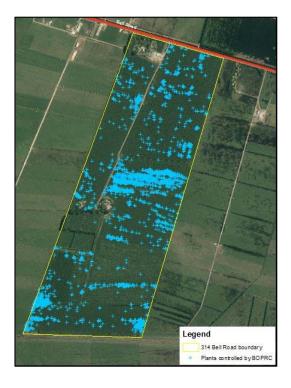
A significant reduction of noogoora bur was achieved at the largest infestation site in the region. Noogoora bur is a fast growing annual plant capable of producing prolific amounts of seed.

Despite significant effort in recent years, infestations at the Bell Road site (100 ha), had not been reducing plant numbers. This led to a review of the Site Management Plan and



negotiations with the occupier to change their cropping regime to a maize silage operation.

This change, along with a new spraying programme, significantly reduced the presence of noogoora bur from the previous year as the following maps illustrate.





Plants detected and controlled in 2013/2014 (above) compared with 2014/2015 (right).

Overall, noogoora bur plant numbers were reduced at 67% of active sites. At sites where plant numbers increased, the increases were relatively small at less than 100 plants.

#### 3.1.3 Containment pest management highlights

#### **Coastal tea tree**

Coastal tea tree is a woody shrub which grows to 6 m. It is similar to New Zealand mānuka though is invasive in coastal environments. Currently it is contained to Matakana Island. Negotiations with the landowners on the management of this pest have been ongoing for a number of years.

A significant breakthrough in negotiations was seen in 2014/2015 with all landowners agreeing to a

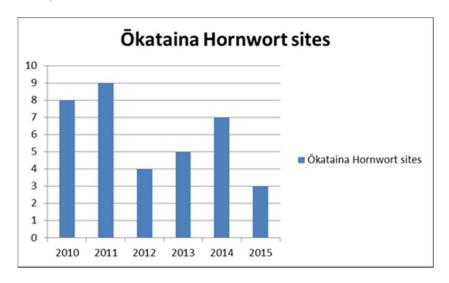


control programme. The largest landowner will provide access for a local firewood merchant to utilise the trees for wood, on the understanding they would control all plants. It is believed coastal tea tree seed has a short life, therefore, with sustained control, it is feasible that eradication from the region can be achieved.

#### Hornwort eradication at Lake Ōkataina

Monitoring of Lake Ōkataina showed that only 3 of 11 known hornwort sites had plants present this year. Spraying of all these sites was completed in February 2015.

The graph below illustrates the trend since the incursion response began in 2010.



## 3.2 Challenges

#### 3.2.1 Exclusion/eradication pest management challenges

#### Alligator weed

An investigation of alligator weed in the Rangitāiki River led to the discovery of a significant infestation of the pest in a series of maize paddocks below the Matahina Dam. The site is now under management with good support from the landowners, but will involve intense control for the foreseeable future.

Other alligator weed sites throughout the region are responding to management and good progress is being made with two sites now deemed historic, and therefore eradicated.

#### **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 been postponed while the Bay of Plenty Regional Coastal Environment Plan is reviewed. Proposed amendments to the plan will reduce regulatory costs associated with control work.

Council is also seeking clarity on monitoring requirements of control work from the Environmental Protection Agency. Current requirements could add significant costs to a control programme at a site as large as Maketū.

#### 3.2.2 Containment pest management challenges

#### Woolly nightshade

The 2014/2015 programme focused on surveillance, monitoring and compliance work outside of the containment area in Western Bay of Plenty.

While good progress has been made against large historic infestations north of the Wairoa River, this pest continues to pose significant challenges. These challenges relate to the time consuming nature of compliance work and the widespread



distribution of woolly nightshade in the Bay of Plenty. Despite significant investment by Council over the last 20 years, this pest has continued to spread and its ongoing management will need careful consideration in the next RPMP review.

The challenges of containing woolly nightshade are not unique to the Bay of Plenty region and all northern North Island regions are facing similar problems.

A bio-control agent for this pest, the woolly nightshade lace bug, was released at a number of sites around the region. The population is now well established and beginning to cause significant damage, including complete defoliation, at some sites. These tend to be shaded sites such as those under pine forests. At this stage the lace bug does not seem to be effective at sites exposed to the sun.

#### **Wallabies**

During 2014/2015, the issues facing wallaby management remain the same as previous years. There are no proven control methods other than aerial 1080 and targeted shooting. Limitations associated with surveillance and monitoring techniques are also problematic.

Work continued in collaboration with the Waikato Regional Council and the



Department of Conservation with a focus on controlling satellite populations. Trials also continued to improve the use of wallaby surveillance dogs and "trail" cameras for validating wallaby reports, and research into more effective and attractive wallaby baits and lures.

## 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.   |

## 4.1 New pest incursion surveillance and control

| Action                                    | Results   |
|---|---|
| Surveillance and monitoring               | High risk areas were inspected.   |
| Rough horsetail                           | Results   |
| Surveillance and monitoring               | <ul> <li>Pest detected following advocacy work.</li> <li>Five sites detected.</li> <li>Ten inspections completed.</li> </ul>  |
| Control pest                              | <ul><li>Site Management Plans in place for all sites.</li><li>All known sites controlled.</li></ul>   |
| Delta arrowhead                           | Results   |
| Surveillance and monitoring  Control pest | <ul> <li>Five sites monitored.</li> <li>42 inspections completed.</li> <li>Two sites at zero density.</li> </ul>  |
| Control pest                              | <ul><li>Site Management Plans in place for all sites.</li><li>All known sites controlled.</li></ul>   |
| Creeping gloxinia                         | Results   |
| Surveillance and monitoring               | <ul> <li>Four sites monitored – one new site detected near Katikati.</li> <li>29 inspections completed.</li> </ul>  |
| Control pest                              | <ul> <li>Site Management Plans in place for all sites.</li> <li>Despite control, plant numbers have increased at three sites. Management plans will be reviewed.</li> </ul> |
| Spiny emex                                | Results   |
| Surveillance and monitoring               | <ul> <li>Six sites monitored. One new site detected near Katikati.</li> <li>35 inspections completed.</li> <li>Two sites at zero density.</li> </ul>                        |
| Control pest                              | <ul><li>Site Management Plans in place for all sites.</li><li>All sites controlled with reduction at three sites.</li></ul>   |
| Total 2014/2015 expenditure               | \$30,072  |
| Programme status                          |   |

## 4.1.1 Marine pests

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | © 2,988 boat hulls inspected.   |
|                             | 31.1 km of marina pontoons inspected.   |
|                             | 151 mooring blocks inspected.   |
|                             | 3.9 km of hard structure and 3.5 km of beach inspected.   |
|                             | Four vessels infested with Mediterranean fanworm<br>(includes one also with clubbed tunicate) detected. |
|                             | Mediterranean fanworm detected in two Tauranga marinas.   |
|                             | Clubbed tunicate detected in Tauranga Marina.   |
| Control pest                | All pests were controlled.  |
|                             | Small scale management programmes for<br>Mediterranean fanworm and clubbed tunicate<br>developed.       |
| 2014/2015 expenditure       | \$203,091   |
| Programme status            |   |

## 4.2 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.

## 4.2.1 Agency pests

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | Two sites monitored for cape tulip, one plant<br>detected.                  |
|                             | Four sites monitored for salvinia, no plants detected.                      |
|                             | Three sites monitored for water hyacinth, no plants detected.               |
|                             | One site investigated for kauri die-back, soil test<br>result negative.     |
|                             | Two reports of rainbow lorikeets forwarded to MPI.                          |
|                             | One report of Sika deer present near Ōpōtiki, DOC investigating.            |
| Control pest                | © Cape tulip controlled.  |
|                             | Didymo advocacy carried out as part of Aquatic<br>Pest Awareness Programme. |
|                             | Contribution made to National Kauri Die-back<br>Programme.                  |
| 2014/15 expenditure         | \$31,554  |
| Programme status            |   |

## 4.2.2 National pest plant accord

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul><li>94 nurseries and "points of sale" inspected.</li><li>36 instances of plants banned from sale detected.</li></ul> |
| Control pest                | <ul><li>All detected pests were voluntarily destroyed.</li><li>MPI notified.</li></ul>                                   |
| 2014/2015 expenditure       | \$7,976  |
| Programme status            |  |

## 4.3 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.

## 4.3.1 Alligator weed

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | 14 sites monitored.  |
|                             | 118 inspections for alligator weed completed.  |
|                             | Reduction in plant numbers at all the sites in<br>Western Bay of Plenty with two sites now<br>considered historic (i.e. eradicated). |
|                             | <ul> <li>Significant new infestation detected below<br/>Matahina Dam.</li> </ul>   |
| Control pest                | Site Management Plans in place for all sites.  |
|                             | All known sites controlled.  |
|                             | Significant reduction in plants at largest site.   |
|                             | Land use change negotiated at Matahina site to minimise risk of spread.  |
|                             | Exemption issued to Scion to allow for bio-control agent testing.  |
| 2014/2015 expenditure       | \$76,574   |
| Programme status            |  |

## 4.3.2 Horse nettle

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul> <li>Three sites monitored.</li> <li>18 inspections for horse nettle completed.</li> <li>Significant reduction in plant numbers in Eastern Bay of Plenty.</li> </ul> |
| Control pest                | <ul><li>Site Management Plans in place for all sites.</li><li>All plants were controlled.</li></ul>  |
| 2014/2015 expenditure       | \$11,335   |
| Programme status            |  |

## 4.3.3 Kudzu vine

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul><li>Three sites monitored for kudzu vine.</li><li>One site at zero density for second year in a row.</li></ul> |
| Control pest                | All plants were controlled.  |
| 2014/2015 expenditure       | \$3,493  |
| Programme status            |  |

#### 4.3.4 Marshwort

| Action                      | Results  |     |
|-----------------------------|--|-----|
| Surveillance and monitoring | <ul> <li>No known populations in region.</li> <li>Previously active site near Rotorua is now considered historic (i.e. eradicated).</li> </ul> |     |
| Control pest                | No control work.   |     |
| 2014/2015 expenditure       |  | \$0 |
| Programme status            |  |     |

## 4.3.5 Nassella tussock

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | One site inspected for nassella tussock, no plants<br>detected for second year in a row. |
| Control pest                | No control work, site currently at zero density.   |
| 2014/2015 expenditure       | \$320  |
| Programme status            |  |

## 4.3.6 Noogoora bur

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | 15 sites monitored for noogoora bur.  |
|                             | © 62 inspections completed.   |
|                             | Reduction in plant numbers at 67% of sites. Only<br>small increases in plant numbers at remaining<br>sites. |
| Control pest                | All sites controlled.   |
|                             | Significant reduction in plants at largest site.  |
| 2014/2015 expenditure       | \$31,911  |
| Programme status            |   |

## 4.3.7 Wild purple loosestrife

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | One site inspected for wild purple loosestrife, no<br>plants detected for second year in a row. |
| Control pest                | No control work, site currently at zero density.  |
| 2014/2015 expenditure       | \$0   |
| Programme status            |   |

## 4.3.8 Senegal tea

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | <ul> <li>Five sites monitored for Senegal tea, 50% reduction in plants detected from previous year.</li> <li>31 inspections completed.</li> </ul> |
| Control pest                | <ul><li>All plants were controlled.</li><li>One complaint investigated.</li></ul>   |
| 2014/2015 expenditure       | \$1,575   |
| Programme status            |   |

## 4.3.9 Spartina

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul><li>One site monitored for spartina.</li><li>Ten inspections completed.</li></ul>  |
| Control pest                | Control work at Maketū has been postponed<br>pending amendments to Coastal Plan.<br>Clarifications from Environmental Protection<br>Agency are also being sought regarding monitoring<br>requirements associated with herbicide use. |
| 2014/2015 expenditure       | \$5,940  |
| Programme status            |  |

## 4.3.10 Water poppy

| Action                      | Results   |     |
|-----------------------------|---|-----|
| Surveillance and monitoring | <ul> <li>No known populations in region.</li> <li>Previously active site near Lake Rotoiti is now considered historic (i.e. eradicated).</li> </ul> |     |
| Control pest                | O No control work.  |     |
| 2014/2015 expenditure       |   | \$0 |
| Programme status            |   |     |

## 4.3.11 White edged nightshade

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul> <li>Two sites monitored for white edged nightshade.</li> <li>Six inspections completed.</li> <li>Both sites at zero density.</li> </ul> |
| Control pest                | No control work.   |
| 2014/2015 expenditure       | \$3,146  |
| Programme status            |  |

## 4.3.12 Brown bullhead catfish

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | <ul> <li>No known populations in region.</li> <li>Surveillance carried out in Lake Rotorua, no catfish detected.</li> </ul> |
| Control pest                | <ul><li>No control work.</li><li>Advocacy completed as part of Summer Aquatic Awareness Programme.</li></ul>                |
| 2014/2015 expenditure       | \$5,055   |
| Programme status            |   |

## 4.3.13 **Koi carp**

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | <ul> <li>No known populations in region.</li> <li>Numerous sightings investigated, no new populations identified.</li> <li>Lower Kaituna River searched by electric fishing</li> </ul>                  |
|                             | Lower Kaituna River searched by electric fishing<br>boat after member of public provided a photo of<br>shag trying to eat what could be a small carp. No<br>koi detected but goldfish were very common. |
| Control pest                | O No control work.  |
|                             | Advocacy completed as part of Summer Aquatic<br>Awareness Programme.  |
| 2014/2015 expenditure       | \$6,256   |
| Programme status            |   |

#### 4.3.14 Perch

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | O No known populations in region.  |
| Control pest                | <ul><li>No control work.</li><li>Advocacy completed as part of Summer Aquatic Awareness Programme.</li></ul> |
| 2014/2015 expenditure       | \$0  |
| Programme status            |  |

#### 4.3.15 **Rooks**

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | Numerous sightings responded to in Western<br>Bay of Plenty. All confirmed as kaka.               |
|                             | <ul> <li>No known rookeries remain in East Taupō though<br/>12–14 birds were observed.</li> </ul> |
| Control pest                | O No control work.  |
| 2014/2015 expenditure       | \$16,821  |
| Programme status            |   |

## 4.4 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.

#### 4.4.1 African feather grass

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul><li>53 inspections for African feather grass completed.</li><li>One new site detected in Whakatāne area.</li></ul> |
| Control pest                | All plants have been controlled. Good progress<br>being made with general reduction in plant<br>numbers.               |
| 2014/2015 expenditure       | \$8,337  |
| Programme status            |  |

## 4.4.2 Apple of Sodom

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | Three inspections for apple of Sodom completed. |
| Control pest                | All plants were controlled.                     |
| 2014/2015 expenditure       | \$6,781   |
| Programme status            |   |

## 4.4.3 Asiatic knotweed

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul><li>197 inspections for Asiatic knotweed completed.</li><li>One new site detected near Ruatāhuna.</li></ul>                  |
| Control pest                | <ul><li>One complaint responded to.</li><li>All plants have been controlled. Good progress being made at Te Puke site.</li></ul> |
| 2014/2015 expenditure       | \$10,083   |
| Programme status            |  |

## 4.4.4 Blackberry

| Action                      | Results  |         |
|-----------------------------|--|---------|
| Surveillance and monitoring | <ul><li>No targeted surveillance carried out.</li><li>17 inspections for blackberry completed.</li></ul> |         |
| Control pest                | © Five complaints responded to.  |         |
| 2014/2015 expenditure       |  | \$2,877 |
| Programme status            |  |         |

## 4.4.5 Boneseed

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | © 38 inspections for boneseed completed.                             |
| Control pest                | Mature plants controlled at Ohope, plant appears to<br>be contained. |
| 2014/2015 expenditure       | \$5,377  |
| Programme status            |  |

## 4.4.6 Chilean rhubarb

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul><li>No targeted surveillance carried out.</li><li>Eight inspections for Chilean rhubarb completed.</li></ul>     |
| Control pest                | <ul> <li>Advisory services only.</li> <li>Pest distribution through Bay of Plenty is not well understood.</li> </ul> |
| 2014/2015 expenditure       | \$80   |
| Programme status            |  |

## 4.4.7 Climbing spindle berry

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | 96 inspections for climbing spindle berry completed.               |
|                             | New sites detected around Mount Maunganui,<br>Okere and Okawa Bay. |
| Control pest                | Good progress with control in Eastern<br>Bay of Plenty.            |
|                             | 70 ha controlled at Mourea.  |
|                             | Good engagement by landowners at Tarawera for community control.   |
|                             | Pest has extended its range around Rotorua Lakes.                  |
| 2014/2015 expenditure       | \$15,548   |
| Programme status            |  |

## 4.4.8 Coast tea tree

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | Targeted surveillance on Rabbit Island in collaboration with Department of Conservation. |
|                             | Coast tea tree only present on Matakana Island.  |
| Control pest                | © Control programme negotiated with landowners.  |
|                             | © Exemption issued to support control programme.   |
| 2014/2015 expenditure       | \$7,720  |
| Programme status            |  |

## 4.4.9 Darwin's barberry

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | <ul> <li>One inspection for Darwin's barberry completed<br/>(Whakarewarewa Forest).</li> </ul>     |
|                             | <ul><li>Pest has extended its range in<br/>Whakarewarewa Forest despite ongoing control.</li></ul> |
| Control pest                | © Control undertaken.  |
| 2014/2015 expenditure       | \$2,230  |
| Programme status            |  |

## 4.4.10 Egeria densa, hornwort, lagarosiphon

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | Lakes Rotomā, Tikitapu, Rerewhakaaitu,<br>Rotokakahi inspected for hornwort, no detections.                        |
|                             | Monitoring of hornwort control carried out in<br>Lake Ōkāreka in 2013/2014 revealed no new sites.                  |
|                             | Monitoring of control work at Lake Ōkataina<br>revealed a reduction in sites with hornwort from<br>seven to three. |
|                             | Monitoring to support LINZ Spray Programme completed.  |
| Control pest                | Two complaints responded to.   |
|                             | Hornwort controlled at Lake Ökataina.  |
|                             | Six weed cordons maintained.   |
|                             | Advocacy and awareness programme.  |
| 2014/2015 expenditure       | \$168,060  |
| Programme status            |  |

## 4.4.11 Gorse

| Action                      | Results   |          |
|-----------------------------|---|----------|
| Surveillance and monitoring | <ul><li>No targeted surveillance carried out.</li><li>45 inspections for gorse completed.</li></ul> |          |
| Control pest                | © 20 complaints responded to.   |          |
| 2014/2015 expenditure       | •   | \$13,050 |
| Programme status            |   |          |

## 4.4.12 Green goddess lily

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and Monitoring | <ul><li>No targeted surveillance.</li><li>109 inspections for green goddess lily completed.</li></ul>   |
| Control pest                | <ul> <li>Three complaints responded to.</li> <li>Advisory services only.</li> <li>Pest is widespread through Bay of Plenty – RPMP management objective will not be achieved.</li> </ul> |
| 2014/2015 expenditure       | \$489   |
| Programme status            |   |

## 4.4.13 Italian buckthorn

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | © 787 inspections for Italian buckthorn completed.   |
| Control pest                | <ul><li>Two complaints responded to.</li><li>Good progress made controlling pest within Tauranga city.</li></ul> |
| 2014/2015 expenditure       | \$32,425   |
| Programme status            |  |

## 4.4.14 Lantana

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | 30 inspections for lantana completed.   |
| Control pest                | <ul> <li>One complaint responded to.</li> <li>Reduction in plants at Rotorua.</li> <li>Biological control agent, lantana rust, released at sites in Western and Eastern Bay of Plenty.</li> <li>Sites in Western Bay of Plenty appear to be spreading.</li> </ul> |
| 2014/2015 expenditure       | \$2,668   |
| Programme status            |   |

## 4.4.15 Lodgepole pine

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | O No surveillance work.  |
| Control pest                | Advisory services.   |
|                             | Good progress with lodgepole pine shelterbelt<br>removal in East Taupō area.                     |
|                             | <ul> <li>Control work supported through Biodiversity<br/>Programme on Mount Tarawera.</li> </ul> |
|                             | Engagement with neighbouring Councils to develop coordinated control programme.                  |
| 2014/2015 expenditure       | \$4,520  |
| Programme status            |  |

## 4.4.16 Old man's beard

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | 41 inspections for old man's beard completed.     |
| Control pest                | One complaint responded to.                       |
|                             | Good progress across most sites.                  |
|                             | Sites in Kāingaroa Forest appear to be spreading. |
| 2014/2015 expenditure       | \$11,949  |
| Programme status            |   |

## 4.4.17 **Ragwort**

| Action                      | Results                          |
|-----------------------------|----------------------------------|
| Surveillance and monitoring | O No surveillance or monitoring. |
| Control pest                | O No complaints responded to.    |
| 2014/2015 expenditure       | \$0                              |
| Programme status            |                                  |

## 4.4.18 Royal fern

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | Seven inspections for royal fern completed.                        |
| Control pest                | Control work completed through Biodiversity<br>Programme.          |
|                             | Spread by windblown spores, re-invasion very difficult to prevent. |
| 2014/2015 expenditure       | \$2,230  |
| Programme status            |  |

## 4.4.19 Variegated thistle

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | © Eight inspections for variegated thistle completed.   |
| Control pest                | All plants detected were controlled, 40% reduction<br>in plants detected at Ōhiwa Harbour site. |
| 2014/2015 expenditure       | \$2,000   |
| Programme status            |   |

## 4.4.20 Wild ginger

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | © 395 inspections for wild ginger completed.   |
| Control pest                | <ul> <li>23 complaints responded to.</li> <li>Pest relatively widespread. Current focus is containment east of Ōpōtiki.</li> </ul> |
| 2014/2015 expenditure       | \$42,868   |
| Programme status            |  |

## 4.4.21 Wild kiwifruit

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | 310 inspections for wild kiwifruit completed.  |
|                             | Four new sites detected in Rotorua Lakes area.   |
| Control pest                | Four complaints responded to.  |
|                             | 4,988 vines controlled over 47 properties as part of<br>collaborative programme.                   |
|                             | Support provided to KVH to remove four abandoned orchards.   |
|                             | Support provided for trials into composting as an environmentally-friendly option for waste fruit. |
| 2014/2015 expenditure       | \$125,053  |
| Programme status            |  |

## 4.4.22 Woolly nightshade

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | © 717 inspections for woolly nightshade completed.  |
|                             | Two new sites detected in Rotorua.  |
| Control pest                | 45 complaints responded to.   |
|                             | Nine Notices of Direction issued.   |
|                             | <ul> <li>Pest relatively widespread through coastal</li> <li>Bay of Plenty - current focus is containment in the</li> <li>Rotorua and Ōpōtiki Districts.</li> </ul> |
| 2014/2015 expenditure       | \$128,539   |
| Programme status            |   |

## 4.4.23 Yellow flag iris

| Action                      | Results                                   |
|-----------------------------|---|
| Surveillance and monitoring | 38 inspections for yellow flag completed. |
| Control pest                | All plants detected were controlled.      |
| 2014/2015 expenditure       | \$4,290                                   |
| Programme status            |   |

## 4.4.24 Feral goats

| Action                      | Results   |
|-----------------------------|---|
| Surveillance and monitoring | Kereu/Te Waiti and west Raukōkore sites remain at<br>zero density (17,000 ha surveyed). |
| Control pest                | Goat control ongoing in East Raukōkore site<br>(9,500 ha).                              |
|                             | Goat control carried out at Okere (Rotorua).  |
| 2014/2015 expenditure       | \$143,408   |
| Programme status            |   |

## 4.4.25 **Rudd**

| Action                      | Results  |     |
|-----------------------------|--|-----|
| Surveillance and monitoring | <ul><li>Rudd are present in Lake McLaren.</li><li>No new sites detected.</li></ul> |     |
| Control pest                | O No control work.   |     |
| 2014/2015 expenditure       | •  | \$0 |
| Programme status            |  |     |

## 4.4.26 **Tench**

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | Historical records of tench being present in<br>Lake McLaren. Surveillance has not been able to<br>confirm their presence. |
|                             | No new sites detected.   |
| Control pest                | O No control work.   |
| 2014/2015 expenditure       | \$0  |
| Programme status            |  |

#### 4.4.27 Wallaby

| Action                      | Results  |
|-----------------------------|--|
| Surveillance and monitoring | Wallaby population at Welcome Bay delimited<br>using camera traps and indicator dog.             |
|                             | On wallabies detected at Okere following control in<br>2013/2014.                                |
| Control pest                | Wallaby baits trialled at Welcome Bay successfully<br>killed wallabies. (Trial results pending). |
|                             | One exemption issued for display of wallabies.   |
|                             | Research into dispersal and monitoring and control tools needed.                                 |
| 2014/2015 expenditure       | \$83,407   |
| Programme status            |  |

#### 4.5 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 | 60 inspections for restricted pests completed.   |
| Control pest                | <ul> <li>Three complaints responded to.</li> <li>475 enquiries responded to.</li> <li>Presentations to stakeholder groups and weed- swap days held.</li> </ul> |
| 2014/2015 expenditure       | \$70,396   |
| Programme status            |  |

## 5 Council activities to support the Regional Pest Management Plan

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

### 5.1 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.

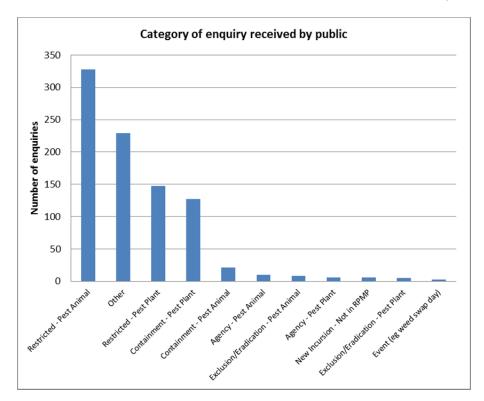
#### 5.1.1 Providing advice and information

Responding to enquiries from landowners and community groups is a high priority activity. During the past year Council has responded to 1,240 enquiries from the public. Reports from the public are also an important part of Council's surveillance programme.

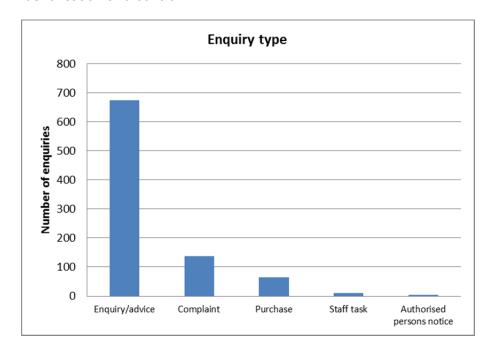
Council has organised workshops that provide technical advice to the public and industry regarding pest control. These workshops focus on pest identification and control techniques. Examples of workshops included:

- 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.
- Five workshops were held at Council's Pest Plant Collection public taught how to identify pests of significance.
- Presentations to a variety of stakeholders on biosecurity and technical aspects of pest management.

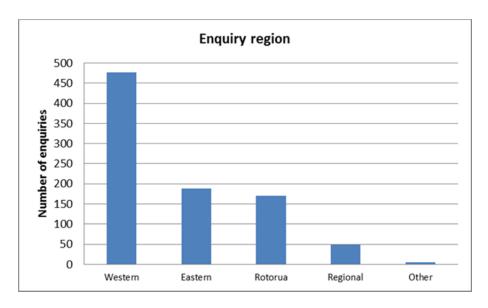
Analysis of enquires (see graph below) show that the majority of public concerns relate to restricted pests. These pests are generally well established and because of this, are impacting on people's lives. The RPMP assumes that people or community groups will take voluntary action against these pests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



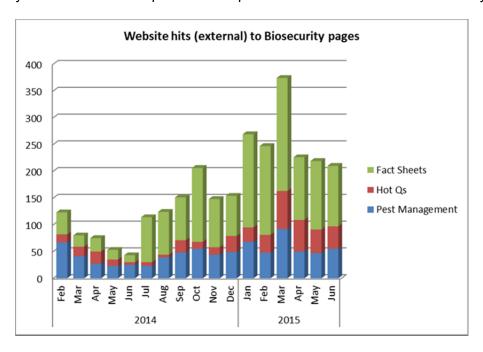
The graph below shows the majority of calls are for information and advice on pest identification and control.



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.



The graph below shows how improvements in the structure of Council's website this year have increased public use of pest related information over the last year.



#### 5.1.2 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 2014/2015 advocacy campaign, a total of 826 individuals were surveyed and provided with promotional information. Results showed that 76% of those surveyed were aware how to check and clean their vessel. This is a decrease of 8% compared to 2013/2014.

#### 5.1.3 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 across the region.

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.

#### 5.2 National Pest Programme support

Council was not called upon to assist with any national biosecurity responses over the last year. However, staff did participate in training for Queensland fruit fly monitoring.

#### 5.2.1 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.

### 5.2.2 National Pest Plant Accord inspections

Council signed into the reviewed National Pest Plant Accord (NPPA) in 2013. During 2014/2015, Council delivered on its roles under the accord. Details of inspection work are covered in Part 4 of this report.

Of interest, the prickly *Solanum sp.*, which was detected over two years ago at a Pyes Pa nursery has finally been identified by a world expert on *Solanum* sp. It was identified as *Solanum insanum* the wild progenitor of *S.melongena* (eggplant) and thought to be of Asian origin. The Ministry of Primary Industries is currently investigating the incursion.

#### 5.3 Enforcement of rules

No formal enforcement actions were required during the last year. However, Notices of Direction were issued to nine landowners requiring them to control woolly nightshade. In these cases, the landowners had not voluntarily carried out control following property inspections. All notices have been complied with to date.

#### 5.4 Exemptions

During the 2014/2015 year, three RPMP exemptions were granted. The exemptions are summarised below:

| Date of exemption                         | 09/10/2014   |
|---|--|
| Individual/organisation granted exemption | Stewart Hamlett and Jo Sanders,<br>Paradise Valley Springs Wildlife Park   |
| Species listed on exemption               | Wallabies  |
| Summary of exemption                      | Exemption granted to allow the public display of wallabies which is an offence according to section E(5) of the RPMP. Paradise Valley, while displaying wallabies, is an important advocacy tool. Their display includes information on wallabies as a pest and the impact they cause. |

| Date of exemption                         | 11/05/2015  |
|---|---|
| Individual/organisation granted exemption | Emma Moffett, University of Waikato   |
| Species listed on exemption               | Gambusia  |
| Summary of exemption                      | Exemption granted to allow the capture and transportation of Gambusia to the University, for research purposes associated with a Masters of Science project. Exemption placed conditions to ensure secure transportation of fish and decontamination of gear used in the capture of the fish. |

| Date of exemption                         | 18/06/2015   |
|---|--|
| Individual/organisation granted exemption | Scion  |
| Species listed on exemption               | Alligator weed, heather, tradescantia  |
| Summary of exemption                      | Exemption granted to allow Scion to undertake trials, to assess non-target and target damage of biological control agents. Conditions attached to the exemption include the secure storage of all pest plants, incineration of waste material, and monitoring of site once trial has finished. |