



Bay of Plenty Regional Pest Management Plan 2020–2030

Operational Plan Annual Report 2022/2023

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Rārangi Kaupapa

Contents

Te timatatanga – Introduction	4	Part 3: Non-RPMP reporting	
2022/2023 key statistics	5	Advisory pest species	30
Part 1: Programme reporting	6	Regional Pest Management User Guide	30
Long Term Plan Community Outcomes and Priorities	6	Pesthub	30
CASE STUDY – Marine biosecurity	8	Public enquiries 2022/23	31
Part 2: RPMP Category reporting	10	Website	31
 Exclusion	11	2022/23 Communications activity summary	32
CASE STUDY – Searching for aquatic pests	13	National Interest Pest programmes in the region managed by other agencies	37
 Eradication	14	Part 4: Species reporting	38
CASE STUDY – Successfully heading towards eradication	17		
 Progressive containment	20		
CASE STUDY – Biocontrol Agents in the Bay of Plenty	21		
CASE STUDY – Wilding pine management in the Bay of Plenty	22		
 Sustained control	24		
CASE STUDY – Working with our Communities	26		
CASE STUDY – Public support for pest plant management	28		



Te timatatanga Introduction

This report summarises all operational work completed throughout the 2022/23 financial year and reflects the objectives set within the Bay of Plenty Regional Pest Management Plan 2020-2030 (RPMP) which became operative in December 2020.

GeoPest - the spatially driven data collection, storage and reporting tool developed by council, has allowed much more accurate reporting of presence and distribution for many species. Accuracy of progress against RPMP Objectives and Outcomes will continue to build over time as the tracking of trends builds.

Section 100B (2) (a) of the Biosecurity Act 1993 requires this Operational Plan report to be presented to Council on an annual basis.

2022/2023 key statistics

91 species
covered by the RPMP

Pest categories:

20

Exclusion

21

Eradication

31

**Progressive
containment**

41

**Sustained
control**

68

Advisory

0
**Exclusion pests
found**

96%
of programmes
on track (98 of 103)
0% change in on track programmes
96% in 2021/22)



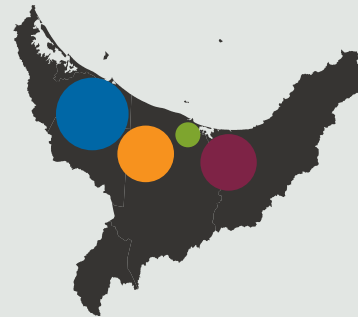
4,694
property
inspections
completed

Total area inspected
for RPMP pests
154,707 ha



740
public
enquiries
received

18 species
with sub-regional splits



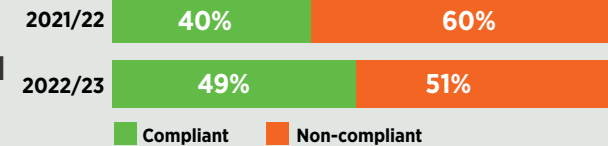

91,248
website page visits



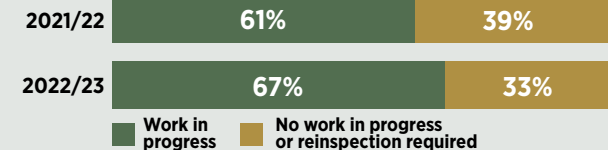
11 **Notice**
of Directions
issued

Programme compliance

Inspection Compliance Level



Non-compliant inspection status





Part 1: Programme reporting

Long Term Plan Community Outcomes and Priorities

Biosecurity sits under ‘a healthy environment’.



LEVEL OF SERVICE STATEMENT:
Deliver effective pest management

	Result 2020/21	Result 2021/22	Goal 2022 /23	Result 2022/23	Goal 2023/24	Goal 24/25 onwards
The percentage of RPMP programmes on track	89%	96%	85%	96%	85%	85%
Proportion of wallaby satellite populations (outside of progressive containment area) where wallabies no longer detected*	N/A	TBC	80%	71%	90%	100%
Reduction in wallaby progressive containment area	N/A	FY 24/25 target	FY 24/25 target	FY 24/25 target	FY 24/25 target	7.5%

*New measure

Long Term Plan Community Outcome: He taiao ora – A healthy environment

! LTP priorities	RPMP Strategic Direction	Deliverables
	1. Prevent pests from entering and establishing in the Bay of Plenty.	Significant investment in New to Region Programme, 41 pests in Exclusion or Eradication categories, Undertaking marine biosecurity work for other Councils.
! 4. Sub-regional/regional view		18 species with sub-regional category classifications.
! 6. Partnerships with Māori	4. Work in partnership with other parties that have pest management responsibilities and interests.	Supporting hapū to undertake operational work including TALT, Ngāti Rangitihi, Matakana Island, Te Whānau Apanui. Looking for better alignment and opportunity with Raukūmara Pae Maunga project.
! 7. Making best use of our resources	2. Manage pests when it is practical and cost effective to do so, using Council's regulatory and/or operational roles.	Cost Benefit Analysis used to develop RPMP, use of Biosecurity Act powers (inspections, formal inspections, Notice of Directions). Development of Strategic control areas for Woolly nightshade and Wild ginger in Sustained control areas.
! 8. Community participation and constructive relationships	3. Support the efforts of landowners/occupiers and communities to manage established pests and prevent pest spread.	68 Advisory pests - control advice through Pesthub and user guide, development of 'Woolly Wipeout' campaign. Provide advice and support to community groups. Provide presentations to interested groups. 'How-to' videos developed.
	4. Work in partnership with other parties that have pest management responsibilities and interests.	Working in partnership with KVH, MPI (Pines, wallabies, KDB, NIPR), TMBC, DOC (Tarawera, Feral Goats), Ngā Whenua Rāhui (goats), Science providers (NIWA, AgResearch, Plant and Food Research, Landcare Research), National Pest Plant Accord, National Biocontrol Collective, Biosecurity working Group and many more.



Marine biosecurity

Working with GIS experts a new database for collecting vital real-time marine data was developed using the expertise of the Dive team.

The Marine Vessel Portal (MVP) has subsequently been rolled out to councils throughout the country and now covers the majority of New Zealand's vessel fleet. The MVP is all set up with real-time dashboards, allowing instant information to identify where pests have been found, when a vessel was last inspected and can track their movement around the motu.

Across the Bay of Plenty region over 3,039 hulls were inspected in 2022/23 with fewer marine pests found. Intercepting vessels with marine pests present and growing on the seafloor has been and remains a real focus for the Dive team to manage current pests and stop new pests establishing in the Bay of Plenty.

Over the last year the Dive Team carried out Marine Biosecurity surveillance for four councils around the country. This mahi generated \$360,000 of income for council.



Gearing up Picton



Diver with fanworm under vessel



Sabella removal






Sabella and diver



Part 2: RPMP Category reporting

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 of the programmes are provided in the table below and are measured against the objectives of the RPMP.

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.

Exclusion

Exclusion pests are pests that are not currently in the region, or for sub-regional splits, not in parts of the region. The goal of the programme is to prevent their establishment.

RPMP classification	Exclusion
Objective	Over the duration of the RPMP, prevent the establishment of Exclusion pests in the Bay of Plenty region, to avoid adverse effects on production, environmental and public values.
Outcome	No pests in the Exclusion programme are established in the region.

Council has a lead role in managing Exclusion pests through advocacy and education, inspection, and service delivery.

Surveillance for Exclusion pests is done by various operational activities, including but not limited to:

- Dive surveillance for marine pests.
- eDNA sampling to determine pest presence.
- Ornamental Pond surveillance.
- As part of the New to Region Surveillance programme.
- During normal RPMP surveillance work.

During 2022/23, no exclusion pests were found which was a great result.

2022/2023 Key highlights

Number of species in category	20
Number of Exclusion pest sites discovered	0
Percentage of programmes on track	100%
All Exclusion pests programme status	

Plants

	Status	Infestations discovered	Surveillance effort
Alligator weed*	●	0	Captured in new to region programme and wider RPMP surveillance
Batwinged passionflower	●	0	
Chilean flame creeper	●	0	
Chilean needle grass	●	0	
Darwin's barberry*	●	0	
Field horsetail	●	0	
Italian buckthorn*	●	0	
Kauri dieback#	●	0	
Marshwort	●	0	

Marine

	Status	Infestations discovered	Surveillance effort
Australian droplet tunicate	●	0	264 (ha)
Pyura	●	0	

Freshwater fish

	Status	Infestations discovered	Surveillance effort
Brown bullhead catfish*	●	0	302 (combined pest fish inspections)
Koi carp*	●	0	
Perch*	●	0	
Rudd*	●	0	
Tench*	●	0	

Freshwater plants

	Status	Dive surveillance hours	Surveillance area
Egeria*	●	124	849 (ha)
Elodea*	●		
Hornwort*	●		
Lagarosiphon*	●		

* sub-regional split # part of national programme



No Brown bullhead catfish were discovered outside of Lake Rotorua and Lake Rotoiti in 2022/23.

Searching for aquatic pests

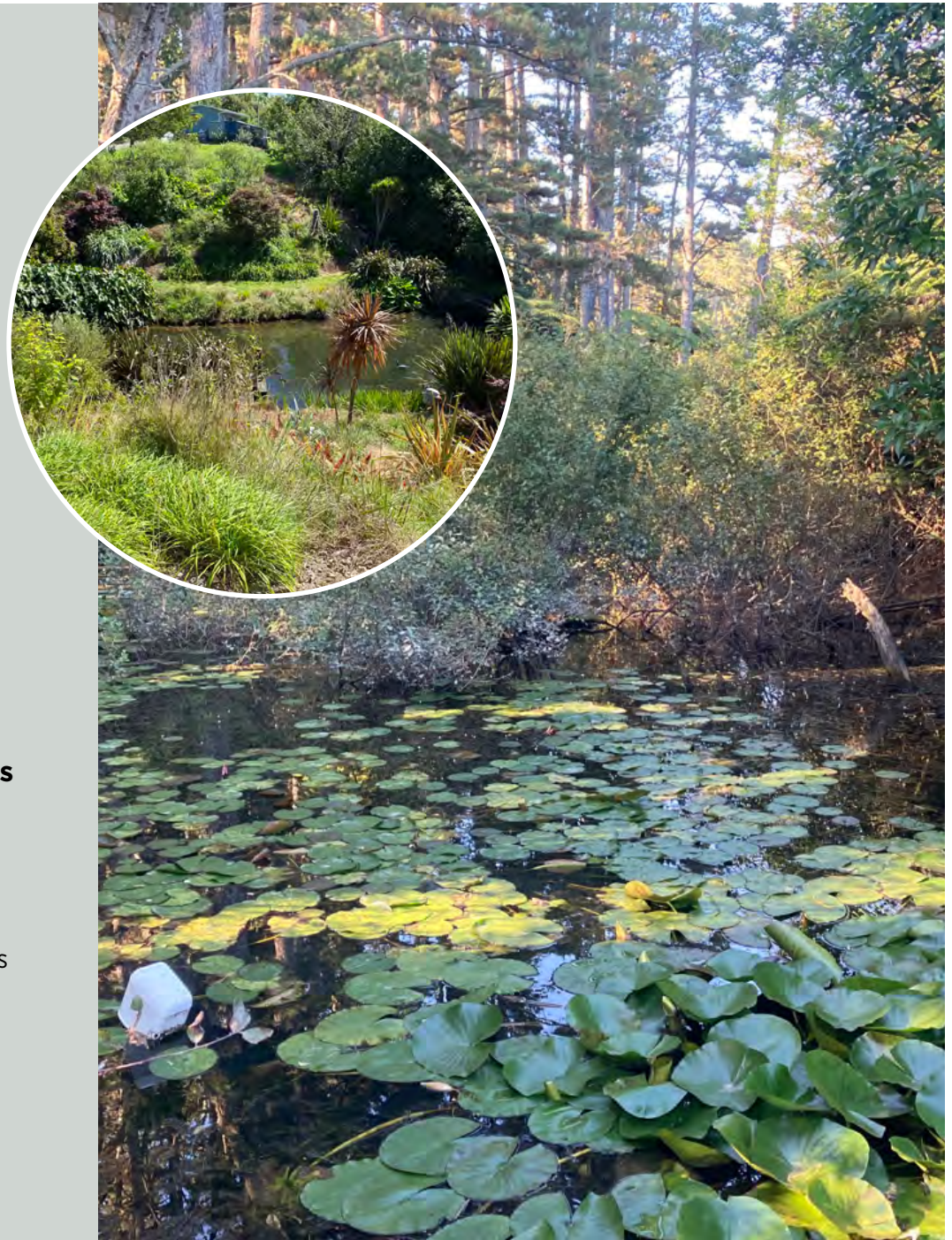
Ornamental pond survey in Galatea

Pond surveillance is carried out annually in different parts of the region over the summer period.

This year pond surveillance was carried out in the small rural township of Galatea in the eastern Bay of Plenty where a total of 147 properties were inspected.

As a result of the survey, seven new Yellow Flag Iris (*Iris pseudacorus*) sites were found and controlled on site by Regional Council contractors. Yellow Flag Iris is a Progressive containment pest under the RPMP 2020-2030.

There is often a lack of awareness of the impacts of pests in ornamental ponds or water features so this operation is key to prevent the spread of freshwater pests into our waterways.



Eradication

Eradication pests are pests that have recently been, or are currently in the region, generally these pest are low incidence. The goal of the programme is to Eradicate them during the life of the RPMP.

RPMP classification	Eradication
Objective	Over the duration of the RPMP, eradicate pests in the Bay of Plenty region and eliminate the adverse effects they have on production, environmental and public values.
Outcome	All known or new pest infestations are controlled to zero density within the duration of this RPMP.

Council has a lead role in the management of these pest through advocacy and education, inspection and service delivery.

Comprehensive programmes of work are developed for all Eradication pests, these programmes are high priority, preventing their long-term establishment in the region will have huge benefits to the regions social, economic, cultural and environmental values.

Most programmes (95%) are considered on-track, six of the 21 species are not considered to be present in the region currently. 11 of the 15 pest plant species either stayed at zero density or had a reduction on pest plant cover, of the species where there was an increase, it was small (less than 1000m² across the region).

Challenges remain with some programmes, particularly Wallabies though increased effort in the coming years is expected in improve the status of the programmes.

Key highlights

Number of species in category	21
Number of properties (excluding feral goats and wallabies)	119
Number of inspections	686
Area searched	61,034 ha
% of programmes on-track	(19 of 20) 95%



Trail cameras are a critical tool for determining wallaby presence/absence and monitoring the effectiveness of control operations.

Plants

	Status	Sites being managed	Inspections	Area searched (ha)	Pest cover (m ²) - 30 June 2023	Pest cover change from 2021/22 (m ²)
Alligator weed*	●	10	88	499.90	361.8	348.5
Coast tea tree	●	2	2	12,570.14	108,769.5	-270,823.5
Creeping gloxinia	●	6	24	42.50	672.8	472.7
Horse nettle	●	3	4	14.70	7.0	0.0
Kudzu vine	●	1	3	2.70	0.0	0.0
Lantana*	●	8	26	2.60	4.0	-3.7
Nassella tussock	●	1	1	22.20	4.0	4.0
Noogoora bur	●	15	37	873.00	484.6	-125.3
Purple loosestrife	●	1	0	0.00	3.0	0.0
Sagittaria	●	18	39	18.40	782.6	-184.0
Senegal tea	●	21	118	676.40	77.0	-240.0
Spartina	●	25	21	21.00	287.2	61.2
Stout bamboo grass	●	2	5	53.10	1.0	-2.0
Water poppy	●	1	1	0.30	0.0	0.0
White edged nightshade	●	4	1	152.67	0.0	0.0
		118	370	14,949.61	111,454.41	-270,492.21

* sub-regional split

Animals

Feral Goats*

Programme status	●
No. of inspections	5
Hunter days complete	45
Area hunted (ha)	2,888
Goats controlled	2

Rooks

Programme status	●
Sites with rooks present	0
Unconfirmed sightings	0
Birds found	0

Wallabies**

Programme status	●
Area searched (ha)	42,651
Dog surveillance (km)	3,067
Cameras deployed	794
Wallabies controlled	24

* sub-regional split

part of national programme

Freshwater fish

Perch*

Status	●
Eradication sites being managed	1
Fish found	0
Inspections	302

Koi carp*

Status	●
Eradication sites being managed	0
Fish found	0
Inspections	302

Freshwater plants

Hornwort*

Status	●
Dive surveillance hours	75
Surveillance area (ha)	546
Pest cover (ha)	0.1
Area controlled (ha)	0.1

Successfully heading towards eradication

The *Sagittaria* species were originally introduced to New Zealand for their interesting leaf shape and attractive flowers. Unfortunately, despite being pretty, this freshwater pest plant forms dense beds that clog waterways and can cause localised flooding.

With focused and consistent efforts by the Biosecurity team in conjunction with landowners there are now 30 sites across the rohe that are classified as either historic or with zero-density. At the end of the financial year, only 6 current sites remained and a significant decrease in plant cover was achieved.

Undoubtedly efforts to find, and then act quickly to control the infestations has avoided large scale infestations from developing.

The current sites now only require hand removal of any new plants that grow each season and ongoing surveillance occurs annually across the region through ornamental pond checks and monitoring of other RPMP aquatic pests.



Progressive containment

Progressive containment pests that are pests that are established in the region where we want to reduce their impacts by reducing their distribution and plant cover.

RPMP classification	Progressive containment
Objective	Over the duration of this RPMP, reduce the impacts to production, environmental and public values by containing, and where practicable, reducing the geographic distribution of pests in the Bay of Plenty region.
Outcome	<ul style="list-style-type: none"> Reduction in extent and density of these pests. Areas that are clear of these pests will remain so.

For some species, Service delivery species, Council takes the lead role for all activities including control. Council will take the lead role for Progressive containment pests when we deem the pests are high risk but will not meet the Eradication objective, and/or where it is unreasonable to expect landowners to control them, for example if they require specialised equipment or qualifications to control.

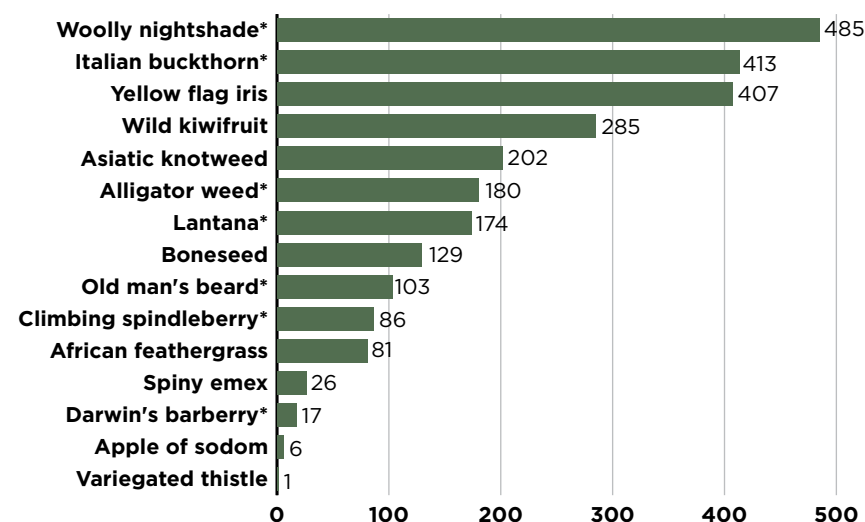
Compliance species, are species where landowners are required to control upon direction from Council, for these species Council will undertake inspections and give occupiers formal notices, under the Biosecurity Act, requiring them to control the pest. If they continue to be non-compliant, there is a number of options under the Biosecurity Act to ensure the plant is controlled.

Of the species managed in this programme, 89% are considered on-track. Amalgamation of datasets into Geopest has meant a number of sites were visited to 'ground-truth' old sites that were not thought to have the plant present, this has led to a perceived increase in sites for some species. These statistics are slightly misleading, and we expect the next 1-2 years will give a more accurate representation of current state. We expect to see an increase in the number of sites through more operational surveillance effort but expect over time to see more sites becoming zero density and the plant cover to steadily decrease.

Key highlights - service delivery

Number of species in category	13
Number of properties (plants only)	575
Number of inspections (plants only)	890
% of programmes decreased compared to 2021/22 (excluding feral goats, wallabies, rudd and tench)	80%
% of programmes on-track (11 of 13)	85%

Progressive containment - number of inspections



PROGRESSIVE CONTAINMENT - SERVICE DELIVERY

Plants

	African feathergrass	Alligator weed*	Asiatic knotweed	Spiny emex	Yellow flag iris	Total
Status	●	●	●	●	●	
Sites (properties)	81	78	167	47	235	575
Inspections	75	180	202	26	407	890
Area searched (ha)	4,648.4	2,039.1	244.7	26.0	2,126.1	9,084.30
Pest cover 2022/23 (m ²)	69.0	20,743.6	438.4	99.0	878.5	22,228.46
Pest cover change from 2021/22	-561.6	-3,306.3	-3,865.7	-56.0	-1,040.4	-8,829.98

Animals

Feral Goats*	
Status	●
No. of inspections	21
Hunter days complete	195
Area hunted (ha)	16,327
Controlled	422

Wallabies**	
Status	●
Area searched (ha)	14,264
Dog surveillance (km)	20
Cameras deployed	141
Wallabies controlled	745

* sub-regional split

part of national programme

Marine

	Asian paddle crab	Clubbed tunicate	Mediterranean fanworm
Status	●	●	●
Number of inspections or nets set	695	3,039	
Number of infestations controlled 2022/23	190	2	13
Number of infestations compared to 2021/22	164	1	-7

Freshwater fish

	Brown bullhead catfish*	Rudd*	Tench*
Status	●	●	●
Inspections or nets set	2,253 nets	302 inspections	
Pests controlled	10,980	0	
CPUE 2021/22	6.25	N/A	
CPUE 2022/23	4.87	N/A	
Difference in CPUE	-1.38	N/A	

CPUE = Catch Per Unit

PROGRESSIVE CONTAINMENT - COMPLIANCE

Freshwater plants

	Status	Dive surveillance hours	Surveillance area (ha)	Area controlled (ha)
Egeria*	●	41	408	79.4
Hornwort*	●	8	157	78.4
Lagarosiphon*	●	154	980	136.03

Key highlights - compliance

Number of species in category	14
Number of properties (plants only)	617
Number of inspections (plants only)	1,698
Area searched	38,735.4 ha
% of programme decreased compared to 2021/22 (plants only)	82%
% of programmes on-track (13 of 14)	93%

Plants

	Status	Sites (properties)	Inspections	Area searched (ha)	Pest cover 2022/23 (m ²)	Pest cover change from 2021/22 (m ²)
Apple of sodom	●	10	6	336.4	229.9	184.9
Boneseed	●	154	129	1,409.0	1,959.9	-117.4
Climbing spindleberry*	●	73	86	346.4	24,400.4	-9,417.2
Darwin's barberry*	●	19	17	6,489.9	13,055.9	-625.6
Italian buckthorn*	●	1,013	413	850.1	49,062.8	-2,461.5
Lantana*	●	164	174	1,847.3	4,744.3	-928.6
Old man's beard*	●	114	103	281.9	21,922.3	-435.0
Variegated thistle	●	5	1	1	0	0.0
Wild kiwifruit	●	791	285	17,036.7	277,211.2	58,178.5
Wilding pines#	●	See page 22				
Woolly nightshade*	●	1,274	485	8,592.7	245,122.9	-53,507.8
		3,617	1,698	37,190.4	637,718	-9,130

* sub-regional split

part of national programme

Biocontrol Agents in the Bay of Plenty

Pest plant biocontrol involves introducing a natural enemy to control a pest plant.

Recent success stories in the region include:

Broom

Broom gall mite releases have been focused around Rotorua and eastern areas of the region. There has been good success with sites out in Galatea along riverbeds where large broom infestations are present along exposed river banks.



Galling on broom bush



Close up view of galling on broom

Californian thistle

The Green thistle beetle creates windows in the leaf of the thistle to slow photosynthesis. This agent produces better results in the warmer parts of the region to date but like many agents it takes time to establish.



Distinct green thistle beetle windowing on thistle leaf



Green thistle beetle

Tradescantia

Positive results with leaf and stem beetle along with the yellow leaf fungi.

As part of the summer student program, two large existing sites were harvested for both beetle species and dispersed to new locations around the region. At many sites the beetles had naturally dispersed widely.



Top: Tradescantia stem beetle damage



Middle: Tradescantia leaf beetle damage



Bottom: Tradescantia leaf fungi yellowing off the leaves.

Wilding pine management in the Bay of Plenty

Wilding pine projects continued across the Bay of Plenty in 2022/23. Supported by funding from the National Wilding Conifer Programme (NWCCP) 15,196 hectares were cleared in the upper Rangitāiki area, including the most badly infested area in the Otangimoana Conservation Area.

The NWCCP is a collaborative programme, managed by the Ministry of Primary Industries (MPI), which includes Councils, DOC and various Community Groups and mana whenua partners.

The Bay of Plenty also has two wilding pine projects in Rotorua that were funded through MPI's Community Partnership Project fund. The Mount Tarawera project cleared *Pinus contorta* over 416 hectares by ground control. A group in Kaharoa controlled *Pinus radiata* by helicopter over 34 hectares.

Council has also continued its work with Iwi contractors in the East Coast area to gather surveillance data to establish the extent of the infestations in these areas, and to deliver wilding pine control work in localised high priority areas.

Right: Otangimoana in the upper Rangitāiki area has some of worse wilding Pinus Contorta infestations in the region. Control work continued at this site in the 22/23 year.





The Rangitāiki National Wilding Conifer Control Programme Management Unit (yellow line) and areas where wilding pine control activities took place (blue polygons).



Wilding pine control using the “drill and fill” method. These wilding pines were controlled as part of Council work with Iwi contractors in the East Coast area.

National Wilding Pine Control Programme, Bay of Plenty 2022/23

Area	Project Type	Land cleared of wilding pines	BOPRC funding	External funding	Total Funding
Upper Rangitāiki	National Wilding Conifer Control Programme Management Unit	15,196 ha	\$20,000	\$239,952	\$259,952
Mount Tarawera	MPI Community Partnerships Project	416 ha	\$24,090	\$125,000	\$149,090
Kaharoa	MPI Community Partnerships Project	34 ha	NA	\$22,400	\$22,400
Totals		15,646	\$44,090	\$387,352	\$431,442

Sustained control

Sustained Control pests are pests that are well established in the region, Councils role is largely focussed on reducing the impacts across boundaries. Council also has a role in managing these pests in 'strategic areas' where the investment will lead to meaningful results.

RPMP classification	Sustained control
Objective	Over the duration of this RPMP, reduce the impacts to production, environmental and public values by controlling Sustained Control pests in the Bay of Plenty, and preventing unreasonable impacts from these pests spreading across property boundaries where neighbouring occupiers are actively managing the pest.
Outcome	<ul style="list-style-type: none">Impacts of these pests are managed to an acceptable level.The spread of these pests across boundaries are managed.Strategic investment in areas where it will support meaningful outcomes.

Sustained Control pests are largely managed in response to a complaint from a compliant adjoining landowner, who wants to prevent the spread of the pest from neighbouring properties. In this case Council will provide written direction to control the pest. The amount of complaints largely determines the amount of operational effort for these species.

Council also have the option to require occupiers to control Sustained Control pests and does this when it is part of a strategic programme of work or collaborative programme.

Key highlights

Number of species in category	41
Programmes in category	36
% of programmes on-track	100%

Examples of strategic or collaborative programmes include:

- The management of Wild ginger and Woolly nightshade around the East Coast utilising iwi contractors working in the Te Whanau Apanui rohe.
- The control of Wild ginger along the Kaimai Mamaku Forest Park buffer to prevent invasion into the Forest Park.
- The strategic management of Woolly nightshade at a number of sites to prevent further expansion of the pest range.
- The management of Rule 5a species in the area surrounding Ōhope Scenic Reserve to support the efforts of local community groups.

The table provided shows operational effort undertaken on Sustained Control pests is 2022/23.

Plants

	Status	Number of properties	Number of inspections	Area searched (ha)	Number of notice of directions to control
Blackberry	●	49	14	25.1	3
Climbing asparagus	●	28	2	12.9	0
Climbing spindleberry	●	139	36	4,033.2	0
Gorse	●	102	11	76.3	0
Lantana	●	155	16	8.3	0
Old man's beard	●	55	12	149.6	0
Wild ginger	●	517	549	7,126.9	0
Woolly nightshade	●	643	768	1,736.1	1
		1,688	1,408	13,168.4	4



No enquiries or complaints were received for a number of pests therefore no operational activity was undertaken, these programmes are considered on-track.

No operational work for:	Status
African club moss, Banana passionfruit, Cape ivy, Cathedral bells, Chilean rhubarb, Chinese windmill palm, Chocolate vine, Coastal banksia, Cotoneaster, English ivy, Himalayan fairy grass, Male fern, Mile-a-minute, Mistflower, Monkey apple, Moth plant, Palm gras, Periwinkle, Phoenix palm (self-propagated), Ragwort, Reed sweet grass, Rough horsetail, Royal fern, Strawberry dogwood, Sydney golden wattle, Taiwan cherry.	●

Freshwater Plants

	Status	Dive surveillance hours	Surveillance area (ha)	Area controlled (ha)
Elodea	●	114	980	37.8

Working with our Communities

Working with communities to achieve biosecurity outcomes is a key part of the biosecurity programme. In 2022/23 Council's partnerships with 'people at place' continued to deliver great results across the Bay of Plenty region.

East Cape Iwi-led pest plant programme

On the East Coast, Council is working with iwi contractors to control a range of pest plants that are present within the Te Whānau ā Apanui rohe.

In 2022/23, the programme worked with landowners on 17 properties to control pest plants. The focus continues to be on wild ginger which is a serious environment weed due to the large amount of seed it creates that are eaten and spread by birds, and its ability to grow in the shade.

Other high priority pest plants also being managed by the programme include woolly nightshade, wilding pines, horse nettle, apple of sodom, and wild kiwifruit.



Local iwi contractors helping to plan and deliver Council's pest plant programme on the East Coast.



***Above:** A wild ginger control site. Wild ginger is a focus of the pest plant programme on the East Coast due to the threat it poses to the Raukumara forest.*



***Left:** This large wild kiwifruit vine at Te Kaha was located and controlled by the local iwi contractors working with Council.*

Ōhiwa Headland Sanctuary Trust

The Ōhiwa Headland Sanctuary Trust (OHST) is a community-led initiative that is inspiring the locals to actively restore the natural character of the Ōhiwa headland in order to create a sanctuary for native flora and fauna to thrive.

The Ōhiwa headland is an area of rich biodiversity values and unique ecosystems. Sites within the headland are already recognised as having Outstanding Ecological Values.

In 2022/23, Council began working with OHST, adding pest plant control to the impressive work programme they had already established carrying out predator control and restoration work over an area of 400 hectares.

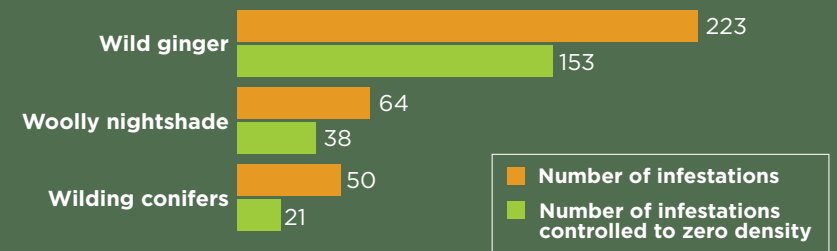
The Trust has huge support from their small, local community with almost all properties in the area signed up to the programme. These established relationships between landowners and OHST have allowed big gains in pest plant management to be made in a short period of time.



Pest plant distribution across the Ōhiwa Headland Sanctuary operational area.



The view from Onekawa Pā overlooking the Ōhiwa Harbour and part of the Ōhiwa Headland Sanctuary Trust area where pest control is being undertaken.



Public support for pest plant management

Providing public pest plant advice

Over 1,200 landowners directly contacted re pest plant management.

Mail outs, inspections, advice on pest identification, advice on best practice control, distributing herbicide kits, mapping of pest plants.



- Woolly nightshade 298
- Wild ginger 278
- Evergreen buckthorn 259
- Aquatic pest plant 220
- Other RPMP pest plants 125
- Yellow Flag iris 87



Woolly Wipeout

A specific and targeted Woolly nightshade summer education campaign was run this year (Nov-Feb) promoting the identification and control of woolly nightshade around targeted hotspots across the region.

A wide range of both urban and rural properties benefited from the kits where the student talked about the pest plant and gave demonstrations on how to control Woolly nightshade.



Summer student Daniel Weiss demonstrating control.

Woolly Nightshade Wipeout!

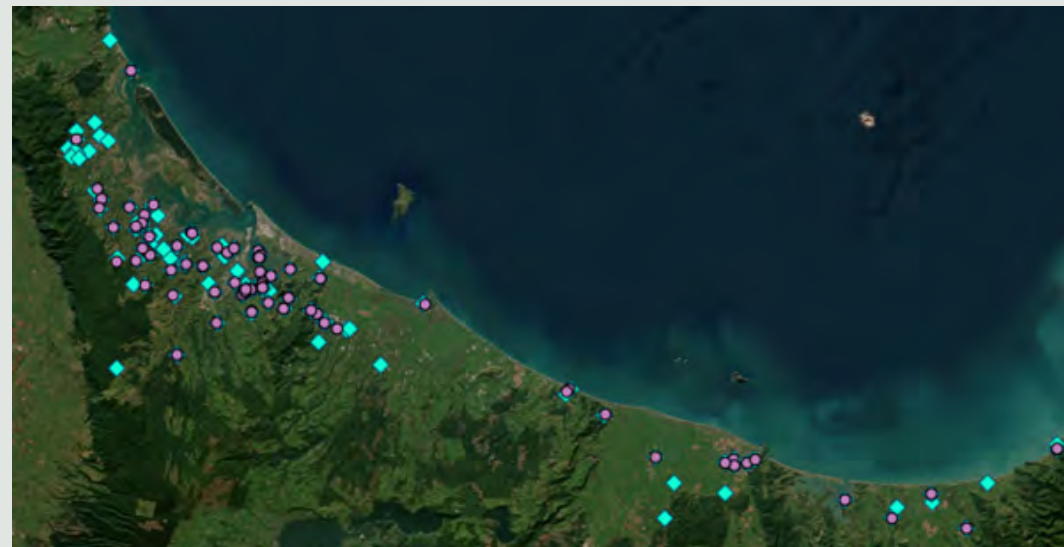


Bay of Plenty Regional Council is running a promotion this summer to encourage people to control Woolly nightshade in specific areas of the rohe (region). Woolly nightshade is an aggressive and fast-growing pest plant that can quickly take over an area. It's vigorous growing habit means that seedlings that establish in one summer can start producing seeds by the autumn, and seeds that fall to the ground can remain dormant in the soil and germinate up to 20 - 30 years later.




If you have Woolly nightshade on your property, call our Customer Services team on **0800 884 880** or fill in an enquiry form online and quote **'woolly wipeout'**.

We can give advice on how to control it, provide a practical demonstration and / or supply you with a woolly wipeout control pack to get you started.

For more information visit: www.boprc.govt.nz/wipeout

The Wipeout woolly nightshade page on the website was viewed 1,558 times and 146 properties were visited as part of the summer woolly wipe out campaign November 2022-February 2023.

Bay of Plenty R... Fri 11/18/2022 2:20 pm...		Bay of Plenty R... Sun 11/13/2022 3:47 p...		Bay of Plenty R... Sun 11/13/2022 3:47 p...	
Do you live in a woolly nightshade hotspot? Find out more about this nasty weed...		Got Woolly nightshade on your property? Get in touch to: 1. Get a demo on how to contr...			
					
Total Engagements		Total Engagements		Total Engagements	
2,031		1,672		1,645	
Reactions		Reactions		Reactions	
59		191		187	
Comments		Comments		Comments	
59		72		71	
Shares		Shares		Shares	
17		35		35	

Facebook posts supporting Wipeout woolly nightshade



Results of Woolly nightshade aerial drone spraying on 7,500 square metres following notification to landowner of RPMP non-compliance in Eastern Bay of Plenty



Part 3: Non-RPMP reporting

Advisory pest species

Advisory pest

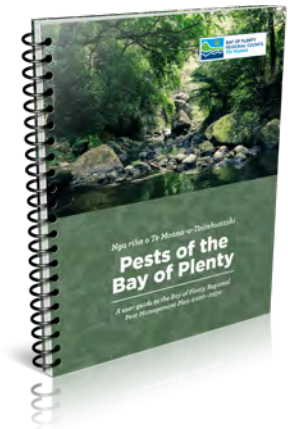
Objective

Support the efforts of landowners/occupiers and communities to manage established pests and prevent pest spread.

There are 68 advisory species that sit outside of the RPMP but that Council supports through education and advice.

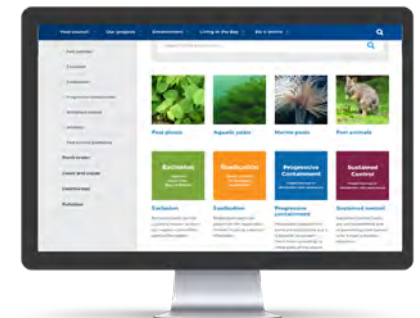
Regional Pest Management User Guide

Over 500 copies of the user guide have been distributed including to care groups, partner agency contacts, contractors, and the public. The user guide is in the process of being updated to reflect the minor amendments made to the RPMP on 4 May 2023.



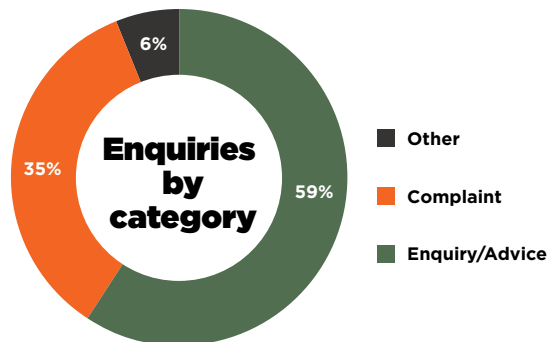
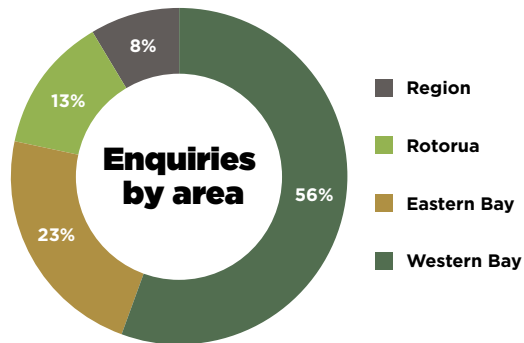
Pesthub

In 2022/23 the website had 91,248 page views of which 77,377 (85%) were pages containing detailed, species-related content. The 130% increase in total webpage views for Biosecurity can be attributed to a significant increase in website visitors conducting 'self-help' information searches.

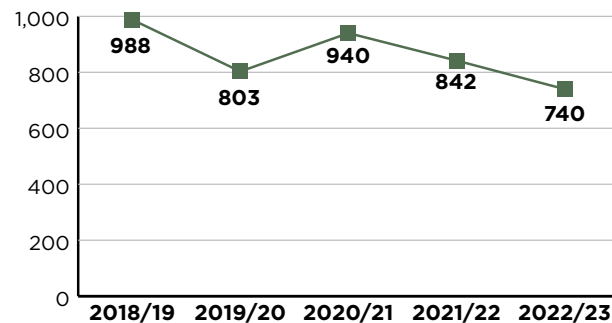


Public enquiries 2022/23

740 total

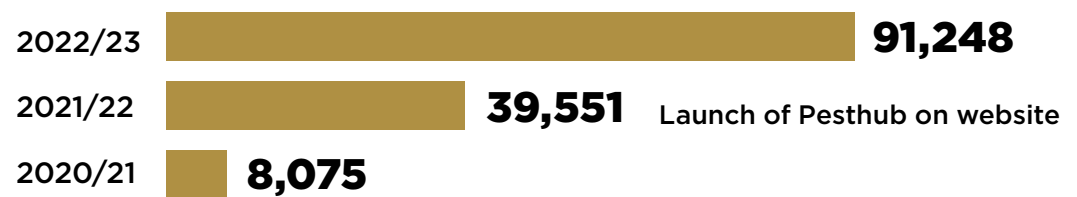


Enquiries by year



Website

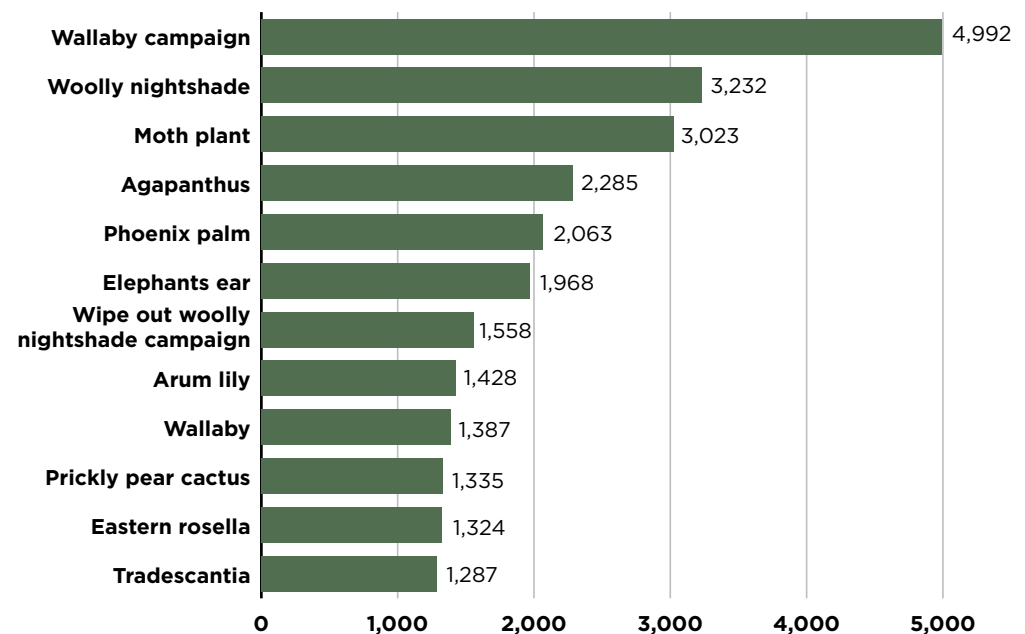
Total website views



Website page views increased to by 131%, primarily driven by increased visitors to pest plant and pest animal species pages.

Pest plant species page views jumped from 29,207 to 58,501 (190%), highlighting the value that Pesthub provides as a self-help tool for the public to identify, control, and be aware of the relevant rules for the pests listed in the RPMP.

Top individual website page views 2022/23



2022/23 Communications activity summary

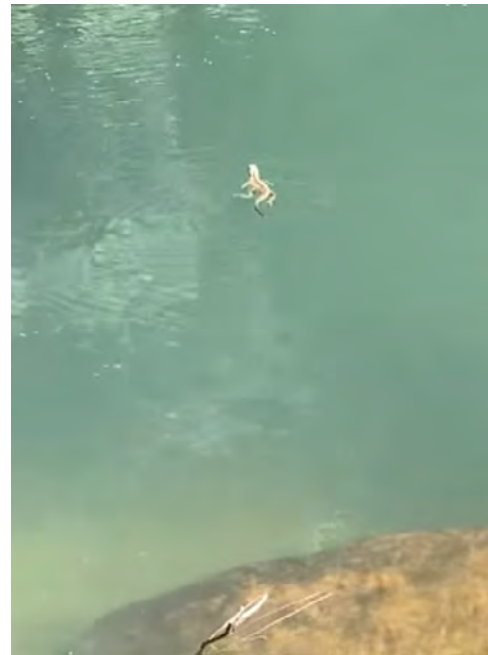
Communications remains a high priority for building awareness of biosecurity issues, providing education and supporting compliance. Key communications highlights include:

Building the social media profile of Biosecurity

55 published posts

Top three posts for the year:

- Eastern water dragon reported sighting around Whakatāne (Feb 2023)
- Potential Lorikeet sighting (Jan 2023)
- Advising the public not to buy Windmill fan palms on Facebook (Oct 2022)



Post insights


There has been a reported sighting of an Eastern water dragon out in the East, around White Pine Bush and the...

Published by Melissa Williams · 27 February ·

Post impressions	Post reach	Post engagement
970,335	939,404	626,331

Bay of Plenty R...
Tue 1/24/2023 4:58 pm...


****UPDATED**** It's great that so many of you have taken an interest in this post. We hav...



Total Engagements	3,192
Reactions	116
Comments	171
Shares	23
Post Link Clicks	1
Other Post Clicks	2,881

Bay of Plenty R...
Tue 10/25/2022 3:02 pm...

We know people love their trop Bay and there are always a wic for sale on Facebook particular




Total Engagements	2,196
Reactions	108
Comments	48
Shares	33
Post Link Clicks	122
Other Post Clicks	1,885

Bay of Plenty Regional Council
Published by Nicki Sunderland · 26 August ·


UPDATE - a huge well done to all of you who worked it out that ALL of the pests are named in the Bay of Plenty Regional Pest Management Plan. **Congratulations** to Michelle Davies whose name was randomly drawn from all correct entries to win the prize pack. 🎉🎉🎉

Which of these four is NOT a pest plant named in the Bay of Plenty Regional Council Pest Management Plan? Answer below and go in the draw to win a Biosecurity prize pack! Good luck!


Hint: <https://www.boprc.govt.nz/envi...> See more




**Banana
Passionfruit**



Taiwan cherry



**Darwin's
Barberry**



Lantana

Bay of Plenty R...
Fri 11/18/2022 2:20 pm ...


Do you live in a woolly nightshade hotspot? Find out more about this nasty weed...



Total Engagements	2,031
Reactions	59
Comments	59

Bay of Plenty R...
Sun 11/13/2022 3:47 p...

Got Woolly nightshade on your property? Get in touch to: 1. Get a demo on how to contr...



Total Engagements	1,672
Reactions	191
Comments	72

Bay of Plenty R...
Sun 11/13/2022 3:47 p...



Total Engagements	1,645
Reactions	187
Comments	71

Woolly Nightshade Wipeout!

Bay of Plenty Regional Council is running a promotion this summer to encourage property owners to control Woolly nightshade in specific areas of the rohe (region). Woolly nightshade is an aggressive and fast-growing pest plant that can quickly take over an area. Its vigorous growing habit means that seedlings that establish in one summer can start producing seeds by the autumn, and seeds that fall to the ground can continue to germinate for several years.

If you have Woolly nightshade on your property, call our Customer Services team on **0800 884 880** or fill in an enquiry form online and quote 'woolly wipeout'.

We can give advice on how to control it, provide a practical demonstration and / or supply you with a woolly wipeout control pack to get you started.

For more information visit: www.boprc.govt.nz/wipeout



Where's wallaby?

Regional Council continues to support the Wallaby National Eradication Programme both operationally and as the lead for communications in the Central North Island. National and regional media interest continues and the placement of ten new road signs around the rohe has helped keep public awareness high and the number of reported sightings continues to grow year on year.



New road sign at Rerewhakaaitu Road



Biosecurity Officer Dale Williams being interviewed in front of the wallaby-proof fence by Ben Hurley from Seven Sharp.



Newly branded Wallaby ute to encourage people to report wallaby sightings.



A digital awareness campaign ran from mid-May to end June 2023 targeting people across the Bay of Plenty and Waikato. The three different ads were 'played' 1.4M times and resulted in 4,118 clicks through to the website – achieving benchmarks well above social media industry averages.

Check, clean, dry, certify summer campaign

The annual Check, Clean, Dry, Certify summer campaign was implemented to support the work of the summer advocacy programme and self-certification boat ramp checks conducted by TALT staff. Advertising from December to April included a mix of print, radio and digital advertising.

Be a waterway hero this summer

Do your bit to help ensure that the lakes and waterways that we all love remain pest-free. Check, clean, dry and certify every time you move between waterways.

Biosecurity rules apply to anyone using the public boat ramps around the Rotorua Te Arawa Lakes area.

If you use a boat ramp you need to certify that your vessel (boat, jetski) and trailer are free from freshwater pest fish and plants.

Checkpoints with self-certification boxes that contain the forms have been set up at all key boat ramps. Before heading out on the water you must complete the form, sign it and display it on the dashboard of the car towing the trailer.

Find out more at:
www.boprc.govt.nz/check-clean-dry

WATCH OUT! FRESHWATER PESTS



CHECK

CLEAN

DRY

CERTIFY

BETWEEN WATERWAYS





NZ Biosecurity Awards

The annual national awards recognise Biosecurity champions in nine separate categories. There were three Toi Moana Biosecurity finalists for the 2022 awards including:

- Ruawāhia Mount Tarawera Wilding Pine Control Group – Māori Award
- GeoPest (Sam Stephens / Juliet O'Connell) – Innovation Award
- Juliet O'Connell – Emerging Leader Award

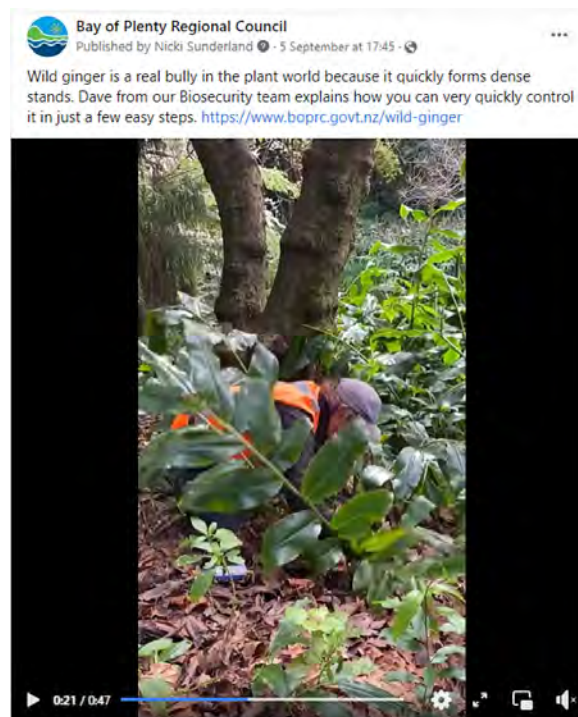


'How to' videos

A range of videos were produced and shared on Facebook, Instagram and TikTok advising people how to control a range of pest plants including Wild ginger, Woolly nightshade, Moth plant and Privet. Despite being fairly long for social media, all of the videos performed exceptionally well.



Total Engagements	1,346
Reactions	89
Comments	80



National Interest Pest programmes in the region managed by other agencies

Council support a number of programmes that manage species outside the RPMP. These programmes are outlined below:

Velvetleaf	
No of sites	1
No of sites discovered in 2022/23	0
No of sites at zero density	1
Velvetleaf was first discovered in New Zealand approximately 15 years ago and was thought to have been introduced into the county through contaminated fodder beet seeds.	
The only site in the region, near Pongakawa, has been at zero density since 2019. Velvetleaf seeds can last for 50 years, the site will need to remain at zero density until 2030 before it can be declared eradicated.	

National Interest Pest Response programme

Nine harmful pest plant species are managed under the NIPR programme, which is managed by the Ministry of Primary Industries through Biosecurity New Zealand. These species have been identified as they are not well established in New Zealand, and they could have devastating impacts on the economy, environment as well as social and cultural values.

Here's the number of active sites currently managed in the Bay of Plenty:

	Cape tulip	Johnson grass	Salvinia	Water hyacinth
Plants present	1	0	1	0
Zero Density	1	0	3	2
TOTAL	2	0	4	2

One of the Salvinia sites is a new site in the region, near Waihi Beach, and was discovered by a Bay of Plenty Regional Council Biosecurity officer. Another Salvinia site was reported to the Ministry for Primary industries but was found not to be Salvinia, that report is not included in the stats above.

Below are the statistics for the NIPR sites currently being managed across New Zealand:

Cape tulip	Johnson grass	Salvinia	Water hyacinth	Salvinia & Water hyacinth
26	1	31	83	4

The Ministry for Primary industries ran an awareness campaign from 20th of June to 9th of August 2023 on social media to raise awareness and identify new sites. The campaign reached over 230,000 people and generated over 18,000 link clicks.

As a result, they received 11 notifications of potential sites linked to the campaign and identified 13 new positive sites for the NIPR programme, five Salvinia and eight water hyacinth. None of the new sites were in the Bay of Plenty region.

National Pest Plant accord (NPPA)

The NPPA is an agreement to prevent the sale and/or distribution of a specified list of pest plants where casual or formal trade is a potentially significant cause of spread for the species.

Currently there are 235 plants on the NPPA list, Council supports the programme by undertaking surveillance at 'points of sale' including nurseries, stores, markets, roadside stalls and more recently florists. During the year, a number of NPPA plants were found for sale, in some instances it was pampas grass being used by florists for floral arrangements. In all cases the plants were removed and destroyed.

Number of inspections in 2022/23	166
Number times NPPA plants were found for sale	17
Number of RPMP plants found for sale	23

The increase in the number of RPMP plants found can be attributed to the development of Sustained control Rule 5A species. Of the 23 instances where RPMP species were found, 22 were either Coastal banksia (*Banksia integrifolia*) or Chinese windmill palm (*Trachycarpus fortunei*). More communication around Rule 5A species will occur in 2023/24.



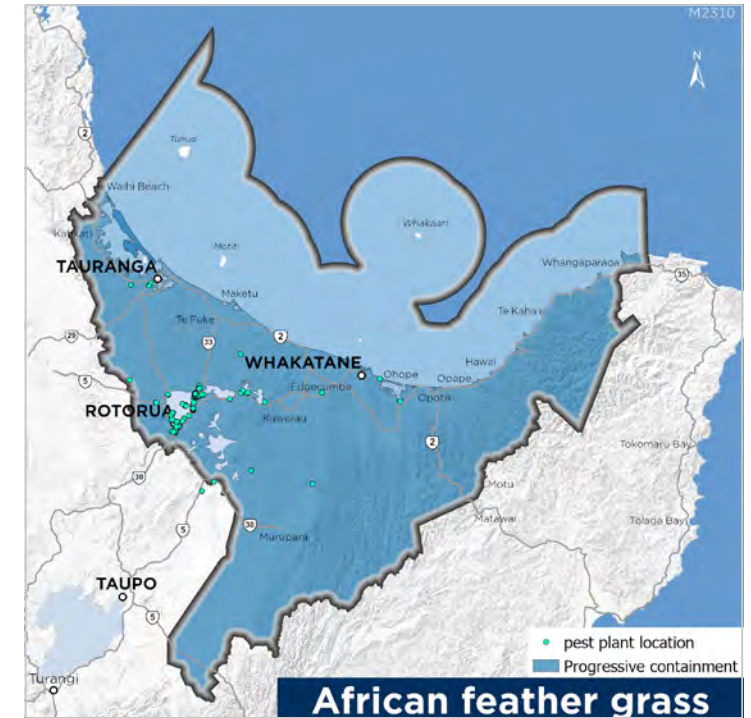
Part 4: Species reporting

African feather grass

Cenchrus macrourus

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

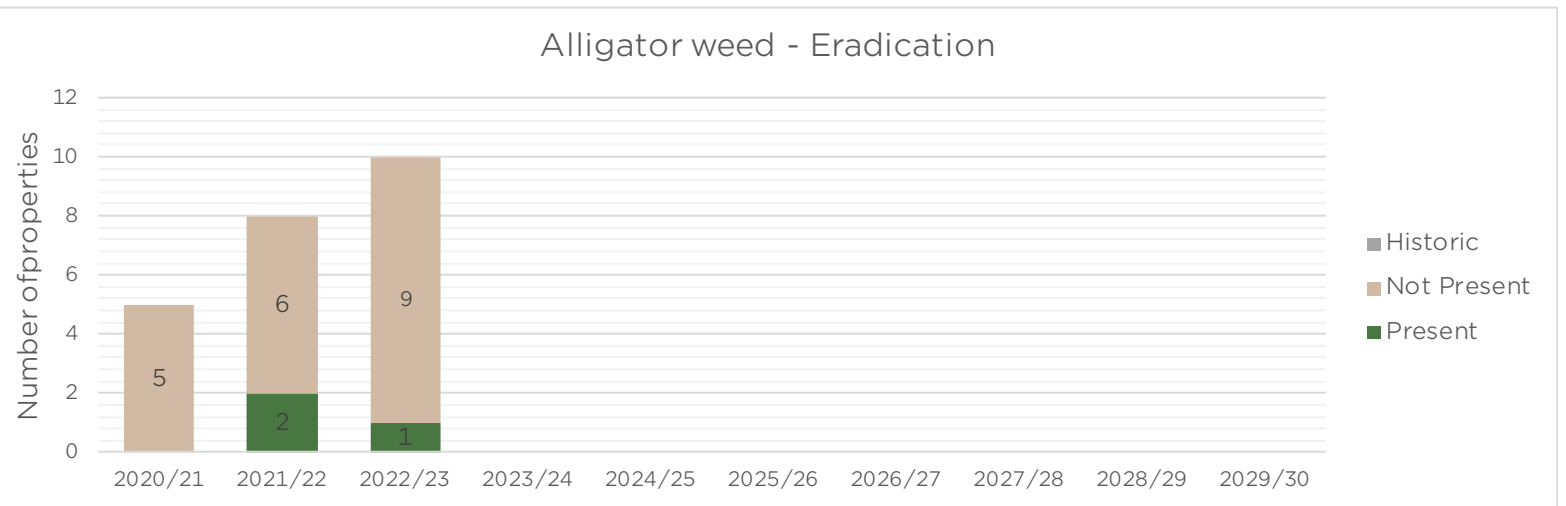
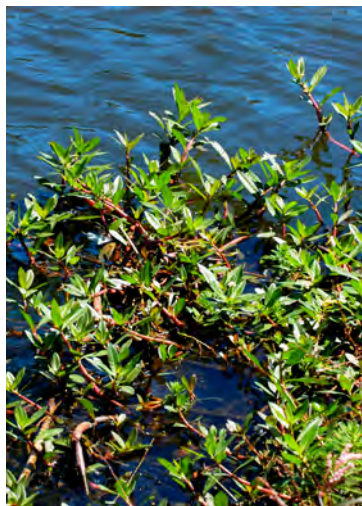
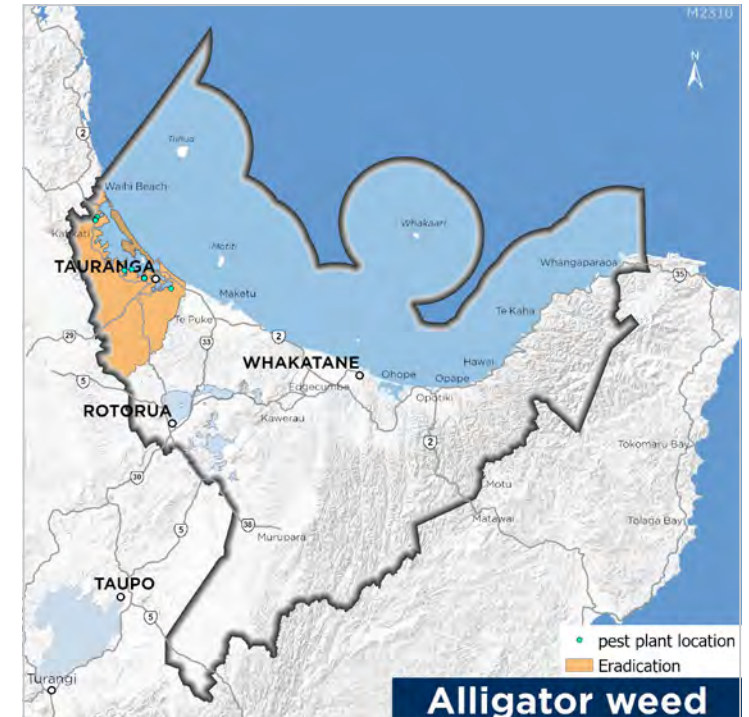
Programme summary	Results
Number of inspections completed	75 inspections completed
Number of properties plant is managed	81 properties
Plant cover	69.0m ²
Comments	<ul style="list-style-type: none"> Majority of sites around the Rotorua Catchments, most sites contain a small number of plants. All plants found were controlled.
2022/2023 expenditure	\$23,211.04



Alligator weed *Alternanthera philoxeroides*

RPMP classification	Catchments	Programme status
Eradication	Tauranga Harbour.	●

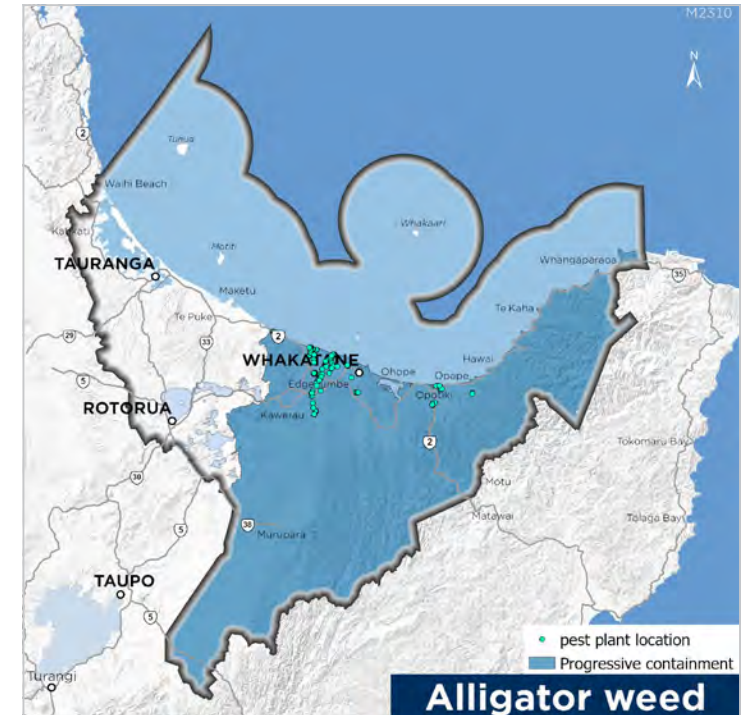
Programme summary	Results
Number of inspections completed	88 inspections completed
Number of properties plant is managed	10 properties
Plant cover	361.8m ²
Comments	<ul style="list-style-type: none"> Plants at low numbers and only active at two sites. Deep ripping trial of site at Tuapiro has not found any Alligator weed. One large patch found at a known site which increased pest cover compared to previous year.
2022/2023 expenditure	\$39,205.70



Alligator weed *Alternanthera philoxeroides*

RPMP classification	Catchments	Programme status
Progressive containment	Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast.	●

Programme summary	Results
Number of inspections completed	180 inspections completed
Number of properties plant is managed	78 properties
Plant cover	20,743.6m ²
Comments	<ul style="list-style-type: none"> Research continues to identify best herbicide combination for use over water. New combination will be trialled in 2023/24 at a number of sites. Pest plant cover reduced slightly in 2022/23. Wider surveillance of high-risk sites found new sites.
2022/2023 expenditure	\$107,037.11

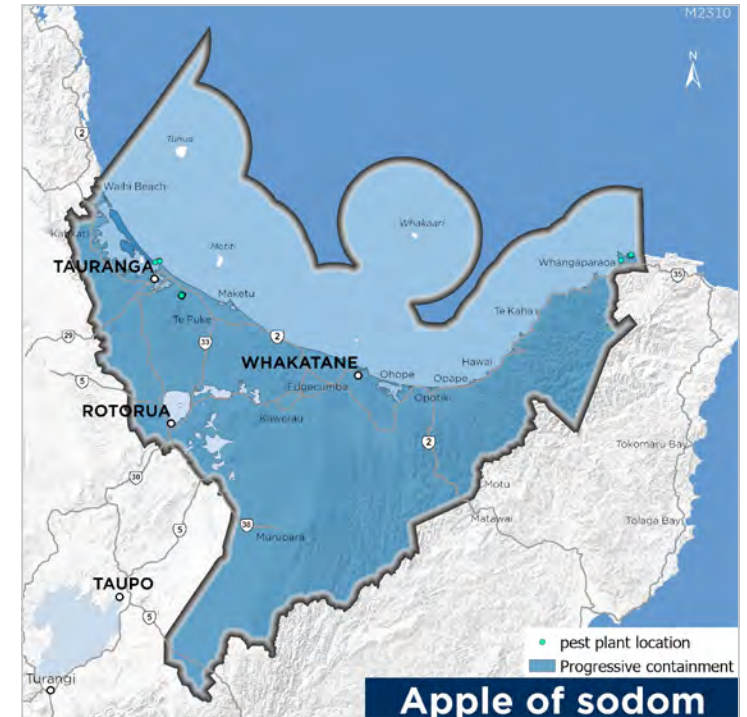


Apple of Sodom

Solanum linnaeanum

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of inspections completed	6 inspections completed
Number of properties plant is managed	10 properties
Plant cover	229.9m ²
Comments	<ul style="list-style-type: none"> • Confined to a small number of sites in Western Bay of Plenty and around Cape Runaway. • Plant cover outside East Cape is small. • Increased effort required to manage East Cape sites which led to increase in plant cover.
2022/2023 expenditure	\$9,938.83

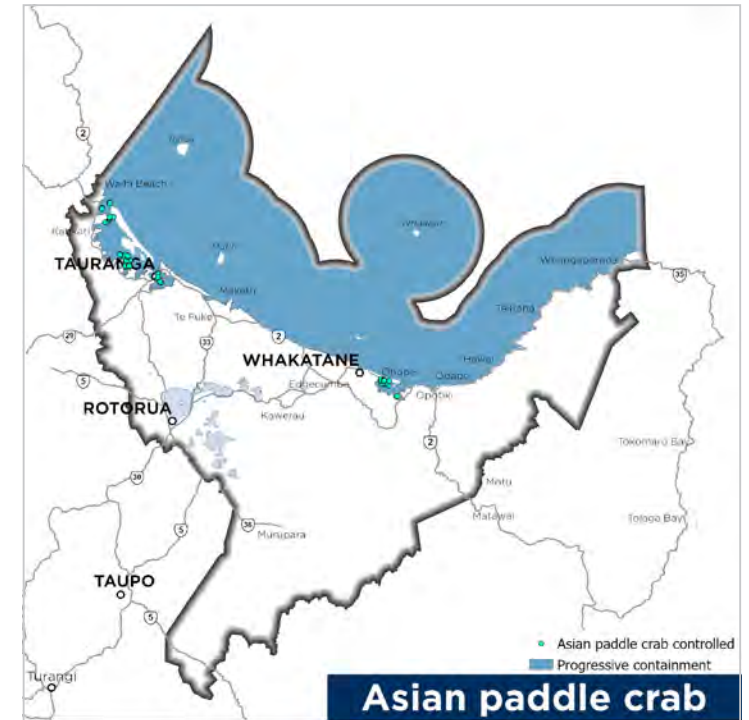


Asian paddle crab

Charybdis japonica

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of traps set	695
Number of crabs caught	190
Comments	<ul style="list-style-type: none"> All pests detected were controlled. Collaborative programme with Manaaki te Awanui continued to trap crabs in the Tauranga Harbour. Significant increase in number of crabs caught compared to previous year. Appear to be well established at known sites.
2022/2023 expenditure	\$108,032.89

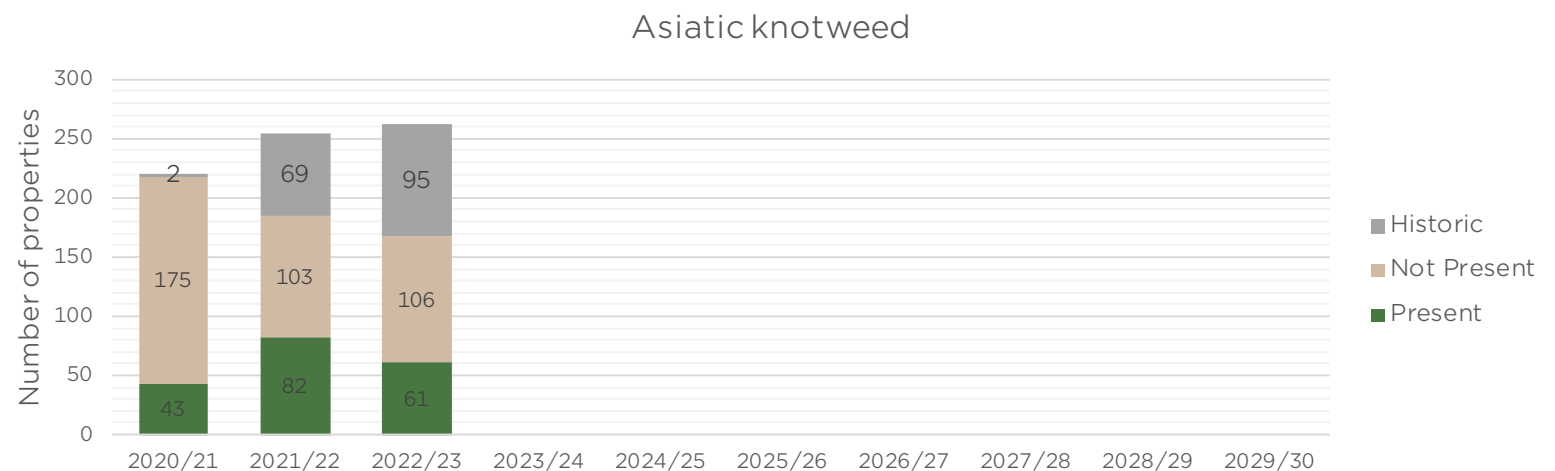
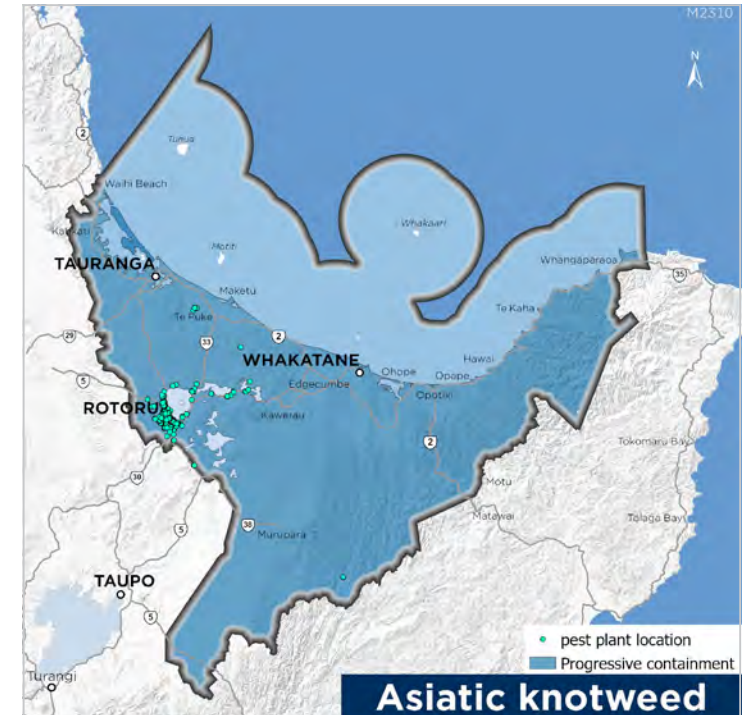


Asiatic knotweed

Fallopia japonica

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of inspections completed	202 inspections completed
Number of properties plant is managed	167 properties
Plant cover	438.4m ²
Comments	<ul style="list-style-type: none"> • Most sites are in the Rotorua Lakes Catchments. • Plant cover reduced significantly due to change in data capture methods and data refinement. • Challenges remain with subdivision and movement of potentially contaminated material.
2022/2023 expenditure	\$32,189.38

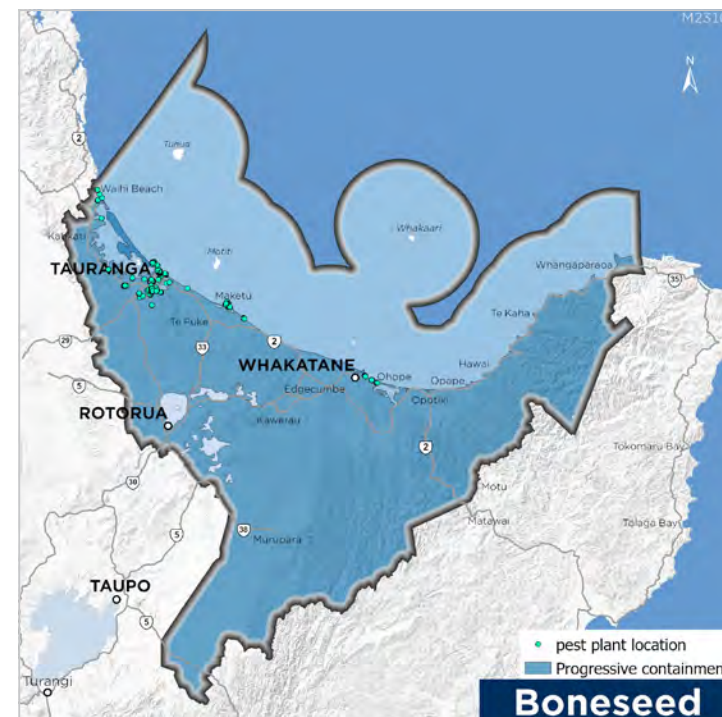


Boneseed

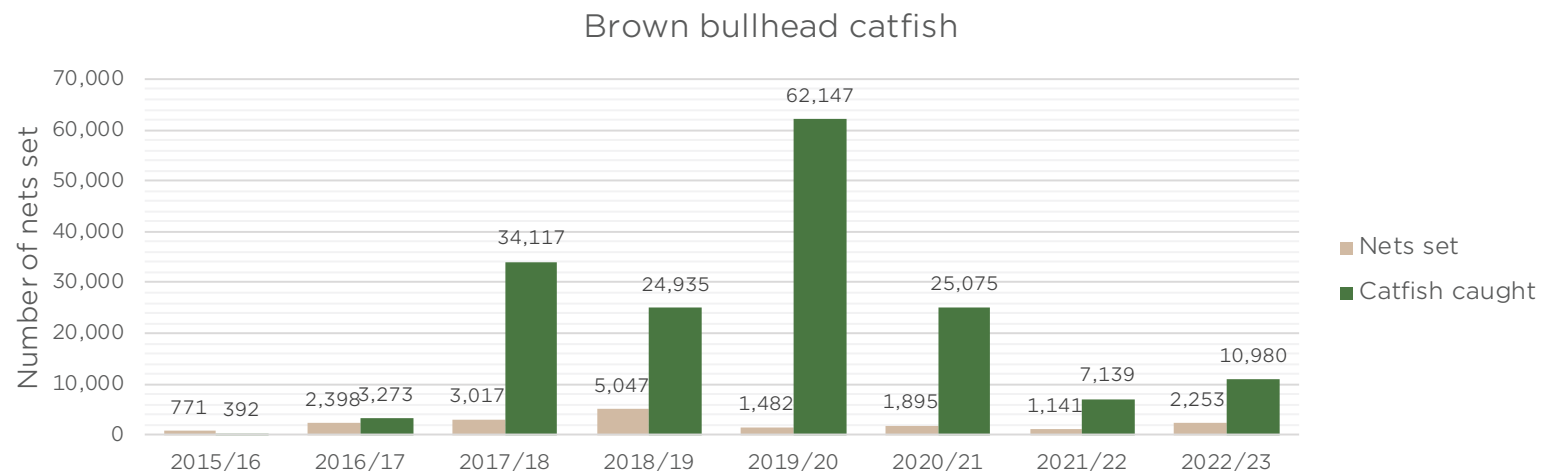
Chrysanthemoides monilifera ssp. monilifera

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of inspections completed	129 inspections completed
Number of properties plant is managed	154 properties
Plant cover	1,959.9m ²
Comments	<ul style="list-style-type: none"> Restricted to the coastal zone, predominately in the Tauranga Harbour catchment. Small reduction in plant cover compared to 2021/22. Some challenging coastal cliff sites require control at Maketu.
2022/2023 expenditure	\$13,734.22



Ameiurus nebulosus

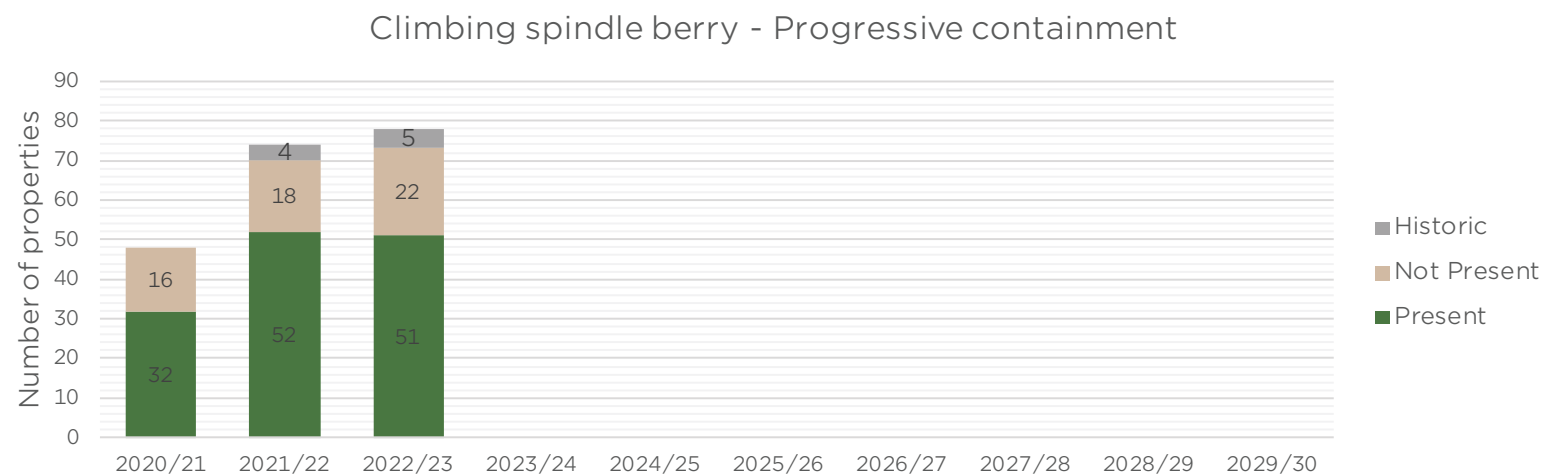
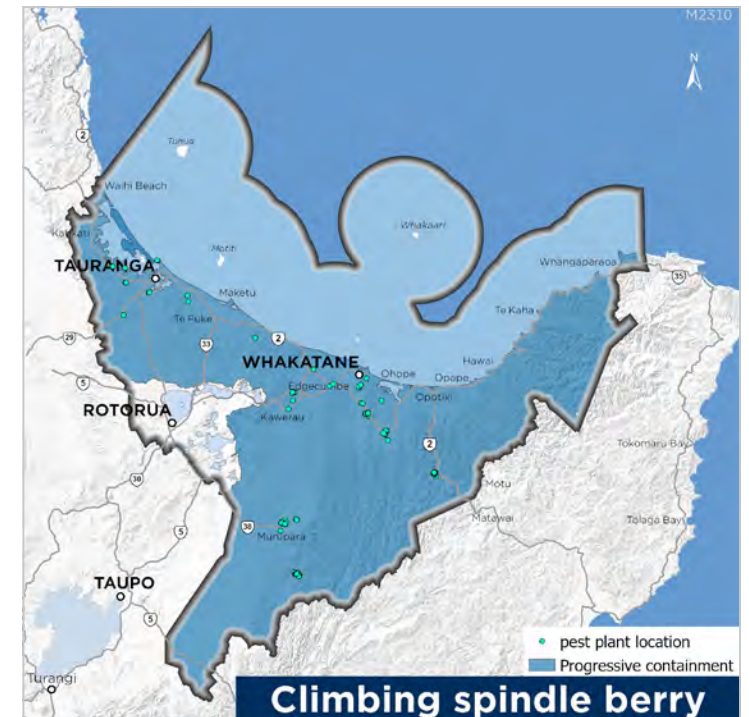
[illegible]

Climbing spindle berry

Celastrus orbiculatus

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour, Kaituna, Maketū and Pongakawa, Tarawera, Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast.	●

Programme summary	Results
Number of inspections completed	86 inspections completed
Number of properties plant is managed	73 properties
Plant cover	24,400.4m ²
Comments	<ul style="list-style-type: none"> Pest plant cover continues to reduce with ongoing control efforts. Distribution is reasonably scattered across the region.
2022/2023 expenditure	\$22,754.00

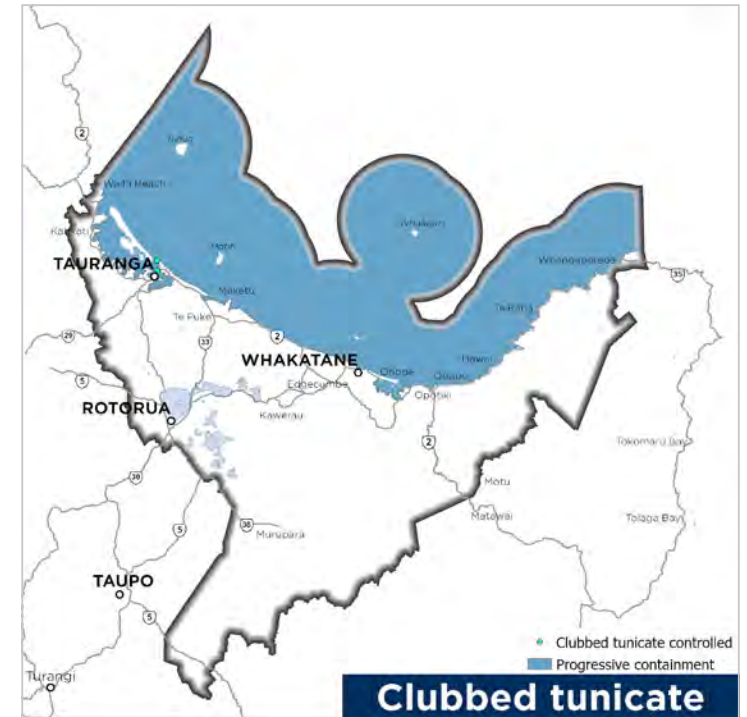


Clubbed tunicate

Styela clava

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of inspections completed	3,039
Number of sites where clubbed tunicate was detected in region	2 sites
Comments	<ul style="list-style-type: none"> • Small number of sites found. • Results continue to be positive as this species is easily transported through vessel movement from outside the region.
2022/2023 expenditure	<i>See Marine biosecurity expenditure table</i>

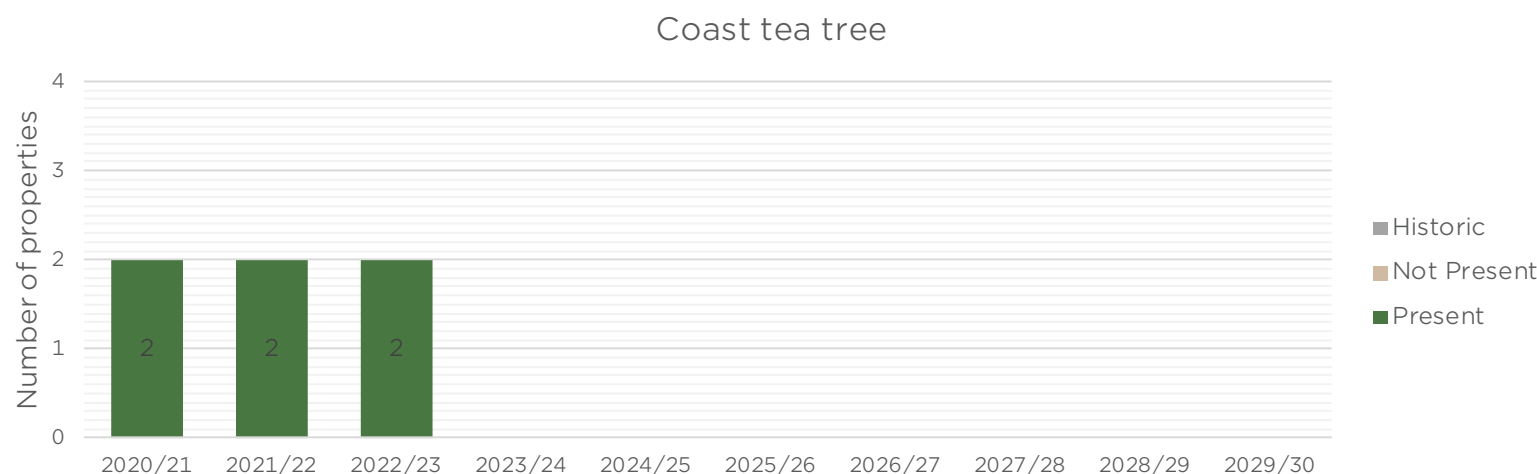
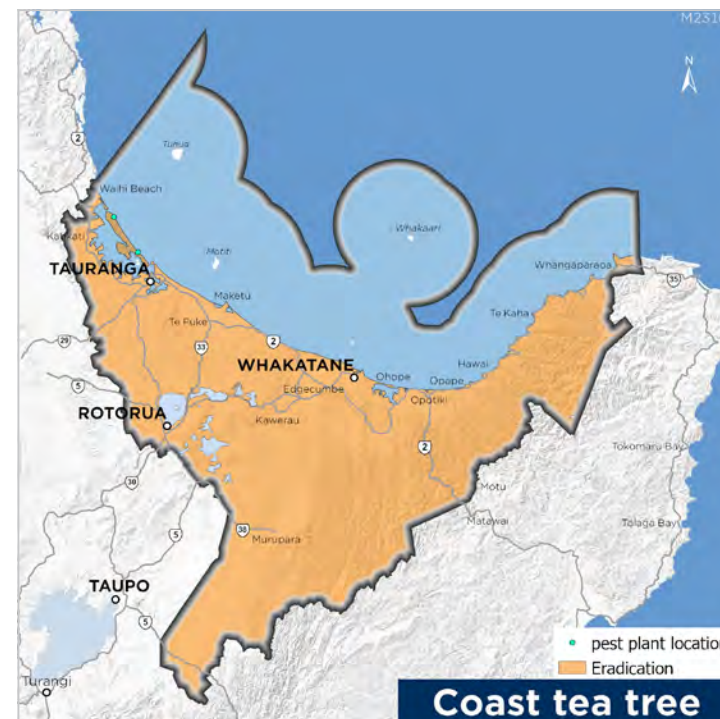


Coast tea tree

Leptospermum laevigatum

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	2 inspections completed
Number of properties plant is managed	2 properties
Plant cover	108,769.5m ²
Comments	<ul style="list-style-type: none"> Currently confined to Matakana Island. Good progress has been made in reducing distribution and density in recent years. Collaborative project with hapū based on Matakana Island
2022/2023 expenditure	\$28,416.14

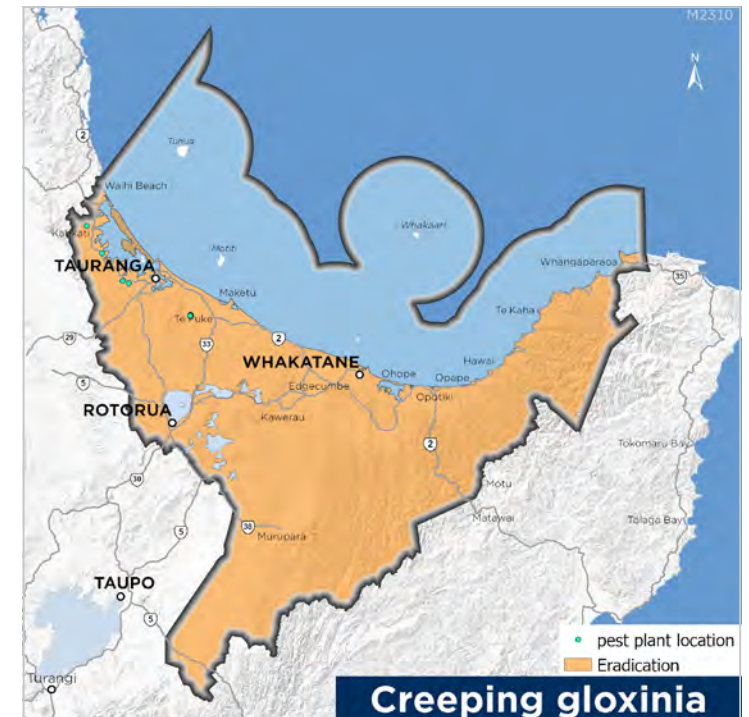


Creeping gloxinia

Lophospermum erubescens

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	24 inspections completed
Number of properties plant is managed	6 properties
Plant cover	672.8m ²
Comments	<ul style="list-style-type: none"> Challenges remain at some sites and there was a slight increase in plant cover but still considered on-track. Work being done to manage the sites and make the plant easier to find and control.
2022/2023 expenditure	\$19,808.62

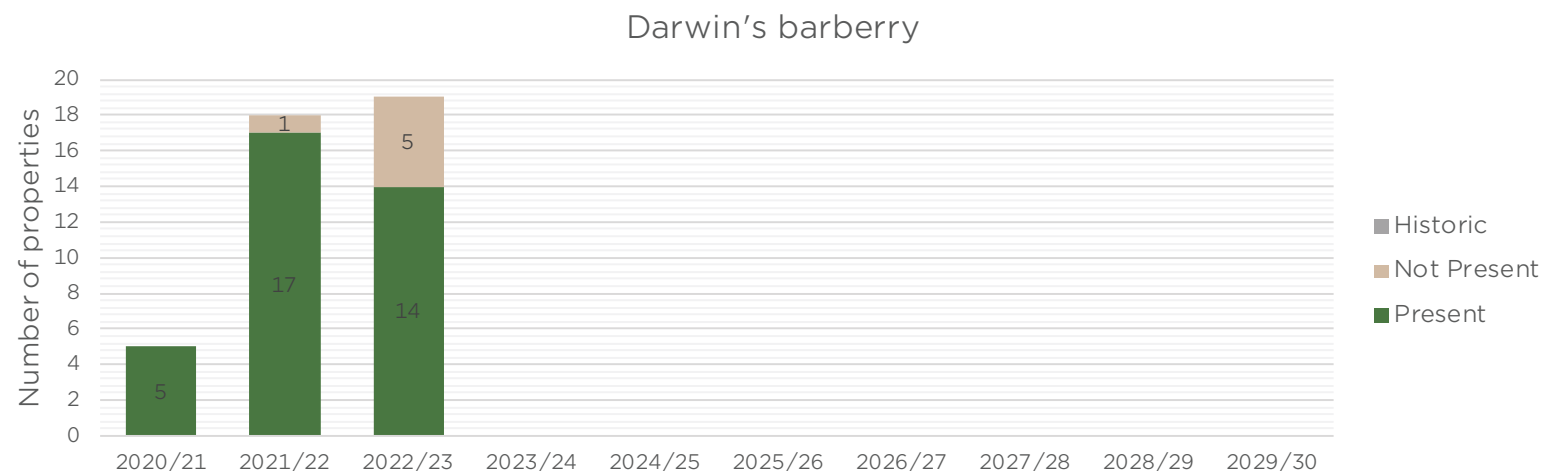
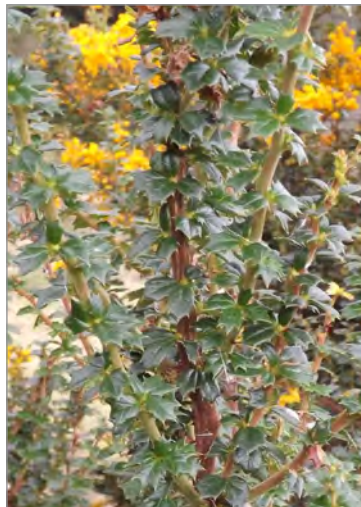
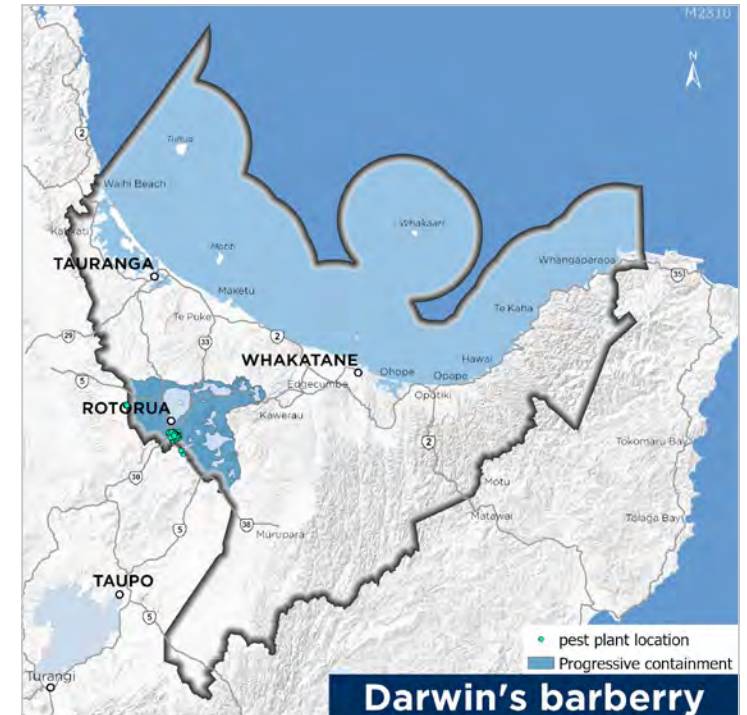


Darwin's barberry

Berberis darwinii

RPMP classification	Catchments	Programme status
Progressive containment	Rotorua Lakes	●

Programme summary	Results
Number of inspections completed	17 inspections completed
Number of properties plant is managed	19 properties
Plant cover	13,055.9m ²
Comments	<ul style="list-style-type: none"> No new sites found in 2022/23. Working closely with landowners to control known infestations, plant cover continues to reduce. Increased effort will be focussed on this species in the coming years.
2022/2023 expenditure	\$12,820.91

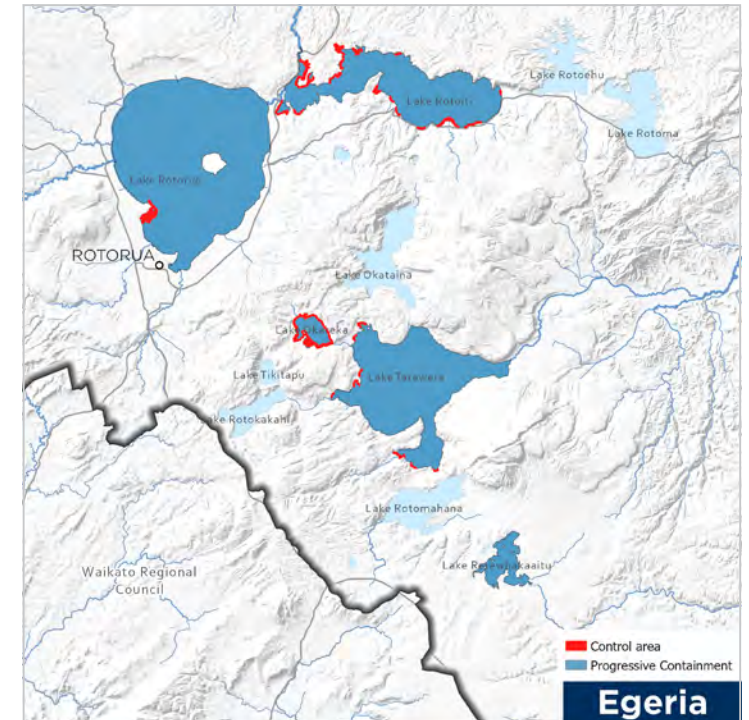


Egeria

Egeria densa

RPMP classification	Catchments	Programme status
Progressive containment	Lake Rotorua, Lake Rotoiti, Lake Ōkāreka, Lake Tarawera, Lake Rotomahana, Lake Rerewhakaaitu	●

Programme summary	Results
Surveillance and monitoring effort	41 hours
Number of Rotorua Lakes plant is present	6 of 12 lakes
Amount of lakebed sprayed	79.4ha
Comments	<ul style="list-style-type: none"> No infestations found in lakes where it is not known to be present. Spraying undertaken at key strategic sites.
2022/2023 expenditure	See <i>Freshwater aquatic plant expenditure table</i>



Feral goats

Capra hircus

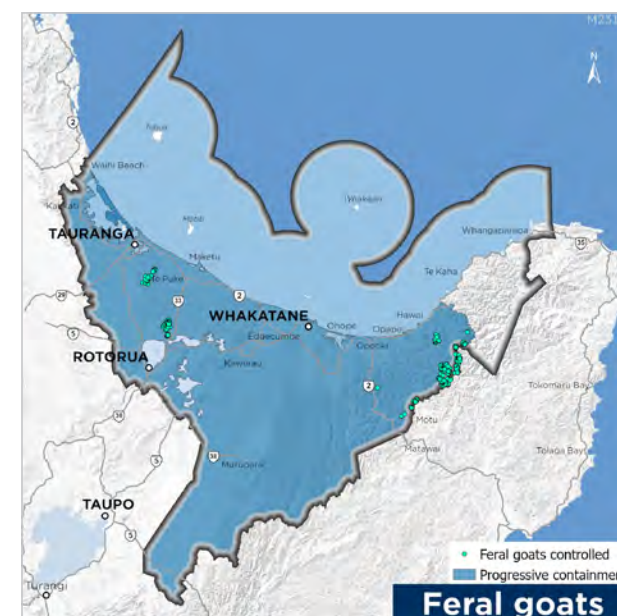
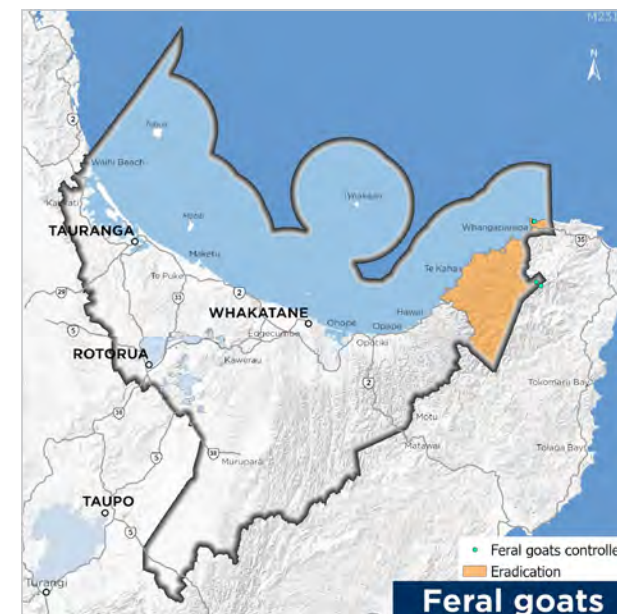
RPMP classification	Catchments	Programme status
Eradication	East of the Motu River	●
Progressive containment	West of the Motu River	●

Eradication:

Programme summary	Results
Area hunted (approximation)	2,888 ha
Number of goats controlled	2 goats
Comments	<ul style="list-style-type: none"> • Collaborative programme between BOPRC, DOC, Ngā Whenua Rāhui and Gisborne District Council. • New data capture and storage database under development. • 45 hunter days only produced two goats which is a good result.
2022/2023 expenditure	\$50,208.48

Progressive containment:

Programme summary	Results
Area hunted (approximation)	16,327 ha
Number of goats controlled	422 goats
Comments	<ul style="list-style-type: none"> • Collaborative programme between BOPRC, DOC, Ngā Whenua Rāhui and Gisborne District Council. • New data capture and storage database under development. • Effort was focussed on the Eradication boundary to prevent reinvasion, where 351 goats were controlled. • Control also completed at sites in Rotorua and in the Kaimais for a combined total of 71 goats.
2022/2023 expenditure	\$262,919.60



Hornwort

Ceratophyllum demersum

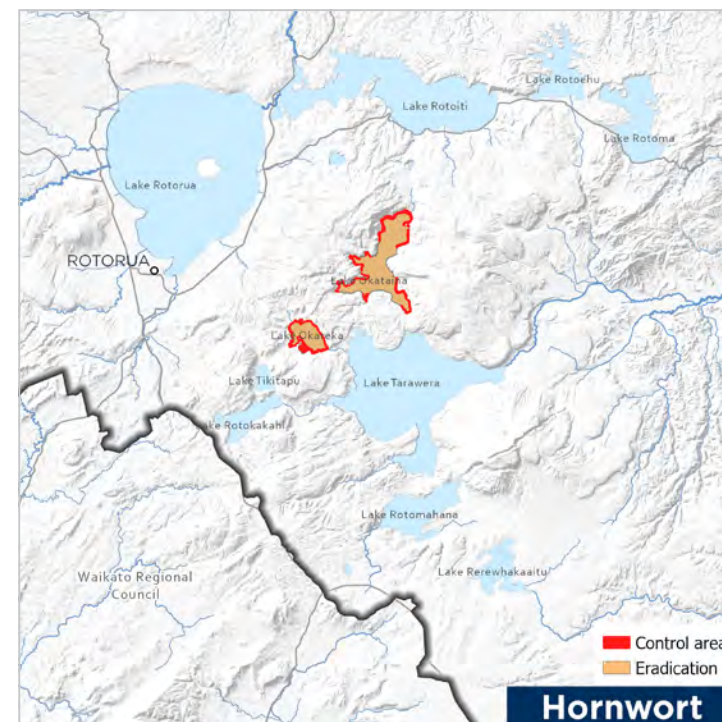
RPMP classification	Catchments	Programme status
Eradication	Lake Ōkātina, Lake Ōkāreka	●
Progressive containment	Lake Rotorua, Lake Rotoiti, Lake Rotoehu, Lake Tarawera, Lake Rotomahana	●

Eradication:

Programme summary	Results
Surveillance and monitoring effort	546 ha
Number of Rotorua Lakes plant is present	1 of 2 lakes
Amount of lakebed sprayed	55.9 ha
Comments	<ul style="list-style-type: none"> No infestations found in lakes where it is not known to be present. Spraying undertaken at key strategic sites. No plants found in Lake Ōkāreka, small number of plants found and controlled in Lake Ōkātina.
2022/2023 expenditure	See <i>Freshwater aquatic plant expenditure table</i>

Progressive containment:

Programme summary	Results
Surveillance and monitoring effort	157 ha
Number of Rotorua Lakes plant is present	5 of 10 lakes
Amount of lakebed sprayed	78.4 ha
Comments	<ul style="list-style-type: none"> No infestations found in lakes where it is not known to be present. Spraying undertaken at key strategic sites.
2022/2023 expenditure	See <i>Freshwater aquatic plant expenditure table</i>

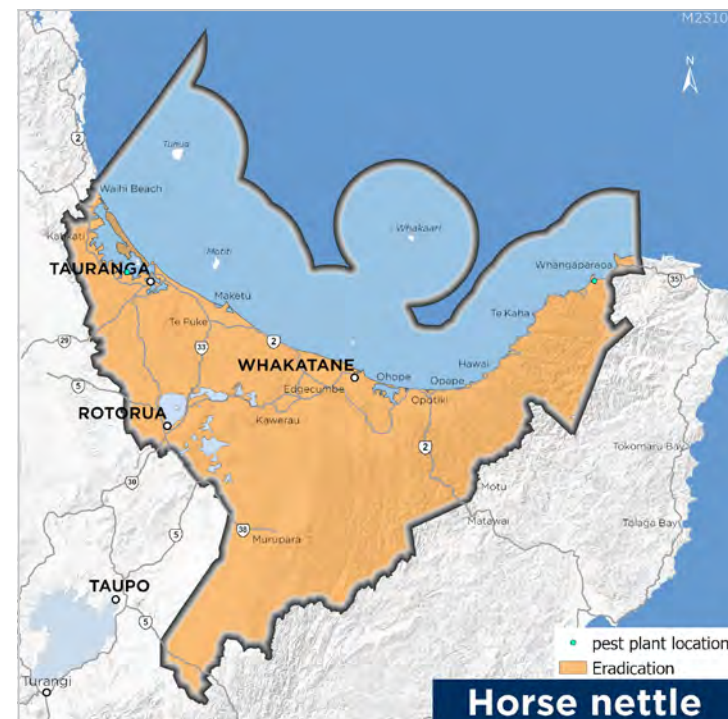


Horse nettle

Solanum carolinense

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	4 inspections completed
Number of properties plant is managed	3 properties
Plant cover	7.0m ²
Comments	<ul style="list-style-type: none"> No infestations found in Tauranga Harbour Catchment sites in 2022/23. Small residual amount of plant found and controlled at East Cape site.
2022/2023 expenditure	\$13,152.91

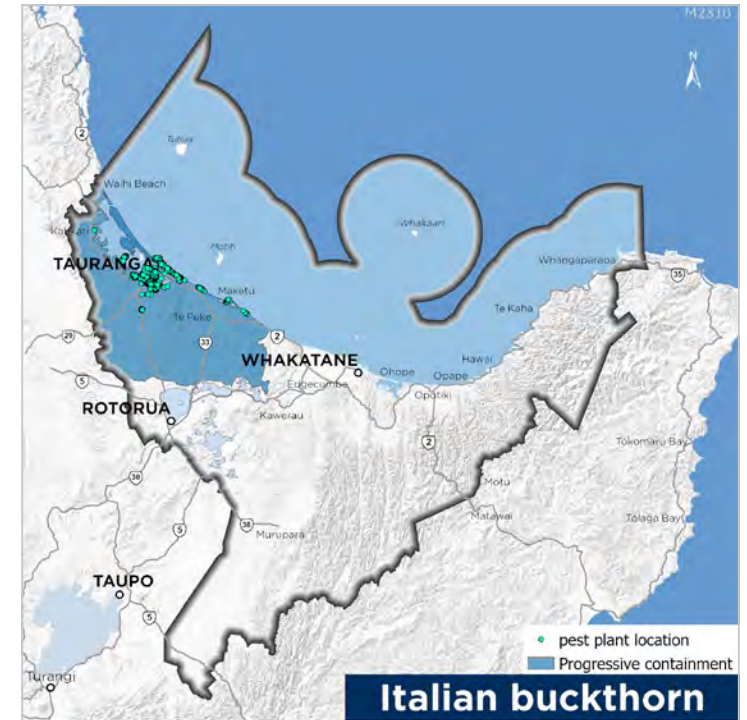


Italian buckthorn

Rhamnus alaternus

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour, Kaituna, Maketū and Pongakawa	●

Programme summary	Results
Number of inspections completed	413 inspections completed
Number of properties plant is managed	1,013 properties
Plant cover	49,062.8m ²
Comments	<ul style="list-style-type: none"> Large programme of work, species confined to the Western Bay of Plenty and largely in urban areas. Small decrease in pest plant cover compared to 2021/22.
2022/2023 expenditure	\$10,282.21



Koi carp

Cyprinus carpio

RPMP classification	Catchments	Programme status
Eradication	Tauranga Harbour	●

Programme summary	Results
Number of inspections completed	302 (combined with other pest fish surveillance)
Number of sites where fish is present	0 sites
Number of fish caught	0 fish
Comments	<ul style="list-style-type: none"> Not known to be present in the region. Surveillance will be continue through combination of eDNA, netting and visual inspection.
2022/2023 expenditure	<i>See Freshwater aquatic plant expenditure table</i>

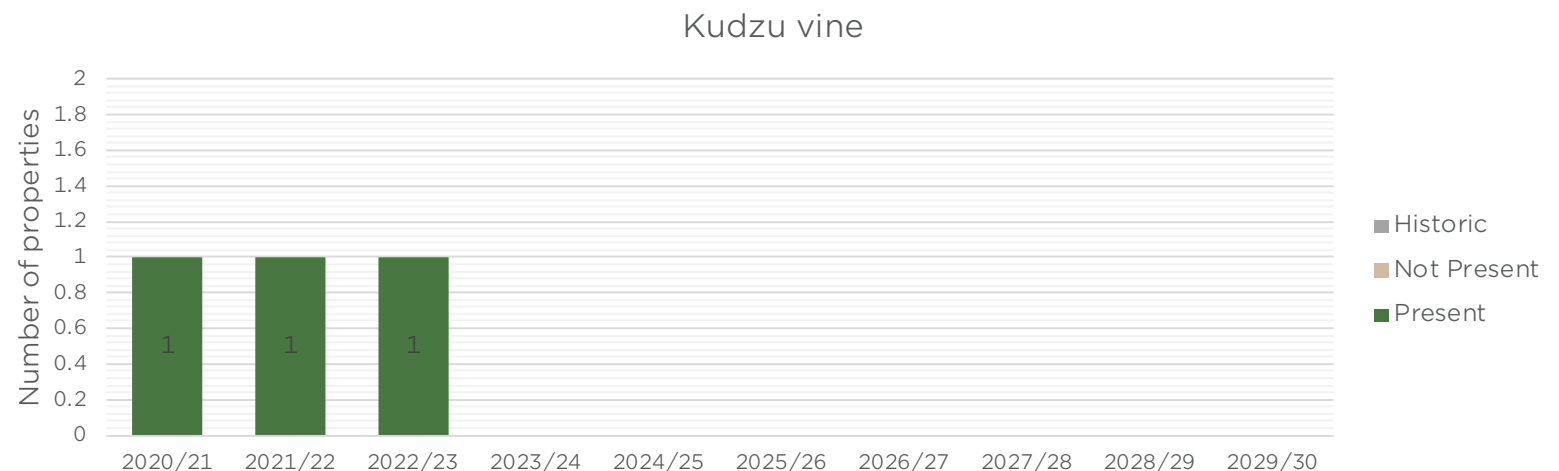
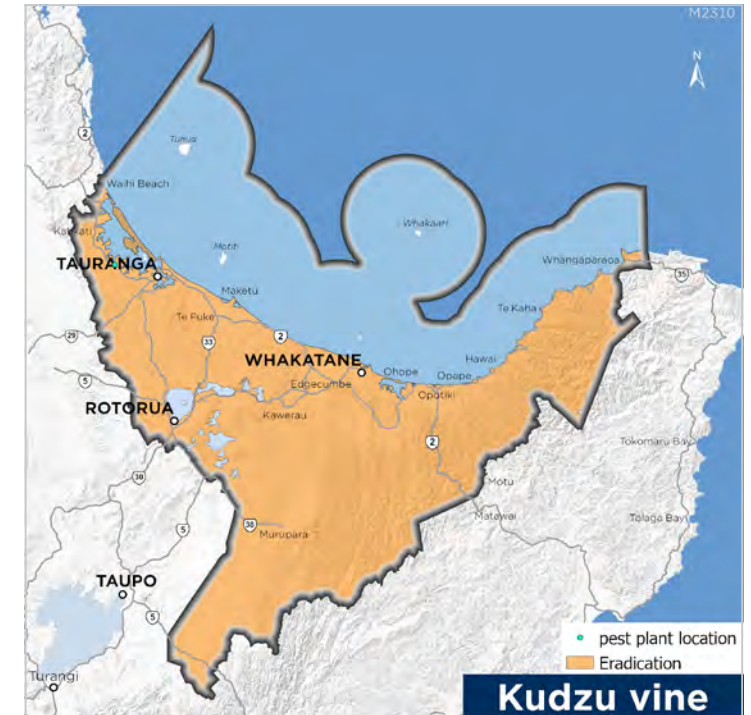


Kudzu vine

Pueraria montana var. lobate

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	3 inspections completed
Number of properties plant is managed	1 property
Plant cover	0m ²
Comments	<ul style="list-style-type: none"> One site being monitored. Remains at zero density, no plants found since 2015.
2022/2023 expenditure	\$390.13

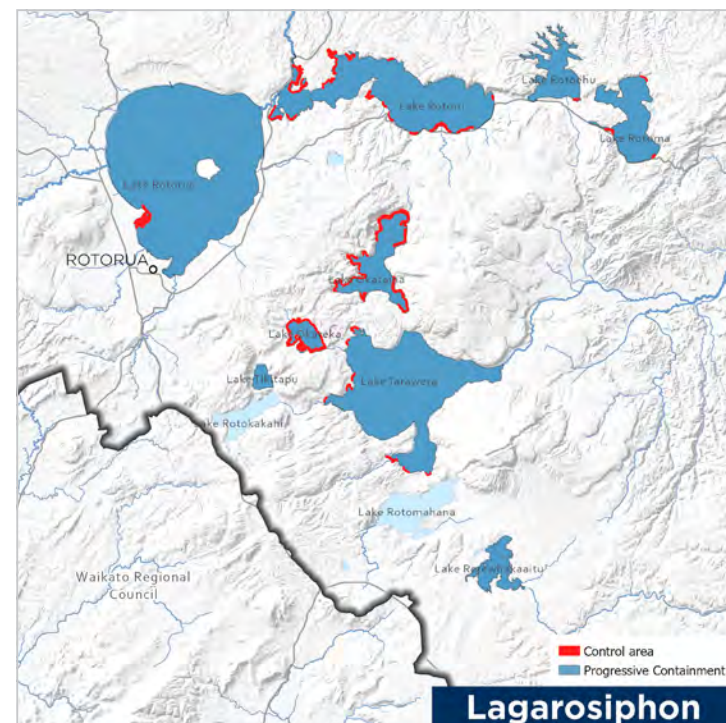


Lagarosiphon

Lagrosiphon major

RPMP classification	Catchments	Programme status
Progressive containment	Lake Rotorua, Lake Rotoiti, Lake Rotoehu, Lake Rotomā, Lake Ōkātina, Lake Ōkāreka, Lake Tikitapu, Lake Tarawera, Lake Rerewhakaaitu	●

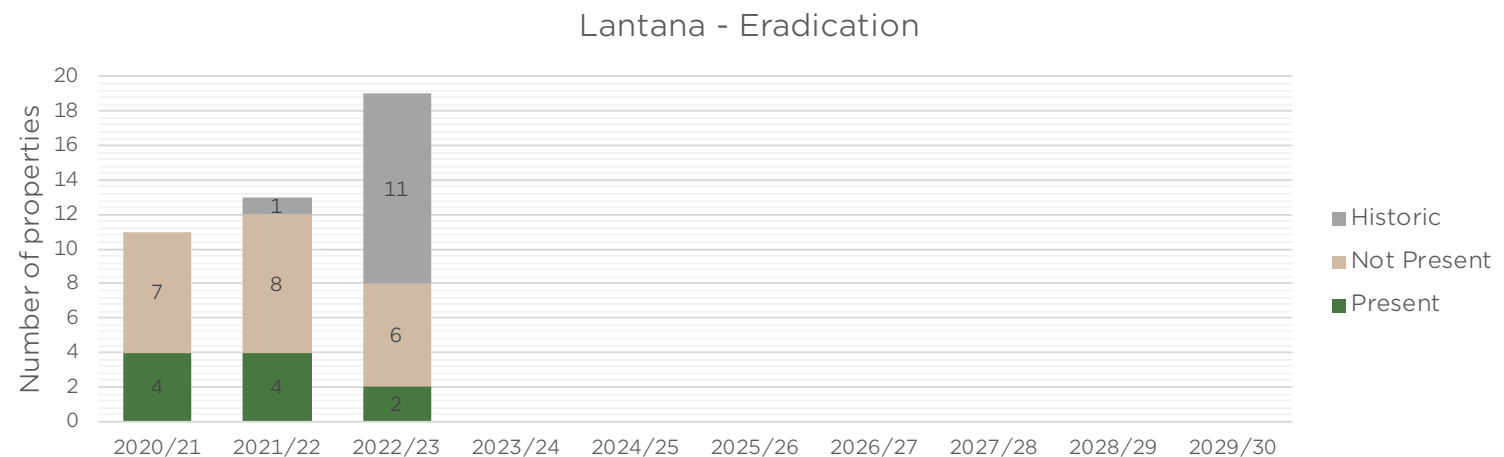
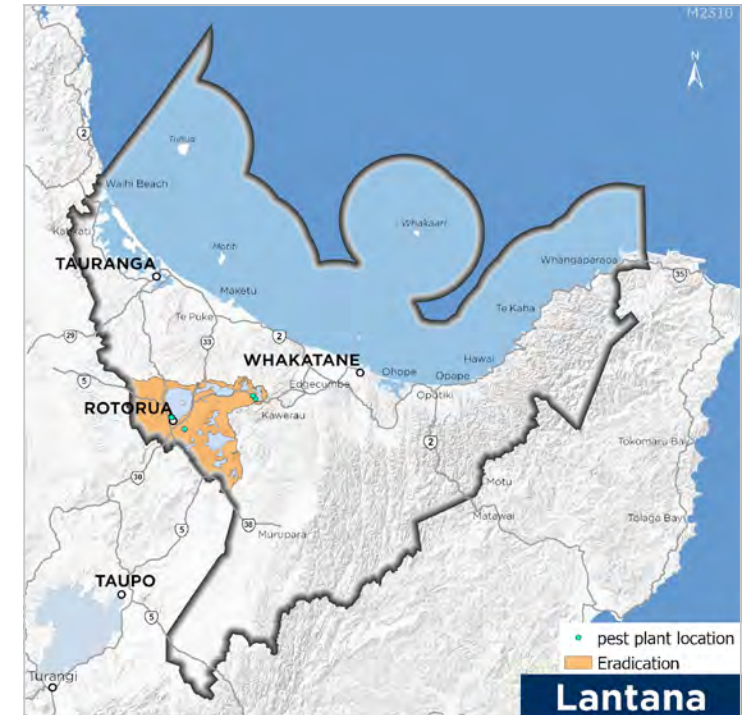
Programme summary	Results
Surveillance and monitoring effort	980 hours
Number of Rotorua Lakes plant is present	9 of 12 lakes
Amount of lakebed sprayed	136 ha
Comments	<ul style="list-style-type: none"> No infestations found in lakes where it is not known to be present. Spraying undertaken at key strategic sites.
2022/2023 expenditure	See <i>Freshwater aquatic plant expenditure table</i>



Lantana *Lantana camara*

RPMP classification	Catchments	Programme status
Eradication	Rotorua Lakes	●

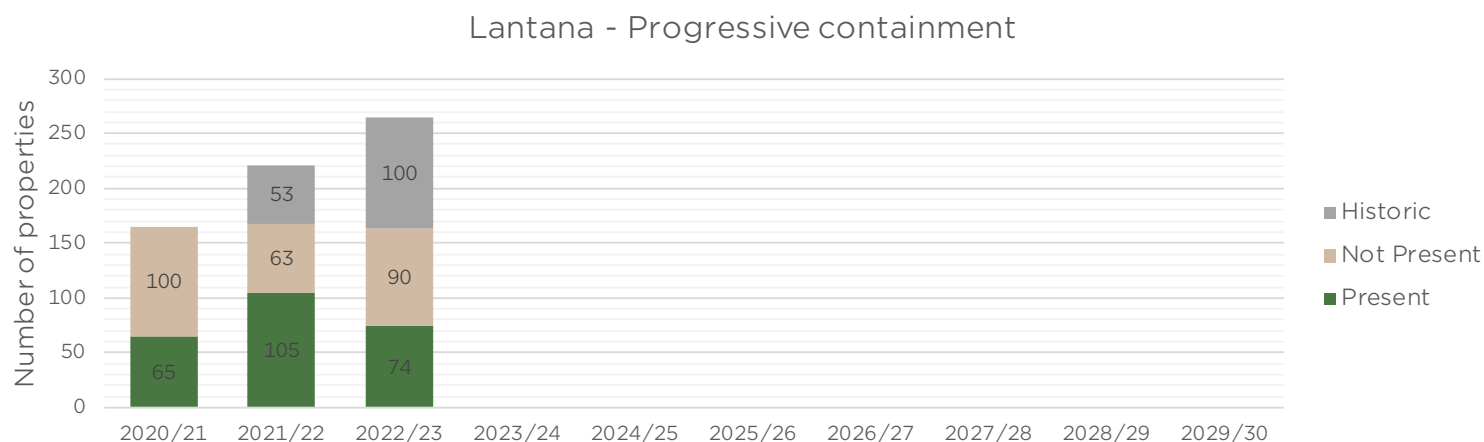
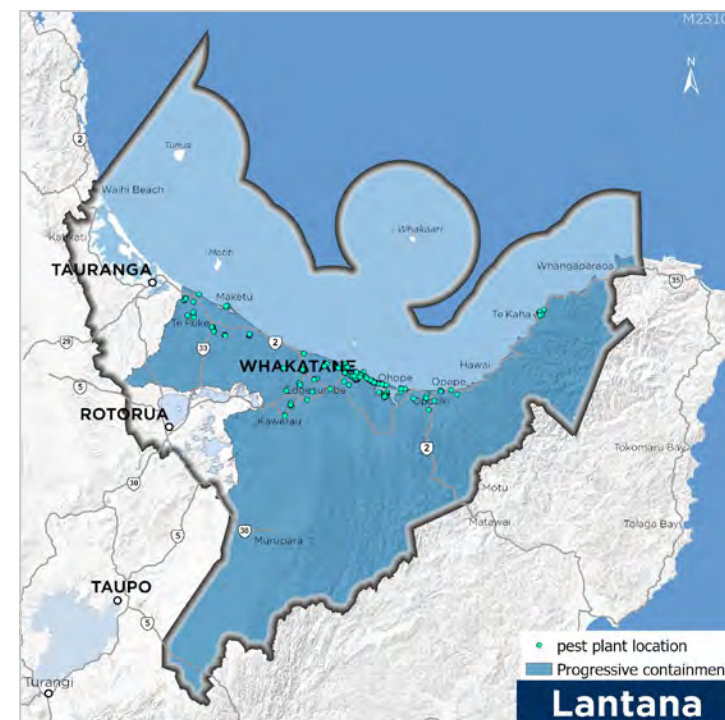
Programme summary	Results
Number of inspections completed	26 inspections completed
Number of properties plant is managed	8 properties
Plant cover	4.0m ²
Comments	<ul style="list-style-type: none"> • Small number of sites located in Rotorua. • Most infestations contain only a small number of plants. • Pest plant cover continues to decrease.
2022/2023 expenditure	\$2,395.32



Lantana *Lantana camara*

RPMP classification	Catchments	Programme status
Progressive containment	Kaituna, Maketū and Pongakawa, Tarawera, Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast	●

Programme summary	Results
Number of inspections completed	174 inspections completed
Number of properties plant is managed	164 properties
Plant cover	4,744.3m ²
Comments	<ul style="list-style-type: none"> Decrease in number of sites where plant is present and increase in number of known sites now at zero density. Previous known sites decreasing in plant cover. Most infestations contain only a small number of plants.
2022/2023 expenditure	\$20,357.57

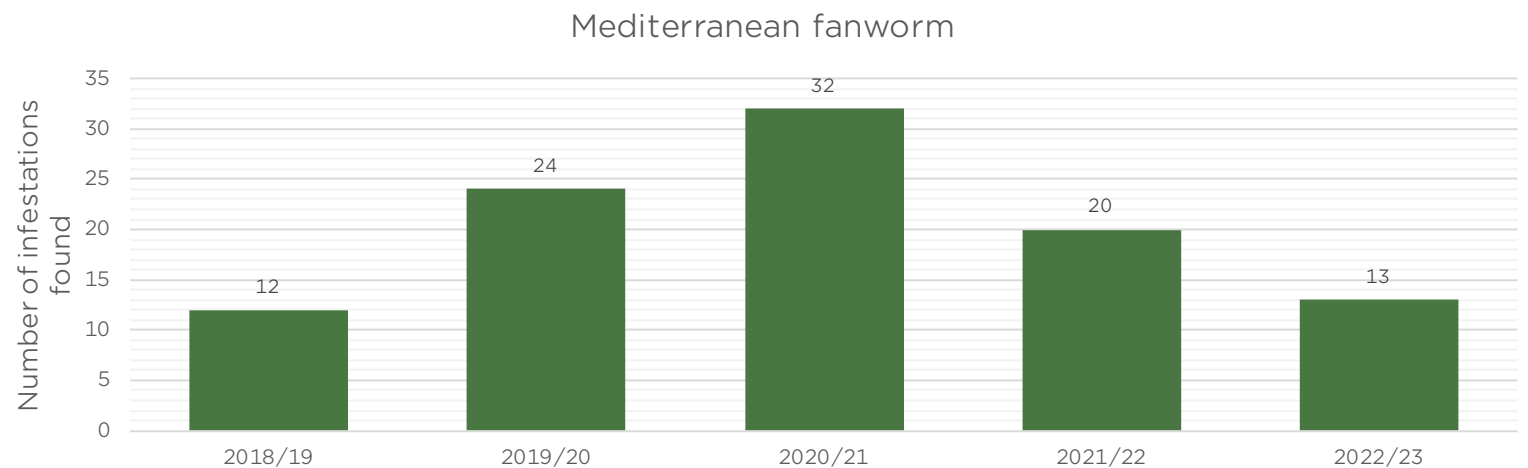
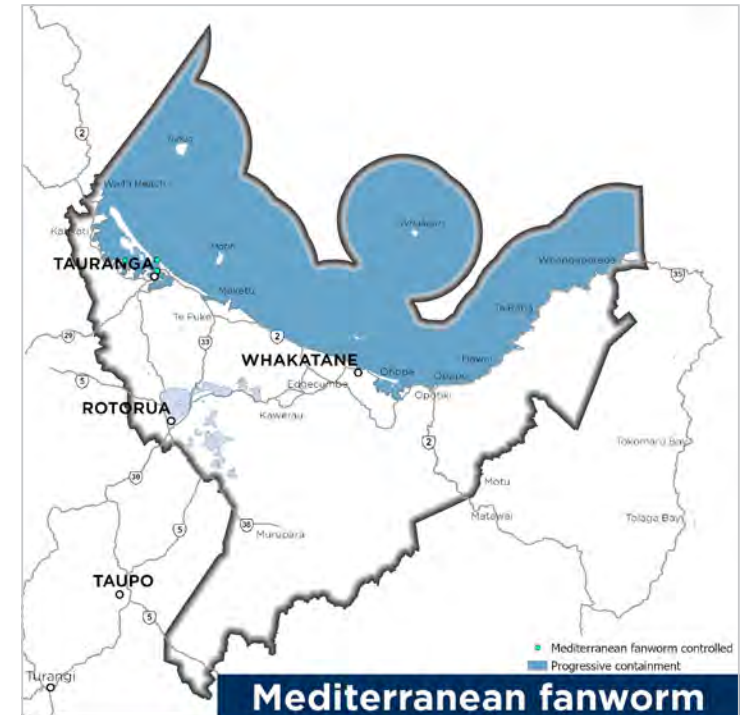


Mediterranean fanworm

Sabella spallanzanii

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of inspections completed	3,039
Number of sites where fanworm was detected in region	13 sites
Comments	<ul style="list-style-type: none"> Significant surveillance effort to find infestations. Number of infestations continue to decrease which is a great result considering this species is easily transported through vessel movement from outside the region.
2022/2023 expenditure	See <i>Marine biosecurity expenditure table</i>

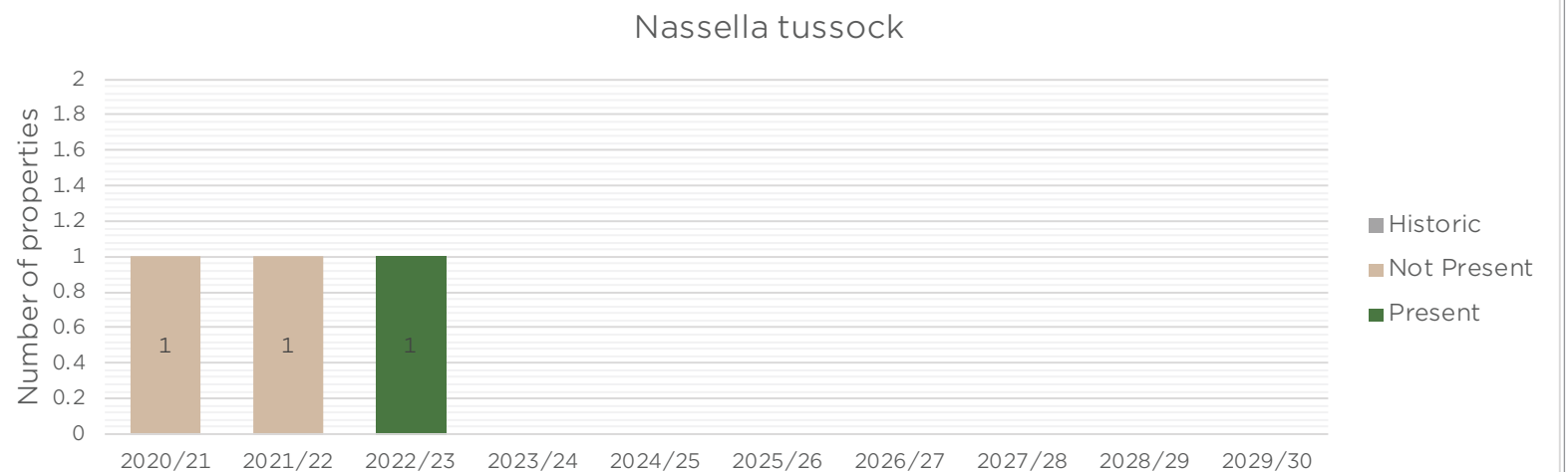
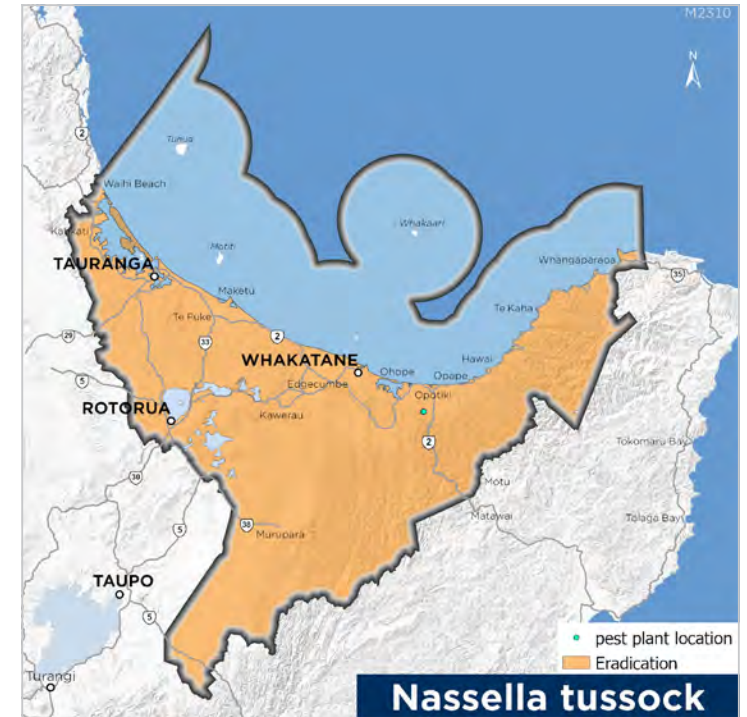


Nassella tussock

Nassella trichotoma

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	1 inspection completed
Number of properties plant is managed	1 property
Plant cover	4m ²
Comments	<ul style="list-style-type: none"> Only one known site in the region. First plant found in four years due to continued surveillance effort, but programme still considered on-track
2022/2023 expenditure	\$730.49

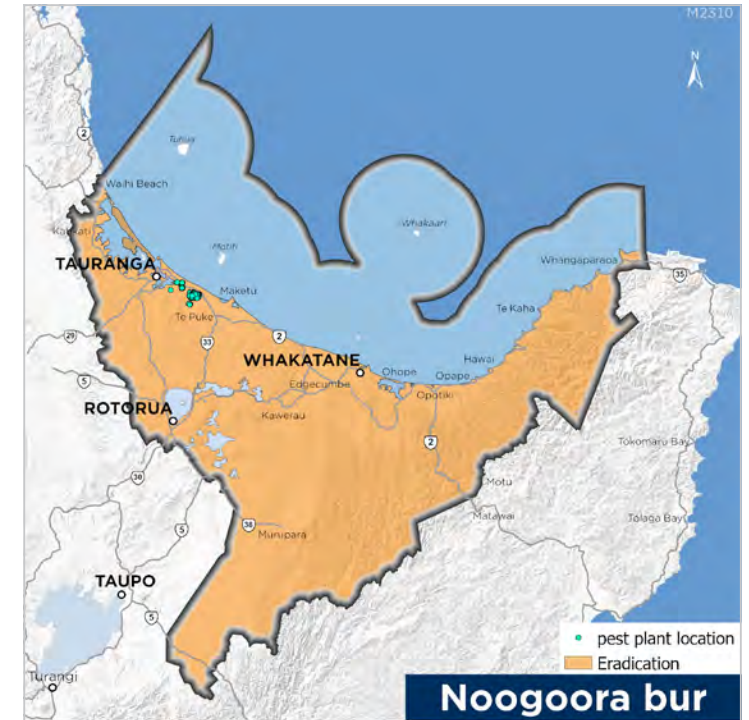


Noogoora bur

Xanthium strumarium

RPMP classification	Catchments	Programme status
Eradication	Region	●

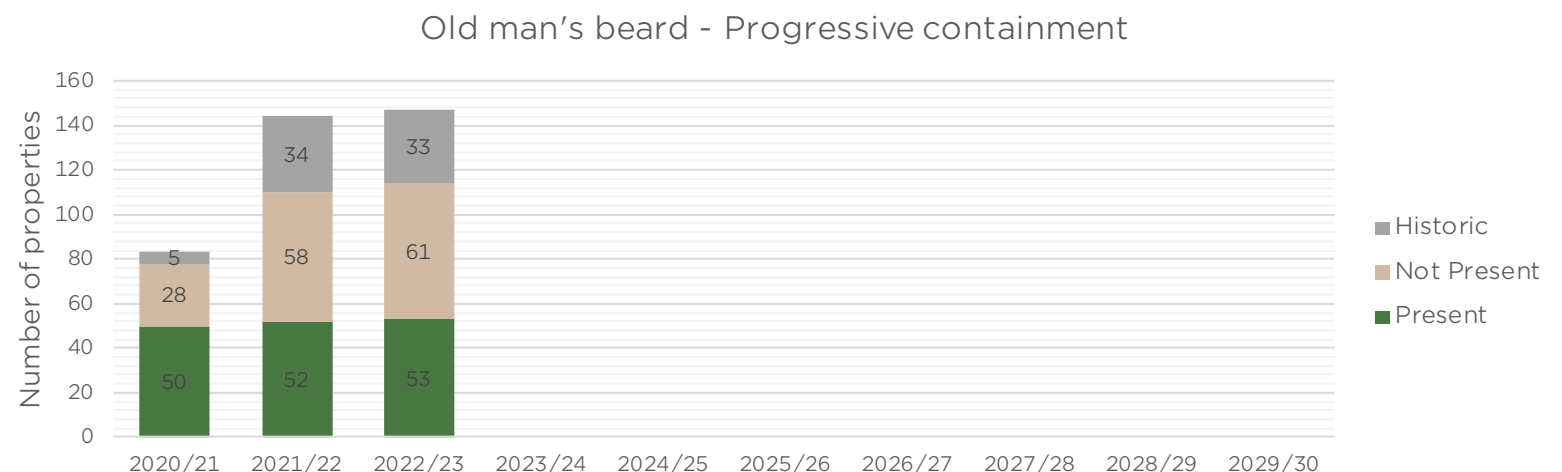
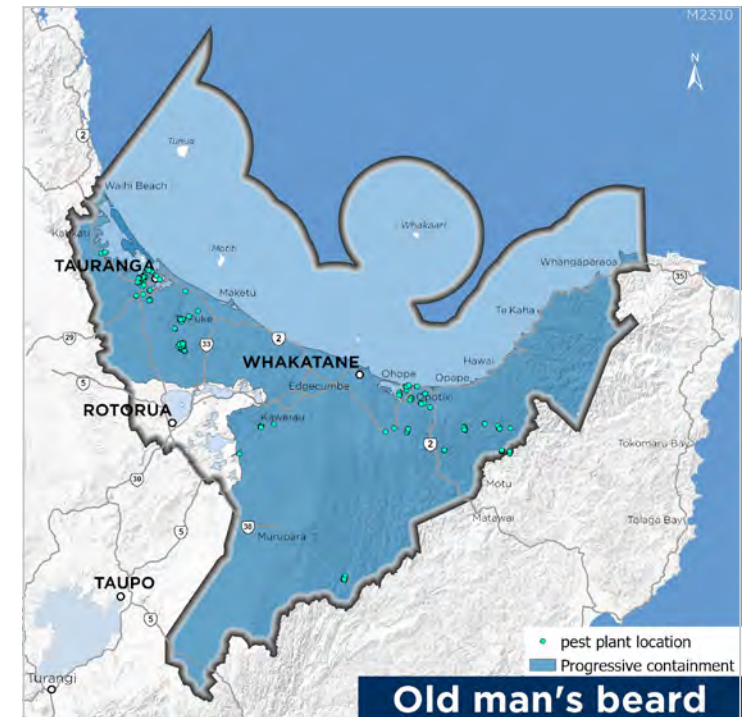
Programme summary	Results
Number of inspections completed	37 inspections completed
Number of properties plant is managed	15 properties
Plant cover	484.6m ²
Comments	<ul style="list-style-type: none"> Pest plant cover decreased compared to 2021/22 Population is still very localized to a small area north-west of Te Puke. Challenges managing the weed at some sites due to persistent heavy rain events causing flooding.
2022/2023 expenditure	\$117,434.59



Old man's beard *Clematis vitalba*

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour, Kaituna, Maketū and Pongakawa, Tarawera, Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast.	●

Programme summary	Results
Number of inspections completed	103 inspections completed
Number of properties plant is managed	114 properties
Plant cover	21,922.3m ²
Comments	<ul style="list-style-type: none"> Number of sites remains relatively stable. Small decrease in pest plant cover compared to previous years. Distribution relatively scattered throughout the region.
2022/2023 expenditure	\$34,396.59



Perch

Perca fluviatilis

RPMP classification	Catchments	Programme status
Eradication	Tauranga Harbour, Kaituna, Maketū and Pongakawa	●

Programme summary	Results
Number of inspections completed	302 (combined pest fish inspections).
Number of sites where fish is present	1 site
Number of fish caught	0 fish
Comments	<ul style="list-style-type: none"> No fish have been caught in the Pāpāmoa Stormwater system since initial detection in 2017. No other sites known in the region.
2022/2023 expenditure	See <i>Freshwater fish expenditure table</i>

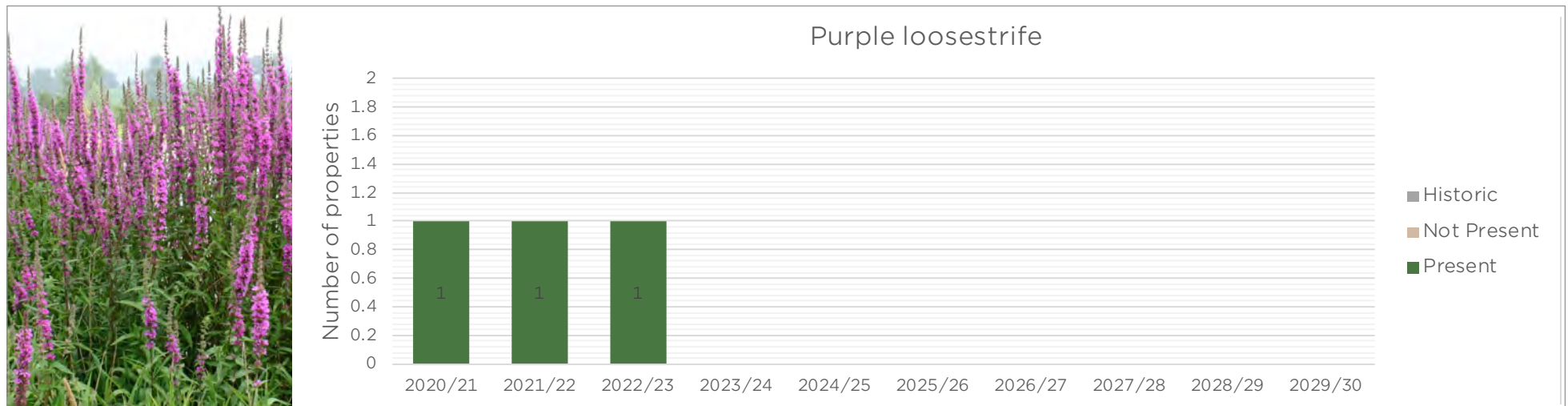
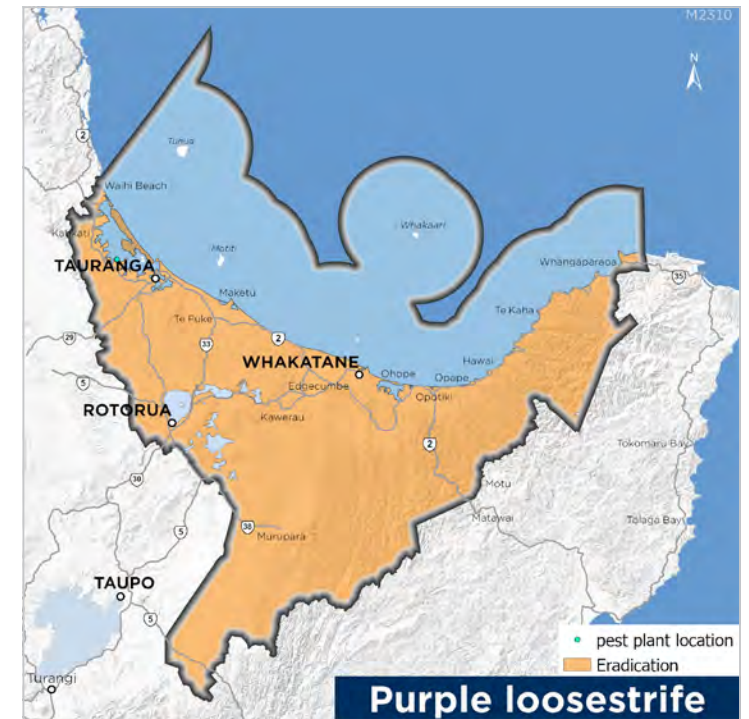


Purple loosestrife

Lythrum salicaria

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	0 inspection completed
Number of properties plant is managed	1 property
Plant cover	0m ²
Comments	<ul style="list-style-type: none"> One active site in the region, small amount of plant left which is monitored and controlled every two years. Species remains on-track for eradication.
2022/2023 expenditure	\$0



Rooks

Corvus frugilegus

RPMP classification	Catchments	Programme status
Eradication	Region	●
Programme summary	Results	
Number of sightings received	0 sightings	
Number of control operations	0 control operations	
Comments	<ul style="list-style-type: none"> No known populations in region. No sighting received or birds found in 2022/23. 	
2022/2023 expenditure	\$1,974.15	



Rudd

Scardinius erythrophthalmus

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour	●

Programme summary	Results
Number of inspections completed	302 (combined pest fish inspections).
Number of sites where fish is present	1 site
Number of fish caught	0 fish
Comments	<ul style="list-style-type: none">• Present in Lake McLaren.• Effort focussed on surveillance outside of known sites.
2022/2023 expenditure	See <i>Freshwater fish expenditure table</i>

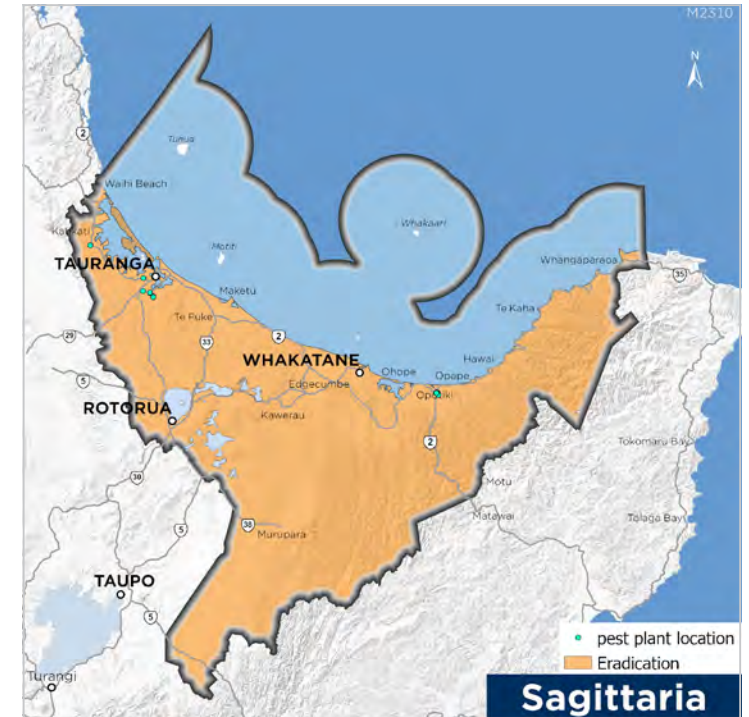


Sagittaria

Sagittaria platyphylla / *Sagittaria montevidensis*

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	39 inspections completed
Number of properties plant is managed	18 properties
Plant cover	782.6m ²
Comments	<ul style="list-style-type: none"> Six of eight sites, located in Western Bay of Plenty, remained at zero density. No plants found at three of the Eastern Bay of Plenty sites that had plants found in 2021/22. Decrease in plant cover compared to 2021/22.
2022/2023 expenditure	\$7,853.28

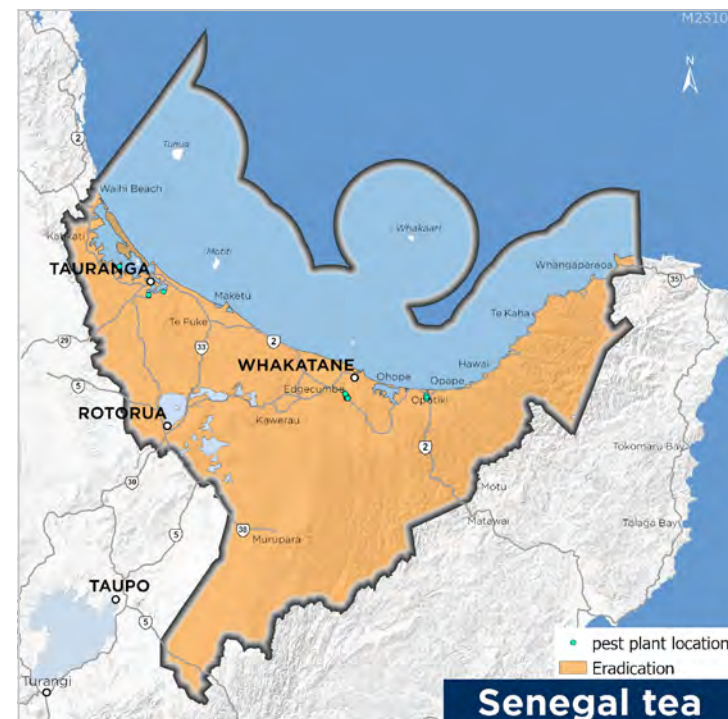


Senegal tea

Gymnocoronis spilanthoides

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	118 inspections completed
Number of properties plant is managed	21 properties
Plant cover	77m ²
Comments	<ul style="list-style-type: none"> Pest plant cover continues to reduce. Can reduce to zero density quickly once sites are identified and controlled.
2022/2023 expenditure	\$10,481.41

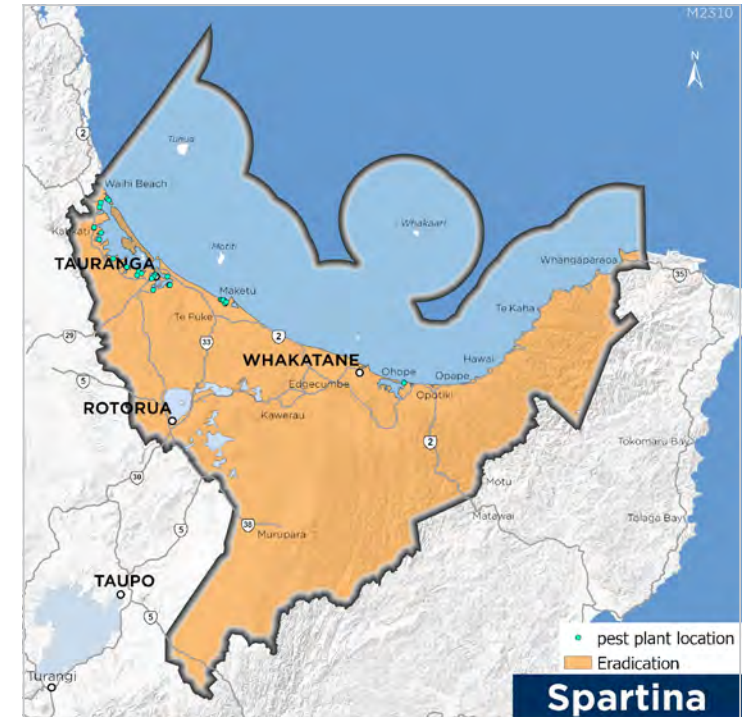


Spartina

Spartina anglica, *S. alterniflora*

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	21 inspections completed
Number of properties plant is managed	25 properties
Plant cover	287.2m ²
Comments	<ul style="list-style-type: none"> Increased surveillance effort around Tauranga Harbour, at sites previously managed by DOC. This resulted in small pest plant cover increase but also showed many sites at zero density. Tracking nicely toward eradication.
2022/2023 expenditure	\$41,259.43

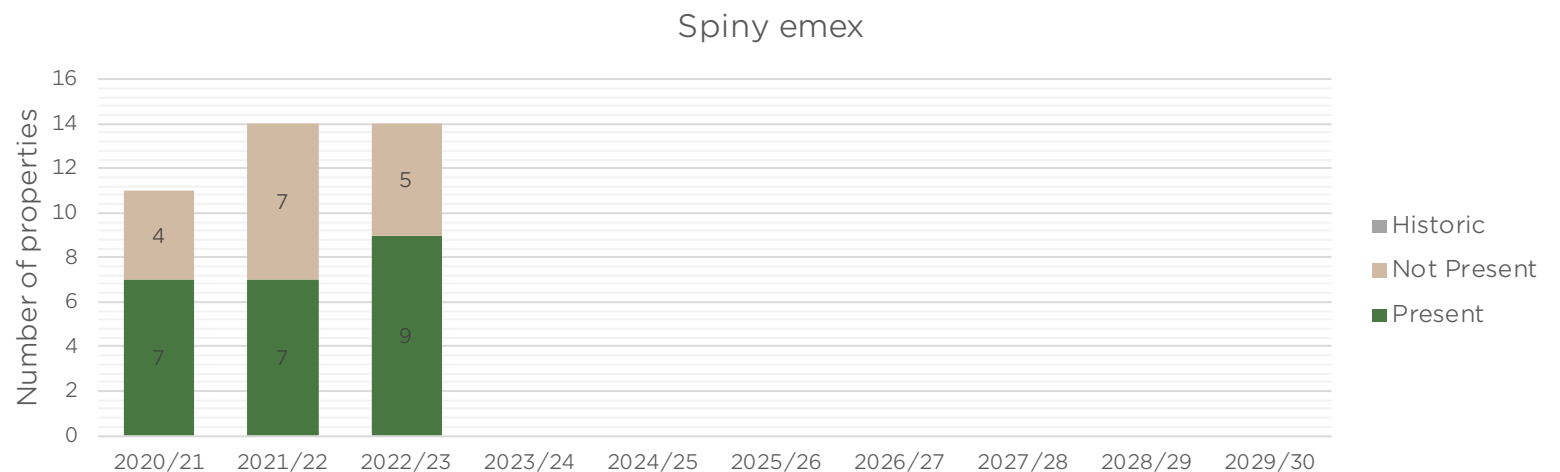
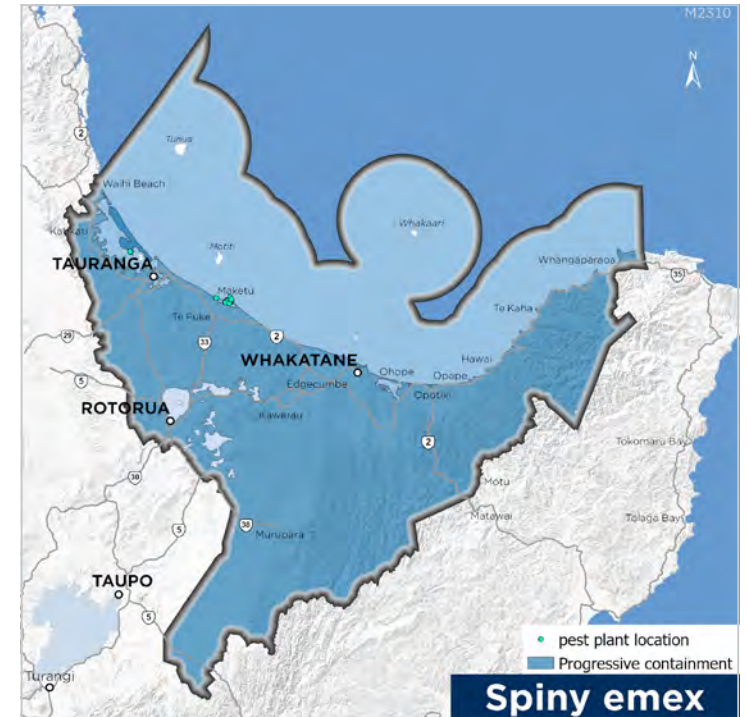


Spiny emex

Emex australis

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of inspections completed	26 inspections completed
Number of properties plant is managed	14 properties
Plant cover	99m ²
Comments	<ul style="list-style-type: none"> Population still largely localized around Maketū. Plant cover continues to decrease over time.
2022/2023 expenditure	\$13,377.80

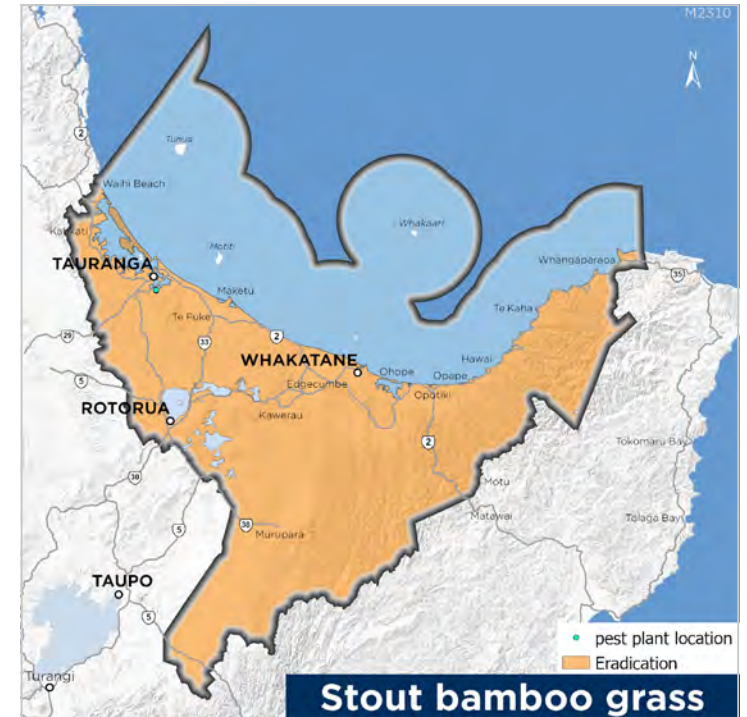


Stout bamboo grass

Austrostipa ramosissima

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	5 inspections completed
Number of properties plant is managed	2 properties
Plant cover	1m ²
Comments	<ul style="list-style-type: none"> Only two known sites in the region. Very slight increase in plant cover at one site, the other is at zero density.
2022/2023 expenditure	\$430.96



Tench

Tinca tinca

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour	●

Programme summary	Results
Number of inspections completed	302 (combined pest fish inspections).
Number of sites where fish is present	1 site
Number of fish caught	0 fish
Comments	<ul style="list-style-type: none"> • Present in Lake McLaren. • Effort focussed on surveillance outside of known sites.
2022/2023 expenditure	See <i>Freshwater fish expenditure table</i>

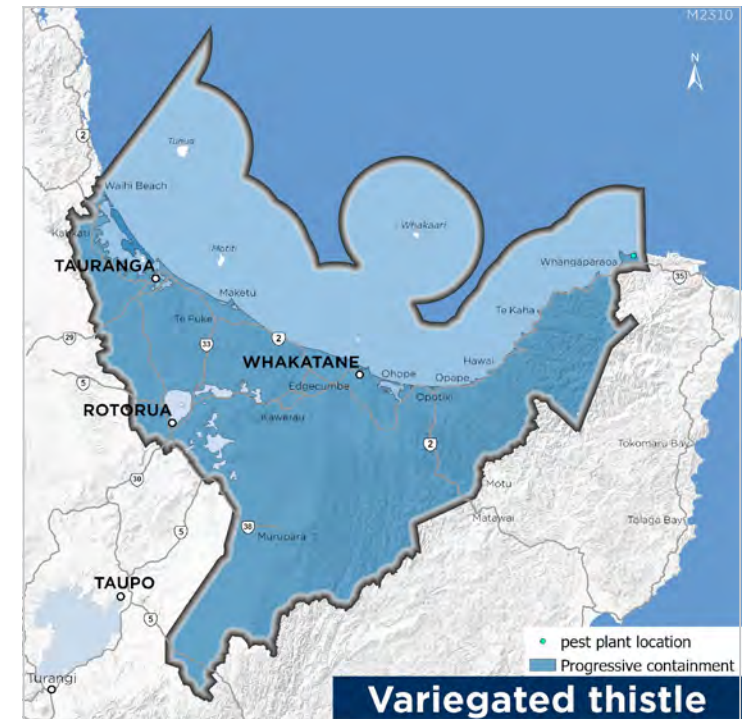


Variegated thistle

Silybum marianum

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

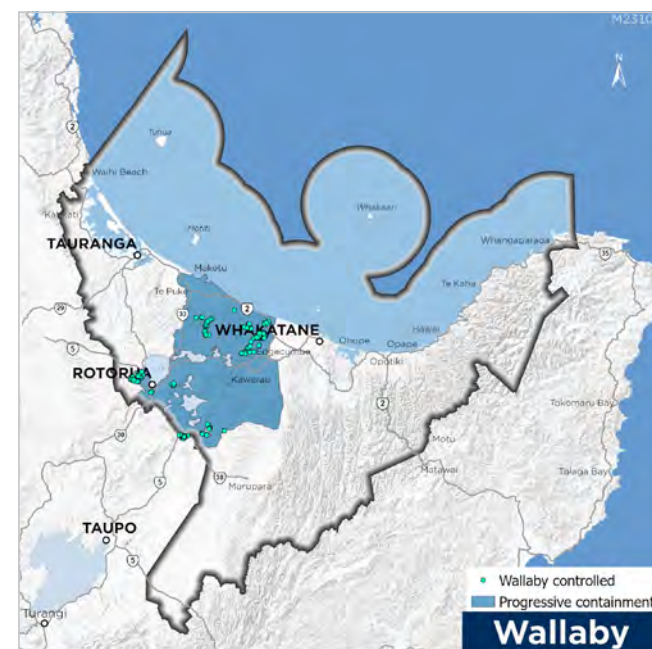
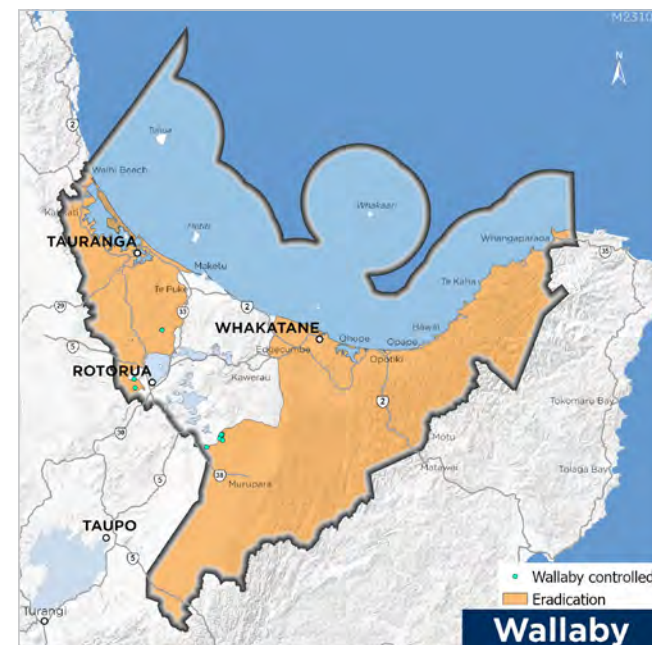
Programme summary	Results
Number of inspections completed	1 inspection completed
Number of properties plant is managed	5 properties
Plant cover	0m ²
Comments	<ul style="list-style-type: none"> Very limited distribution around the region. No plants found at any of the sites this year.
2022/2023 expenditure	\$0



Wallaby *Macropus eugenii*

RPMP classification	Catchments	Programme status
Eradication	Outside the Containment zone	●
Progressive containment	Inside Containment zone	●

Programme summary	Results	
	Eradication	Progressive containment
Area surveillance was undertaken	42,651 ha	14,264 ha
Area covered by dog surveillance	3,183 km	20 km
Number of cameras deployed	794	141
Number of wallabies controlled	24	745
Comments	<ul style="list-style-type: none"> • Programme concentrated on delimiting wallaby distribution through intensive dog and camera surveillance. • Eradication of known satellite populations is progressing slowly with five populations now eradicated or functionally extinct (i.e., only a single remaining wallaby believed to be present) • Ground control with vertebrate toxins was trialled to attempt eradication of a known satellite population, but at least 4 wallabies are to have survived. • A significant satellite population was detected within Matahina Forest, close to Rangitāiki River. • Land access for control work remains a challenge at some sites. 	
2022/2023 expenditure	\$3,641,843.53	
2022/2023 revenue	\$2,856,072.61	

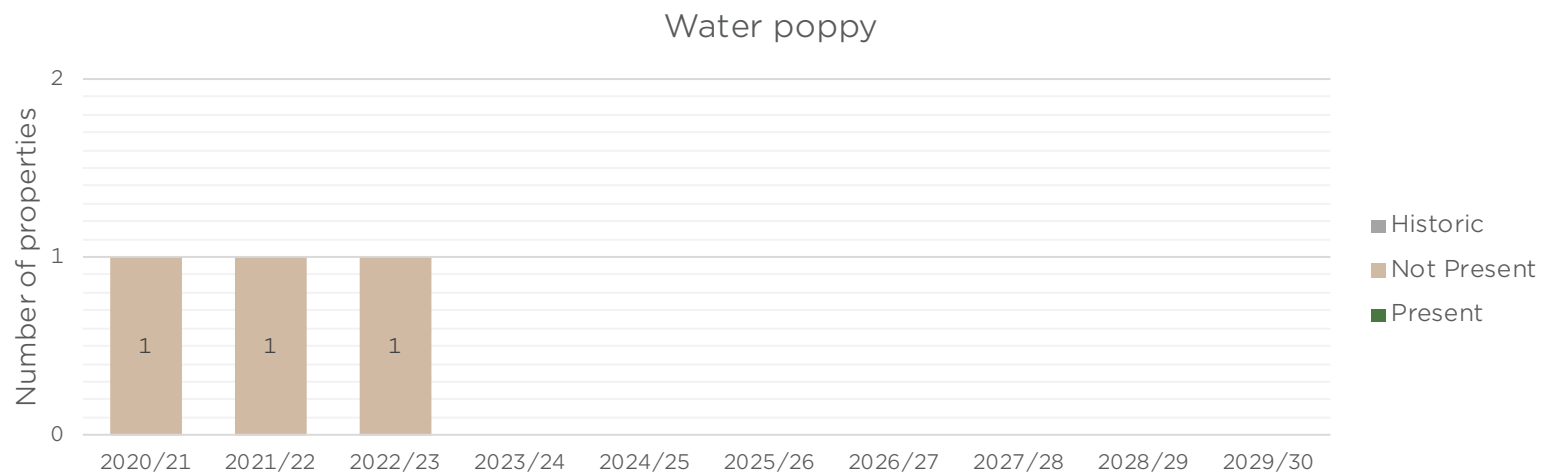
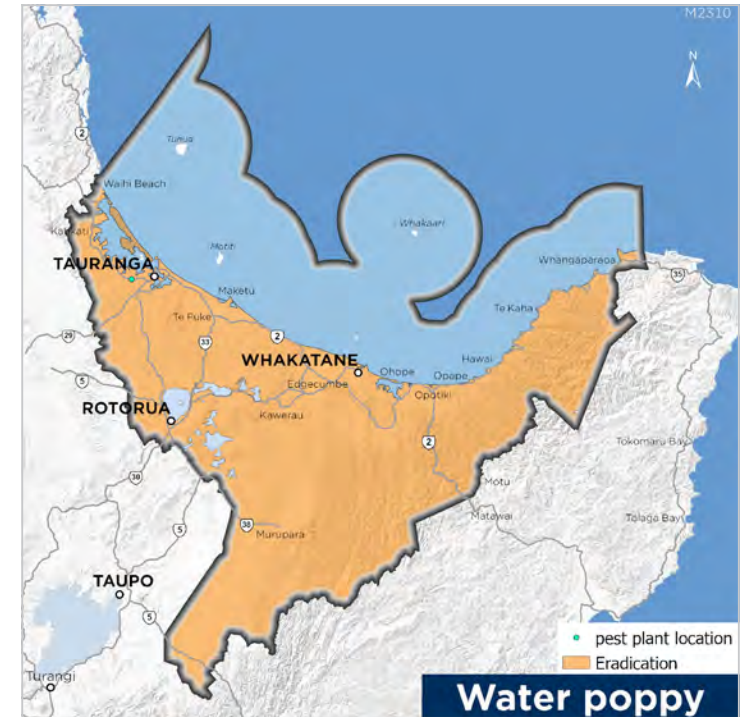


Water poppy

Hydrocleys nymphoides

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	1 inspections completed
Number of properties plant is managed	1 property
Plant cover	0m ²
Comments	<ul style="list-style-type: none"> Only one known site in the region, site remains at zero density. Located in a small man-made pond.
2022/2023 expenditure	\$1,331.16

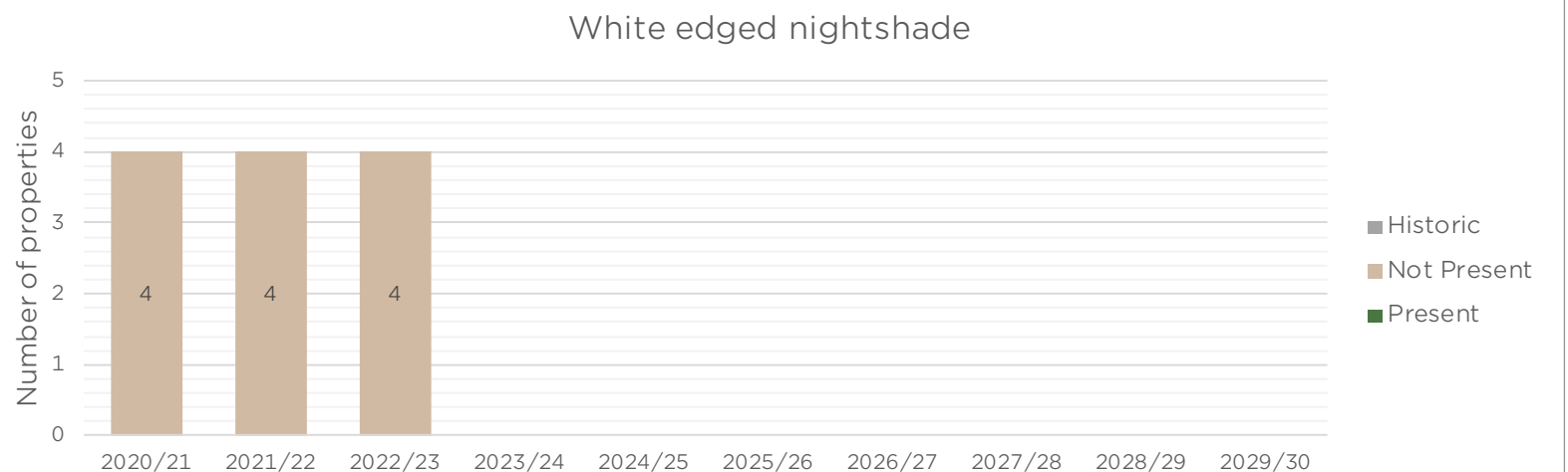
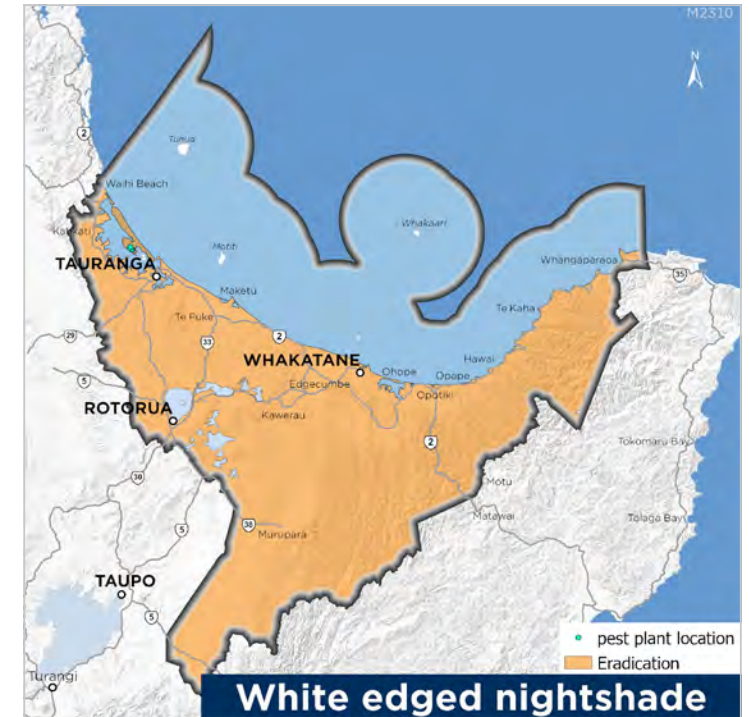


White edged nightshade

Solanum marginatum

RPMP classification	Catchments	Programme status
Eradication	Region	●

Programme summary	Results
Number of inspections completed	1 inspection completed
Number of properties plant is managed	4 properties
Plant cover	0m ²
Comments	<ul style="list-style-type: none"> All sites on Matakana Island. All sites remain at zero density. Work completed by tangata whenua from the island – who were funded through another programme.
2022/2023 expenditure	\$0

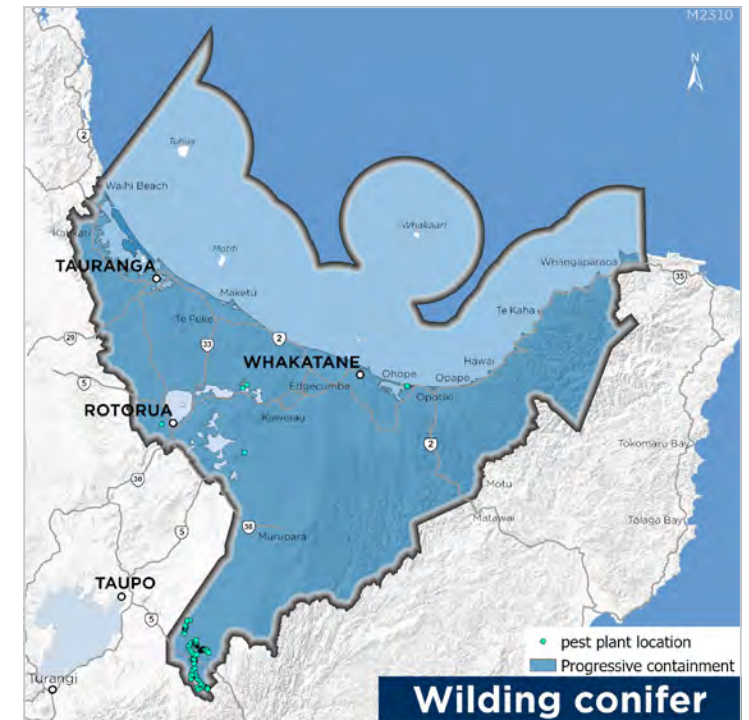


Wilding conifers

Pinus, Pseudotsuga and Larix spp.

RPMP classification	Catchments	Programme status
Progressive containment	Region - Dwarf mountain pine, European larch, Lodgepole pine, Mountain pine, Scots pine	●

Programme summary	Results
Number of properties that received control	14 properties
Area that received control	15,612 ha
Comments	<ul style="list-style-type: none"> • See case study for more detail on National Programme. • Iwi-led work continued at Mount Tarawera supported by BOPRC. • Surveillance and control done by iwi at East Cape with support from BOPRC.
2022/2023 expenditure	\$431,442
2022/2023 revenue	\$387,352

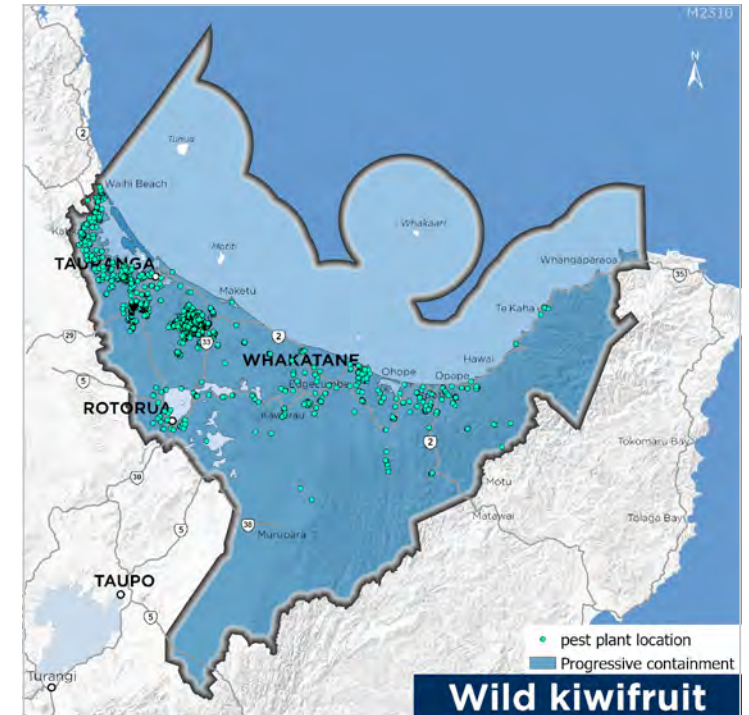


Wild kiwifruit

Actinidia spp

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

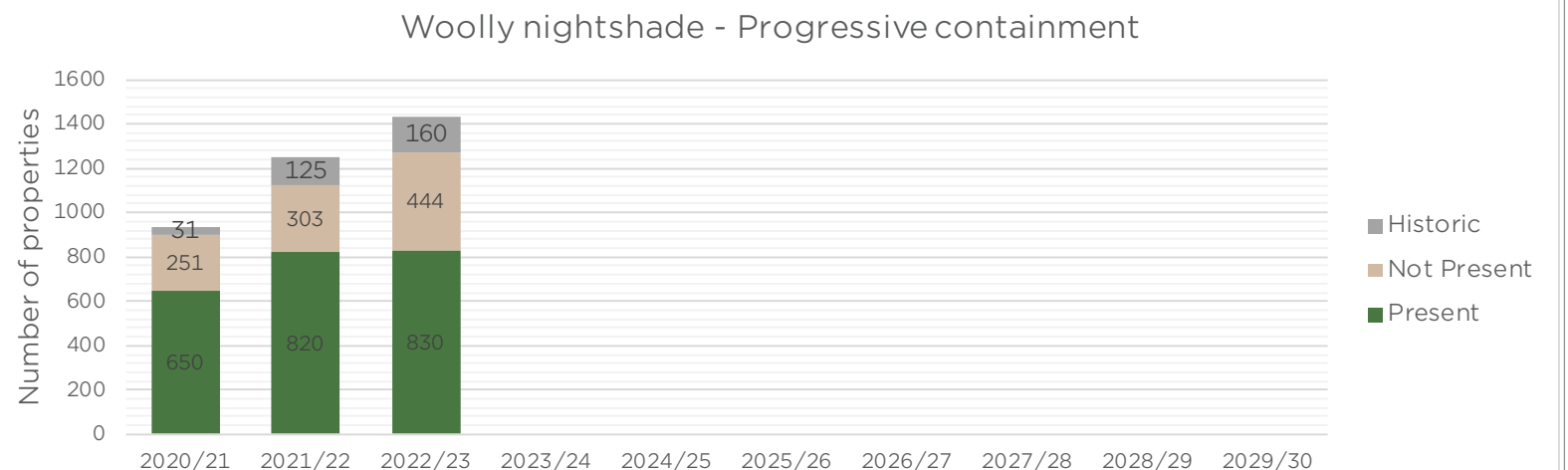
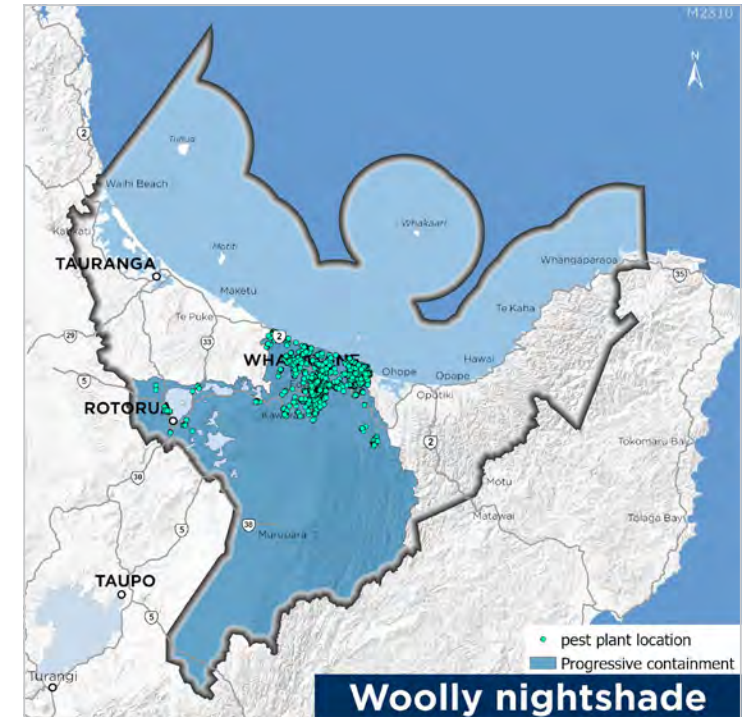
Programme summary	Results
Number of inspections completed	285 inspections completed
Number of properties plant is managed	791 properties
Plant cover	277,211.2m ²
Comments	<ul style="list-style-type: none"> Collaborative programme with Kiwifruit Vine Health (KVH). BOPRC manage the surveillance component, KVH manage control. Control was undertaken at 84 properties with a total of 13,305 vines controlled. Pest plant cover increased compared to 2021/22, figure is exaggerated as currently not able to attribute control figures against known infestations recorded in BOPRCs system.
2022/2023 expenditure	\$178,462.67



Woolly nightshade *Solanum mauritianum*

RPMP classification	Catchments	Programme status
Progressive containment	Rotorua Lakes, Tarawera, Rangitāiki, Whakatāne and Tauranga.	●

Programme summary	Results
Number of inspections completed	485 inspections completed
Number of properties plant is managed	1,274 properties
Plant cover	245,122.9m ²
Comments	<ul style="list-style-type: none"> Significant effort and a decrease in plant cover in Progressive Containment area. Increased effort led to more sites being discovered but also an increase in known sites where the plants have been controlled and are now at zero density.
2022/2023 expenditure	\$120,211.46

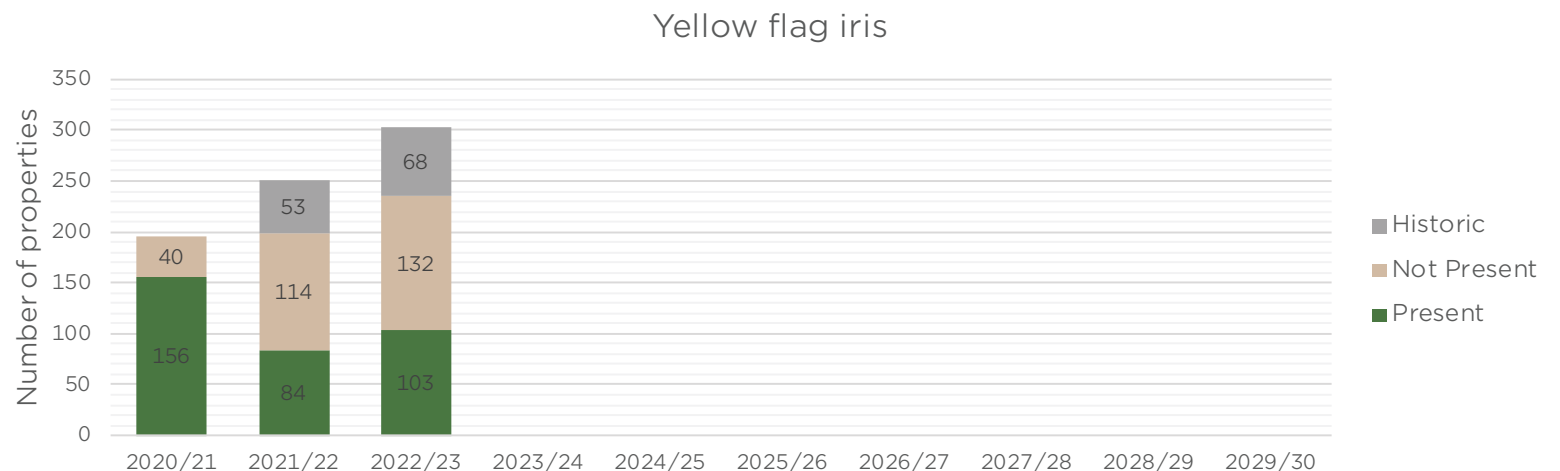
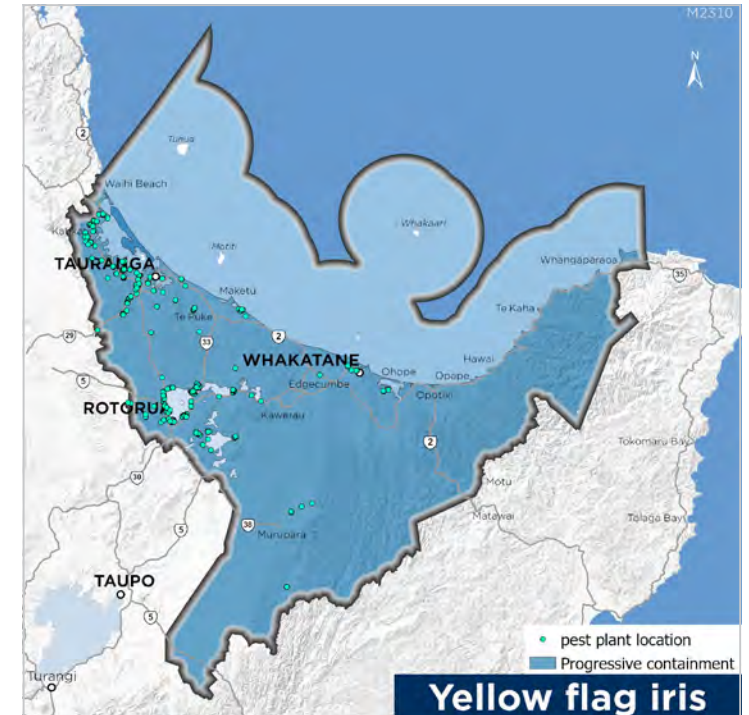


Yellow flag iris

Iris pseudacorus

RPMP classification	Catchments	Programme status
Progressive containment	Region	●

Programme summary	Results
Number of inspections completed	407 inspections completed
Number of properties plant is managed	235 properties
Plant cover	878.5m ²
Comments	<ul style="list-style-type: none"> Sporadic distribution around the region, mainly around the Rotorua Lakes. Pest plant cover continues to decrease. All plants detected were controlled.
2022/2023 expenditure	\$38,579.16



Expenditure tables

Surveillance and control for aquatic pests, whether it be freshwater or marine, is often achieved as an activity looking for a number of pest species (diving surveys, eDNA, spraying operations).

The National Wilding Conifer Programme manages a number of pine species. Often wilding stands are made up of a number of species therefore control operations are often undertaken in mixed stands. During surveillance operations, all species of wild pine will be recorded.

For this reason it is challenging and unreasonable to try and determine expenditure against individual species, therefore for the purpose of this report it is reported as a programme of work.

Freshwater fish

Expenditure for pest fish (excluding brown bullhead catfish) was completed via targeted surveillance, eDNA sampling and ornamental pond surveillance, and is summarised below:

Programme summary	Results
Species managed	<ul style="list-style-type: none"> • Koi carp • Perch • Rudd • Tench
2022/2023 expenditure	\$36,284.64

Freshwater aquatic plants

Expenditure for freshwater aquatic plant species managed via weed cordons, dive surveillance, eDNA sampling and herbicide control is summarised in the table below:

Programme summary	Results
Species managed	<ul style="list-style-type: none"> • <i>Egeria densa</i> • <i>Elodea canadensis</i> • Hornwort • <i>Lagarisophon major</i>
2022/2023 expenditure	\$213,313

Marine biosecurity

Expenditure for marine species managed via dive surveillance and control is summarised in the table below:

Programme summary	Results
Species managed	<ul style="list-style-type: none"> • Australasian droplet tunicate • Clubbed tunicate • Mediterranean fanworm • Pyura
2022/2023 expenditure	\$381,889
2022/2023 revenue	\$42,384

* does not include Asian paddle crab which is managed via trapping

* includes expenditure for managing RPMP species in BOP region only, does not include support for other regions.

