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regional council

Regional Pest Animal Management Strategy (RAPMS) Operational Plan 2013+/4

Endorsed by Council at the Environment Committee meeting on 12th August 2015

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FOREWORD

The animal biosecurity activity focuses on protecting the Region from threats to production, biosecurity and amenity values posed by pest animals, or appropriate prevention of the further spread of the pest. The pests to be managed and the methods of control are set out in the Regional Pest Animal Management Strategy (RPAMS) 2009.

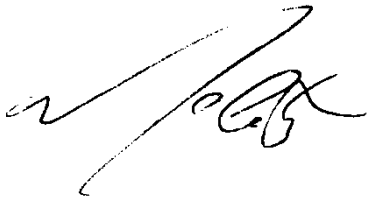
Horizons Regional Council is the management agency for this pest management strategy and is also responsible for preparing annual Operational Plans. These plans outline the nature, scope and financial expenditure of the activities Horizons Regional Council intends to undertake in the implementation of the Regional Pest Animal Management Strategy for the 2015-16 year.

Horizons also funds TBfree New Zealand in support of its National Bovine TB Pest Management Strategy (NPMS). This Operational Plan also includes a jointly prepared Operational Plan outlining the activities and funding of the NPMS for this Region.

This Operational Plan highlights another significant commitment to the funding for Regional Possum Control Operation (PCO) that was implemented 10 years ago and the ongoing efforts to reduce rook populations around the Region.

Operational Plans are reviewed annually in a separate monitoring report. This Operational Plan is the fifth to be prepared under the new RPAMS.

For further information about the Operational Plan, TBfree funding and pest animal management please contact Eric Dodd at Horzons' Taumarunui Service Centre.



Michael McCartney
CHIEF EXECUTIVE

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Photo 1: Mini Philproof bait station - Pongaroa PCO (photo R Wilman)

Photo 2: Filling a mini Philproof bait station – South Mokai PCO (photo A Cowley)

1 Introduction

1.1 Background

As a requirement of the Biosecurity Act 1993, Horizons Regional Council (HRC) has prepared a Regional Pest Animal Management Strategy (RPAMS). The purpose of the strategy is to safeguard the Manawatu-Wanganui Region's primary productivity, environmental quality and biological diversity from degradation by pest animals. The strategy provides a coordinated strategic and statutory framework for pest management so as to:

- Reduce the occurrence of new pest animal incursions,
- Suppress, contain or, where possible, eradicate pest populations that impact on Regional values; and
- Control pest animals in specific sites valued for biodiversity reasons.

During 2009-10 the Council completed a major review of the second RPAMS. The subsequent new strategy was adopted by Council in December 2009 and became operational on 10 January 2010. The strategy outlines how pest animals will be managed over the next 10 years. Responsibility for control lies either with Horizons Regional Council or land occupiers. Horizons Regional Council has responsibilities to ensure land occupiers are aware of, and meet their obligations for pest management on their properties.

Under Section 85 of the Biosecurity Act, the management agency for a pest management strategy must prepare an annual Operational Plan. The Plan must be reviewed and reported on annually, no later than five months after the end of each financial year. Copies of the Operational Plan and the report on its implementation must be made available to the public.

This document is the fifth Operational Plan to be prepared under the current RPAMS.

1.2 Purpose of the Operational Plan

This Operational Plan outlines the nature and scope of activities Horizons Regional Council intends to undertake in the implementation of the Regional Pest Animal Management Strategy for the period 1 July 2015 to 30 June 2016. The tasks and performance measures by which outcomes can be assessed are also identified.

1.3 Report Format

The Operational Plan should be read in conjunction with the current RPAMS and the Council's Long-Term Plan (LTP).

The LTP focuses on the actions (projects) that will be taken to manage individual animal pests or groups of pests and specifies the performance measures for these activities. This document also sets out the operational budget for each of these actions.

2 Implementation of Programmes

2.1 Introduction

In preparing the strategy an assessment was undertaken of nominated potential pest animals, which resulted in each pest species being placed into one of four management categories. This assessment was based on the particular effects, distribution, density and available control methods;

- **Eradication** - Eradication is a strategy reserved for pests that are of low incidence and/or of such high threat that it is more cost-effective to get rid of the pest completely.
- **Suppression** – Suppression is a strategy for pests of low to moderate densities but of such wide geographical spread that they cannot feasibly be eradicated from the Region.
- **Site-led** - A localised programme for removing all pests that threaten a regional value in a particular place and in conjunction with other management of that value.
- **Surveillance** - Region-wide surveillance programme to search for and control new incursions that pose a threat to the Region. Surveillance pests will generally sit off the Infestation Curve model as they are not yet present in the Region. Keeping an eye out for problems we can prevent is the most economic and practically feasible method by which to protect our Region from invasive pest animals. Section 100 of the Act may be used to instigate emergency control.

Annex A lists the pest animals according to their respective categories.

Photo 3: Rabbit sign Horowhenua coastal zone (photo R Wilman)

2.2 Methods and Resources

Horizons Regional Council achieves effective pest management through the following methods:

- **Service delivery** – Service delivery comes from a balance of general and targeted rates, depending on the exacerbator/beneficiary balance, and is a tool mainly used for amenity or site-led animal management, or when control options are only available to Horizons. Horizons will choose an appropriate method for control of a species, based on best industry practices.
- **Enforcement** - Horizons will define and enforce rules where it is deemed that a regulatory approach is needed to ensure pest animals are managed appropriately. Rules and enforcement are used to ensure everyone controls pests in accordance with the objectives in the Strategy.
- **Advice** - Horizons will provide advice on pest control options for any pest defined in the Strategy, and pass on to the community new information that arises from research and investigations.
- **Education** - Education will be aimed at increasing awareness of the Strategy and of the concept of biosecurity in general. Combined with the advisory service, the focus will be on providing information and assistance to enable the community to identify problems and to carry out their own pest management. Certain high-risk dispersal avenues and activities will be identified and targeted for focused awareness campaigns.
- **Community Participation** - Horizons will (at its discretion) establish and nurture community adoption of local pest control issues or natural areas where the problem aligns with the control of animals identified in this strategy. Horizons will assist with management plans and/or funding where appropriate.
- **Research and investigations** - National and international understanding of invasive species ecology is increasing and evolving all the time. It is imperative that Horizons provides the means for its staff to keep informed of such developments and abreast with changing management practices. Horizons will support or undertake research and training to contribute to the existing collective knowledge. Carefully considered biological control will be one focus of research efforts. Horizons will also undertake investigations to determine the extent of any new pest and its potential effect on regional values.

2.3 Management

The management and implementation of pest control programmes is the responsibility of Group Environmental Management (GEM). The Group Manager and Biosecurity and Habitat Protection Manager provide the strategic direction. Approximately half of the field operational work is programmed to be undertaken by the Horizons Regional Response Team, with external contractors engaged when the Response Team does not have the capacity to complete projects.

GEM management is based at Regional House, Palmerston North, and the operational team members are spread throughout the Region, at the Marton, Woodville, Wanganui, Taihape and Taumarunui Service Centres.

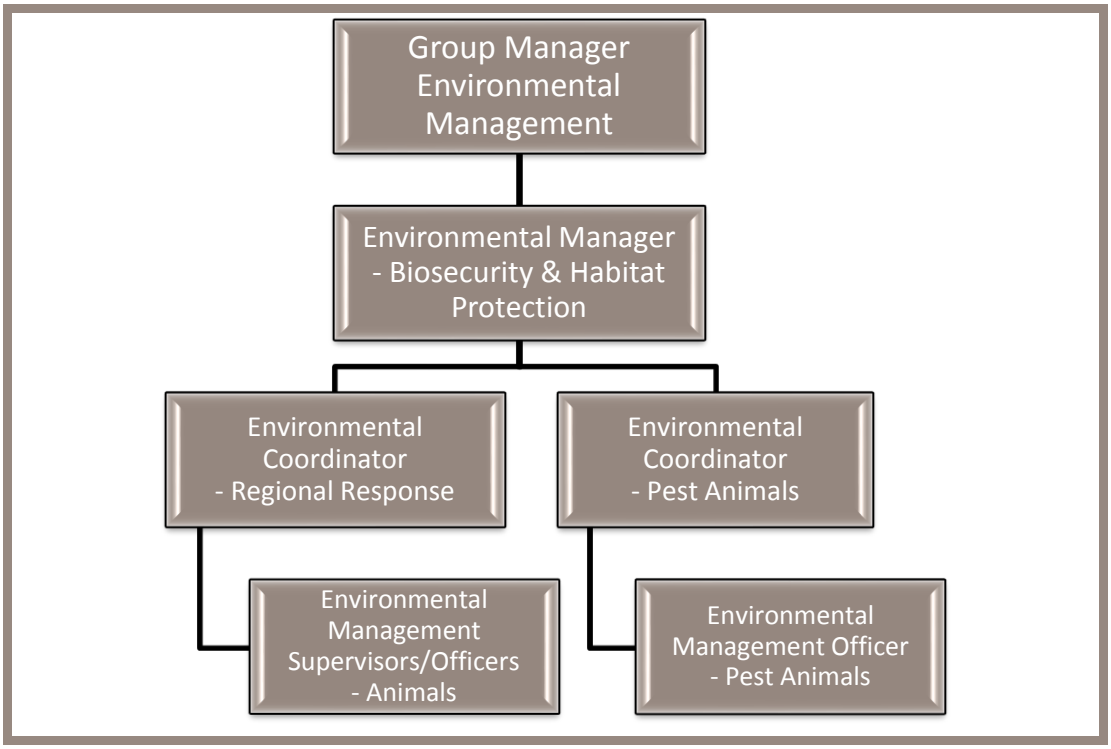
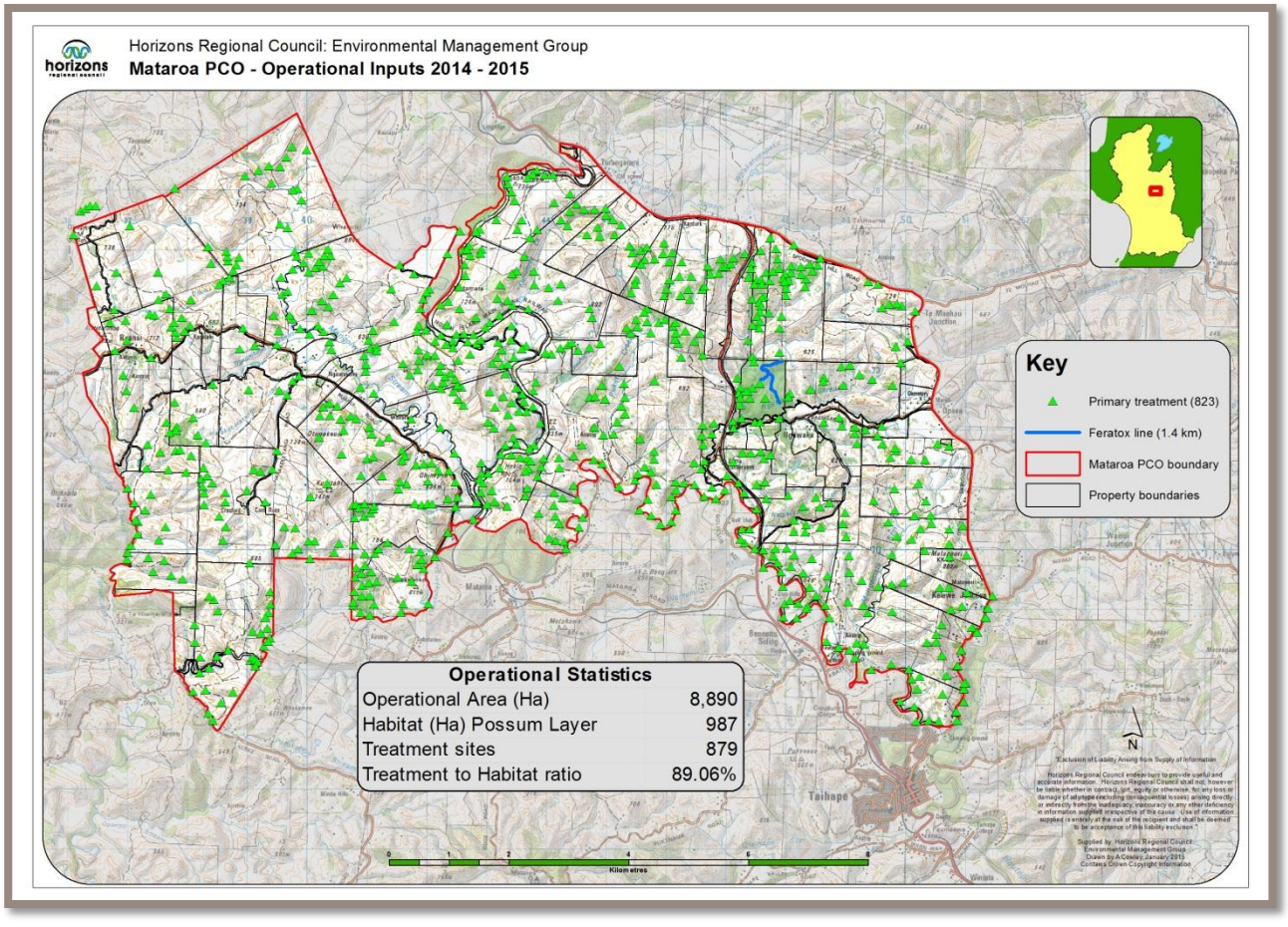


Figure 1: Biosecurity team structure 2015-16

Photo 4: Leg hold trap set in the Matahiwi PCO (photo A Cowley)

2.4 Reporting

Report	Comment:
Annual Report	The Annual Report will report against Annual Plan commitments as they relate to Pest Animal Management.
Bi-monthly Environment Committee Report	Bi-monthly reports will be prepared to report progress towards meeting annual targets.
Pest Animal Monitoring Report	The Environmental Biosecurity and Habitat Protection Manager is responsible for preparing the Pest Animal Monitoring Report to assess progress made against targets in the Pest Animal Operational Plan.
Pest Animal Operational Plan	A review of the Operational Plan will be initiated in May of each year.
Amenity Pest Database	The Frontline database will be kept current at all times, recording and reporting all animal pest enquiries.
Financial	Monthly performance against monthly phased budget will be reported to Council's Audit & Risk Committee, to corporate standard Monthly Financial Report.



Map 1: Example of 'Input Map' for Mataroa PCO which used to assess contractor performance and inform programme manager of likely operational outcome. Over time these map have been able to provide increasingly accurate possum density data.

3 Financial Overview

3.1 Financial and Activity Summary

The financial expenditure for the pest animal activity in the 2009-19 LTP has been summarised in five project groups.

Table 1: Summary of the 2015-16 LTP RPAMS & Regional AHB Funding expenditure

LTCCP Projects	LTCCP Budget ($)
Possum Control Operations (PCO)	$3,423,200
Rook Control and Management	$157,736
Animal Strategy: Statutory Pest Programmes	$143,278
Animal Strategy: Audit and monitor	$136,314
Regional Funding TBfree New Zealand NPMS	$175,000
Total LTP Budget	$4,035,528

3.2 Forecast Expenditure

The Possum Control Operation (PCO) project, relates to all operational and management work in the 2015-16 Possum Control Operation programme.

The Rook Control and Management project reflects all aerial and ground operational work planned for the coming year.

The Statutory Pest Programmes budget is for costs associated with enquiries that are received in the ‘rontline database during the year.

3.3 Targeted Rates Reserves

The operational make-up of the PCO programme is a mixture of maintenance, initial and ex-TBfree NZ areas or operations. Each of these programmes has a different budgeted cost of delivery. An initial operation may cost $15-20 per hectare while a maintenance operation can be as low as $2 per hectare.

The mix of these operations varies from year to year and therefore the operational budget can also vary slightly in accordance with these variations, especially when compared to the original idealised 10-year budget for PCO programme set in 2006-07.

Photo 5: Ground rabbit control using Pindone carrot bait (photo R Wilman)

Photo 6: Feral goats - a threat to biodiversity projects (photo E Dodd)

4 Possums ($3,423,200)

4.1 Overview

The 2015-2016 year is the 10th year of Horizons' Possum Control Operation (PCO). In this year's PCO, we will add a further 138,192 ha to the programme, bringing the total area to 1,197,816 ha.

The operational work will be undertaken by the Horizons Regional Response Team (RRT) and external service providers, the split being approximately 45% of hectares to be controlled by the RRT and 55% by external contractors.

All operational work is in line with the objectives in the Possum Control Operations Implementation Plan 2006-07.

4.2 Performance Measures

Table 2: Performance measures and targets – PCO

Performance Measures	Target	Comments
Complete possum control in 84 operational areas by 30 June 2016.	15 initial plus 69 maintenance	Control will involve a combination of trapping, shooting and poisoning work.
Sample of new (initial) PCOs to have possum populations at or below 10% residual trap catch (RTC). Sample of ex-TBfree NZ and existing PCOs to have possum populations at or below 5% RTC.	<10% RTC <5% RTC	Sampling carried out to RTC protocol or carried out using alternative approved methodology (eg., wax tags).
Record all inputs associated with the management and control of possums in the PCOs including: • Inputs maps • Input / habitat ratio • Inputs (labour & consumables) • Medical Officer of Health approvals	Record	Data to be collected and recorded via Global Positioning Systems (GPS), inputs of consumables and reports.
Undertake RTC monitors.	15-plus operations	Monitoring will provide information to help assess the effectiveness of the programme.
Undertake operational audits to ensure compliance with operational and contract standards.	10% (8-9) operations	Includes both physical ground auditing of control methods and a review of administrative processes eg., GPS data, reports etc (desktop audits).

Table 3: Milestones to achieve 10 year PCO programme

Milestone	Target (Ha)	F/Cast (Ha)	Comment
Annual PCO target *	116,000	138,192	116,000 ha annually with overall target 1,160,000 ha.
Life to Date (Year 10) PCO target[3]	1,160,000	1,197,816	37,816 ha ahead of target

5 Rooks ($157,736)

This year's work programme will be similar to the 2014-15 programme. A systematic aerial nest baiting campaign will be followed by targeted ground control work.

The aerial work targets breeding rookeries with control likely to commence in early October and run into November 2015.

Prior to implementing the aerial work, ground and aerial surveys will be undertaken to establish the optimum time to carry out the work. During the ground surveys all inactive rookeries recorded over the past five seasons will be revisited to establish whether birds have returned to these sites, which will save helicopter flying time.

Aerial work involves the application of DRC 1339 poison (mixed into petroleum jelly) to the rim of active breeding nests. This method has a proven track record and has substantially reduced rook populations across the Region. Similar results have been experienced by other Regional Councils using the aerial baiting technique.

This will be the 10th year that all breeding rookeries in the Region have been treated. A limited number of ground control operations will be undertaken during the summer/autumn months targeting birds that are feeding on crops and young grass paddocks. This year we plan to use the recently registered 'macaroni' bait.

5.1 Performance Measures

Table 4: Performance Measures and Targets – Rooks

Performance Measures	Target	Comments
Undertake control operations in all breeding rookeries throughout the Region	Approx. 200 nests	Helicopter nest baiting control will be undertaken in the breeding season. The results of this work will be recorded and reported in the end of year monitoring report. This report to be completed by December 2015.
Undertake ground operations	80% efficacy	Ground baiting techniques will be implemented during the summer/autumn cropping season. Post-operational reports will be prepared following the completion of all ground work.
Breeding rookery database to be updated by 30 January 2016	Record	All rookeries and ground operation locations to have a GPS waypoint with a unique site number.

Photo 7: Rook nest (photo R Wilman)

Photo 8: Pre-feed bread bait laid for rooks in Tararua District (photo R Wilman)

6 Pest Animal Response/Amenity Pest ($143,278)

Horizons receives more than 650 enquiries from landowners across the Region relating to pest animal issues each year.

Most enquiries received from customers relate to 'nuisance' animals (possums; mustelids; rabbits etc) in the 'amenity' type situations, ie., lifestyle blocks, around gardens etc. In these situations, Horizons staff provide advice on control techniques and supply loan traps to landowners. We also receive a number of complaints about pests (mainly rabbits) spreading from neighbours' properties and causing problems. In these situations ground inspections and discussions with affected landowners are required, and if the problem is unable to be resolved, enforcement options can be used.

All enquiries are recorded on the Frontline database and the aim is to respond to them all within two working days of receipt.

All actions taken in regard to the enquiries are recorded in Frontline and are summarised in the bi-monthly Environmental Committee Report. A summary of the full year's enquiries (with pest type/GPS location) is summarised in the end of year Pest Animal Strategy Monitoring Report.

6.1 Performance Measures

Table 5: Performance measures and targets – Amenity Pests

Performance Measures	Comments
Action public enquiries and complaints and respond to requests for information or assistance (all enquiries to be responded to within 48 hours). All actions to be recorded in the Frontline database.	HRC staff will respond to requests within two working days of receipt of the enquiry. HRC will provide customers with advice on control methods and supply traps (on a loan basis) and limited amounts of poison material. HRC may undertake discretionary control of these pests, on a case by case basis.
Initiate appropriate enforcement action against land occupiers who do not comply with strategy rules.	Standard operating procedures to be followed. Ensure full compliance with Strategy rules.
Ensure that information on control methods for amenity pests is available on the HRC website.	Individual animal pest fact sheets are to be updated as required. Refer to NPCA website where appropriate.

Photo 9: Possum caught in a Possum Master trap in an urban area (photo R Wilman)

7 Monitoring ($136,314)

The monitoring programme is two-fold:

- Horizons Regional Council-funded pest control programmes are monitored for their effectiveness and/or for the purposes of determining changes in pest population; and
- Surveillance is carried out on non-statutory animal pests to determine their presence and/or distribution. Such surveillance supports decisions as to including pests of this type in future RPAMS management programmes. The Frontline database is used to record the majority of non-statutory pests following landowner notification.

7.1 Performance Measures

Table 6: Performance Measures and Targets - Monitoring

Performance Measures	Comment:
Possum Control Operation: Undertake wax tag possum monitors in selected PCO operational areas. A minimum of 15 monitors will be undertaken.	Monitors will be carried out using accepted industry protocols and approved operators. Results will be assessed against the operational targets i.e. <5% RTC for ex-TBfree operations and <10%RTC for HRC initiated operations.
Undertake rabbit night counts on predetermined count routes across the Region to establish trends in rabbit populations.	Eleven count routes are to be surveyed.
Undertake a blood sample of rabbits in the Region to assess prevalence of rabbit haemorrhagic disease (200-300 samples to be taken).	No counts will be undertaken in the 2015-16 year.
Rook Monitoring: Undertake inspections of known/new rookeries to assess presence/absence of birds prior to the aerial control work.	The rook database will be reviewed and all new sites added during the year will be inspected. Also past 'inactive' sites will be revisited to ensure that birds have not returned.

Photo 10: Wax tag monitor (photo A Cowley)

8 Annex A: Summary of Possum Control Operations

Table 7: PCO areas 2015-16

MAINTENANCE OPERATIONS		
Operational Name	Hectares	Service Provider
Akitio (West section)	7,685	JJS Pest Control Ltd
Apiti	11,921	Baytrap Ltd
Ballance	11,078	Horizons RRT
Branscombe	11,218	Central Districts Pest Control Ltd
Branscombe Coast	8,008	Puketoi Pest Control Ltd
Bunnythorpe	19,331	M&M Contractors
Coastal Bulls	16,955	Horizons RRT
Coastal Foxton	11,041	Horizons RRT
Coastal Kai Iwi	9,761	Horizons RRT
Coastal Turakina	14,786	Horizons RRT
East Alfredton	6,344	M&M Contractors
East Pahiatua	6,785	Hansen Contracting
Eketahuna South	11,965	KB Environmental Services
Hokio	9,958	Horizons RRT
Horowhenua	7,472	Central Districts Pest Control Ltd
Hunterville	8,536	KB Environmental Services
Kai Iwi	7,366	KB Environmental Services
Kairanga	18,443	Horizons RRT
Kawhatau	7,187	M&M Contractors
Kohinui	12,499	JJS Pest Control Ltd
Leedstown	12,202	Central Districts Pest Control Ltd
Linton	18,417	Horizons RRT
Makirikiri	11,234	Horizons RRT
Makuri A	7,594	Central Districts Pest Control Ltd
Mangahoe	7,626	Horizons RRT
Mangaone West	7,078	Horizons RRT
Mangarere	13,325	KB Environmental Services Ltd
Mangaweka	12,377	Baytrap Ltd
Marima	11,214	Central Districts Pest Control Ltd
Matahiwi	8,888	KB Environmental Services Ltd
Matamau South	6,847	Puketoi Pest Control Ltd
Matamau West	10,923	Puketoi Pest Control Ltd
Mokai	8,671	KB Environmental Services Ltd
Mt Stewart	5,728	Horizons RRT
Norsewood	12,892	Horizons RRT
Ohutu	10,024	Horizons RRT
Oporae (West)	10,287	Puketoi Pest Control Ltd
Oringi	13,041	Horizons RRT
Otope	13,185	Horizons RRT
Parapara	12,394	Horizons RRT
Puka	7,640	JJS Pest Control Ltd

MAINTENANCE OPERATIONS		
Operational Name	**Hectares**	**Service Provider**
Pukeokahu	15,724	Horizons RRT
Raetihi Buffer Stage 2	15,631	Horizons RRT
Rangatira	8,760	KB Environmental Services Ltd
Rongomai	6,800	Puketoi Pest Control Ltd
Ruaroa	12,396	Puketoi Pest Control Ltd
Sandon A	6,732	KB Environmental Services Ltd
Shannon	8,258	Horizons RRT
South Mokai	9,028	Horizons RRT
Tane Kaitawa	10,272	M&M Contractors
Tararua Ground	7,367	Horizons RRT
Tatu Haeo	9,681	Horizons RRT
Tiriraukawa	7,887	Horizons RRT
Toe Toe	6,267	KB Environmental Services Ltd
Tokomaru	15,512	Horizons RRT
Totara	9,219	KB Environmental Services Ltd
Turakina Valley	16,508	Baytrap Ltd
Waikaka	11,007	Horizons RRT
Waikaka South	15,738	Horizons RRT
Waimarino Pipipi	899	TBA
Waione	12,117	Puketoi Pest Control Ltd
Waitaanga	3,232	Horizons RRT
Waiterere	5,769	Horizons RRT
Waituna West	6,100	Horizons RRT
Weber	14,459	Horizons RRT
West Raetihi	4,417	Horizons RRT
Whakarongo	11,052	M&M Contractors
Whetukura	18,793	Horizons RRT
Woodville	16,136	Horizons RRT
Total Maintenance	**725,687**	

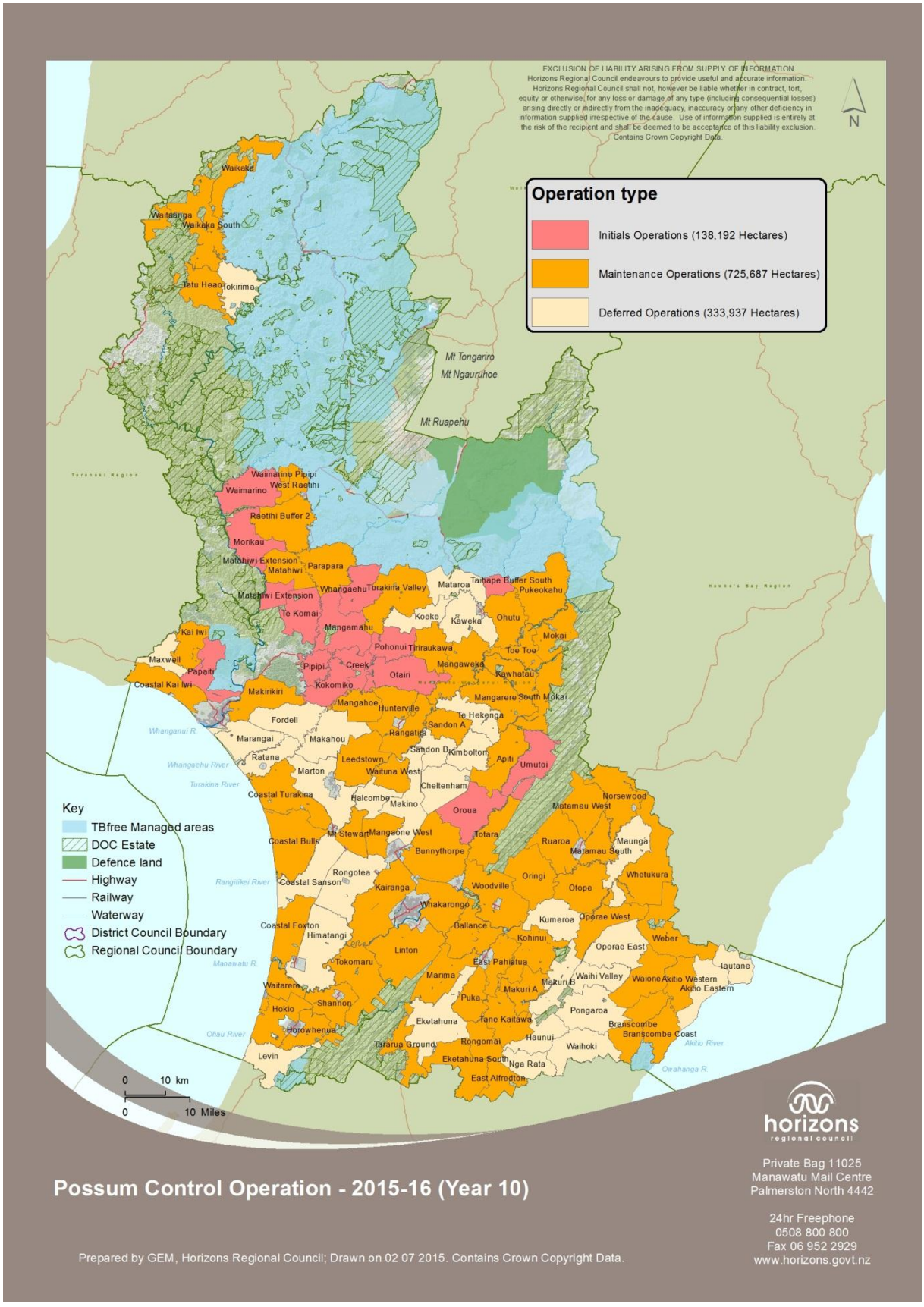
NEW (INITIAL) OPERATIONS		
Operational Name	**Hectares**	**Provider**
Creek	5,446	TBA
Kokomiko	8,303	Horizons RRT
Mangamahu	13,080	Horizons RRT
Matahiwi Extension	4,745	TBA
Morikau	10,755	TBA
Oroua	13,136	Horizons RRT
Otairi	13,351	Horizons RRT
Papaiti	9,171	TBA
Pipipi	5,351	Horizons RRT
Pohonui	7,435	TBA
Taihape Buffer South	3,113	Horizons RRT
Te Komai	10,291	TBA
Umutoi	12109	TBA
Waimarino	12,552	TBA
Whangaehu	9,354	TBA
Total Initial	**138,192**	

DEFERRED OPERATIONS		
Operational Name	**Hectares**	**Reason Deferred**
Akitio Eastern	9,662	Anticipated low RTC
Cheltenham	10,502	Anticipated low RTC
Coastal Sanson	12,550	Low RTC
Eketahuna	17,744	Low RTC
Fordell	11,508	Low RTC
Halcombe	6,088	Low RTC
Haunui	7,922	Low RTC
Himatangi	19,077	Anticipated low RTC
Kaweka	11,364	Low RTC
Kimbolton	7,666	Low RTC
Koeke	7,168	Low RTC
Kumeroa	10,251	Low RTC
Levin	9,554	In TBfree programme
Makahou	12,886	Anticipated low RTC
Makino	12,767	Low RTC
Makuri B	8,709	Low RTC
Marangai	10,320	Low RTC
Marton	14,924	Low RTC
Mataroa	8,890	Low RTC
Maunga	11,741	Low RTC
Maxwell	5,363	Anticipated low RTC
Nga Rata	7,102	Anticipated low RTC
Oporae East	13,249	Low RTC
Pongaroa	14,120	Low RTC
Ratana	7,025	Low RTC
Rongotea	16,500	Anticipated low RTC

DEFERRED OPERATIONS		
Operational Name	**Hectares**	**Reason Deferred**
Sandon B	5,790	Anticipated low RTC
Tautane	5,895	Low RTC
Te Hekenga	8,593	Anticipated low RTC
Tokirima	9,153	Anticipated low RTC
Waihi Valley	7,962	Low RTC
Waihoki	11,892	Anticipated low RTC
Total Deferred	**333,937**	

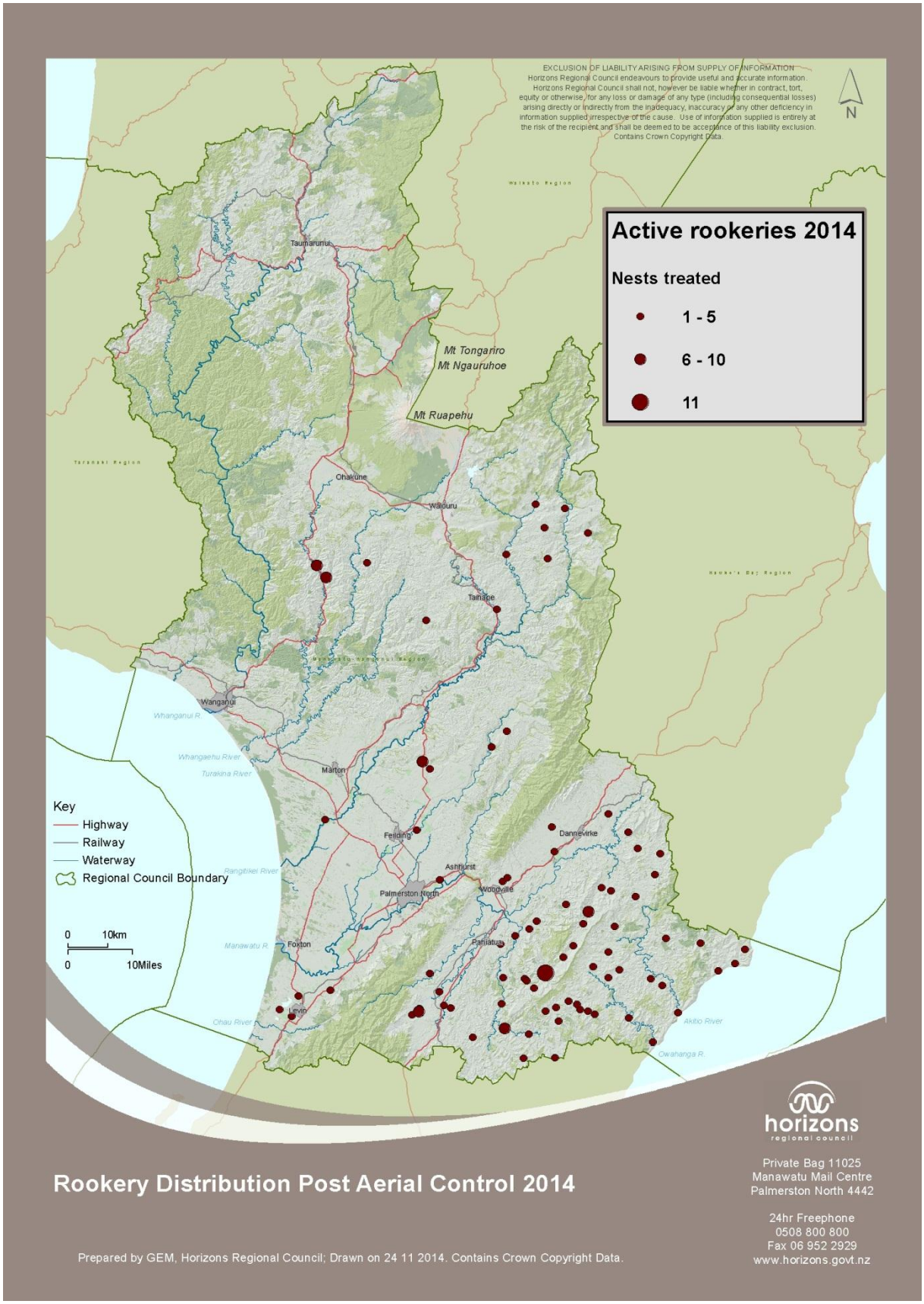
SUMMARY OF ALL OPERATIONS	
Operation Type	**Area (ha)**
Total Maintenance	725,687
Total Initial	138,192
Total Deferred	333,937
Total Area PCO 2015-16	**1,197,816**

9 Annex B: PCO Map 2015-16



Map 2: Possum Control Operations 2015-16

10 Annex C: Rook map 2014-15



Map 3: Rook (rookeries) distribution map following the 2014 aerial programme

11 Annex D: RPAMS objectives and means of achievement

Animal	Management Objective	Main Means of Achievement	Rules and regulations in the RPAMS
Rook	Eradication	Species-led Service Delivery	✓
Possum	Suppression	Species-led Service Delivery	✓
Feral Rabbit	Suppression	Species-led, occupier control	✓
Stoat	Site-led	Site-led Service Delivery	✓
Ferret	Site-led	Site-led Service Delivery	✓
Weasel	Site-led	Site-led Service Delivery	✓
Koi/European Carp	Site-led	Site-led Service Delivery	✓
Gambusia	Site-led	Site-led Service Delivery	✓
Brown bull-headed Catfish	Site-led	Site-led Service Delivery	✓
Rudd	Site-led	Site-led Service Delivery	✓
Feral Cat	Site-led	Site-led Service Delivery	✓
Feral Eastern Rosella	Site-led	Site-led Service Delivery	✓
Dama Wallaby	Surveillance	Surveillance and small scale management	✓
Banjo Frog	Surveillance	Surveillance and small scale management	✓
Feral Rainbow Lorikeet	Surveillance	Surveillance and small scale management	✓
Gudgeon	Surveillance	Surveillance and small scale management	✓
Marron	Surveillance	Surveillance and small scale management	✓
The Clubbed Tunicate Sea Squirt	Surveillance	Surveillance and small scale management	✓
Chinese Mitten Crab	Surveillance	Surveillance and small scale management	✓
Mediterranean Fanworm	Surveillance	Surveillance and small scale management	✓
Northern Pacific Seastar	Surveillance	Surveillance and small scale management	✓
European Shore Crab	Surveillance	Surveillance and small scale management	✓
Asian Clam	Surveillance	Surveillance and small scale management	✓
Feral Goat	Site-led	Site-led Service Delivery	
Red Deer	Site-led	Site-led Service Delivery	
Sika Deer	Site-led	Site-led Service Delivery	
Sambar Deer	Site-led	Site-led Service Delivery	
Fallow Deer	Site-led	Site-led Service Delivery	
Feral Pig	Site-led	Site-led Service Delivery	
Hare	Site-led	Site-led Service Delivery	
Rat species	Site-led	Site-led Service Delivery	
European Hedgehog	Site-led	Site-led Service Delivery	
Magpie	Site-led	Site-led Service Delivery	
Feral Sulphur Crested Cockatoo	Site-led	Site-led Service Delivery	
Peafowl	Suppression	Voluntary Self-Help Groups	

12 Annex E: Inputs Based Contracting

Horizons Regional Council's Possum Control Operations (PCO) programme is reliant on the concept of management of inputs. This section discusses this innovative approach to possum control in the Region.

12.1 Monitoring of Possums

Since the adoption of wide-scale contestability in the possum control industry, pest managers have been in search of an effective and affordable performance monitoring system.

In the absence of any alternative, the Residual Trap Catch Index (RTCI or RTC) has been the standard for all performance monitors. Following the receipt and adoption on recommendations in the 'Half Way There' report (a report reviewing the first five years of the PCO) we have moved exclusively to wax tag monitoring. This system uses a prescribed formula to determine the number of randomly selected wax lines that are needed to sample performance. Lines consisting of 20 wax tags are 'set' following the control efforts of a service provider. Factors influencing the number of wax lines used are the hectares involved and vegetation or habitat type. The performance level is determined by counting the number of possums bite marks on the tags and expressing them as a percentage relative to the RTC index.

Using such a definitive measure allows contract managers to apply performance targets prior to work taking place. Targets of 5%, 10%, 3% and even 1% or 2% RTC are common in possum control contracts.

With the adoption of industry protocols for the planning and execution of monitors using RTC, a very robust and consistent system has been implemented across New Zealand and is used by all major agencies involved in possum control.

However, the RTC system is not without fault. Many in the industry question the accuracy of results below 5% RTC. As a solitary performance measure, RTCs do not effectively indicate the level of skill or effort applied by the service provider. Service providers are paid on successful RTC outcome and this encourages the provider to look for the quickest way to comply (beat the monitor) and not necessarily for the best outcome for achieving low uniform pest densities.

Because all jobs require monitoring for payment, cost can be comparatively high, with some small jobs having monitor costs equal to or even higher to control cost.

Traditionally, a failed monitor requires a rework and a further monitor until the target is met or the contract with the service provider is terminated. These reworks are often initiated by the monitor catching one possum too many. The resulting rework and monitor regularly incurs costs of tens of thousands of dollars.

There is a disincentive for service providers to openly discuss or highlight areas of concern where possum numbers are still high and not detected by a monitor.

12.2 Inputs Monitored Contracts

RTC monitoring is at its best when used for setting targets in service contracts and for providing evidence that a target has or has not been reached. Following the system faithfully can reduce the reliance on an increasingly scarce technical resource and replace it with contract management skills.

Where these technical and management skills do exist there is an alternative monitor system.

Input monitoring relies on identifying all the needed elements for success in an operation and ensuring they have been applied.

Much is known these days about what is needed to achieve successful outcomes with possum control. We know there are methods and strategies that if applied correctly will achieve specific outcomes. The key to success is matching the right method and resources to the right operational situation.

A situation can be created where the pest manager and service provider agree on an operational plan prior to a contract being set. This allows all inputs to be quantified with an audit system put in place to assure agreed effort and resources are being appropriately applied.

In some cases maps can be produced to prescribe where control device locations should be.

On completion of input delivery the service provider is paid. It is ultimately the responsibility of the pest manager to decide what methods and inputs are applied. The pest manager takes responsibility for the outcome by ensuring the service provider has delivered with best endeavour, in full, on time and within budget.

This system also encourages both parties to talk about problem areas. In situations where funding did not allow complete or thorough enough coverage, there is an open and transparent system to target this area in the following year. This is a very pragmatic solution to gathering data efficiently, which can be otherwise a very expensive exercise using RTC.

If there is a genuine desire for pest managers and service providers to work in partnership developing successful programmes then input monitoring clearly facilitates this. The contractor has no need to build in contingencies for RTC failure and can commit all resources to the target pest reduction in the operation. The contractor also has better ability to forecast capacity issues.

The system allows a very high proportion of the budget to be used for control. All the performance measures for service providers can be catered for by inputs monitoring. From time to time data on possum density trends is needed and it would appear RTC monitoring would still be the best option to provide this. However, because a programme trend only is required, a reduced sampling programme (ie., not all jobs) will provide this. It is important where multiple targets are sought that sampling is carried out for each target strata.

Recent developments in monitoring have introduced wax tag and chew card monitoring as an alternative to trapping. Simply put, these methods use tags or cards out that are bitten by possums. A follow up inspection confirms possum bite and indicates presence or absence of the pest. This is more helpful in determining pest spread (range) rather than density. The advantages of working with light-weight tags and cards are obvious and relatively inexpensive when compared to trapping.

Data from wax tags/chew cards can be captured electronically using GIS and displayed to good effect on maps showing historic, current and future trends.

12.3 Summary

The monitoring system adopted by Horizons for the PCO programme is inputs based. A combination of audit systems is in place to inform Horizons Pest Managers of the service provider's effort and application in each job. GPS downloads into Horizons' GIS system capture control device location and visits and daily kill reports, operational plans, post operational reports and technical reviews while field audits fill in any other gaps in performance management.

Some RTC monitoring is carried out with a minimum of 10% of all jobs monitored, thus ensuring the targets of keeping all ex TBfree NZ jobs under 5% RTC and all other jobs in the programme under 10% RTC are on track.

All monitoring is now carried out with wax tags instead of traps. Horizons management sees potential in reporting pest spread (range). GIS maps have been prepared to accept the data and trial this form of reporting.

This methodology provides a good mix of monitoring techniques to deliver relevant and timely information in a cost effective manner. Horizons is an early adopter of inputs monitoring and believes it has delivered. This method will become very prevalent in the pest industry.

Horizons will continue to explore new and innovative ways to monitor performance and outcomes.

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