



# BIOSECURITY ANIMALS

## 1 ACTIVITY OVERVIEW

1.1.1 The Biosecurity Animals Activity delivers work across programmes to protect both production and biodiversity values including:

- The Possum Control Programme;
- The Rook Control Programme; and
- The Amenity Pests Programme

1.1.2 The Activity links with a range of national and regional policies and strategies including the Biosecurity Act 1993, National Policy Direction 2015 and Regional Pest Management Plan 2017-2037.

## 2 ANNUAL PLAN TARGETS

2.1.1 A summary of the Annual Plan targets and progress to date is provided in Table 1

Table 1 Progress reporting for the Biosecurity Animals Annual Plan targets for 2019-20.

Performance measure/ contract target	Target	Progress
Possum densities are maintained at/below 10% <b>residual trap catch</b> (RTC) in all existing and new possum control operations. This is to enhance production, biodiversity, disease protection, and amenity values.	<10% RTC	53 of the planned 57 monitors were completed during the year. The average result for the 2019-20 year was 2.9% RTC.
Additional hectares included in [the Possum] Control Programme	57,441 ha	42,765 new hectares were completed during the year.
All known rookeries are treated annually to reduce crop losses and damage.	100%	All known breeding rookeries were treated.
Provide an urban/peri-urban animal pest management service to assist ratepayers with specialist advice and equipment. All enquiries responded to within two working days.	100%	158 enquiries were received during the reporting period, bringing the total to 1,130 for 2019-20 year. All enquiries were followed up within the agreed timeframes.

## 3 POSSUM CONTROL PROGRAMME

### 3.1 Programme overview

- 3.1.1 The Manawatū-Whanganui Region possum control programme aims to maintain the possum population below a target of 10% **residual trap catch** (RTC) within the area of the programme, consistent with the Regional Pest Management Plan targets. The possum programme started in 2006, covering 70,000 ha, and has grown every year to include more land. Horizons has initiated control in some areas and in others has taken on new areas where previous possum control organisation OSPRI had initiated work for the control and eradication of bovine TB. Horizons has, and continues to absorb the areas into its possum control programme following OSPRI ceasing control of particular areas. The Horizons programme is delivered by a combination of council staff (approximately 65%) and external contractors (approximately 35%).
- 3.1.2 In 2019-20 the voluntary possum control programme spans a total area of 1,568,248 ha (approximately 70% of Horizons' region). The total possum control area continues to grow annually as Horizons takes over where OSPRI achieves freedom from Bovine TB in areas it has previously controlled, and then ceases further pest control. Within the area of the programme in 2019-20:
- Landowners have opted out of 79,174 ha (5%) of the programme;
  - 66,718 ha (4.3% of the total area) not previously controlled by Horizons (ex-OSPRI) is being added to the programme. NB: this includes 9,277 ha carried forward from last year;
  - 865,655 ha (55.2% of the total area) is scheduled for maintenance control, i.e. areas that previously have been under Horizons control and will receive bait station fills this year;
  - 556,701 ha (35.5%) of the programme area is being deferred from control due to low possum numbers indicated by the monitoring programme and the projected numbers derived from a population modelling app (PosSim) that assists programme management decision-making.
- 3.1.3 The possum control programme as a whole is made up of a total of 153 **Possum Control Operations** (PCOs). The monitoring programme measures possum abundance in 25% of the PCOs to inform decision-making about areas for control, and over a four-year period each of the PCOs is monitored at least once. The growing area of the programme also increases the monitoring programme requirements to ensure each PCO is monitored at least once every four years.
- 3.1.4 Of a possible 153 PCOs, 99 are being worked this year (2019-20) with 54 deferred due to low possum abundance. Of the 99 PCOs being worked, 64 are being completed by Horizons staff and 35 by external contractors.

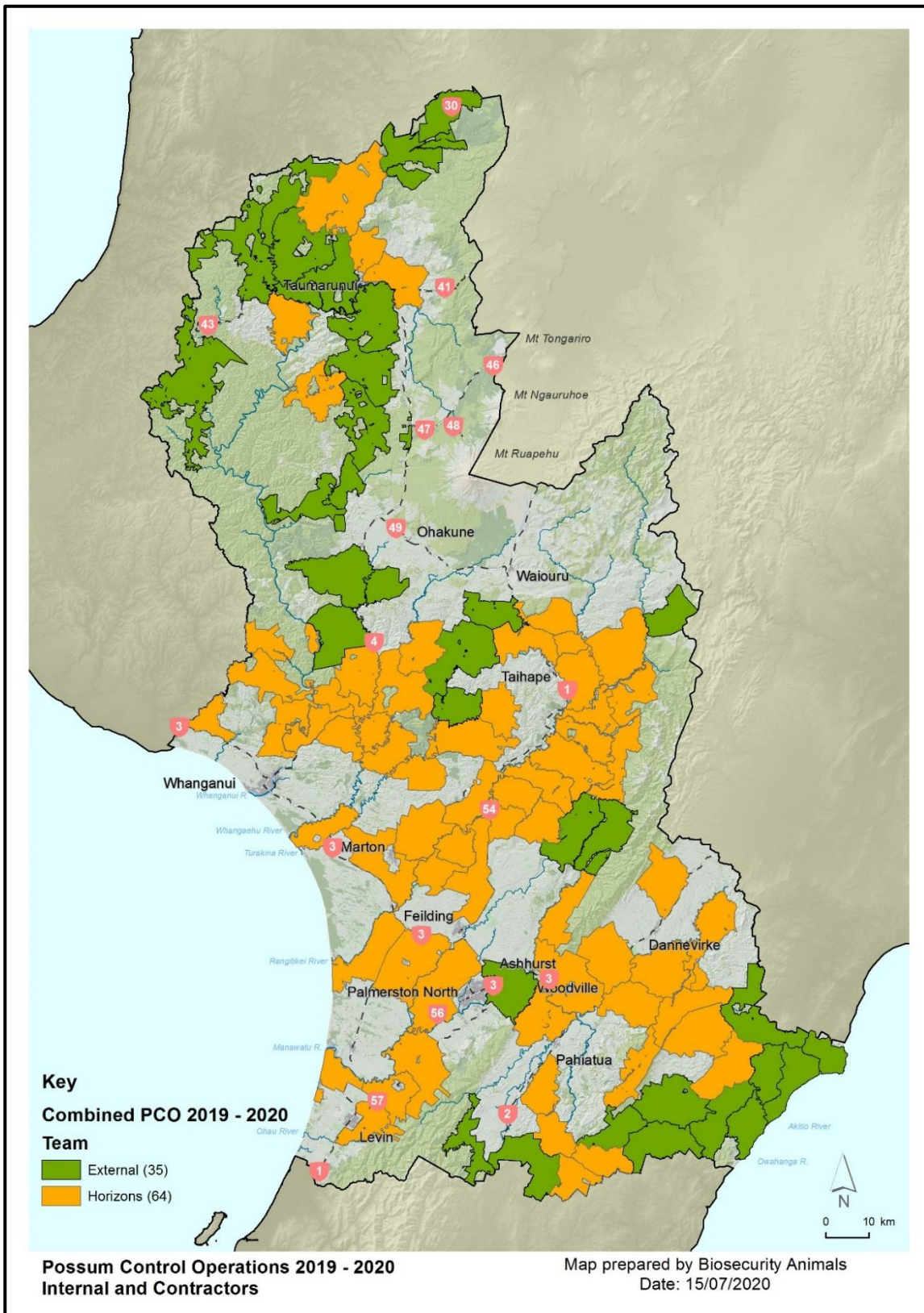
- 3.1.5 As outlined in the Operational Plan the team are reviewing each PCO being worked this year, analysing results and installing further bait stations where required. The team are also seeking landowners who have previously opted out of the voluntary programme to persuade them to opt in and provide more complete coverage of the region. If a significant number opt in, the total number of PCOs completed over the year may reduce. A further change this year is enabling the team to identify and action second fills of bait stations where high possum abundance is encountered.
- 3.1.6 Landcare Research has been engaged to provide advice regarding the thresholds of possum abundance linked with the size and type of habitat that could trigger Good Neighbour Rules in Horizons' **Regional Pest Management Plan** (RPMP) 2017-2037. This will provide guidelines that will assist when assessing adjoining landowners with higher possum abundance than their neighbouring properties, and the level that will trigger a regulatory response. This advice is due to be received by the end of July 2020.

## 3.2 Activity update

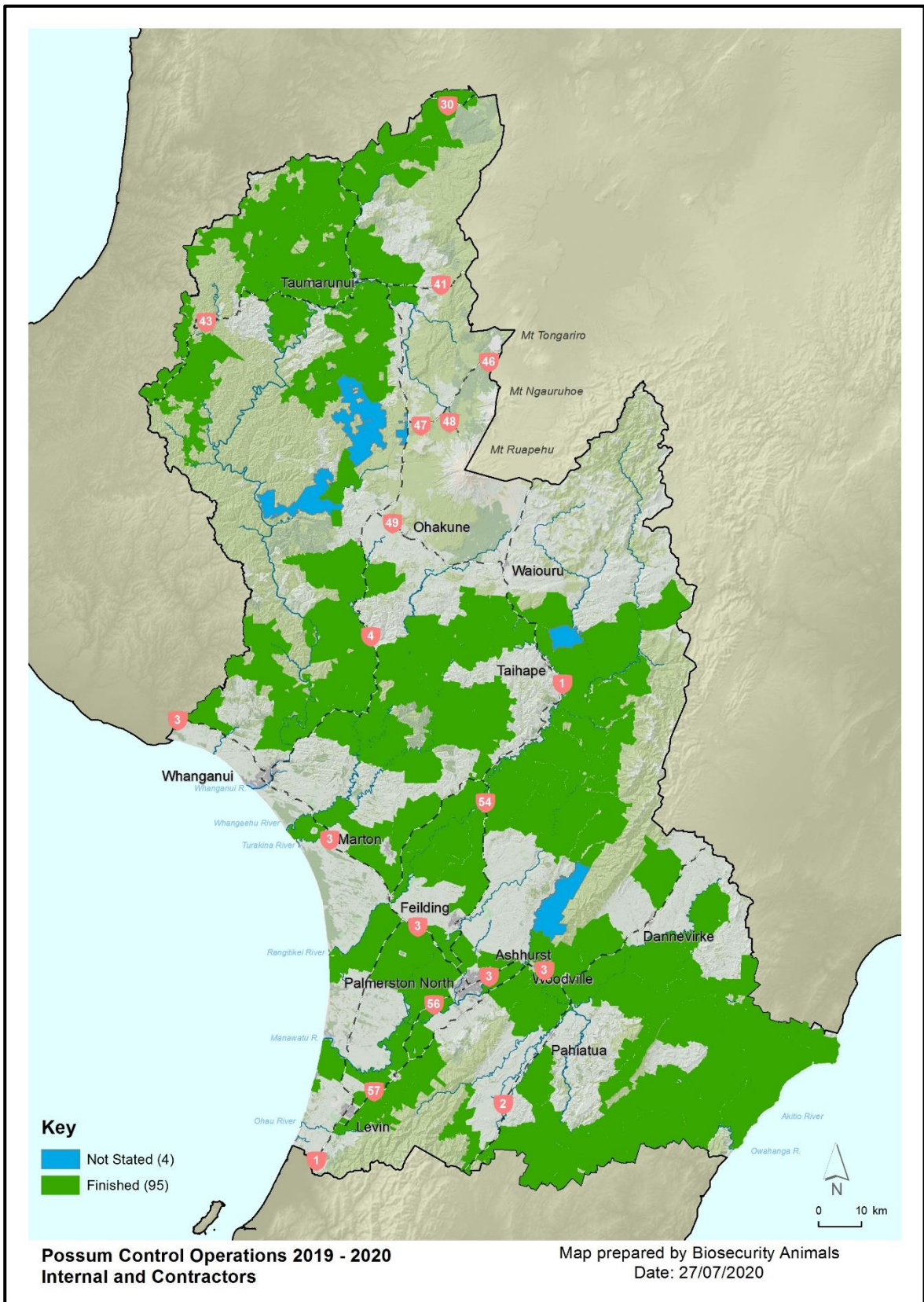
- 3.2.1 Two of the four PCOs not completed are ex-OSPRI programmes (Retaruke and Ruatiti Stage One). As a consequence of these operations not starting the Annual Plan target of additional (new) hectares has not been met this year. This is the first time that the 'new' hectare target has not been met since the start of the PCO in 2006-07. In total, 42,765 new hectares were treated and added to the programme this year, when the annual plan target was 57,441 hectares.
- 3.2.2 Apart from the disruption of the Covid-19 lockdown, the PCO operational work ran smoothly throughout the year with continued strong support from the many landowners and 53 PCOs were monitored, returning an average RTC result of 2.9%, well inside the 10% target.
- 3.2.3 Planning for the 2020-21 PCO has been completed with 87 operational areas scheduled to be controlled over the next 12 months. Fifty-seven of these operations will be worked by the RRT and 30 by external contractors. Map 3 illustrates the locations of the operational areas.
- 3.2.4 The selection process to decide whether an operational area would be included into the 2020-21 programme was based on either actual monitoring results or from the PosSim modelling tool, which was developed by Landcare Research. All operations in the 2020-21 PCO have either an actual or modelled RTC of 2.9% or higher.
- 3.2.5 This year (2020-21) is the last term of the current contracts with our external contractors i.e. year three of three. We plan to commence the procurement process for the next three years work in August-September. This should ensure that the successful contractors have the opportunity to commence work on 1 July 2021.

Table 2 Progress reporting for the Possum Control Programme against Operational Plan targets.

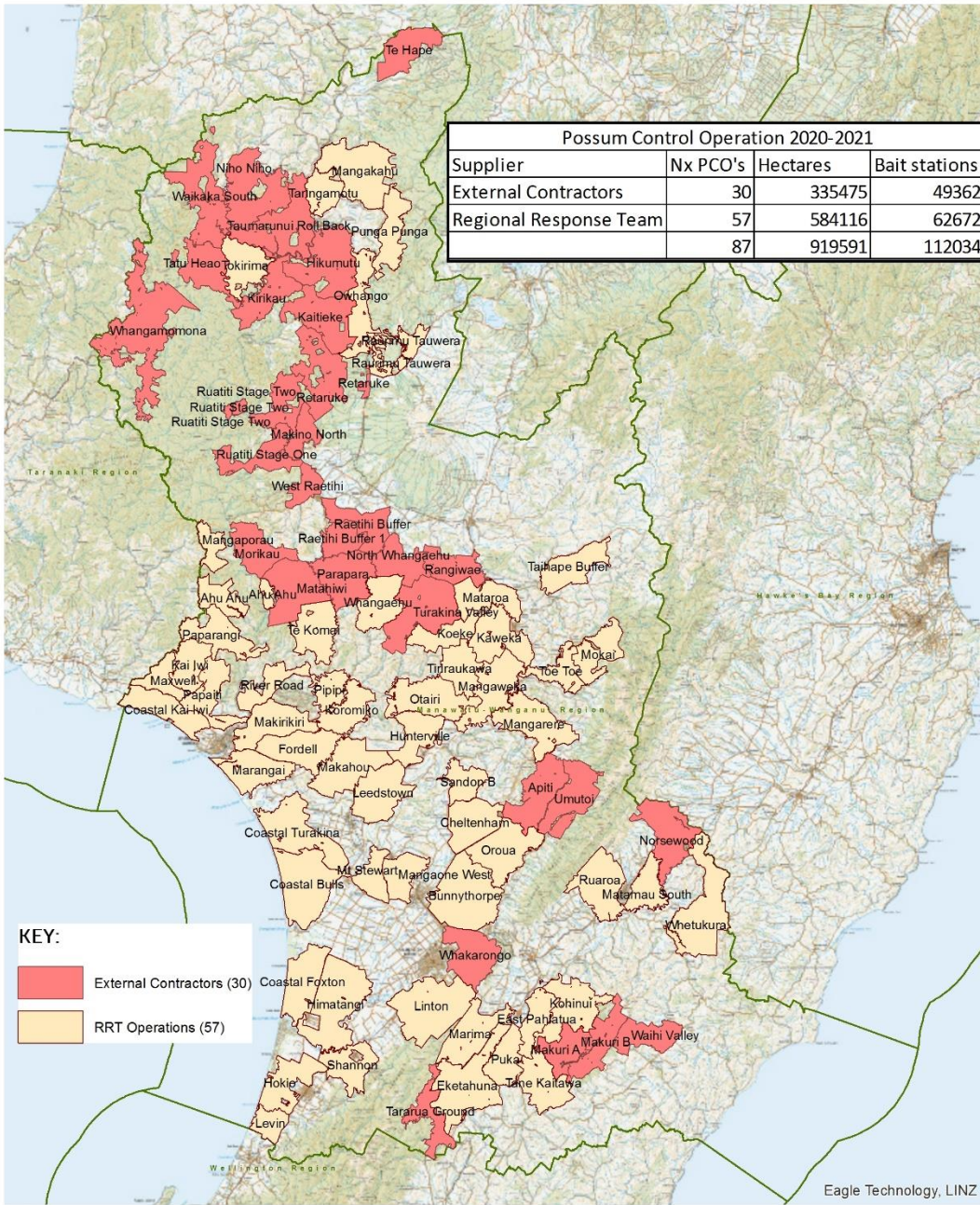
Measure	Reporting Period				Total	Target	% Complete	Status at 30-06-2020
	Period 1	Period 2	Period 3	Period 4				
<b>Regional Response Team</b>								
PCOs completed	12	12	17	21	62	64	97%	The PCOs not completed have been incorporated in the 2020-21 PCO.
New hectares completed	1,460	9,000	23,225	9,080	42,765	43,765	98%	
<b>External Contractors</b>								
PCOs completed	2	6	12	13	33	35	94%	33 of the planned 35 PCOs were completed with two not starting due to the Covid-19 lockdown to carry over to the 2020-21 year.
New hectares completed	0	0	0	0	0	22,953	0	The external contractors didn't commence work in the ex-OSPRI operations
<b>Total PCO Programme</b>								
PCOs completed	14	18	29	34	95	99	96%	Target not met due to loss of time while in lockdown; jobs not started will carry over into the 2020-21 year
New hectares completed	1,460	9,000	23,225	9,080	42,765	Annual Plan Target 57,441 ha	74%	Two external ex-OSPRI PCOs didn't start due to the lockdown and have been incorporated into the 2020-21 PCO operational plan.



Map 1 Possum Control Combined Operations

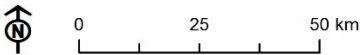


Map 2 Status of Possum Control Operations



**Possum Control Operations July 2020 to June 2021**  
**Regional Response Team and External Contractors**

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 Environmental Management Officer  
 Date: 26/05/2020  
 Draft 2



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Map 3 PCO 2020-21

## 4 POSSUM MONITORING

### 4.1 Programme Overview

- 4.1.1 The possum monitoring programme aims to monitor all PCOs over a four-year period to provide an index of possum abundance. All new areas of control receive pre- and post-control monitoring to establish if they actually do require control and, if they are controlled, the post-control result helps determine a measure of population reduction. This measure of reduction helps refine a possum population model (PosSim) that is used to guide the selection of low possum population PCOs for deferral.
- 4.1.2 The monitoring programme operators put out 25 lines of 10 wax-tags (Photo 1) per PCO and the number of bite marks gives an index of the possum abundance. The monitoring lines are randomly selected to remove bias and to provide a robust estimate. The monitoring is predominately done by an independent contractor who is not involved in any of the control work. Some internal team members monitor the possum control work completed by external contractors.



Photo 1: Wax-tag monitoring device as set in the field. The square is luminous to attract possum attention at night.

### 4.2 Activity Update

- 4.2.1 Ten PCO monitors were completed in the April to June period with the average RTC result being 3.9%. These were the last of the monitors in the 2019-20 monitoring programme.
- 4.2.2 In total 53 of the planned 57 monitors were completed during the year and the four that were not completed were due to the lost field time during the six-week Covid-19 lockdown. The four monitors not completed have been carried over into the 2020-21 monitoring programme.



- 4.2.3 The average result from the 53 PCO monitors completed this year was 2.9% RTC with confidence limits of  $\pm 1.1\%$ . Only one operation (Tatu Heao – west of Taumarunui) failed to meet the 10% target at 10.7%. Additional bait stations will be set up in the area this year, which should ensure the target is met in the future.
- 4.2.4 Planning work for the 2020-21 monitoring programme has been completed. The programme will involve the monitoring of 38 PCOs and 34 new areas plus the four carry overs, as well as the **rabbit haemorrhagic disease** (RHD) blood sampling and rabbit night counts.
- 4.2.5 The PCO monitors will be spread evenly throughout the year with the RHD sampling in February-March 2021 and the rabbit counts in May-June 2021. The Regional Response Team will undertake the RHD sampling and rabbit counts and our approved external contractor will complete the PCO monitors.
- 4.2.6 The contract term for our current external monitoring supplier expires on 30 June 2021. The procurement process to select the contractor for the 2021-2024 period is to commence in the near future. The aim is to have the successful contractor(s) ready to commence work in July 2021.

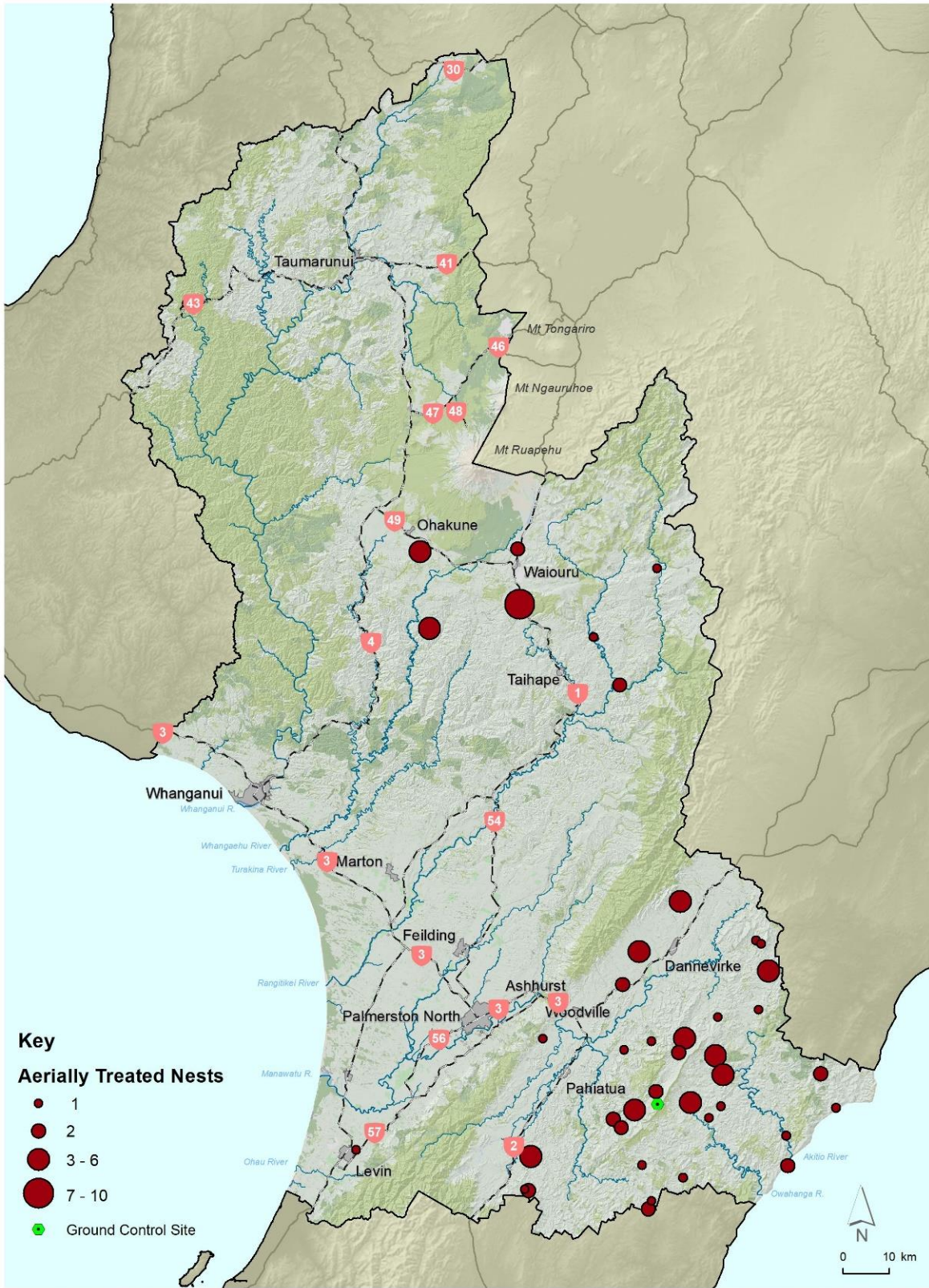
## 5 ROOK CONTROL PROGRAMME

### 5.1 Programme overview

- 5.1.1 Rooks are an eradication species in Horizons' **Regional Pest Management Programme** (RPMP) 2017-37 and the region is surveyed annually for active rookeries. A contractor is engaged to aerially poison the nests to control both chicks and adult rooks.

### 5.2 Activity update

- 5.2.1 Rookeries with nests were located in September and the aerial control programme was completed in October. Nests were treated with a contact toxin by an operator slung from a helicopter and there was a decrease of approximately 38% region-wide from the previous year with 94 active nests spread over 56 active rookeries.
- 5.2.2 In December the Woodville Team responded to a call from a landowner with an estimated 150 rooks on a crop. The rooks were controlled by laying baits by hand and it is estimated that 130 individuals were killed.
- 5.2.3 As part of the Annual Plan process, additional budget has been provided for a limited second check of rookeries later in the season. This aligns with rooks' ability to sometimes breed following control of the initial nest.



**Aerial Rook Control 2019 - 2020**  
**94 Active Nests Aerially Treated**

Map prepared by Regional Response Coordinator  
 Date: 13/01/2020

Map 4 Ground control site – 130 rooks removed.

## 6 AMENITY PEST PROGRAMME

### 6.1 Programme overview

6.1.1 The amenity pest programme provides a pest animal advisory service for ratepayers with pest animal issues. Horizons provides advice and in some cases loans equipment (traps) and supplies bait to enable landowners to undertake their own control. Enquiries are responded to within two working days of being lodged and usually involve pests such as possums, rabbits, mustelids, rats, and magpies.

### 6.2 Activity update

6.2.1 The amenity pest programme received 158 enquiries over the reporting period. The overall number of enquiries received in the 2019-20 year totaled 1,130 – the highest number of enquiries since the inception of the amenity programme in 2002.

6.2.2 The higher numbers of enquiries this year can be attributed to the rise in the number of calls relating to rabbits in urban/peri urban areas. The landowners were supplied with pails of Pindone poison (and advice on how to use it) and multiple visits to these landowners were often required to supply more bait. All enquiries were responded to within the agreed timeframes.

## 7 REGIONAL PEST MANAGEMENT PLAN (RPMP)

### 7.1 Programme overview

#### WALLABIES

7.1.1 As part of the Operational Plan for 2019-20 a project was included to investigate monitoring for wallabies in the region, to enable early detection of this exclusion pest (as identified in Horizons Regional Pest Management Plan 2017-37). This has not advanced due to the covid 19 lock down; however, discussions with Landcare Research have taken place. They are currently undertaking research into detection strategies for wallabies and will be reporting back to stakeholders with advice.

7.1.2 Wallabies are not present in the region unless by permission of Horizons and then are subject to strict conditions. In neighbouring regions they are considered significant pests. During the year the team will be investigating how Horizons can effectively, proactively survey for incursions and develop response plans should an incursion occur. The results of this work will be reported to Council.

- 7.1.3 Just prior to the Covid-19 lock down a report of a wallaby sighting on the Desert Road north of Waiouru was received from the public. Horizons is liaising with Defence managers to carry out an investigation across the nearby Defence land. Council will receive a report of the findings once the investigation is complete.

## POSSUM REPORT

- 7.1.4 Landcare Research Ltd has been engaged to model possum population dynamics between land that is under control and adjoining land/habitat that is not receiving control. This involves modelling the dispersal of possums from areas of higher abundance to lower populated habitats, and how that will undermine the existing control efforts. It is expected that this research will provide guidance on:
- The level of abundance in uncontrolled habitats that will cause impacts requiring a control response.
  - For a control response, what is the optimum size of the extra control buffer for a given threat pressure?
  - Should the control response consist of more devices deployed, another treatment in the existing devices, a change of toxin, or a combination to best fit individual PCO requirements? and
  - The level of possum abundance in adjoining uncontrolled habitat that could trigger the Good Neighbour Rule in Horizons RPMP 2017-37.
- 7.1.5 This work was expected to be completed by June but due to the Covid-19 lock down it now may not be completed until August-September.

## RABBIT REPORT

- 7.1.6 Discussions have been held with Landcare Research to provide guidance on rabbit population projections and their control and management options for the future. The questions we have raised are:
- Brief history of the rabbit in NZ and in Horizons Region. The various control regimes used to date and their impact on the rabbit population, and any other impacts good or bad.
  - A description of rabbit abundance and the associated damage caused to both production and biodiversity services.
  - What response can we expect from rabbit populations with the forecast climate changes across our region; new policies such as freshwater riparian planting, billion trees and other land use rationalization?
  - A description of the various control options available, their reliability and appropriateness to Horizons' Region,

- Development of a control matrix that uses appropriate monitoring, establishes thresholds for control that provide a positive **cost-benefit analysis** (CBA) and provides guidance on appropriate control methodologies.
- Provide the latest best practice for monitoring rabbits; any new technologies?

Landcare Research have supplied two recent papers that deal with the impacts of rabbits on production values, and another which deals with advances in monitoring of rabbit populations. The latest control options for rabbits is available on the Bionet website. Monitoring of RHD in our rabbit population is planned to occur in February 2021 will inform us if immunity to the K5 virus is present; otherwise it could be a tool for control of localised rabbit population increases. When we have the RHD information and rabbit abundance data from the May 2021 night counts, we will present to Council a paper with the results and recommendations.

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