

# REGULATORY COMMITTEE AGENDA

## Wednesday 30 January 2019

9.00am, Council Chamber,  
Level 2 Philip Laing House, 144 Rattray Street, Dunedin

### **Membership**

Cr Bryan Scott

Cr Sam Neill

Cr Graeme Bell

Cr Doug Brown

Cr Michael Deaker

Cr Carmen Hope

Cr Trevor Kempton

Cr Michael Laws

Cr Ella Lawton

Cr Andrew Noone

Cr Gretchen Robertson

Cr Stephen Woodhead

*(Chairperson)*

*(Deputy Chairperson)*

### **Disclaimer**

Please note that there is an embargo on agenda items until 48 hours prior to the meeting. Reports and recommendations contained in this agenda are not to be considered as Council policy until adopted.

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1. **APOLOGIES**
2. **LEAVE OF ABSENCE**
3. **ATTENDANCE**
4. **CONFIRMATION OF AGENDA**

Note: Any additions must be approved by resolution with an explanation as to why they cannot be delayed until a future meeting.

5. **CONFLICT OF INTEREST**

Members are reminded of the need to stand aside from decision-making when a conflict arises between their role as an elected representative and any private or other external interest they might have.

6. **PUBLIC FORUM**

7. **PRESENTATIONS**

8. **CONFIRMATION OF MINUTES**

**Recommendation**

*That the minutes of the meeting held on 28 November, 2018 be received and confirmed as a true and accurate record.*

**Attachments**

1. Regulatory Minutes 28 Nov 18 [8.1.1]

9. **ACTIONS**

**Status report on the resolutions of the Regulatory Committee**

11.3 Managing the use of coal for domestic heating in Otago and New Zealand <b>(Technical Committee)</b>	31/1/2018	<i>That the matter of the ability to enforce the current Regional Air Plan AirZone 1 provisions be considered by the Regulatory Committee</i>	IN PROCESS
10.1 Review of Council's Consents Function	17/10/18	<i>Staff appoint a consultant/s to undertake the review.</i>  <i>That the Committee approves the brief attached as Appendix 1 for the Review of Council's Resource Consents Function, subject to the suggested edits outlined (Best Practise, shared services)</i>	IN PROCESS
11.1 Compliance	17/10/18	<i>That a case study be</i>	Mrs Gardner to follow

Activity for 2017/18		<i>undertaken on the Kaikorai Stream with a view to informing future work on urban waterways and other waterways of concern.</i>  <i>That this paper be reframed and represented with analysis of trends and of highlights and issues governance should be address</i>	up on progress
11.2 Director's Report on Progress Lagarosiphon control – Lake Dunstan	17/10/18	<i>That an effectiveness review of lagarosiphon control on Lake Dunstan be brought to next committee round</i>	
Wallaby Control	Cr Scott requested that the action item for a Memorandum of Understanding (MOU) with Environment Canterbury for wallaby control be reinstated to the action list.		
11.1 Director's report on Progress	28/11/18	That the rabbit night count routes be updated to include the previous years for rabbit night for Otago and dates for purpose of effective evaluation.	CLOSED Data provided in Agenda
11.1 Director's report on Progress	28/11/18	That a report on progress in transferring water meter data reporting to telemetry be provided	CLOSED Paper in Agenda

## **10. MATTERS FOR NOTING**

### **10.0. Director's Report on Progress**

**Prepared for:** Regulatory Committee  
**Report No.** EMO1840  
**Activity:** Governance Report  
**Prepared by:** Peter Winder, Acting Director Environmental Monitoring, and Operations  
**Date:** 7 January 2019

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#### **1. Précis**

This report describes regulatory activity during the period 9 November 2018 to 7 January 2019.

#### **2. Compliance**

##### **2.1 Consent Inspection Audits**

Consent auditing over this period focused on water permits in the Manuherikia Catchment and discharge permits predominantly relating to water irrigation in the Waitaki and Teviot areas. A number of audits were also completed on TLA and NZ Ski water and discharge permits.

104 Consent audit inspections were conducted over this period. 68 permits were graded as compliant, or minor non-compliant with no environmental effects. 24 received 0 compliance grade as the consent was not being exercised or had lapsed or been cancelled. 9 permits were graded as non-compliant with minor potential or actual effects, of which 7 were water permits.

Minor non-compliance related to breaches of water take rates or water take volumes or having incorrect water metering in place. It has been noted that inadequate control structures at the point of take and lack of maintenance of some open channel measuring systems is affecting data quality and therefore accuracy of the data. Staff will continue to provide education around these issues to consent holders.

3 permits received grades of non-compliant with significant potential or actual effects. Recommendations for enforcement action have been made where appropriate.

##### **2.2 Forestry**

A successful meeting was held in early December 2018 between council staff and forestry stakeholders at a forestry site near Beaumont. The purpose of the meeting was to discuss some of the practicalities of complying with the NES-PF in environmentally difficult terrain and for a Q & A session on the standards and regional plan rules between all those involved in the industry. Council staff discussed what 'good' looks like, what has been done well to date, and what still needs to be worked on and why. Most of the time was spent discussing sediment issues however, the main concern raised was around the determination of whether a water way is a 'river' in order to comply with the rules in the water plan.

##### **2.3 Dairy**

38 dairy inspections were conducted over this period with the focus on properties in North Otago/Waitaki Plains. 36 of these were found to be compliant on the day of the inspection. One property was graded non-compliant minor, due to minor ponding of leachate with no

discharge to water, one property was graded non-compliant major due to significant ponding of uncontained silage leachate. Enforcement action is underway for this property. Compliance staff continue to work with Communications staff regarding targeted messaging around the commonly observed dairy effluent management non-compliances. It has been highlighted that there may be issues with silage leachate if not managed appropriately due to the wet spring/summer.

#### **2.4 Contaminated Sites**

During the reporting period, staff reviewed and provided guidance and technical advice on 11 site investigation reports and responded to 102 public enquires about contaminated land. The information provided to the public relates to data held by the ORC pertaining to the specific property being enquired about. This information is also shared electronically with the City and District Councils for inclusion on Land Information Memoranda (LIM) reports.

The Ministry for the Environment is currently evaluating applications to the latest Contaminated Sites Remediation Fund round, which includes the joint application with Waitaki District Council to plan for the remediation of two historic coastal landfills, located south of Oamaru.

### **3. Harbour Master activity**

#### **3.1 Navigational Safety Bylaws**

A paper will go to the February Council Meeting proposing the establishment of a hearing panel to hear and consider the submissions and make recommendations to the Council on the Bylaw.

#### **3.2 Harbour safety**

No major incidents occurred for this period. The LEDA MAERSK grounding incident is still under investigation by Accident Investigation Commission, we await their final report.

We have had a few reports of jet ski's speeding in some areas. until the new Harbourmaster vessel is available the Harbourmaster has not effective means of conducting on the water investigations or follow up of reports or problems in a specified area. The completion of the Navigational Safety Bylaws will also improve the ability of the Harbourmaster to act where the use of jet-skis or other vessels causes safety issues. Liaison with MNZ regarding minor incidents is ever improving with the local office.

The national 'No Excuses' campaign has now commenced. The 'No Excuses' campaign will see a maritime officer from Maritime New Zealand spend 5 days alongside the Harbourmaster at designated locations to interact with recreational users on our waterways. This is an educational and enforcement campaign targeting boat operators that do not have enough lifejackets aboard their vessel and those that speed in excess of any speed restriction.

The Maritime NZ officer will have the ability to issue infringement fines through the common maritime compliance tool. The 'No Excuses' campaign will last over the summer months.

5 knot speed signs have been placed at the boat ramp in Taieri Mouth along with a 5 knot marker buoy in the channel. It is hoped that this will help manage speeding through the moorings and berths in this area and lead to greater safety for all users. We have received positive feedback on the placement of this buoy and further request for another to be placed. Unfortunately, the buoy got washed away with the latest floods through the area, however

having been adrift for a few weeks now, it has been reported in a location and we are hopeful that a successful recovery will be made soon.

### **3.3 Harbourmaster General**

Construction of the new HM vessel is underway and likely delivery is for March 2019, we do not currently have a confirmed date.

I am extremely pleased to report that Otago are now compliant with the NZ Port and Harbour Marine Safety Code. This is a huge step in a positive direction. We now have the mechanism in which to operate successfully. The challenge now is to maintain this status and develop the processes going forward. I would like to take this opportunity to thank Sean Bolt and Hugh Marshall (Port Otago) and Kevin Oldham and Geraint Bermingham (Navigatus) without whom we would not have achieved this aim so quickly and professionally. Official notifications are attached.

We have explored further the potential to add to the current bylaw process, provisions relating to alcohol consumption by the skipper of a vessel. The legal team have advised that it would be prudent to complete the current bylaw and then amend the bylaw to address alcohol consumption by the skipper. The reason for this is that this matter is beyond the scope of the current proposed bylaw. Consultation with the community would be required regarding any such proposal.

Currently Maritime New Zealand deal with alcohol related issues and could take a prosecution under section 65 of the MTA, if a person operates or permits a ship to be operated in a manner which causes unnecessary danger or risk to any other person or property.

The Harbourmaster chaired the first gathering of the Harbour Community Advisory Group in November. The meeting was positive and will provide a basis to communicate to all water users, both commercial and recreational. Unfortunately, the weather curtailed some attendance. The next meeting is planned for March 26<sup>th</sup>.

The Harbourmaster carried out two trips with pilots in this period, one RIO class container ship outward from Port Chalmers and the Celebrity Solstice, cruise ship, inward for Port Chalmers.

## **4. Biosecurity**

### **4.1 Freshwater Biosecurity**

Two advocates are active with the Check Clean Dry programme. (One ORC Biosecurity Staff member, and a Botany student from Otago University). The campaign in Otago commenced on 26 December 2018 and will run through until early February. Outside this time, staff will attend all major events such as Challenge Wanaka, and the Macpac Motatapu event.

Surveys of water users are also being conducted as part of the programme. The results of this will be made available to Council on the completion of the programme.

The Check Clean Dry campaign which has been going for 10 years in its current form is in the early stages of being revamped. MPI is leading this with all partners being involved.

The Strategy-Freshwater Partnership Program 2017 has been included as an attachment to this report.

#### **4.2 Wallaby Control.**

A poison operation was completed in December in the foothills of the Ida Range behind Naseby. It is known from the surveillance cameras that were set in this area that there was a small population of 5 wallabies present. Staff are confident that all wallabies were controlled. Three were found dead after the operation. The remaining two although not located due to dense cover are also believed to be dead as there has been no fresh sign observed since the operation.

A bid for funding at a national level for the control of Wallabies has been prepared. It has been indicated that it will be at least May before we know if funding has been allocated.

A staff presentation on the wallaby programme is on the agenda this Committee round.

#### **4.3 Rabbit Programme**

A full report on the rabbit programme is a separate item on this Agenda.

A community meeting to discuss rabbit control is being held in the near future. It will target the landowners in the Waianakarua, Hampden and Moeraki area.

#### **4.4 Proposed Regional Pest Plan Review Update**

Submissions closed on the RPMP review on 14 December 2018. 331 submissions were received by 14 December 2018. Of these 89 have asked to be heard. There have also been a number of late submissions. 16 have been received specifically on the Biosecurity Strategy.

A report will go to the Commissioner Appointment Sub-Committee recommending that establishment of a hearing panel to hear and consider submissions and make recommendations to Council on both the plan and the strategy.

#### **4.5 Pest Plant Meetings.**

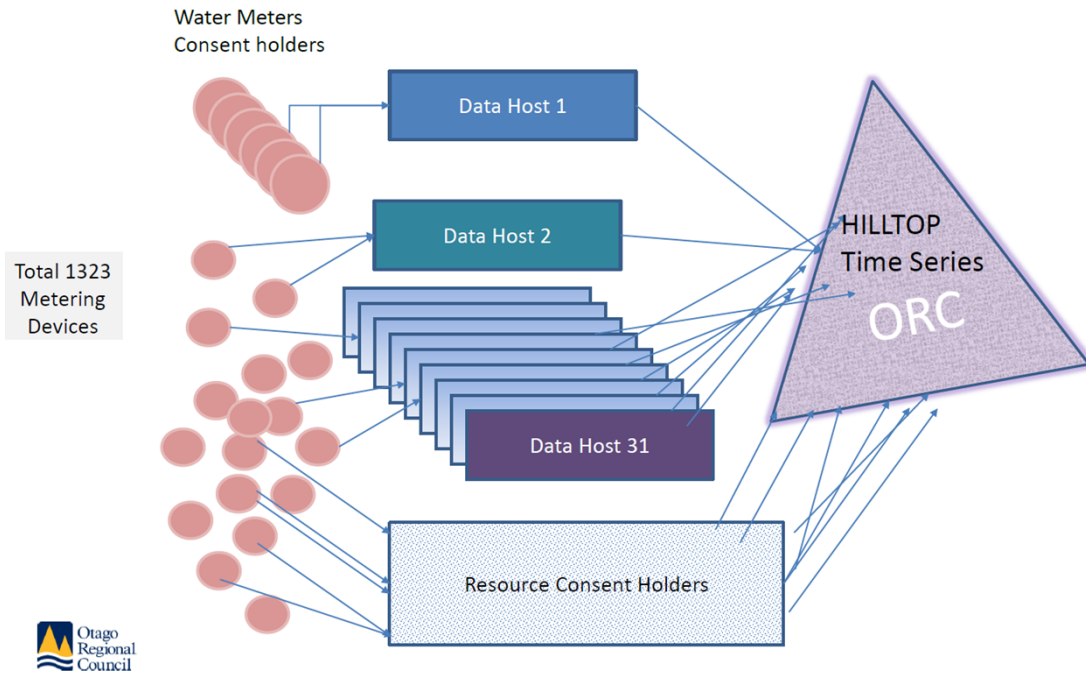
Two informal community meetings were held in the Lakes District to discuss predominately the coordinated control of gorse and broom in these areas. One meeting was held at Hawea and the other meeting was held in the Cardrona Valley. Boffa Miskell who represent Land Information New Zealand (LINZ) were also present.

#### **4.6 Water Metering Data Capture**

Throughout the Otago region there are currently 1754 consents which relate to water abstractions. Of these, 1342 consents (76%) have one or more water metering measuring devices installed. In some instances, multiple consents share one water metering device. There are currently 1323 water metering devices associated with the 1342 metered consents.

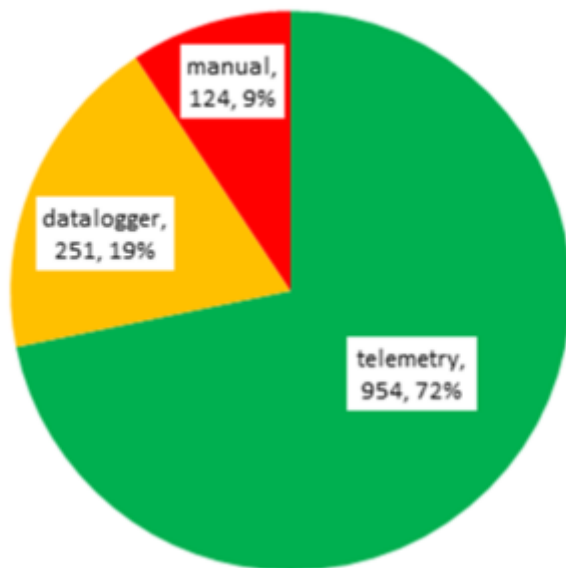
ORC currently expects daily transfer of metering data from 879 water metering devices (66% of water meters) which are set up with telemetry to transfer the data. The data from the remainder of water metering devices is sent to ORC either yearly, monthly, weekly or other intervals as per the Water Metering Regulations or as required by consent conditions. Data from 75 sites with telemetry is not transferred daily. Water meter data is stored and analysed by ORC within the Hilltop system.



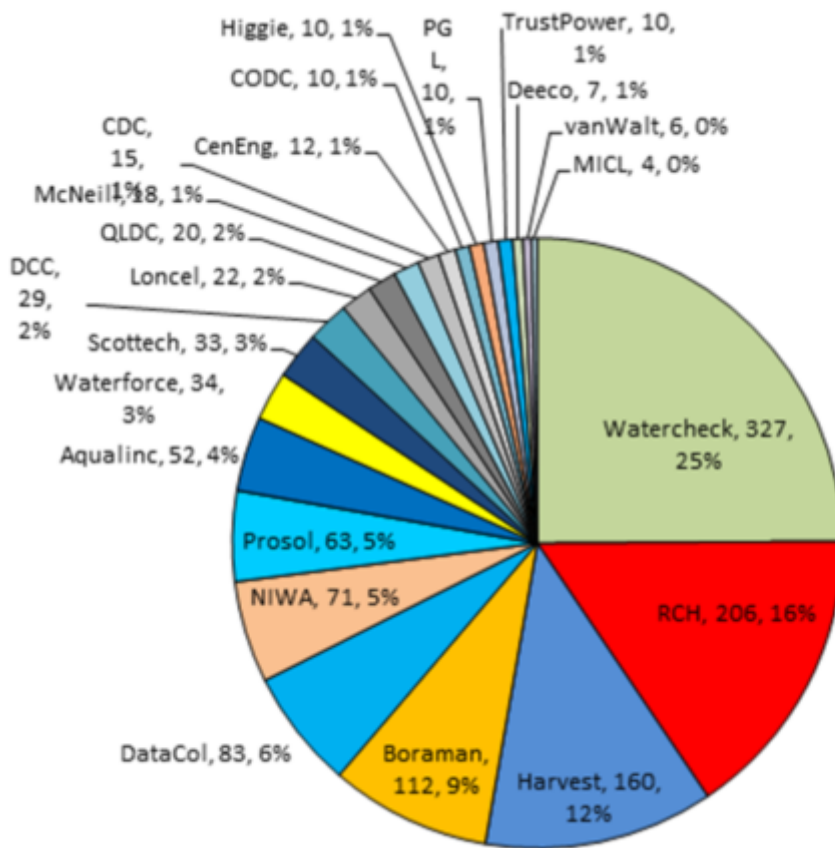


Water meter data is provided to ORC from three different data recording types: Telemetry, Data Logger or Manual recordings. A breakdown of these are provided within the graph below.

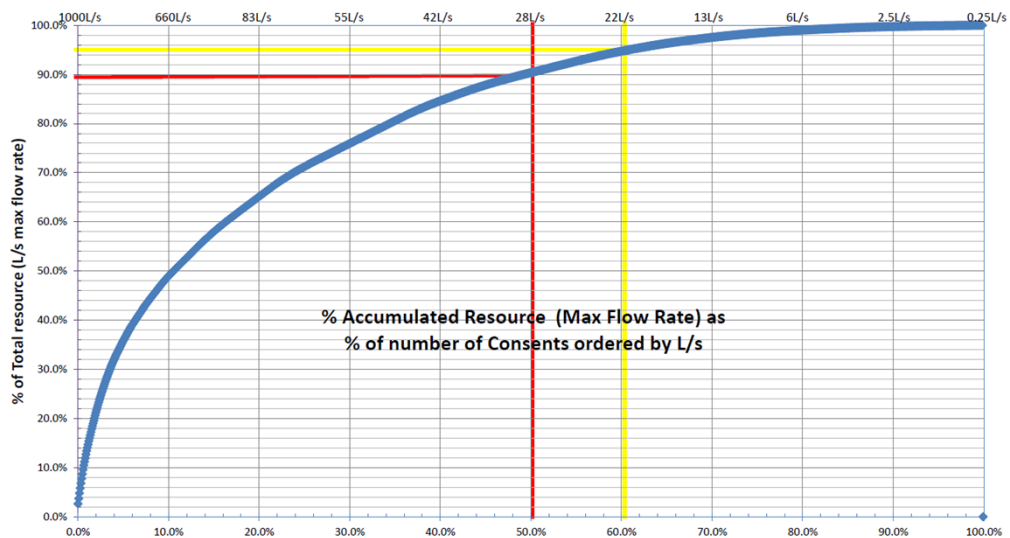
### Type of Recording



ORC receives data from 33 different external service providers, as shown in the pie chart below.



The size of water takes varies considerably. As shown on the graph below, of the total of 1754 water consents, the largest water takes (takes over 28l/s) account for up to 90% of the water but equate to only 50% of all consents. Takes over 22 l/s account for up to 95% of the water resource but equate to only 60% of all consents. Water takes of 5 l/s or less make up a very small proportion of the overall water resource.



With 50% of the consents we cover 90% of the resource (takes over 28L/s).  
 With 60% of the consents we cover 95% of the resource (takes over 22L/s).



## 5. Issues

- Many consents require the installation of more than one water meter to multiple abstraction points.
- In some instances, one abstraction point is shared by more than one consent but with only one water metering device required.
- Installing a telemetry-based reporting system requires investments from consent holders. Under the water metering regulations telemetry is not a compulsory condition. Where telemetry is not a requirement of a consent condition, then implementing telemetry would require other means of persuasion or incentives.
- The provision of weekly, monthly or annual data returns limits the usefulness of the data for real time management of the resource – particularly in dry conditions.
- The manual data that is provided can be of poor quality. This can occur when consent holders send in hand written water calendars, unreadable figures and/or through transcription and data entry errors. Resolving possible errors with manually recorded data is a time-consuming task, which creates further follow up work, phone calls or letters. The time taken to complete these tasks further limits the usefulness of the data in terms of its timeliness.
- Dealing with 33 telemetry providers and around 300 individual resource consent holders, requires time. There is significant opportunity for more cost-effective data transfer and automation in the way in which ORC receives and processes water data.
- Even with data that is provided by dataloggers or manual recording, there are opportunities for automation including the use of an on-line data portal for reporting and a compliance checker tool with workflow automation for creating letters, follow up inspections, scheduling.

## 6. Next Steps

There has been a long- term effort to encourage consent holders to have their water data sent in daily via telemetry. This provides real time information to the ORC. There is considerable benefit in having real time information for water management purposes. Processing manual information is also costly and time consuming. There would be real benefit to the ORC from reducing the amount of data that is provided manually and by maximising the electronic transfer of data and automating processes. These savings could be passed on to consent holders.

Efforts to persuade consent holders to adopt telemetry-based reporting have been limited – especially where consent conditions do not specifically require the transfer of data in this way. The next stage of considering the collection of water data will be to explore:

- ways of automating the supply of water data that is currently provided manually
- the potential for incentives to encourage the adoption of telemetry-based systems
- the potential for savings at ORC through the introduction of automation and the more wide-spread adoption of telemetry-based systems
- ways of achieving more timely provision of water use data to support real time management decisions.

Once a range of options has been identified and evaluated a plan to improve the collection of water data will be brought back to the Committee.

## 7. Recommendations

a) That this report is received and noted.

**8. Attachments**

1. Otago SMS review panel report (final) December 2018 **[10.0.1]**
2. Letter of confirmation SMS Reviews Otago December 2018 **[10.0.2]**
3. Strategy- Freshwater Biosecurity Partnership Program 2017 **[10.0.3]**

**Endorsed by:** Peter Winder  
**Director Environmental Monitoring & Operations**

## 10.1. Consents and Building Control

**Prepared for:** Regulatory Committee  
**Report No.** PPRM1864  
**Activity:** Governance Report  
**Author:** Kylie Galbraith, Acting Manager Consents  
**Endorser:** Tanya Winter, Director Policy Planning and Resource Management  
**Date:** 14 January 2019

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### PURPOSE

- [1] The purpose of this report is to give Committee a high-level overview of the consents and building control and deemed permit replacement progress for the period 3 November 2018 to 31 December 2018.

### EXECUTIVE SUMMARY

- [2] The report aims to summarise the regulatory function of the Consents Department and provide an update on progress of the review of the Council's Resource Consenting Function.

### STAFF RECOMMENDATION

*That the Council:*

- 1) **Receives** this report.

### CONSENT PROCESSING

#### Public Notification

- [3] There have been no publicly notified consents during this period.

#### Limited Notification

- [4] There have been no limited notified consents during this period.

#### Objections

- [5] There is one objection to consent conditions that has been received during this reporting period. The objection is being assessed and correspondence will occur with the objector. A hearing may be required by the Objections Committee.
- [6] The objection to consent costs that has been received is still being assessed and correspondence will occur with the objector. A hearing may be required by the Objections Committee.

## **APPEALS**

### **RM17.229 – Peter Ronald Graham**

- [7] An application to occupy the coastal marine area with a pontoon for operating a 'Hole in one' golf challenge.
- [8] The appellant is an unincorporated society comprised of submitters on the application. They are appealing the decision to grant the consent for a wide variety of reasons.
- [9] The applicant and appellant have been corresponding prior to any formal mediation process. They have reached agreement and are currently preparing a Consents Order for the Environment Court to uphold the decision with the agreed changes. A copy of the Consents Order will be circulated to the Council for agreement prior to sending it off to the Environment Court. The Director Policy Planning and Resource Management has the delegation to agree to the suggested changes, ensuring they do not impact on Council's functions and jurisdiction. The delay in getting this resolved is around the interpretation of proposed conditions – this is being worked on by Council staff and it is hoped to have it resolved over coming weeks.

### **RM17.084 - Kyeburn Catchment Limited**

- [10] An application to take and use surface water from various locations on the Swinburn and Kyeburn for the purposes of irrigation, storage, stock water, firefighting, curling and hydro-electricity generation.
- [11] The appellant is appealing the decision to grant the consents for a wide variety of reasons.
- [12] Mediation has occurred, and the applicant and appellant have been corresponding since to reach agreement. They are currently preparing a Consents Order for the Environment Court to uphold the decision with the agreed changes. A copy of the Consents Order will be circulated to the Council for agreement prior to sending it off to the Environment Court. The Director Policy Planning and Resource Management has the delegation to agree to the suggested changes, ensuring they do not impact on Council's functions and jurisdiction. The delay in getting this resolved is around the interpretation of proposed conditions – this is being worked on by Council staff and it is hoped to have it resolved over coming weeks.

## **CONSENT STATISTICS**

- [13] For the reporting period, all decisions, except one application with two consents, were given within Resource Management Act 1991 (the Act) mandated timeframes. The exception exceeded the timeframes by one working day. 26% of the decisions made during the reporting period utilised a timeframe extension; in most cases this was to enable the applicant to review the proposed conditions.
- [14] For the year to date all decisions on consents, except two applications with two consents each granted, were given within the Act mandated timeframes.

[15] The current number of consents lodged for processing is 196. The number lodged during this reporting period is 69. The median number of consents lodged per week for during this reporting period is 9.9.

[16] The summary of consents statistics is set out in Appendix 1 to this report.

#### **DEEMED PERMIT REPLACEMENT**

[17] There are currently 367 deemed permits left.

[18] There were originally 754 deemed permits that included 'paper' or unexercised permits. There are currently 347 deemed permits that are current or possibly live. This figure includes:

- deemed permits that are likely to be replaced;
- deemed permits that are not likely to be replaced; and
- deemed permits that have obtained a replacement consent but have not yet surrendered their deemed permit. If the deemed permit is not expired, it will remain current until 1 October 2021.

[19] It is estimated that approximately 2/3 (i.e. approx. 230) of the current deemed permits are yet to apply for a replacement consent.

[20] During the reporting period no replacement applications for deemed permits were received. No replacement consents for deemed permits were granted during this period. Furthermore, no deemed permits were surrendered, cancelled or expired during this reporting period. Overall, five deemed permits are currently being processed for replacement consents.

[21] The breakdown of deemed permits per catchment are set out in Appendix 2 to this report.

#### **CONSENT ADMINISTRATION**

[22] 56 transfers (to transfer ownership of a rescue consent) were received, with 11 issued during this reporting period. The median number of transfers per week for the year to date is 4.4.

[23] The summary of consents administration statistics is set out in Appendix 3 to this report.

#### **BUILDING CONSENT AUTHORITY (BCA) ADMINISTRATION**

[24] Very little activity has occurred in the building consent applications arena. Only one application has been received for the year to date. Furthermore, only one application has been issued for the year to date.

[25] The summary of BCA statistics is set out in Appendix 4 to this report.

#### **PUBLIC ENQUIRIES**

[26] 241 enquiries were received during this reporting period. The median number of public enquires per week for the year to date is 41.96.

[27] Details are set out in Appendix 5 to this report.

## **REVIEW OF COUNCIL'S RESOURCE CONSENTING FUNCTION**

[28] Stephen Daysh from Mitchell Daysh, and Philip Maw from Wynn Williams Lawyers have been engaged to undertake this review. Philip and Stephen were in Dunedin in December to conduct a series of interviews with Council staff, elected members, hearing commissioners, iwi, key stakeholders, applicants and consultants. The review report is due from them early February 2019.

## **CONSIDERATIONS**

### **Policy Considerations**

[29] There are no policy considerations.

### **Financial Considerations**

[30] There is budget in the 2018/19 Annual Plan for the Consent Department functions.

### **Significance and Engagement**

[31] The Council's Significance and Engagement Policy is not relevant to this item.

### **Legislative Considerations**

[32] The Consents Department is following the Resource Management Act 1991 and Building Act 2004 statutory requirements.

## **NEXT STEPS**

[33] The next steps are to continue the regulatory functions as required. A stocktake will be undertaken when the review of Council's Resource Consent Function report is received.

## **ATTACHMENTS**

Nil



## Appendix 1: Consents Statistics

**Table 1: Consents Statistics Summary**

Reporting Period	Lodged			Rejected	Decision Given		
	Consents	Variations			Consents	Variations	
		Regular	Water reporting date*			Regular	Water reporting date*
3/11 to 31/12 2018	69	9	0	2	40	3	0
<b>18/19 YTD</b>	<b>238</b>	<b>20</b>	<b>1</b>	<b>5</b>	<b>182</b>	<b>20</b>	<b>2</b>

\* Means the date water metre and/or flow records are to be provided to the Council.

**Table 2: Breakdown of Granted Consent Type**

Notification Group	Consent Type	Without Hearing				Total
		Outside Timeframe	S37 Extension	Within Timeframe	Total	
Non Notified	Coastal Permit	-	-	2	2	2
	Discharge Permit	-	4	7	11	11
	Land Use Permit	2	3	21	26	26
	Water Permit	-	8	11	19	19
Total		2	15	41	58	58
<b>Total</b>		<b>2</b>	<b>15</b>	<b>41</b>	<b>58</b>	<b>58</b>

**Appendix 2: Deemed Permits Breakdown Per Catchment up to 31 December 2018**

<b>Catchment</b>	<b>Original Number of Permits</b>	<b>Number of Deemed Permits</b>	<b>Number of Replacement Applications Currently Being Processed</b>	<b>Number of Current or Possibly Live Deemed Permits</b>
Unnamed Trib's of Kawarau River	3		0	2
Quartz Creek	1		0	1
Manuherikia Catchment	189		1	71
Crook Burn (2)	4		0	2
Camp Creek (1)	3		0	2
Taieri Catchment	209		2	76
Long Gully (1)	4		0	1
Unnamed Trib's of Clutha River above Tuapeka Mouth	20		0	8
Lowburn Creek	18		0	13
Waikerikeri Creek	6		0	3
Arrow River	16		0	12
Bendigo Creek	3		0	2
Five Mile Creek (1)	3		0	1
Coal Creek	8		0	7
Toms Creek	3		0	2
Lindis River	41		2	19
Luggate Catchment	13		0	12
Teviot River	2		0	2
Unnamed Trib's of Lake Hawea	5		0	2
Shingle Creek	13		0	10
Unnamed Trib's of Clutha River above Lake Dunstan	6		0	3
Cardrona River	40		0	14
Tima Burn	3		0	0
Albert Burn (1)	5		0	4
Schoolhouse Creek	1		0	1
Kidd Creek	1		0	1
Nevis River	2		0	2
Bannock Burn	23		0	9
Pipeclay Gully	4		0	1
Basin Burn	4		0	4
Tinwald Burn	4		0	3
Roaring Meg	6		0	4
Outside catchment areas	0		0	0
Butchers Creek (1)	2		0	2

Chapmans Gully	1	0	1
Fraser River	10	0	8
Rees River	2	0	1
Devils Creek	2	0	0
Amisfield Burn	9	0	5
Park Burn	7	0	3
Quartz Reef Creek	4	0	3
Goat Camp Creek	2	0	0
Kakanui Catchment	2	0	0
Unnamed Trib's of Lake Whakatipu	1	0	0
Donaldsons Creek	4	0	0
Unnamed Trib's of Lake Dunstan	3	0	1
Pomahaka River	3	0	3
Lake Hayes Catchment	2	0	0
Black Jacks Creek	2	0	1
Wanaka Township	3	0	2
Shotover River	1	0	1
Frankton Arm	1	0	0
Burn Cottage Creek	5	0	5
Unnamed Trib's of Clutha River above Lake Roxburgh	2	0	2
Franks Creek	2	0	2
Washpool Creek (1)	5	0	4
John Bull Creek	2	0	2
Leaning Rock Creek	1	0	0
Elbow Creek	1	0	1
Poison Creek	1	0	1
School Creek	1	0	0
Beaumont River	1	0	1
Stony Burn	2	0	0
Mt Pisa	1	0	0
Wye Creek	1	0	0
Ripponvale Road	2	0	2
Unnamed Trib's of Lake Wanaka	1	0	0
Waitahuna Catchment	1	0	1
Cambells Creek	1	0	1
<b>Totals:</b>	<b>754</b>	<b>5</b>	<b>347</b>

### Appendix 3: Consent Administration

**Table 3: Consent Administration Statistics**

<b>Reporting Period</b>	<b>Transfers Received</b>	<b>Transfers Issued</b>	<b>s417 Certs Received</b>	<b>s417 Certs Issued</b>
3/11 – 31/12 2018	56	11	1	0
<b>18/19 YTD</b>	<b>115</b>	<b>70</b>	<b>2</b>	<b>0</b>

#### Appendix 4: Building Consent Authority (BCA) Administration

**Table 4: Building Act Statistics**

Reporting Period	Building Permits		Certificate of Acceptance		Code Compliance Certificate	
	Received	Issued	Received	Issued	Received	Issued
15/9 – 2/10 2018	0	0	0	0	0	0
<b>18/19 YTD</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Appendix 5: Public Enquiries

**Table 5: Public Enquiries Statistics**

Period	Number of Enquiries
<b>17/18</b>	<b>2415</b>
3/11 – 31/12 2018	241
<b>18/19 YTD</b>	<b>1,091</b>

**Table 6: Resource Consent Public Enquiries Report for Period 3 November 2018 to 31 December 2018**

Type of Enquiry	No	% of total
Current Consents	65	26.97
Mining Privileges	8	3.32
Other	27	11.20
Permitted Activities	49	20.33
Pre-application	47	19.50
Property Enquiries	42	17.43
TLA Enquiries	1	0.41
Transfers	2	0.83

Enquiry Location	No	% of total
Central Otago District Council	77	31.95
Clutha District Council	24	9.96
Dunedin City Council	33	13.69
Queenstown Lakes District Council	56	23.24
Throughout Otago	6	2.49
Unspecified	32	13.28
Waitaki District Council	13	5.39

Method of Enquiry	No	% of total
Counter	12	4.98
Email	137	56.85
Internet	2	0.83
Telephone	90	37.34
Letter	0	0.00

## 10.2. Enforcement

**Prepared for:** Regulatory Committee  
**Report No.** EMO1841  
**Activity:** Environmental: Enforcement Action  
**Prepared by:** Peter Kelliher, Legal Counsel  
**Date:** 17 January 2019

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### 1. Précis

This report details Resource Management Act 1991, Biosecurity Act 1993 and Building Act 2004 enforcement activities undertaken by the Otago Regional Council during the period 10 November 2018 to 16 January 2019.

### 2. Resource Management Act 1991

#### a) Resource Consents

Table 1. Infringement Notices

<b>Details</b>	<b>Period – 10 November 2018 to 16 January 2019</b>	<b>Total – from 1 July 2018</b>
Taking water in breach of resource consent conditions	0	1
<b>TOTAL</b>	<b>0</b>	<b>1</b>

#### b) Complaint Response

Table 2. Infringement Notices

<b>Details</b>	<b>Period – 10 November 2018 to 16 January 2019</b>	<b>Total – from 1 July 2018</b>	<b>Complaints Received <sup>1</sup></b>
Discharge of contaminants to land in a manner where it may enter water - sediment	0	3	4
Discharge of contaminants to air in breach of a regional rule – burning prohibited material	0	3	2
Discharge of contaminants to air in breach of a regional rule – odour	0	3	7
Discharge of contaminants to air in breach of a regional rule – outdoor burning	3	3	6
Disturbing the bed of a river - pugging	3	5	5
<b>TOTAL</b>	<b>6</b>	<b>17</b>	<b>24</b>

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<sup>1</sup> Number of complaints received by Council for the matters that have been subject to enforcement action.

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Table 3. Abatement Notices

<b>Details</b>	<b>Period – 10 November 2018 to 16 January 2019</b>	<b>Total – from 1 July 2018</b>	<b>Complaints Received</b>
To cease discharging contaminants to air from a domestic heating appliance in breach of a regional rule	0	1	1
To cease discharging contaminants in breach of a regional rule - sediment	0	1	3
To remove a dead animal from a river	0	1	1
To cease discharging contaminants from a farm landfill in breach of a regional rule	0	1	1
To remove debris / slash from the bed of a river	0	2	2
To cease diverting water in breach of a regional rule	0	1	2
To cease diverting/discharging water which is likely to cause an adverse effect on the environment.	0	1	6
To undertake routine inspections and stop any discharge of smoke/odour from the property	1	1	1
<b>TOTAL</b>	<b>1</b>	<b>9</b>	<b>17</b>

Table 4. Authorised Legal Proceedings

<b>Details</b>	<b>Period – 10 November 2018 to 16 January 2019</b>	<b>Total – from 1 July 2018</b>	<b>Complaints Received</b>
Discharge of contaminants to land in a manner where it may enter water - sediment	0	1	3
1. Disturbing the bed of a river – pugging; and 2. Discharge of contaminants in breach of a regional rule - sediment	1	1	1
<b>TOTAL</b>	<b>1</b>	<b>2</b>	<b>4</b>



b) Inspections

Table 5. Infringement Notices

<b>Details</b>	<b>Period – 10 November 2018 to 16 January 2019</b>	<b>Total – from 1 July 2018</b>
Discharge of contaminants to land in breach of a regional rule – effluent	3	3
<b>TOTAL</b>	<b>3</b>	<b>3</b>

Table 6. Authorised Legal Proceedings

<b>Details</b>	<b>Period – 10 November 2018 to 16 January 2019</b>	<b>Total – from 1 July 2018</b>
Discharge of contaminants to land in breach of a regional rule – effluent	0	1
<b>TOTAL</b>	<b>0</b>	<b>1</b>

### 3. Infringement Fees

Resource Management Act (“RMA”) infringement fees are set by the Resource Management (Infringement Offences) Regulations 1999. Under the Regulations, infringement fees range from \$300 to \$1,000, depending on which section of the RMA has been contravened.

From 1 July 2018, Council has issued 21 infringement notices totalling \$10,950 in infringement fees.

### 4. Recommendation

*That this report be noted.*

**Endorsed by:** Peter Winder  
**Acting Director Environmental Monitoring and Operations**

### 10.3. Contaminated Land in Otago

**Prepared for:** Regulatory Committee  
**Report No.** EMO1843  
**Activity:** Governance Report  
**Prepared by:** Simon Beardmore, Senior Environmental Officer  
**Date:** 7 January 2019

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#### 1. Précis

This report provides in-depth information regarding contaminated land in Otago.

#### 2. Background

A paper on Otago Regional Council's contaminated land processes and activities was attached to the Directors Report on Progress (EMO1829) for the Regulatory Committee meeting on 17 October 2018.

During the discussion of this report, councillors requested more information on contaminated land in Otago (for example, where sites are located and what they are contaminated with). This paper presents a summary of data from our HAIL Register, and changes between June 2016 (when the current database was set up) and November 2018.

#### 3. Proposal

##### HAIL Register

The [Ministry for the Environment's Hazardous Activities and Industries List \(HAIL\)](#) is a compilation of 53 types of activities and industries that are considered to have some potential to cause land contamination resulting from hazardous substance use, storage or disposal. The HAIL is intended to identify most situations in New Zealand where inappropriate use and storage of hazardous substances could cause, and in some cases have caused, land contamination.

The ORC maintains a database of properties where information is held regarding current or past land-uses that are outlined in the [Hazardous Activities and Industries List \(HAIL\)](#).

There are currently 1914 sites recorded on the register, covering 5800 hectares of land. The number of sites recorded on the register has increased by 131% since June 2016.

Total number of sites:	(Jun 2016   Nov 2018)	Percent change
<b>CODC</b>	83   196	136%
<b>CDC</b>	105   127	21%
<b>DCC</b>	465   1142	146%
<b>QLDC</b>	93   253	172%
<b>WDC</b>	82   196	139%
<b>All of Otago</b>	828   1914	131%

Table 1: Total number of sites on the HAIL register in June 2016 and November 2018 by local authority.

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Sources of information used to identify HAIL sites have included:

- Resource Management or Hazardous substances incidents.
- Consent applications to ORC.
- Search of ORC records in response to public enquiries.
- Information received from TA's.

The number of sites has increased across all local authority areas, with the largest increases in Dunedin and Queenstown. Between June 2016 and November 2018, there was no programme to actively identify HAIL sites, for example through historic aerial photographs, systematic searches of local authority property files, or industry specific research projects. Increases in Central Otago, Dunedin, Queenstown Lakes and Waitaki were largely the result of integrating records held by the relevant TLA (e.g. dangerous goods or hazard registers). This work has not been completed with the Clutha District Council.

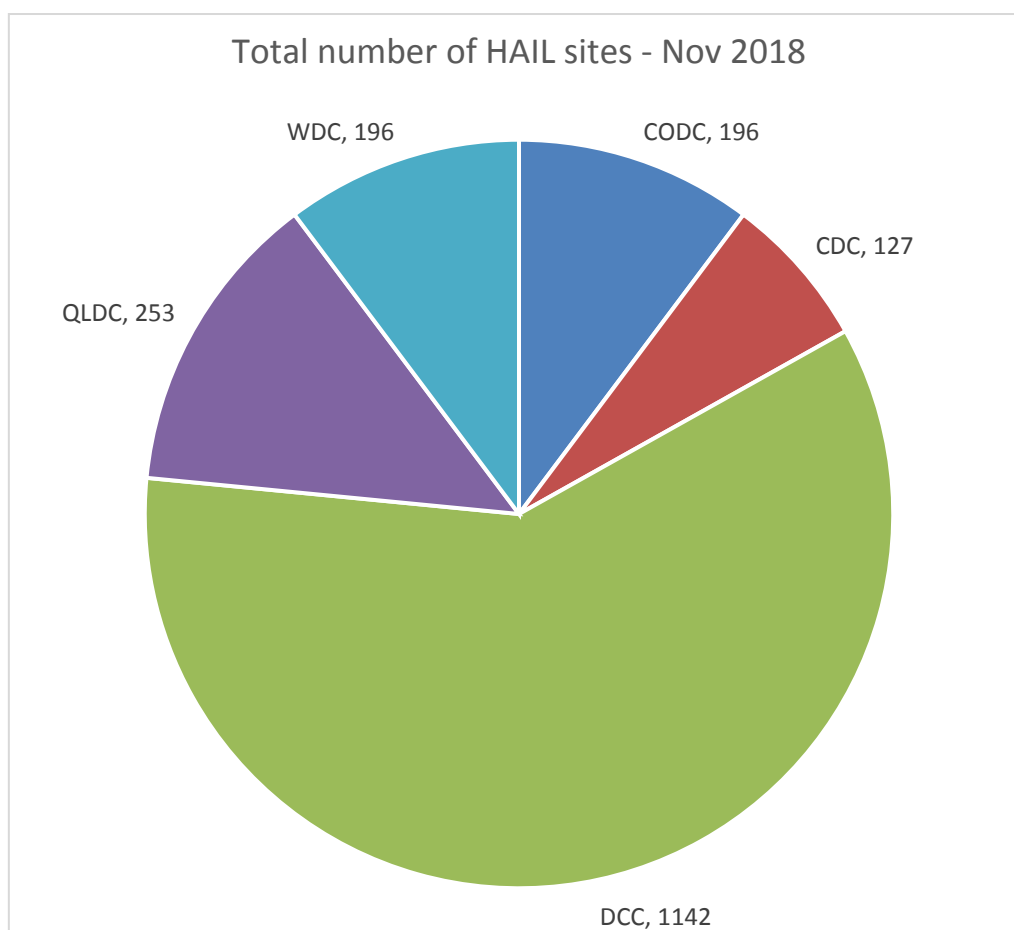


Figure 1. Number of sites on the HAIL register as at November 2018 by local authority

The register is a continually under development, with information added and updated frequently. The register should not be regarded as a complete record of all properties in Otago. There are many HAIL sites that have not yet been identified – for example, it is estimated that there may be as many as 3,000 sheep dip sites alone in Otago.

It should be noted that the register is also used to record when investigation has confirmed that no HAIL activities have occurred, or when sites are confirmed to be not contaminated. Therefore, for any site, the absence of available information does not necessarily mean that the property is uncontaminated; rather no information exists on the database.

### Contamination Status

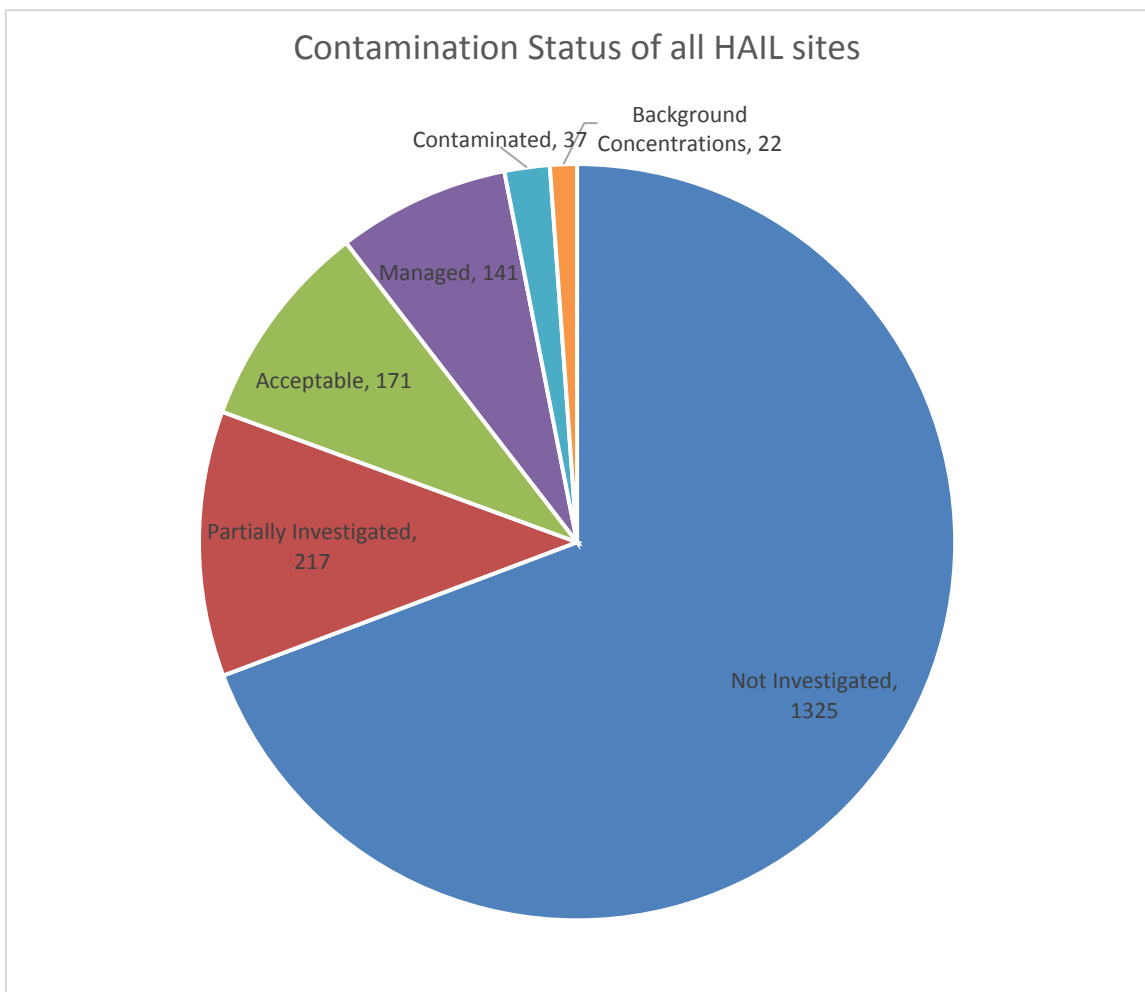
In addition to recording information about current or past HAIL land uses, the register also provides an indication of the level of investigation at the site and the concentrations of soil contaminants, if known, relative to the use of land or sensitivity of the environment. This information is reflected in the Contamination Status attribute for each site. There are seven possible categories for the Contamination Status as shown in Table 2.

<b>Contamination Status</b>	
<b>Contaminated for &lt;Context&gt;</b>	<p>The site has been investigated and results demonstrate that there are hazardous substances in or on the land at the site that have, or are reasonably likely to have, significant adverse effects on the environment.</p> <p>&lt;Context&gt; refers to the current or proposed site use (e.g. residential) and/or ecological receptors.</p>
<b>Managed for &lt;Context&gt;</b>	<p>The site has been investigated and results demonstrate that there are hazardous substances present at the site that have the potential to pose risks to human health or the environment. However, those risks are considered managed for &lt;context&gt; because</p> <ul style="list-style-type: none"> <li>- The nature of the use of the site prevents human and/or ecological exposure to the hazard; and/or</li> <li>- The land has been altered in some way and/or restrictions have been placed on the way it used to prevent human and/or ecological exposure to the hazard.</li> </ul>
<b>Acceptable for &lt;Context&gt;</b>	<p>The site has been investigated and results demonstrate that there are hazardous substances present at the site, but assessment indicates that any adverse effects or risks to human health are considered to be so low as to be acceptable for &lt;context&gt;.</p>
<b>At or Below Background Concentrations</b>	<p>The site has been investigated or remediated. The investigation or post-remediation validation results confirm that there are no hazardous substances above local background concentrations. Local background concentrations are those that occur naturally in the area. The investigation or validation sampling has been sufficiently detailed to characterize the site.</p>
<b>Partially investigated</b>	<p>The site has been partially investigated. Investigations have been conducted that –</p> <ul style="list-style-type: none"> <li>- Demonstrate there are hazardous substances present; however, there is insufficient information to quantify any adverse effects or risks to human health or the environment; or,</li> <li>- Do not adequately verify the presence or absence of contamination associated with all HAIL activities that have been undertaken on the site.</li> </ul>

<b>Not Investigated</b>	The soils at the site have not been subject to investigation. Contamination may have occurred but should not be assumed to have occurred.
<b>New Information</b>	New information has been received. This information is currently being assessed prior to assigning a site status.

**Table 2. Contamination status definitions.**

Most sites on the register have not been fully investigated. This is because many sites do not present a significant risk to human health or the environment which would warrant immediate investigation. For many sites, investigation is only required at the time of development or disturbance.



**Figure 3. Number of sites on HAIL register as at November 2018 by contamination status**

**CONTAMINATION STATUS (Jun 2016 | Nov 2018)**

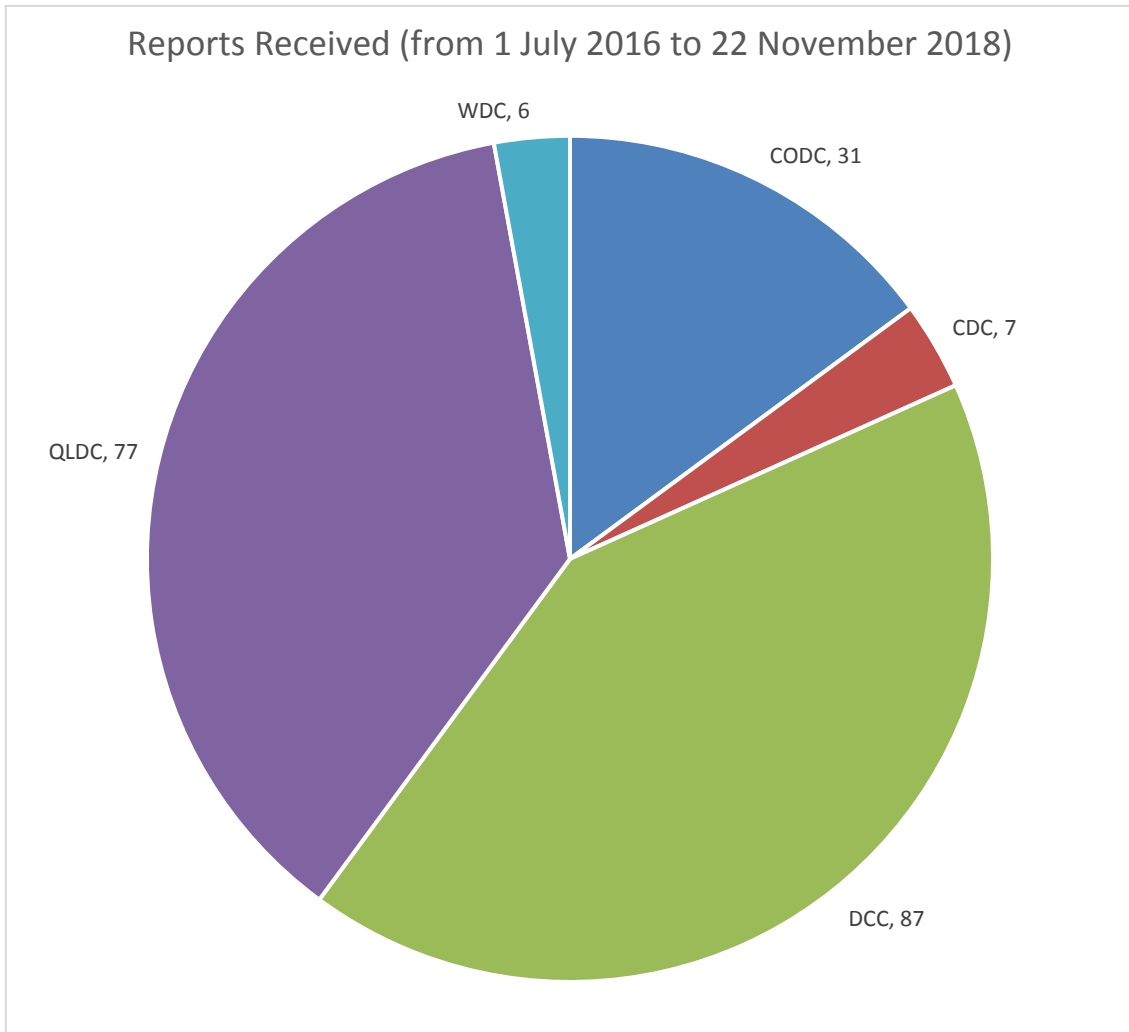
	Not Investigated	Partially Investigated	Acceptable	Managed	Contaminated	Background Concentrations
<b>CODC</b>	23   114	21   30	20   26	18   21	1   2	0   3
<b>CDC</b>	36   51	17   19	12   16	36   38	3   3	0   0
<b>DCC</b>	313   901	54   97	39   70	45   49	13   24	0   1
<b>QLDC</b>	24   110	29   57	25   48	13   15	1   6	1   17
<b>WDC</b>	42   149	12   14	9   11	18   19	1   2	0   1
<b>All of Otago</b>	438   1325	133   217	105   171	130   141	19   37	1   22

**Table 3. Contamination status of sites in June 2016 and November 2018.**

CONTAMINATION STATUS (% change between 2016 and 2018)						
	Not Investigated	Partially Investigated	Acceptable	Managed	Contaminated	Background Concentrations
<b>CODC</b>	396%	43%	30%	17%	100%	NA
<b>CDC</b>	42%	12%	33%	6%	0%	NA
<b>DCC</b>	188%	80%	79%	9%	85%	NA
<b>QLDC</b>	358%	97%	92%	15%	500%	1600%
<b>WDC</b>	255%	17%	22%	6%	100%	NA
<b>All of Otago</b>	203%	63%	63%	8%	95%	2100%

**Table 4. Percent increase for each category between June 2016 and November 2018.**

In most cases, a site's contamination status is determined when the Otago Regional Council receives a site investigation report prepared by an external consultant on behalf of a landowner as part of site development requirements or as part of an application for ORC consent. Between June 2016 and November 2018, ORC staff reviewed 208 site investigation reports and updated the HAIL Register accordingly.



**Figure 4. Number of site investigation reports reviewed between June 2016 and November 2018 by local authority.**

As shown in Figure 4, the majority of site investigation reports were received for the Dunedin City area. Queenstown Lakes District had the second highest level of activity, reflecting the increasing development pressure within this part of Otago.

**Contaminated Sites**

The Regional Plan: Waste for Otago specifies that the Otago Regional Council will maintain a database called the “Otago Regional Contaminated Sites Register” outlining the details of sites that are contaminated. Those sites on the HAIL register with a status of ‘contaminated’ can be considered to comprise the ‘contaminated sites register,’ as mandated in the Regional Plan: Waste.

As shown in Table 5, there were 37 identified ‘contaminated sites’ in Otago as at November 2018. These sites cover a total area of 70 hectares and affect 61 properties.

	Contaminated Sites (Jun 2016   Nov 2018)		Percent change
	Jun 2016	Nov 2018	
<b>CODC</b>	1	2	100%
<b>CDC</b>	3	3	0%
<b>DCC</b>	13	24	85%
<b>QLDC</b>	1	6	500%
<b>WDC</b>	1	2	100%
<b>All of Otago</b>	19	37	95%

**Table 5: Number of contaminated sites in June 2016 and November 2018, and percent change between these dates by local authority area.**

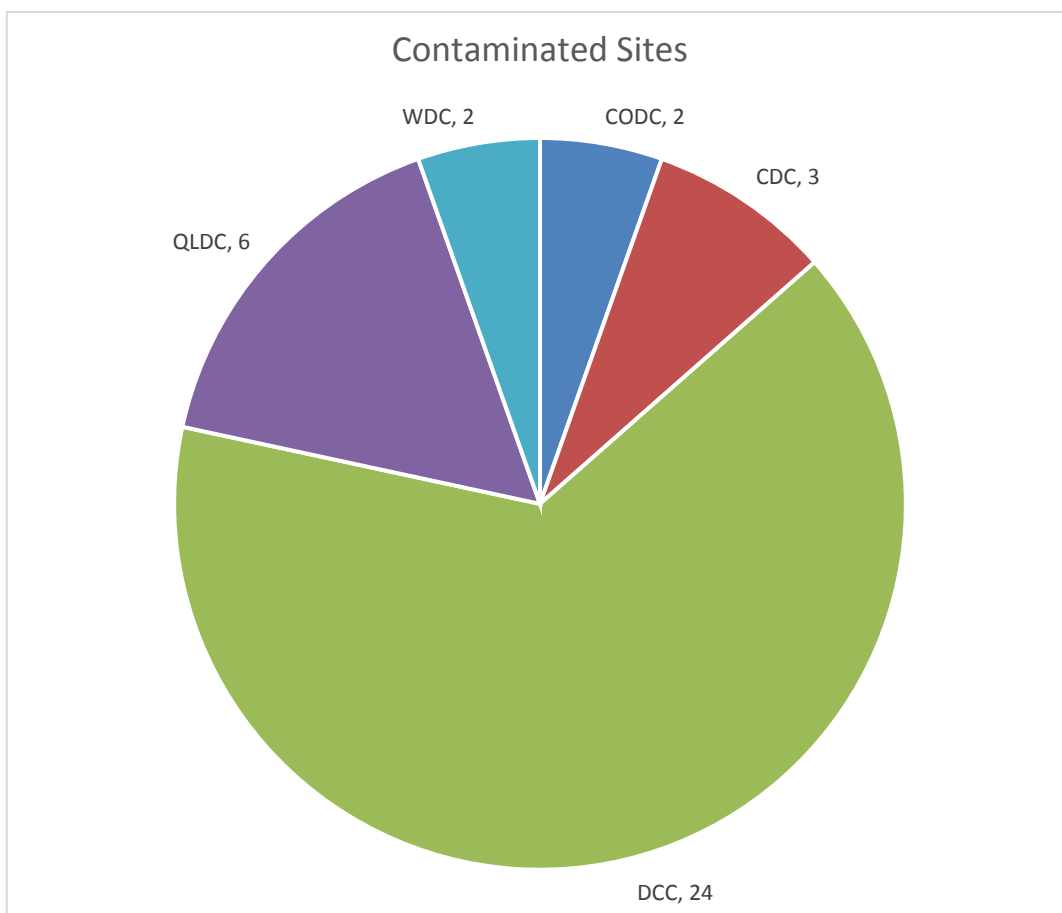
It is important to note that the number of contaminated sites is only a snap shot at any given time. The number of contaminated sites increases as sites are identified through investigation and decreases as these sites are remediated or managed to make them safe for human health or the environment. This fluctuation can make it difficult to use the number of contaminated sites as an indicator of policy or plan effectiveness across the region. Counterintuitively, an increasing number of ‘contaminated sites’ may be a positive statistic – at least over the short term. Assuming legacy practices were responsible for causing the soil contamination (rather than being ‘new’- in which case remediation should take place via RMA enforcement pathways), identifying a site as contaminated can be considered a positive action. Identifying and recording site contamination characteristics is a necessary step towards addressing risk to human health or the environment.

For example, of the 37 contaminated sites, 20 have been identified within the past two years as part of site development planning, and it is anticipated that they will be remediated or managed in the short to medium term to ensure they are suitable for their intended use.

Again, the summary statistics for June 2016 and November 2018 are only snap-shots in time. Some of the sites that were identified as contaminated have now been remediated, some have not been, and new sites have also been identified.

Rather than providing a detailed case history for each of these 37 sites, the following section provides a summary of relevant characteristics and analysis of this group of sites. Individual site information is available to members of the public on request and is included on Land Information Memoranda prepared by the relevant territorial local authorities.





**Figure 5: Number of contaminated sites by local authority area.**

As seen in Table 5 and Figure 5, most sites are located within the Dunedin City area. This is not surprising given that the Dunedin City area contains almost 900 more HAIL sites than any other local authority area. The number of contaminated sites within each local authority is roughly proportional (1%-2%) to the total number of identified HAIL sites.

Expressed as a percentage of all investigated HAIL sites, current contaminated sites make up between 2.4% and 10% depending on local authority area. Including sites that were previously contaminated, but have now been remediated or managed, between 21.7% and 60.5% of all investigated sites have been found to be ‘contaminated.’

	Current	Current and past
<b>CODC</b>	2.44%	32.9%
<b>CDC</b>	3.95%	60.5% <sup>1</sup>
<b>DCC</b>	9.96%	33.6%
<b>QLDC</b>	4.20%	21.7%
<b>WDC</b>	4.26%	53.2% <sup>1</sup>
<b>All of Otago</b>	6.29%	35.7%

**Table 5. Current contaminated sites as percentage of all investigated sites and combined current and past contaminated sites as a percentage of all investigated sites.**

<sup>1</sup> These figures for CDC and WDC are skewed by the large number of council-operated closed landfills relative to the total number of investigated sites.

These figures show that when site investigations are being completed across the region, there is a relatively low, but not overly conservative chance of finding contamination that exceeds the applicable guideline values. This indicates that site investigations are not being completed unnecessarily. This is one of the intended outcomes of New Zealand’s Contaminated Land Management Guideline framework, which establishes a risk-based and staged approach to contaminated land investigation. Typically, a preliminary site investigation is completed at the outset of a project, which establishes the need for further detailed investigations.

The HAIL activities that have caused the contamination are shown in Figure 6, and include landfills or waste disposal practices, persistent pesticide use, livestock dips, timber treatment, gasworks, petroleum hydrocarbon storage and handling, rifle ranges and motor vehicle workshops. The ‘any other activity’ tag (HAIL category I) has been used where the cause of contamination has not been confirmed.

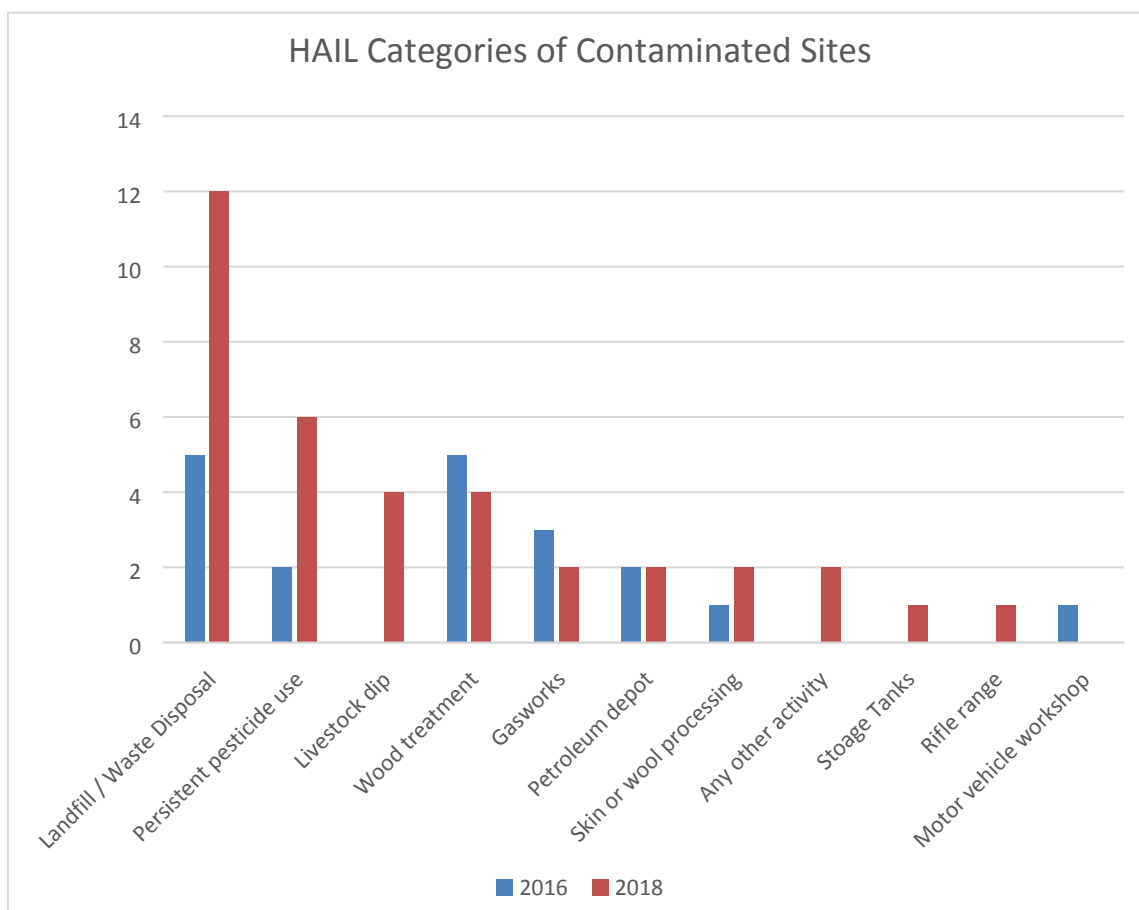
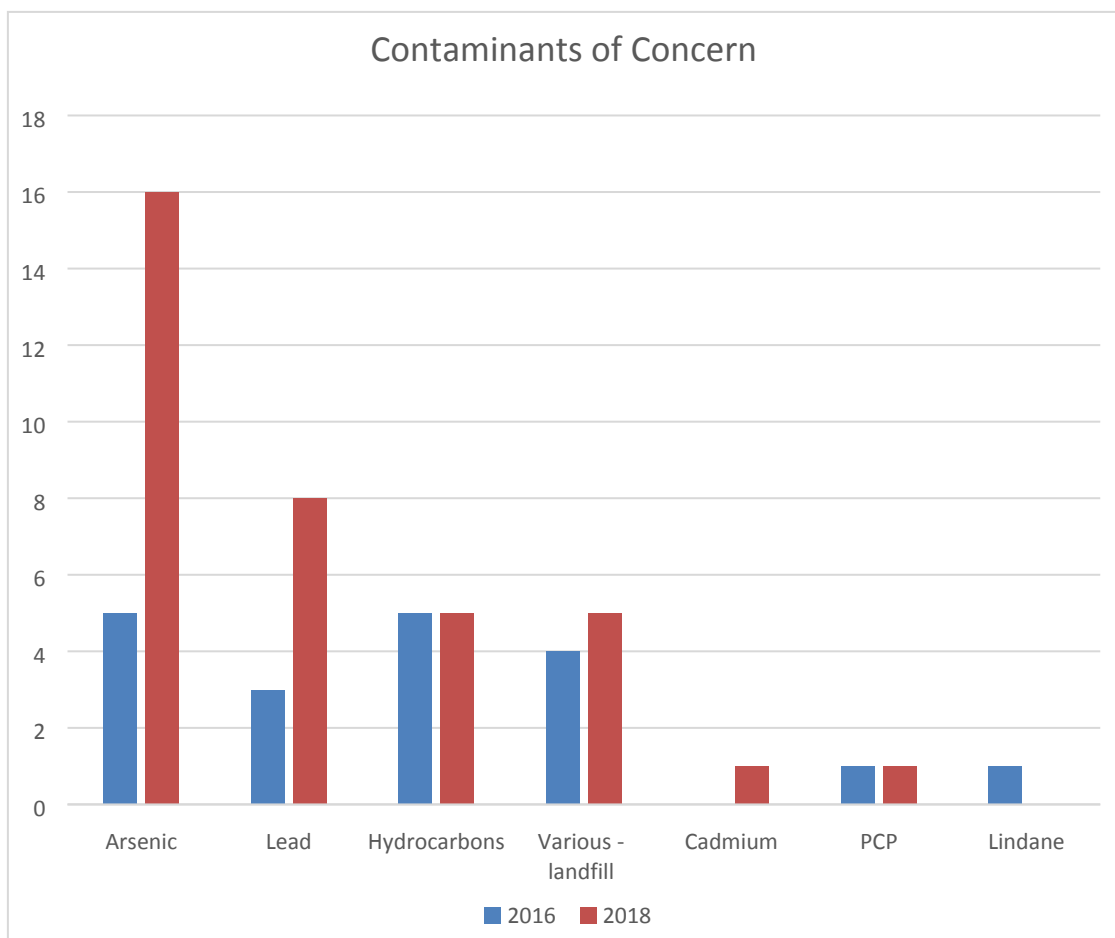


Figure 6: Number of contaminated sites by HAIL Category in 2016 and 2018.

Landfilling / Waste Disposal to Land is the most frequent cause of contamination. In many cases, anthropogenic fill materials have been encountered during earthworks as an unexpected discovery, with subsequent testing confirming the presence of contaminants in excess of guideline values.



**Figure 7: Number of contaminated sites by contaminant of concern.**

The contaminants of concern at each of the contaminated sites in 2016 and 2018 are shown in Figure 7. These include arsenic, lead, petroleum hydrocarbons, various landfill-related contaminants, cadmium, pentachlorophenol (PCP) and lindane.

Arsenic is the primary risk driver at most of the contaminated sites in Otago. Arsenic was widely used in New Zealand, primarily as a potent poison used to control a variety of pests. Lead arsenate was used to control insects, like codling moth on orchards. Arsenic was a common ingredient in sheep dip solutions. It was and is still used to protect softwood timber from fungal rot and insects. These uses have all created contaminated sites in Otago. Additionally, some parts of Otago exhibit naturally elevated concentrations of arsenic in soil due to the mineralogy of parent rock material. The soil contaminant standards to protect human health in residential and rural-residential scenarios (20 mg/kg and 17 mg/kg) are relatively low for arsenic due to its high toxicity. Exposure to arsenic can result in numerous cancerous (skin, bladder, lung and liver) and non-cancerous (pigmentation, keratoses, lesions) effects.

Lead is also a common contaminant of concern at contaminated sites in Otago. Like arsenic, lead was (and is) widely used in a variety of common applications. It is a ubiquitous contaminant in the urban environment, primarily due to the use of lead-based paint and its

inclusion as an anti-knocking agent in gasoline until 1996. Elevated lead has been encountered at many fill sites in Otago, likely as a result of demolition waste including lead building components like flashings, nails or paint. Like arsenic, lead does not break down in the environment. Exposure to lead can result in numerous and well-documented human health impacts, including effects on neurological development in children.

### **Priority Sites**

While many of the current contaminated sites are expected to be remediated or managed by landowners over the next few years as these sites are developed, others lack an economic driver for remediation. These sites are more difficult to address. There are four high priority sites where on-going work to address the effects of legacy contamination is required. Three of these sites have been identified as contaminated for more than 2 decades.

These are:

#### Dunedin City Gasworks Tar Well Site

The Dunedin City Gasworks was the first and longest running gas making facility in New Zealand. The historic operation of the gasworks has caused soil and groundwater contamination. While much of the site has been remediated since its closure in 1987, the Dunedin City Council retains ownership of an underground storage structure that contains 1.4 million litres of tar and tar related by-products.

Over the 2017-2018 financial year, options for remediating the tar well site were scoped through a joint project with the Dunedin City Council and partially funded by the Ministry for the Environment's Contaminated Sites Remediation Fund. The DCC is currently evaluating these options.

#### Oamaru Gasworks

The Oamaru Gasworks on Humber Street operated from 1876 until 1980. Site investigation took place in 1998, and in 2000 approximately 45m<sup>3</sup> of contaminated material was removed from the site, but significant contamination remains on site. Over the past 18 months, erosion along the foreshore has affected the stability of the site, exposing additional contaminants. ORC staff are currently preparing a site investigation report as part of our ORC's RMA function of monitoring contaminated land.

#### Beach Road Landfills

The two sites are located along an eroding cliff face above the beach. Coastal erosion as resulted in the contents of the landfills spilling down the face of the cliff and onto the beach below. Following the identification of the landfills in 2017, each site was added to the Otago Regional Council's HAIL Register as verified HAIL sites, with a contamination status of not investigated.

As an initial response, approximately 60 tonnes of landfilled material were removed from the sites in October 2017 by the Waitaki District Council. An unquantified amount of landfilled material remains at both sites. As coastal erosion progresses, it is anticipated additional refuse may be progressively exposed and deposited onto the beach.

Otago Regional Council staff completed a preliminary site investigation to provide a summary of the site conditions, a preliminary assessment of risk to human health and the environment, and recommendations to assist Waitaki District Council in the management of the sites. The preliminary site investigation is currently being used to support an application for central government funding for remediation

Blue Mountain Lumber

The Blue Mountain Lumber wood processing complex is located approximately 10 km south of Tapanui. The sawmill was established in 1947 by the New Zealand Forest Service. Sodium Pentachlorophenate (Na-PCP) was used onsite as an anti-sapstain treatment for freshly sawn timber until 1985. Use of this product resulted in soil, sediment, and groundwater contamination. Contaminated sediment in off-site drains was remediated in 2007. An attempt at groundwater remediation using in-situ chemical oxidation was not successful. Groundwater does not appear to be migrating off-site. Since closure of the mill in 2011, the site has largely been unoccupied.

**Mitigation Status**

To assist with tracking the number of sites that have been remediated or managed as an indicator of plan and policy effectiveness, each site also has an attribute related to the site’s mitigation status. The number of sites, number of properties, and total area that has been remediated/managed are key indicators for gauging the effectiveness of contaminated land management in Otago

Mitigation Status	Relationship Contamination Status	Definition
<b>Not Applicable</b>	For use with ‘not investigated’ and ‘partially investigated’	The need for mitigation has not been assessed.
<b>Not Required</b>	For use with ‘acceptable’, ‘at or below background concentrations’ or where a preliminary site investigation has confirmed it is highly unlikely there is a risk to human health or the environment.	Based on the current contamination status or risk assessment, mitigation is not required.
<b>Not Completed</b>	For use with ‘contaminated’	Based on the current contamination status, mitigation IS required, but has not been completed.
<b>Partially Completed</b>	For use with ‘contaminated’	Some work to remediate or manage the site has been completed; however, based on the current contamination status, further mitigation work is required.
<b>Completed – Remediation</b>	For use with ‘acceptable’ or ‘at or below background concentrations’	The site was contaminated; however, contaminants have either been removed or destroyed.

<b>Completed – Site Management</b>	For use with ‘managed’	The site was contaminated; however, risks have been mitigated by management controls on site.
<b>Complete - Partial Remediation and Site Management</b>	For use with ‘managed’	The site was contaminated; however, risks have been mitigated by partially remediating the site, and using management controls to address the remaining contamination.

**Table 6: Mitigation Status definitions.**

Site remediation and site management are differentiated in the following way: Site Remediation means the reduction of contaminant mass at the site to achieve concentrations below guideline values; while management means no reduction in mass, but steps taken to prevent or reduce exposure and could include methods such as impermeable paving, soil capping, vapour barriers, etc.

Depending on the methodology of remediation or management used, potential contamination status categories may include:

‘Managed’ – where residual contamination, including contaminants that are sealed or encapsulated on site and require on-going site management and monitoring.

“Acceptable for <Land-Use>” – where residual contaminant concentrations are below relevant guidelines for the current or intended land-use of the site.

“At or Below Background Concentrations” – where all contaminants have been removed or treated such that all contaminants on site are at or below background concentrations. There are no further restrictions on land-use.

MITIGATION STATUS (Jun 2016   Nov 2018)														
	Not Applicable		Not Required		Not Completed		Partially Completed		Completed - Remediation		Completed - Site Mgt		Completed - Partial Remediation and Site Mgt	
<b>CODC</b>	44	136	17	33	1	2	0	0	3	4	18	21	0	0
<b>CDC</b>	54	70	9	11	2	3	1	0	3	5	33	35	3	3
<b>DCC</b>	365	994	35	68	13	22	0	2	6	8	37	38	9	11
<b>QLDC</b>	52	171	21	50	1	7	0	0	7	10	12	14	0	1
<b>WDC</b>	54	163	6	8	0	1	1	1	3	4	15	16	3	3
<b>All of Otago</b>	569	1534	88	170	17	34	2	3	22	31	115	124	15	18

**Table 7. Mitigation status of sites in June 2016 and November 2018.**

MITIGATION STATUS (% change)							
	Not Applicable	Not Required	Not Completed	Partially Completed	Completed - Remediation	Completed - Site Management	Completed - Partial Remediation and Site Management
<b>CODC</b>	209%	94%	100%	NA	33%	17%	NA
<b>CDC</b>	30%	22%	50%	-100%	67%	6%	0%
<b>DCC</b>	172%	94%	69%	NA	33%	3%	22%
<b>QLDC</b>	229%	138%	600%	NA	43%	17%	NA
<b>WDC</b>	202%	33%	NA	0%	33%	7%	0%
<b>All of Otago</b>	170%	93%	100%	50%	41%	8%	20%

**Table 8. Percent increase for each category between June 2016 and November 2018.**

174 sites, covering 484 hectares and 363 properties were previously considered contaminated, but have now been remediated or managed to date. This is a 14% increase in the number of sites and a 16% increase in total area since June 2016.

The largest increases were seen within the Queenstown Lakes District, where, again, strong development pressures and high value land provide key economic drivers for redevelopment of contaminated land.

#### **Conclusion**

Updates to the HAIL register in 2016 have enabled better tracking and analysis of contaminated land data. As identification and remediation or management of contaminated land in Otago continues, this will be reflected in changes to key indicators, such as number and area of remediated sites.

#### **4. Recommendation**

- a) *That this report is received and noted by Council*

**Endorsed by:** Peter Winder  
**Acting Director Environmental Monitoring & Operations**

#### **Attachments**

Nil

## 10.4. Rabbit Project Report

<b>Prepared for:</b>	Regulatory Committee
<b>Report No.</b>	EMO1846
<b>Activity:</b>	Governance Report
<b>Prepared by:</b>	Haines Battrick, Senior Environmental Officer
<b>Date:</b>	09/01/2019

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### 1. Précis

This report provides detail on three main aspects of the overall rabbit project: RHDV 1 K5, Monitoring/stakeholder engagement and Night counts.

#### RHDV 1 K5

Following a lengthy and extensive consultation and application process the Ministry for Primary Industries gave approval in late February 2018 to import and release RHDV1 K5. The ORC released the virus from mid-March, at approximately 100 sites across Otago.

Results varied over the region, as they did over the whole country. At individual monitored sites in Otago results ranged from no reduction in the rabbit population to reductions of up to 80%. Across all monitored sites in Otago the measured rabbit population decreased by 47%.

The overall Otago result is better than the 30 – 40% reduction in rabbit numbers that was predicted by Landcare. Canterbury achieved a 40% reduction and the intensively managed Landcare sites achieve a 39% reduction. All these results reflect the continued impact of the RHDV1 and RHDV1 Czech viruses and natural mortality.

We believe that the reason for this variation in results is high background immunity levels in some areas, which correlates to a lower proportion of susceptible rabbits. An example of this is in the Lowburn area of Cromwell where there was no detectable reduction in rabbit numbers, which were at very high levels, and where immunity was recorded at 100%. In addition, blood samples at 11 of the 13 sites tested, returned immunity greater than 80%.

As part of this project rabbit livers have been sent for testing from across the country. A rabbit from Otago was the first to test positive for K5. Since the initial confirmation a further 15 rabbits from Otago have tested positive for K5. Tests showed that of the rabbits that died from RHDV, 71% of the samples were K5 and 28% were the Czech strain. These results indicate that K5 is present in the wild rabbit population and is killing rabbits. Acquiring animals to take liver samples proved more difficult than expected with scavenging of carcasses prevalent at all release sites. This in conjunction with the fact that an estimated 80% of rabbits die underground is reflected in the lower numbers of rabbits submitted for sampling.

In addition to rabbit liver sampling the ORC have deployed fly traps at several locations in order to identify what RHDV strains are present. We expect results of this testing in early 2019. This testing will give us an indication of the persistence of RHDV strains at those sites.

As was the case with the initial illegal release RHDV, K5 has not achieved the expected results in some areas, however in other areas K5 has established and



worked well. Observations indicate that at the majority of release sites in Otago localised effects were common. It continues to prove difficult to get an accurate picture of the overall effectiveness of the release with limited resources available to undertake extensive monitoring. Staff have received both positive and negative feedback on the effectiveness of K5 with the majority of conversations indicating that the initial effect was evident but then waned.

K5 virus was never going to be a “silver bullet”, and always needed primary and secondary rabbit management to be carried out by farmers and other land owners in order to keep rabbit numbers down. It is anticipated that RHDV1 K5 will assist the control of rabbit populations by supplementing traditional control methods.

It should also be acknowledged that the staff involved in the rollout of K5 did an exceptional job working long hours, nights and weekends to get this project completed in the timeliest manner possible.

## **RHDV 2**

It has been confirmed that RHDV 2 is present in Otago. Sampling associated with the K5 project has identified RHDV 2 in rabbit livers submitted from Otago. To date, we have more than 20 positive results from across the Otago region with more suspected cases currently being tested.

The first infected rabbit was found in the Marlborough area in May, then further cases confirmed in the Bay of Plenty, Nelson, Waikato, Wellington and Otago.

At this stage we are unsure of the effect that RHDV 2 will have on the impacts of both the K5 and Czech strains of RHDV 1. Mortality rates associated with RHDV 2 are lower than the RHDV 1 group. RHDV1 K5 mortality rate is 40-100% whereas RHDV 2 has a variable mortality rate of 5% to 70%.

Further details on the implications of RHDV 2 will be presented when they become available.

## **Monitoring/Stakeholder engagement**

A major component of the rabbit project is that staff are looking at opportunities to engage with communities in order to address the rabbit problem and collaboratively work towards solutions which are practical, based on sound best practice control methods and will provide long term benefits.

A pilot workshop on rabbit control was held on the Otago Peninsula earlier 2018. As part of this initiative a rabbit control brochure has been produced which details control options and landowner responsibility.



Plans to hold similar workshops around Otago with the first in North Otago in early 2019 are currently underway. The Stakeholder Engagement team are assisting with communications around this and are working with field staff to develop a calendar of optimal times to promote pest control so we can take a strategic approach to what we communicate and when.

In addition to Environmental Monitoring and Operations staff working with landowners, rabbit communications from the Stakeholder Engagement team will start in the lead-up to winter, to remind and encourage people to plan for winter control options.

### **Night Counts**

The latest round of night counts has provided an overview of rabbit levels in Otago. These results are important in showing long term rabbit trends in the Region and are an essential part of Council's rabbit monitoring programme, providing advance warning of rabbit problems throughout the region. This data also provides good evidence of the need for effective rabbit control programmes.

Otago Regional Council has a well-established rabbit monitoring programme and regular assessments of rabbit densities are taken throughout Otago. Staff are currently looking at expanding the number of count routes in order to provide a more comprehensive and representative data set. Historically there have been more count routes covering more of the region however due to factors such as land use change these sites have been disestablished with the majority of routes now located in the more rabbit prone areas of the region.

One method used in monitoring rabbit levels is the counting of rabbits at night at established surveillance sites. These sites are situated throughout the region so that trends in rabbit densities can be determined for various localities throughout Otago. The latest round of night counts has been completed for the 2018 year and the data is presented in this report.

Rabbit levels throughout the Region currently range from very low stable populations through moderate to high populations, including populations that may require poisoning in 2019.

Despite the notable decrease in the last five years of the benefits that RHDV has previously provided to inland Otago properties, the majority of landholders have kept their rabbits to manageable levels and at costs that are sustainable. This has been with good secondary control on many properties and with limited help from the virus.

Properties that can be classified as having low rabbit proneness or have intensive rabbit control programmes, together with Otago lowland/coastal properties are still receiving significant benefits from the virus.

### **Method**

Rabbit night counting is a method used to determine rabbit trends and has been used in New Zealand since the late 1960's. The method involves travelling along a set marked route on a motorcycle using a spotlight to count the rabbits seen in the light beam. The counts are repeated over two nights of good weather.

Count route sites were selected so that the various levels of rabbit proneness topography and vegetation found in Otago are represented. A site can be made up from a single property but often includes several. It is important that various rabbit control programmes are represented in the surveillance work, from landholders with very effective programmes through to those with no control input.

The rabbit counts are carried out in the winter/early spring, the period when rabbit's numbers are at their most stable. This provides a good indication of the potential breeding population at the start of the main rabbit breeding season.

### **Results**

The results presented in the graphs below show both increases and decreases in rabbit numbers across sites with the most stable sites being the ones where rabbit numbers are low.

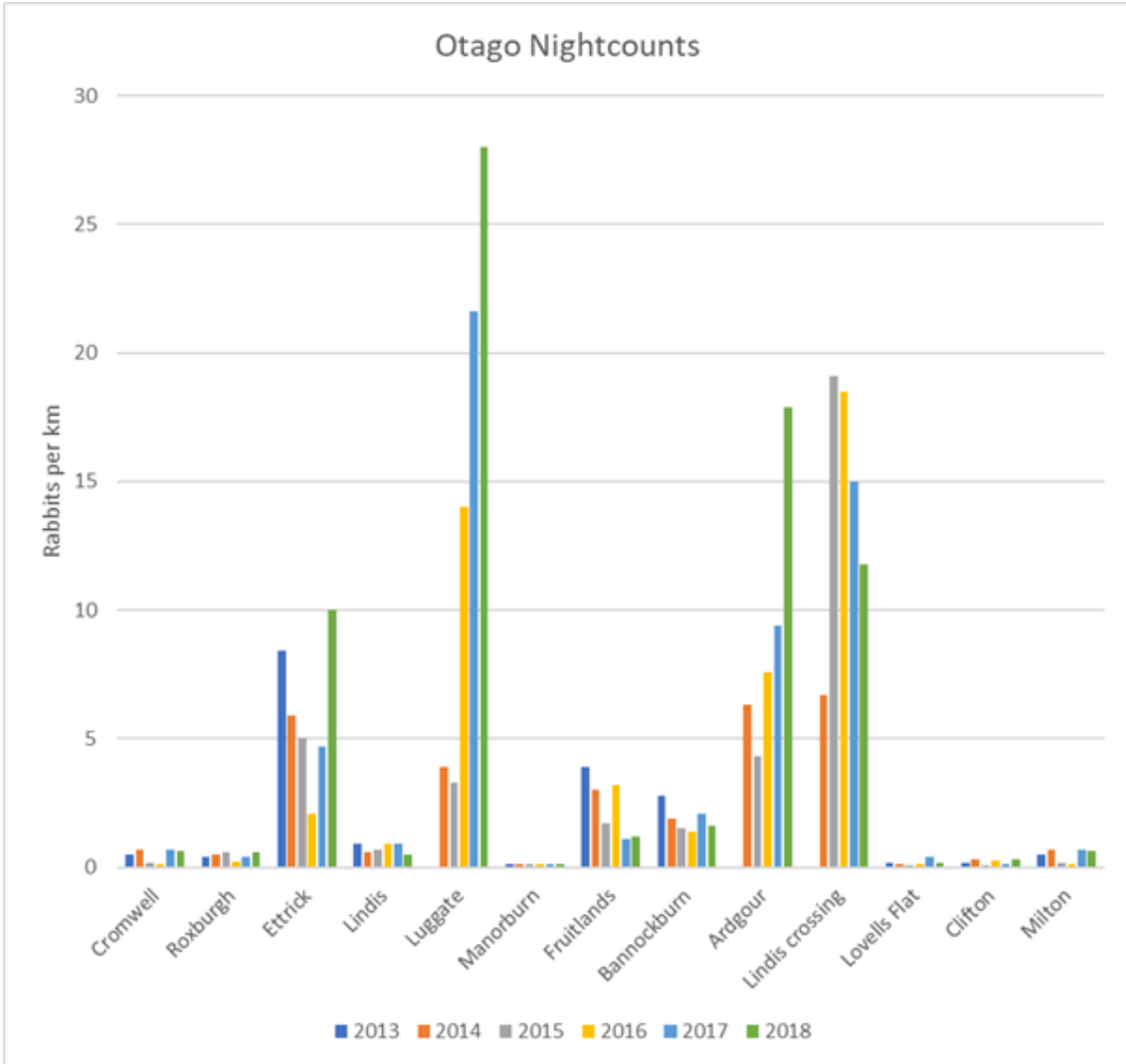


Figure 1: Count results across the region.

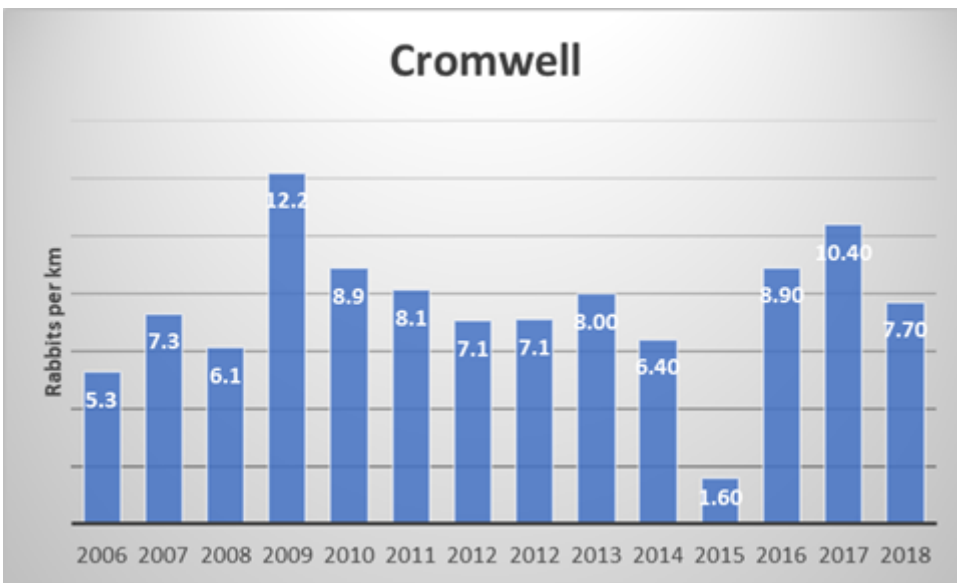


Figure 2:

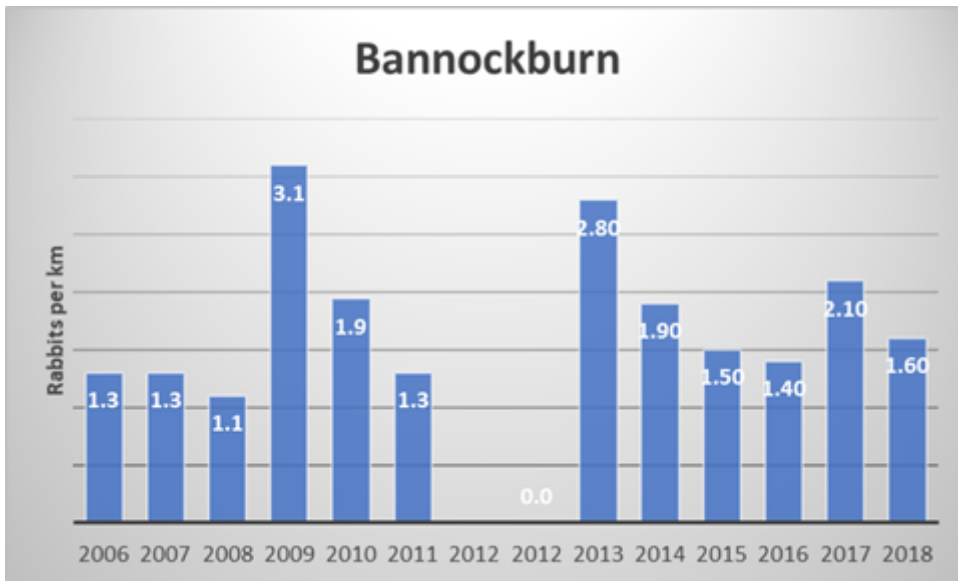


Figure 3:

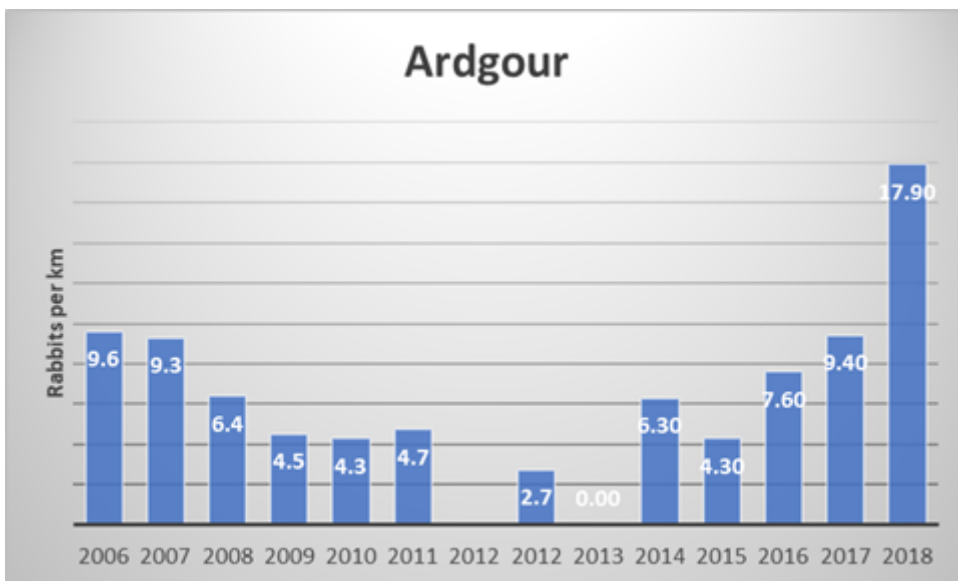


Figure 4

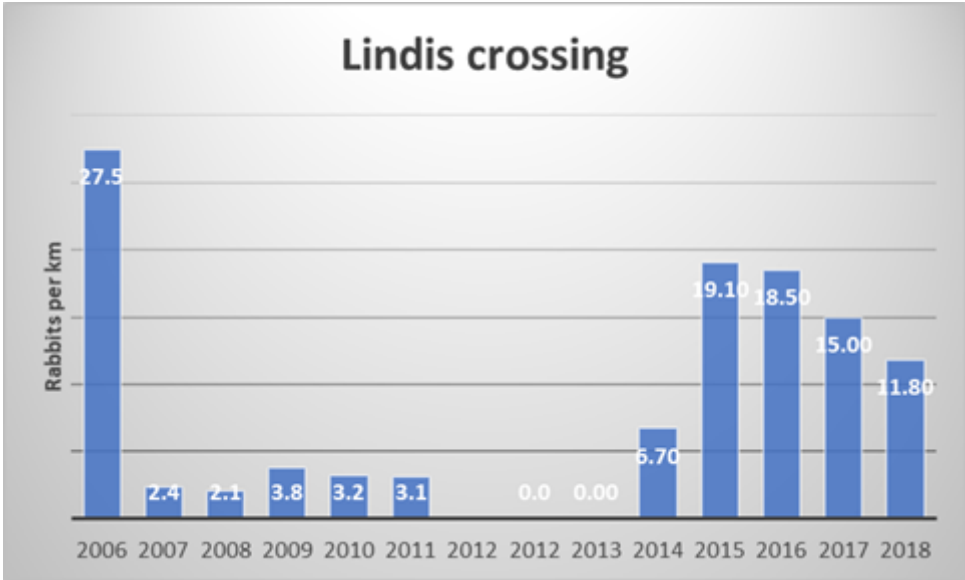


Figure 5

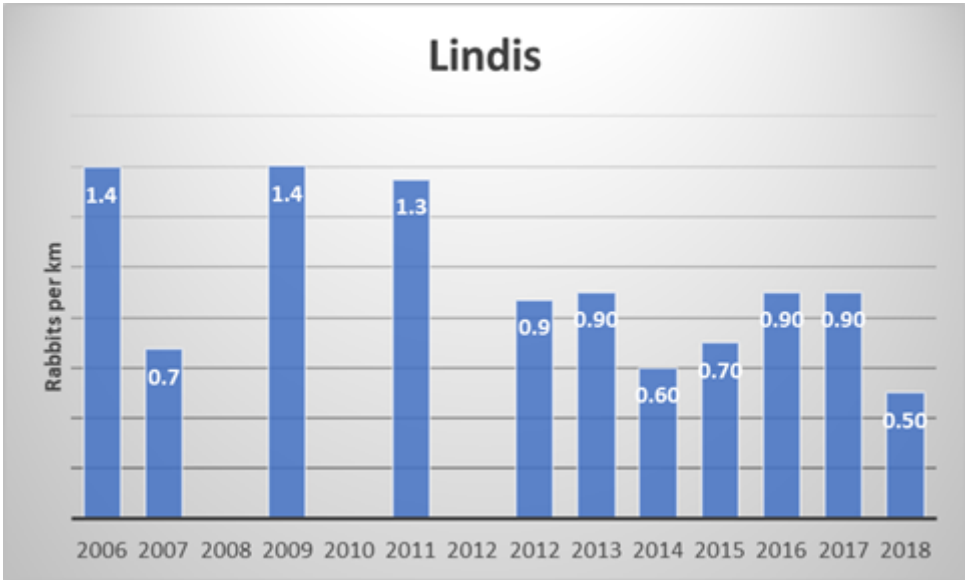


Figure 6:

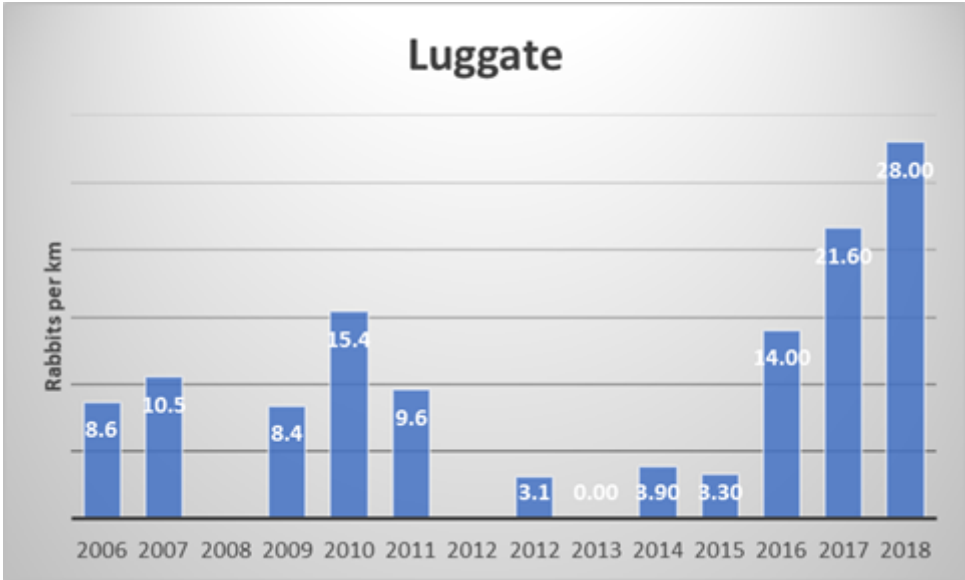


Figure 7:

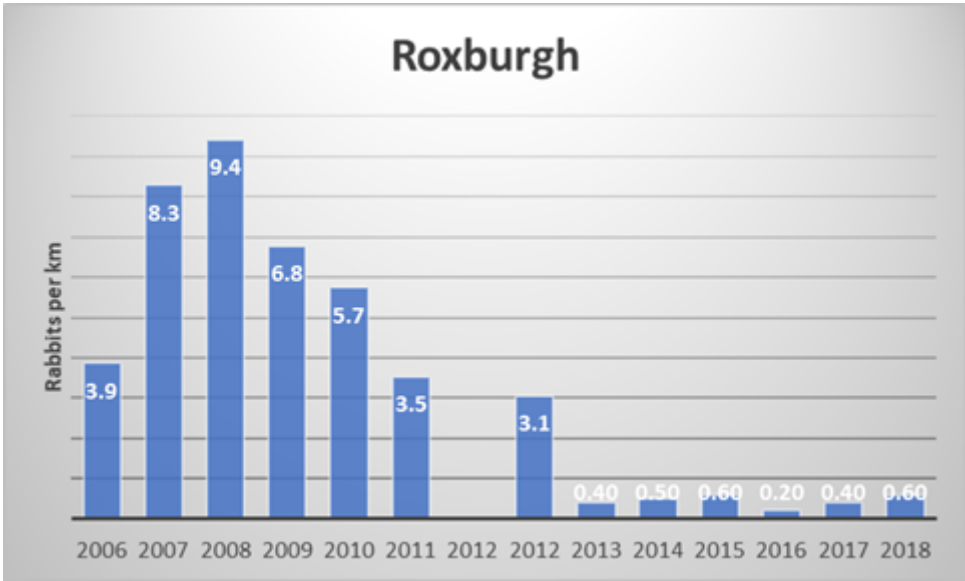


Figure 8:

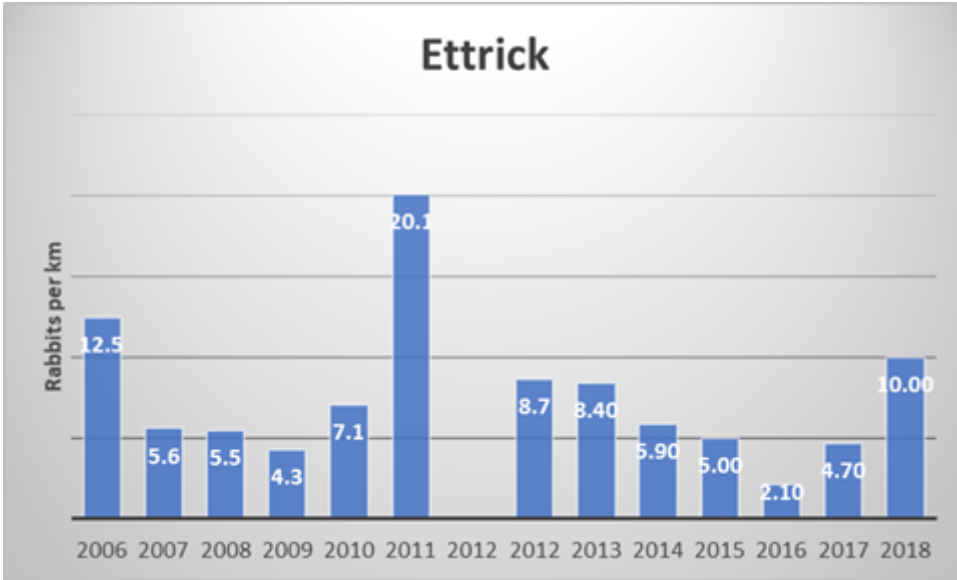


Figure 9:

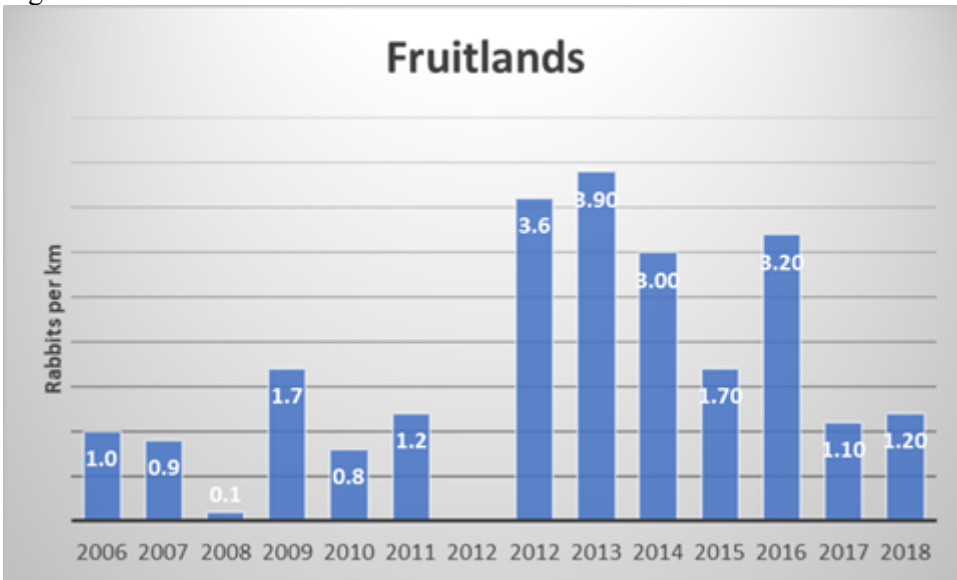


Figure 10:



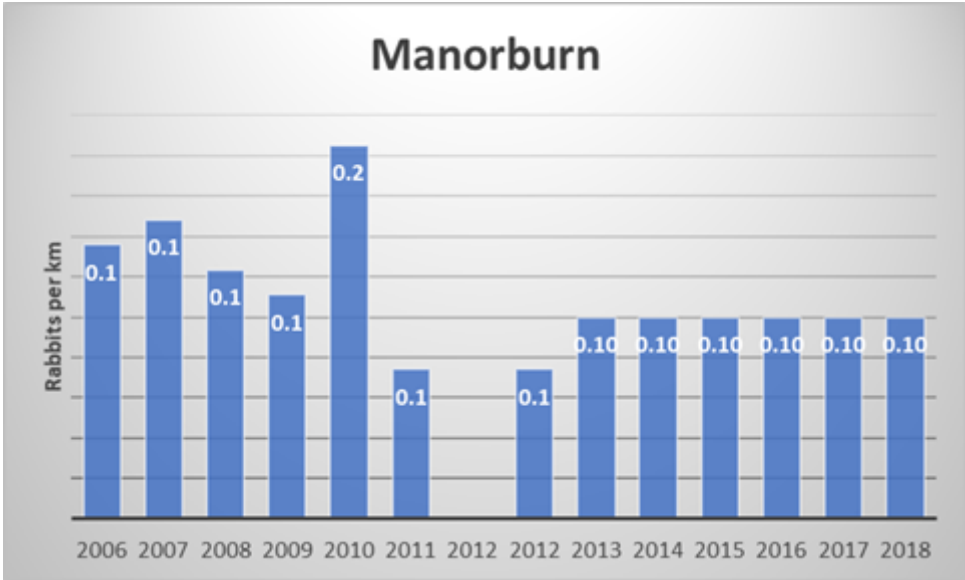


Figure 11:

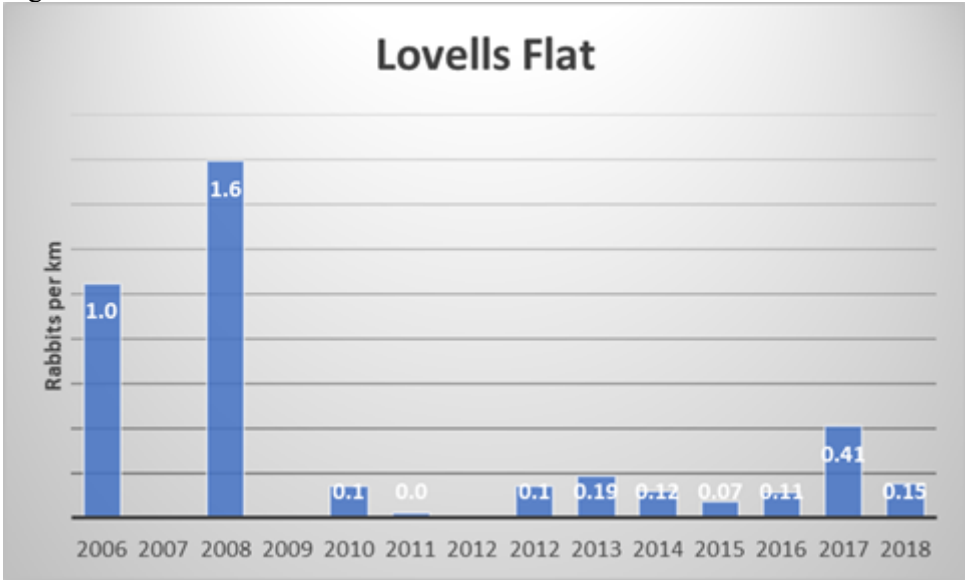


Figure 12:

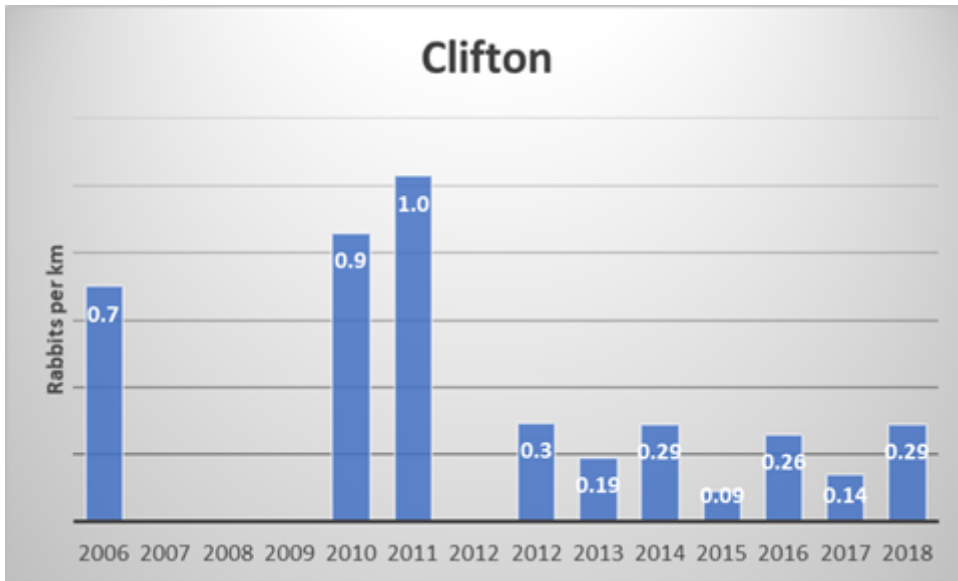


Figure 13:

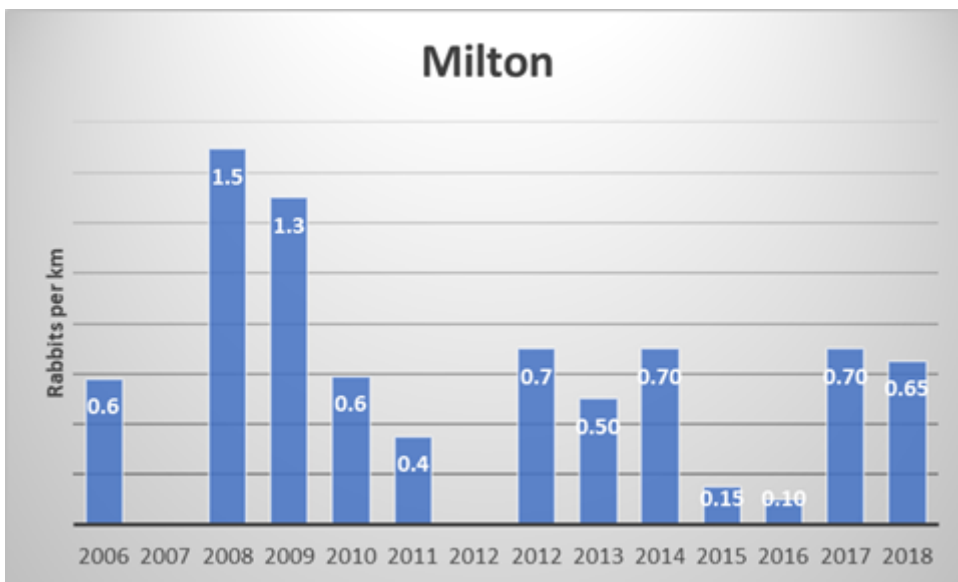


Figure 14:

## Discussion

The range of rabbits spotlighted per kilometre between sites is to be expected given that the monitoring sites cover a wide range of rabbit prone country and differences in landholder's commitment to on farm rabbit control. This wide range of results, from 0.1 rabbits seen per km through to 28 rabbits per km allows Council staff to record the impacts of various factors operating in rabbit management. Factors such as the breeding season, RHDV, different control practices, the frequency of applying these methods and changes to rabbit habitat.

Night counts allow the Council to advise landholders of appropriate control measures that will need to be undertaken to prevent or stop breaches of the RPMP where upward trends in rabbit numbers are detected.

As part of the K5 project we undertook counts at a number of release sites, these counts will be repeated at the same time this year. The purpose of this will be to obtain an indication of the effect of RHDV at these sites a year after release.

The 2018 counts show rabbit levels ranging from very low levels through to moderate to high levels of rabbits which will require poisoning in 2019.

Many landholders need to increase their level of primary and secondary control to complement any potential impact of RHDV on rabbit numbers.

As is the case every year we see an increase in rabbit numbers through the breeding season where rabbits are more visually obvious, which is also reflected in the number of complaints received by the ORC. The natural fluctuation in rabbit populations sees a low ebb through the winter when counts are undertaken.

This year has been particularly conducive to rabbit breeding with relatively mild temperatures and an abundance of grass growth. Compliance inspections have confirmed that across the region current rabbit numbers are elevated however as we have seen in previous years these numbers will decrease.

Rabbit management in Otago remains a complex issue with many different factors influencing rabbit numbers. Public perceptions around what constitutes a problem vary widely from a few rabbits on an urban lawn or garden to wide scale landscape-based effects.

Education and community engagement are therefore critically important in order to effect change in opinion, attitude and behaviour so as to result in effective rabbit management. This also needs to be backed up by a robust enforcement regime, which we have in place and which will be further supported by the new RPMP.

## **2. Recommendation**

- a) *That this report is received and noted by Council.*

**Endorsed by:** Peter Winder  
**Acting Director Environmental Monitoring & Operations**

## **Attachments**

Nil

## 11. RESOLUTION TO EXCLUDE THE PUBLIC

*That the public be excluded from the following parts of the proceedings of this meeting, namely:*

### 11.99. PUBLIC EXCLUDED POSTAMBLE

#### ***Item 3.1 Report EMO1842 – Enforcement – Detail***

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under [section 48\(1\)](#) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

<b>General subject of each matter to be considered</b>	<b>Reason for passing this resolution in relation to each matter</b>	<b>Ground(s) under section 48(1) for the passing of this resolution</b>
3.1 Enforcement – Current Matters	LGOMIA Section 6 (a) to prejudice the maintenance of the law, including the prevention, investigation, and detection of offences, and the right to a fair trial;	Section 48(1)(a); Section 48(1)(d)

This resolution is made in reliance on [section 48\(1\)\(a\)](#) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by [section 6](#) or [section 7](#) of that Act or [section 6](#) or [section 7](#) or [section 9](#) of the Official Information Act 1982, as the case may require, which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public are as follows:

#### ***3.1 Enforcement – Current Matters.***

To prejudice the maintenance of the law, including the prevention, investigation, and detection of offences, and the right to a fair trial - Section 6 (a)

*Move that Mr Winder be permitted to remain at this meeting after the public has been excluded, because of his knowledge of the matters subject to the recommendations.*

## 12. NOTICES OF MOTION

## 13. CLOSURE