AGENDA

ENVIRONMENTAL MANAGEMENT COMMITTEE

Tuesday 28 April 9.30 am

NORTHLAND REGIONAL COUNCIL
ENVIRONMENTAL MANAGEMENT COMMITTEE

Agenda

Meeting to be held in the Council Chambers, 36 Water Street, Whangarei
on Tuesday, 28 April 2015 commencing at 9:30am

MEMBERSHIP OF THE ENVIRONMENTAL MANAGEMENT COMMITTEE

Cr J Carr, Chairman

Cr C Brown (Deputy Chairman)	Cr B Shepherd (ex officio)	Cr P Dimery
Mr R Booth (KDC)	Cr A Court (FNDC)	Mr A Clarkson
Ms Sue Reed-Thomas (DOC)	Cr T Cutforth (WDC)	Mr G Gover
Mr K Volkerling	Mr M Hunt	

OPEN MEETING

Item:		Page:
Procedural		
	Apologies	
	Declarations of Conflicts of Interest	
1	Confirmation of Minutes – 23 February 2015	**1**
Waiora Northland Water		
2	Waiora Northland Water Progress	**9**
Other Environmental management and operational matters		
3	Environment Fund and Farm Water Quality Improvement Plan Update	**19**
4	River Management Update	**23**
5	Recreational Swimming Water Quality Programme – Results 2014-2015	**33**
6	Environmental Monitoring for the Period 1 March – 31 March 2015	**43**
7	Farm Dairy Effluent – update on FDE monitoring activities	**49**
8	Biosecurity Responses Update	**59**
9	Kai Iwi Lakes Pest Control and Catchment Update	**63**
10	Go-Slow Disease	**67**
11	Review of Regional Pest Management Strategies and Proposed Marine Pathway Management Plan -Review of the Proposed Timeline	**71**
12	Preparing the new regional plan	**75**
13	Water Allocation Report + Presentation	**79**
14	Agenda Items for Next EMC meeting	**89**

ITEM: 1
Page 1 of 1

ISSUE: Confirmation of Minutes – 23 February 2015

ID: A740383

To: Environmental Management Committee, 28 April 2015

From: Tony Phipps, Operations Director

Date: 15 April 2015

Report Type:	☑	Normal operations	☐	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☑	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive summary:

The purpose of this report is to present the minutes of the Environmental Management Committee meeting held on 23 February 2015 **(attached)** for confirmation.

Legal compliance:

Councils are required to keep minutes of proceedings in accordance with the Local Government Act 2002.

Recommendations:

That the minutes of the Environmental Management Committee meeting held on 23 February 2015 be received.

NORTHLAND REGIONAL COUNCIL
ENVIRONMENTAL MANAGEMENT COMMITTEE

Minutes of the Environmental Management Committee Meeting
held in the Council Chamber,
Northland Regional Council, 36 Water Street, Whāngārei, on
Monday 23 February 2015, commencing at 9.30 am

Present:

Northland Regional Council
Cr Joe Carr (Chairman)
Cr Craig Brown (Deputy Chairman)
Cr Paul Dimery

Far North District Council
Cr Ann Court

Kaipara District Council
Richard Booth

Whangarei District Council
Cr Tricia Cutforth

Forest Industry
Geoff Gover

Farming Community
Alan Clarkson

Māori Interests
Keir Volkerling

Environmental Interest Groups
Martin Hunt

In Attendance:

NRC Staff - Full Meeting:
Chief Executive Officer
Operations Director
Policy Specialist – Water
Rivers Team Administrator

NRC Staff - Part Meeting:
Land/Rivers Senior Programme Manager
Biosecurity Senior Programme Manager
Resource Management Planning and Policy Senior Programme Manager
Biosecurity Programme Manager
Rivers Team Programme Manager
Land Management Programme Manager
Natural Hazards/Rivers Officer
Biodiversity Specialist
Economist

The Chairman declared the meeting open at 9.30 am.

Apologies

Moved (Brown/Booth)

That the apologies from Cr Bill Shepherd (ex officio) and Sue Reed-Thomas for non-attendance be received.

Carried

Declaration of Conflict of Interest

There were no declarations of conflict of interest made at any stage of the meeting.

Confirmation of Minutes: Environmental Management Committee Meeting – 8 December 2014 (Item 1.0)

Report from Tony Phipps, Operations Director.
A727166

Moved (Dimery/Clarkson)

That the minutes of the Environmental Management Committee meeting held on 8 December 2014 be confirmed as a true and correct record.

Carried

Waiora Northland Water Progress (Item 2.0)

Report from Natalie Glover, Waiora Northland Water Project Manager.
A722595

Moved (Brown/Dimery)

That the report 'Waiora Northland Water Progress' by Natalie Glover, Waiora Northland Water Project Manager, and dated 10 February 2015, be received.

Carried

Matters arising from 2.0:

The Resource Management Planning and Policy Senior Programme Manager gave a brief presentation on "Potential River Water Management Units for Northland". The Chairman advised he will be inviting the Mangere Catchment Group to give a presentation to the next Environmental Management Committee meeting, and will contact NRC's media group to arrange for a public statement to reflect recent hard work undertaken by the Mangere Catchment Group.

Moved (Brown/Dimery)

That a meeting be held between Cr J Carr and the CEO to improve publicity about Northland Regional Council's success at the 2014 New Zealand River Awards.

Carried

Environment Fund and Farm Water Quality Improvement Plan Update (Item 3.0)

Report from Duncan Kervell, Land Programme Manager, and Bruce Howse, Land/Rivers Senior Programme Manager.
A722875

Moved (Carr/Dimery)

That the report 'Environment Fund and Farm Water Quality Improvement Plan Update' by Duncan Kervell, Land Programme Manager, and Bruce Howse, Land/Rivers Senior Programme Manager, and dated 2 February 2015, be received.

Carried

Moved (Carr/Brown)

That the committee recommends to council the approval of $8,803.45 of funding from the Land Management Reserve to cover the year to date unfavourable variance.

Carried

Moved (Court/Clarkson)

That the committee approves Mr Stephen Allan's application for $13,000 for the testing of the new trap design for wild cat control and recommends to council that this funding be provided from the Land Management Reserve.

Carried

Secretarial Note: As per Standing Order 3.9.17 'If, during the course of a meeting of the local authority, fresh facts or information are received concerning a matter already resolved at the meeting, the previous resolution may be revoked or altered by the consent of 75% of the members then present and voting'.

The previous motion was replaced by the amendment as the substantive motion:

Amendment (Booth/Cutforth)

That the committee supports Mr Stephen Allan's application for $13,000 for the testing of the new trap design for wild cat control to be made to external sources of funding and recommends to council that should that support not be forthcoming, that the council approves this funding be provided from the Land Management Reserve.

Carried

(with consent of 75% of the members present and voting)

Moved (Brown/Clarkson)

That the committee approves the proposed changes to the Environment Fund criteria, as per Attachment 1, with changes to take effect from 1 July 2015.

Carried

10.50 am Mr G Gover left the meeting.

River Management Update (Item 4.0)

Report from Joseph Camuso, Rivers Programme Manager.
A721912

Moved (Brown/Clarkson)

1. That the report 'Rivers Management Update' by Joseph Camuso, Rivers Programme Manager, and dated 30 January 2015, be received.

2. That the minutes of the following liaison committee meetings be received:
   a. Kaihu River Liaison Committee, 21 January 2015.

Carried

Matters arising from 4.0:
The Chairman requested that 'Kawakawa flooding' be included as a regular item within the River Management Update.

Natural Hazard Management Update (Item 5.0)

Report from Bruce Howse, Land/Rivers Senior Programme Manager, and Toby Kay, Natural Hazards Advisor.
A722349

Moved (Dimery/Clarkson)

That the report 'Natural Hazard Management Update' by Bruce Howse, Land/Rivers Senior Programme Manager, and Toby Kay, Natural Hazards Advisor, and dated 30 January 2015, be received.

Carried

Matters arising from 5.0:
The Land/Rivers Senior Programme Manager gave a presentation 'Natural Hazard Management Update'.

Update on Northland TBfree Committee Meeting (Item 6.0)

Report from Don Mckenzie, Biosecurity Senior Programme Manager.
A723393

Moved (Brown/Clarkson)

1. That the report, 'Update on Northland TBfree Committee Meeting" by Don Mckenzie, Biosecurity Senior Programme Manager, and dated 3 February 2015, be received.

2. That the committee notes the information.

Carried

Matters arising from 6.0:

Moved (Brown/Clarkson)
Abstained: Hunt

That the Biosecurity Senior Programme Manager provides a report on Kauri Dieback at the next committee meeting and includes Northland Regional Council's role in controlling vectors.

Carried

Biosecurity Responses (Item 7.0)

Report from Don Mckenzie, Biosecurity Senior Programme Manager.
A723389

Moved (Dimery/Brown)

1. That the report, 'Biosecurity Responses' by Don Mckenzie, Biosecurity Senior Programme Manager, and dated 2 February 2015, be received.

2. That the committee note the information.

Carried

Environmental Monitoring for the Period 1 November 2014 – 31 January 2015 (Item 8.0)

Report by Colin Dall, Consents/Monitoring Manager.
A723142

Moved (Court/Booth)

> That the report 'Environmental Monitoring for the Period 1 November 2014 – 31 January 2015' from Colin Dall, Consents/Monitoring Manager, dated 3 February 2015, be received.

Carried

Matters arising from 8.0:
In response to a query, the Operations Director offered to include the criteria used so that readers can ascertain how the various decisions are reached and to provide clarity around the definitions.

The CEO confirmed he will liaise with the Consents/Monitoring Senior Programme Manager and Geoff Gover regarding Consent Reference No REG.009529.01 Hancock Forest Management (NZ) Ltd – Gammons Forest.

Climate Update for Summer 2014/2015 (Item 9.0)

Report by Dale Hansen, Water Resources/Hydrology Programme Manager.
A724196

Moved (Hunt/Clarkson)

> That the report 'Climate Update for Summer 2014/2015' by Dale Hansen, Water Resources/Hydrology Programme Manager, and dated 4 February 2015, be received.

Carried

Recreational Swimming Water Quality Programme – Interim Results 2014/15 (Item 10.0)

Report by Colin Dall, Consents/Monitoring Manager, and Jean-Charles Perquin, Environmental Monitoring Programme Manager.
A725708

Moved (Dimery/Brown)

> That the report 'Recreational Swimming Water Quality Programme – Interim Results 2014/15' dated 13 February 2015 prepared by Colin Dall, Consents/Monitoring Manager, and Jean-Charles Perquin, Environmental Monitoring Programme Manager, be received.

Carried

Matters arising from 10.0:
Following Cr Cutforth's concerns regarding ongoing pollution problems at Whāngārei Falls, the Operations Director advised a report will be issued detailing work undertaken following up on the results.

Agenda items for next Environmental Management Committee Meeting – 28 April 2015 (Item 11.0)

Report from Tony Phipps, Operations Director.
A727170

Moved (Brown/Carr)

> That the Environmental Management Committee members suggest agenda items for inclusion into the agenda for the next Environmental Management Committee meeting on 28 April 2015.

Carried

Conclusion

The meeting closed at 12.25 pm.

ITEM: 2
Page 1 of 9

ISSUE: Waiora Northland Water Progress

ID: A734326

To: Environmental Management Committee, 28 April 2015

From: Natalie Glover, Waiora Northland Water Project Manager

Date: 1 April 2015

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☑	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:

The purpose of this report is to provide an update on progress with Waiora Northland Water and contributing programmes between 11 February and 1 April 2015.

Legal compliance and significance assessment:

The activities detailed in this report are part of the council's day to day operations and as such are provided for in the council's 2012-2022 Long Term Plan, and are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. The report is therefore of low significance in terms of council's significance policy.

Recommendations:

---

1. That the report Waiora Northland Water progress by Natalie Glover, Waiora Northland Water Project Manager and dated 1 April 2015, be received.

2. That John Blackwell be appointed to the drystock farmer vacancy on the Pouto catchment group.

Report:

NATIONAL POLICY STATEMENT FOR FRESHWATER (NPS FM) IMPLEMENTATION

New Regional Plan

A paper is included in this agenda outlining the process for preparing the new regional plan.

Water Allocation

Water allocation related projects due for completion in April 2015 are:

- A method for considering the connection between groundwater and surface water currently being trialled in four Northland catchments;
- Development of a revised groundwater and surface water allocation calculator; and
- Reassessing the Aupōuri aquifer to determine how much water can be allocated in specific areas/zones along the peninsula.

Specialist staff will also be reporting on the preliminary outcomes of their water allocation calculator work during today's agenda.

Northland Economic Impact JV Studies

A series of projects are being progressed in a joint venture between council and the Ministry for Primary Industries. Two projects have been fully scoped and contracts let:

- Identifying the potential economic costs and environmental outcomes of meeting sediment and E.coli objectives and limits in freshwater and estuarine environments using Whāngārei Harbour – a report on the key attributes for suspended and deposited sediment and E.coli has been prepared. NIWA and Landcare Research are modelling the sediment and E.Coli loadings that will be inputted into a Whāngārei Harbour budget.

- Tangata Whenua Values Studies Project – the first part of the process involving a literature review has been completed by Keir Volkering. A series of three hui in Whangarei, Kaikohe and Kerikeri with iwi and hapu stakeholders to seek feedback on the draft report was undertaken during the first week of April. The report will be finalised by June 2015. Officials from MfE and MPI attended the first of the hui.

Officers are working with MPI to scope up further studies relating to the economic costs of managing diffuse source loadings of nutrients into dune lakes, the costs and effectiveness of various levels of stock exclusion from Northland's rivers, and the economics of reliability of water supply.

Northland Strategic Water Management Study

Ten tenders were received for the Northland Strategic Water Management Study. The Northland Strategic Water Management Study Contract was awarded to OPUS. A key focus of this study is to review the current irrigation situation in Northland and assess the potential for future water demand. The project is expected to be completed by October 2015.

PRIORITY CATCHMENTS
Waiora Northland Water web pages http://www.nrc.govt.nz/waiora
The priority catchment groups held the following events during the reporting period:

Doubtless Bay	March workshop March fieldtrip
Mangere	March workshop March fieldtrip
Whangarei	March workshop
Waitangi	February meeting March fieldtrip
Pouto	March workshop

Catchment groups held three field trips during the reporting period. Doubtless Bay catchment group visited Murray Walden's farm (a Ballance Farm Environment Award winner) to learn about the systems the farm has in place to manage sustainability on the farm, from an environmental, social and economic perspective. Participants were particularly impressed with the Walden's extensive riparian and soil protection plantings and the high-tech touchscreen-operated dairy management system installed in the dairy shed.

<photos>
Above: Cr Bill Shepherd and George Tuhiwai enjoy the Mangere catchment group field trip.

Mangere catchment group field trip
On their evening fieldtrip, Mangere catchment group learned about the process staff use when working with landowners to prepare a Farm Water Quality Improvement Plan. They also heard about pest control operations in Pukenui Forest, and observed

staff demonstrate Council's water quality sampling equipment and methods.

Above: Waitangi catchment group brought members of the community along to learn about the life in the stream. Inset: koura found in the stream.

Waitangi catchment group field trip

Waitangi catchment group's field trip involved a session with The Whitebait Connection and an opportunity for a close-up view of the fish and critters inhabiting the tributary located just behind their Ohaeawai meeting venue. A number of community members accompanied the catchment group members who were available for the event.

Freshwater objective setting process

In addition to their learnings in the field, most catchment groups have also embarked on their freshwater objective setting process, beginning with an exercise in which group members select indicators that contribute to freshwater values already identified. For example suspended sediment and riparian cover were identified as important indicators to establish the ecological integrity value of a reach of river.

New Pouto drystock farming representative

The Pouto catchment group agreed at their March workshop to recommend John Blackwell to fill their current drystock farmer vacancy on the group. The Terms of Reference give preference to members residing in the catchment, and though John resides outside of the catchment, no other drystock candidate has come forward to fill the vacancy, and the group agreed that John's extensive network and knowledge would make a great contribution to the catchment group.

Collaborative riparian planting in the Whangarei catchment
A letter has been received from the Whangarei District Council (WDC) requesting development of a collaborative approach for riparian planting and fencing improvements within the Hatea River catchment. An approach is currently being scoped and will be developed in collaboration with the WDC. The proposed scope will be discussed with the Whangarei Catchment Group and reported to the Environmental Management Committee for formal adoption.

CONTRIBUTING PROGRAMMES
Lakes management
Council is coordinating a collaborative dune lakes application to the Ministry for the Environment Te Mana o Te Wai Fund, which is targeted at Māori capacity building and actions to improve water quality.

Te Uri o Hau, Te Roroa and Te Hiku Iwi are working collaboratively with Council to deliver freshwater improvement actions to particular dune lakes in their areas of interest in the Pouto Lakes, Kai Iwi Lakes and Aupouri Lakes areas. Each Iwi is developing their work stream, according to their particular aspirations for freshwater management.

Lake SPI survey of Northland lakes
Lake SPI (Lake Submerged Plant Indicators) is a lake information and management tool undertaken as a public good science project. It is used to assess and report on the ecological condition of New Zealand Lakes. The data has been collected in Northland on a five year rotation for almost thirty years, providing information about lake:

- the ecological condition
- submerged plants
- changes occurring in the lakes over time.

The National Institute of Water and Atmosphere will now carry out the lake status survey in May 2015.

Kai Iwi Lakes
After following due process with the iwi and landowners, Council's hydrology team is planning to undertake drilling and construction of three additional groundwater monitoring bores at Lake Kai Iwi. The additional bores will improve the understanding of groundwater flows to and from the lake.

Taharoa Domain Reserve Management Plan (RMP) Review
The Draft RMP will be presented at the next meeting of the Taharoa Domain Governance Committee on 28th April for the Committee and RMP Steering Group to view.

Land Management
A separate item in this agenda details land management, Environment Fund and Farm Water Quality Improvement Plan progress.

Soil Conservation / Poplar and Willow Nursery
Staff have implemented an online booking system for ordering of poplar and willow plant material for soil conservation and Dynex tree protector sleeves.

More specific planting information and advice for Northland conditions, links to external agencies' fact sheets and information, a profile on the council's nursery and information on the Giant willow aphid (GWA) are among updates on the poplar and willows section of the council webpage, in anticipation of the 2015 season. The information may be found at:
http://www.nrc.govt.nz/poplars

Industry liaison

Drystock industry
A planning meeting about the formation of a Drystock Industry Liaison Group (ILG) was held 24 March 2015 with staff and drystock representatives who have thus far indicated their interest in involvement.

As with the Dairy ILG, the Drystock ILG will provide Council with advice and ideas on the development and implementation of regional level water management policies as they relate to dry stock farming, e.g. stock exclusion policy, and how to achieve a lower nutrient footprint.

To date, the following people have confirmed their interest in being involved in the Drystock ILG:

- Allison Whiteford (Beef & Lamb NZ Extension Officer)
- Roger Ludbrook (Waitangi catchment group and Federated Farmers)
- Louise Wilson (Federated Farmers)
- John Blackwell (Federated Farmers and proposed drystock representative on Pouto catchment group)

Among other potential members still to be recruited to the ILG, drystock representatives on the priority catchment groups will also be approached for their involvement. A draft terms of reference has been prepared and will be discussed at the inaugural meeting, to be scheduled in late May 2015.

Hill country erosion funding
Council's application to Ministry for Primary Industry's (MPI) Sustainable Land Management (SLM) and Hill Country Erosion Fund has been accepted through to the second stage of the selection process, though for a lesser amount than that applied for. Three different options are being evaluated to fit the reduced funding on offer. The SLM Hill Country Erosion Programme provides leadership and targeted support to regional and unitary councils to help protect erosion-prone hill country from the effects of erosion and flooding. If successful, Council's project would begin 1 July 2015.

B&LNZ environment conference
The Beef and Lamb New Zealand (B&LNZ) environment conference was held 12 – 13 February in Wellington for their members involved with catchment groups. At least five Waiora Northland Water catchment group drystock representatives were funded by B&LNZ to attend. The representatives have since reported back to their catchment groups on support their industry body is proposing.

Collaboration with DairyNZ
DairyNZ's first extension workshop is to be held on Monday 13 April for "Northland Rural Professionals". Workshop will cover such topics as infrastructure, shed design and cow flow; issues Northland Regional Council

encounter on farms; and Fonterra's and DairyNZ's environmental programme. The workshop will also include a visit to a farm to discuss practical solutions.

Forestry

The RMA Forestry group held a field trip on 17 March where a tethered harvesting operation was observed at a Hancock Forest Management (NZ) Ltd site. This is an industry driven initiative to significantly reduce health and safety risks by removing people with chainsaws from the harvesting process. The initiative also has an environmental benefit by reducing earth disturbance by tracked machinery and during the removal of tress from harvested area. .

Following on from the tethered harvesting field trip, a RMA Forestry group workshop is to be organised for Council staff to gain an understanding of how a "Harvest Plan" is developed and the reasons why tracks are used where they are.

The field trip and workshop is part of the RMA Forestry group's process of updating the section of the Northland Forestry Guidelines that deals with tracking.

The draft National Environmental Standard for Forestry (NES Forestry) is in development and will soon be released nationally for consultation. Council staff and members of the RMA Forestry Group continue to gain familiarity with the emerging NES Forestry provisions and what they may mean for forestry in Northland. Upcoming meetings of the RMA Forestry group are due to focus on both NES Forestry and the drafting of Regional Plan provisions.

Environmental Education

Twenty-eight teachers from around Northland attended the Northland Regional Council 2015 Teacher Workshop on Thursday 26 March in Whangarei Harbour. The workshop kicked off at Onerahi Yacht Club before heading to nearby Matakohe/Limestone Island. The workshop goal was empowering teachers into strengthened environmental education outcomes through Community Based Social Marketing and work on the island – all focussed around taking action to contribute to sustainable harbour catchment health.

Teachers from 17 schools in six Northland harbour/coastal catchments attended the workshop – Bay of Islands, Hokianga, Matauri Bay, Ngunguru, Whangarei and Kaipara. They returned to their schools to work with more than 1700 students and 300 plus teachers to help implement their workshop learning.

Workshop outcomes included significant changes in participants' ability to make sustainable behaviour changes back at school to contribute to catchment health.

Above: getting to Limestone Island on the barge

Above: on the steep track to the top of Limestone Island

Above: Teachers are happy to appreciate the view from the top of Limestone Island

ITEM: 3

ISSUE: Environment Fund & Farm Water Quality Improvement Plan Update

ID: A736420

To: Environmental Management Committee, 28 April 2015

From: Duncan Kervell, Land Programme Manager and Bruce Howse, Land/Rivers Senior Programme Manager

Date: 2 April 2015

Report Type:	☑	Normal operations	☐	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:

- Year to date over 100% ($700,150.45) of the Environment Fund budget has been allocated (to a total of 195 projects).
- March delegated authority had 12 projects totalling $25,637.00
- Year to date a total of 87 FWQIP's have been commenced , 66 FWQIP's have been completed, with a further 61 in progress.

Legal Compliance and Significance Assessment:

The activities detailed in this report are provided for in the council's 2012-2022 Long Term Plan and as such are in accordance with the council's decision-making process and sections 76-82 of the Local Government Act 2002.

In relation to section 79 of the Local Government Act 2002, this issue is considered to be of low significance.

Recommendations:

---

1. That the report Environment Fund & Farm Water Quality Improvement Plan Update by Duncan Kervell, Land Programme Manager and Bruce Howse, Land/Rivers Senior Programme Manager, and dated 2 April 2015 be received.

Environment Fund Update

The funding allocations for year to date are provided in Table 1.

Year to date $700,150.45 of the Environment Fund budget has been allocated (to a total of 195 projects). The March 2015 delegated authority approval is **attached**.

Table 1. Environment Fund funding allocation to date.

Delegated Authority	Land/Biosecurity	NO of Projects	Allocation	Budget
1 – July 2014	Land	19	$ 58,883.90	
2 – Aug 2014	Land	45	$ 166,083.25	
3 – Aug 2014	Land[1]	2	$ 16,900.00	
3 – Aug 2014	Biosecurity	42	$ 92,550.00	
4 – Sept 2014	Land	21	$ 80,251.90	
5 – Oct 2014	Land	16	$ 81,804.50	
6 – Nov 2014	Land	20	$ 76,556.70	
7 – Dec 2014	Land[2]	1	$ 5,000.00	
8 - Dec 2014	Land	17	$ 69,300.20	
9 – Mar 2015	Land	12	$ 25,637.00	
Soil Conservation			$ 36,650.00	
Balance CoastCare			$ 17,373.00	
Less Projects Withdrawn to Date			**-$ 26,840.00**	
Allocation to date			**$ 700,150.45**	
Budget	Land			$ 600,000
	Biosecurity			$ 75,000
Biosecurity – approved from Land Management Reserve				$ 17,550
Total Budget				**$ 692,550**
Less Allocation To Date			**$ 700,150.45**	
Variance Year To Date				- $ 7,600.45

Farm Water Quality Improvement Plans (FWQIP)

Year to date a total of 87 FWQIP have been commenced , 66 FWQIP have been completed, with a further 61 in progress from this year and previous years, as per Table 2.

Table 2. Farm Water Quality Improvement Plans (FWQIP) from 1.7 2014 to 31.3.2015

Status of FWQIP	Farm Type	Far North	Kaipara	Whangarei	Total
Plans Commenced : 1 July 2014 to 02 February 2015	Drystock	33	8	22	**63**
	Lifestyle	4		7	**11**
	Dairy	1	6	6	**13**
		38	**14**	**35**	**87**
Plans Completed: 1July 2014 to 02 February 2015	Drystock	22	7	20	**49**
	Lifestyle	2		4	**6**
	Dairy	1	2	8	**11**
		25	**9**	**32**	**66**
Plans still in Progress	Drystock	21	11	6	**38**
	Lifestyle	2		4	**6**
	Dairy	2	8	7	**17**
		25	**19**	**17**	**61**

[1] Sunvalley Livestock fencing project ($9,900) and Portland Farms fencing project ($7,000).
[2] Native Bird Recovery Centre $5,000.

Delegated Authority Recommendations - March 2015

EFD No.	FWQIP	NRC STAFF MEMBER	Applicant	Previous Funding Year(s)	Previous Funding Amount(s)	Farm Type	Funding Stream	Priority Catchment	District	Brief Project Description	Amount Recommended
APP.036290.02.01		LAS	Te Pahii Bird Sanctuary	2012 & 13	$ 569.00		Coastal		Far North	Dune Planting	$ 200.00
APP.036750.02.01		LAS	Waipapapkauri Coast Care	2013	$ 2,500.00		Coastal		Far North	Dune Planting	$ 1,545.00
APP.151239.03.01		LAS	Baylys Beach Society Incorporated	2013	$ 6,111.00		Coastal		Kaipara	Dune Planting	$ 3,455.00
APP.151890.02.01		LAS	Gabriele Eveline Pfaender	2013	$ 2,436.00		Coastal		Far North	Dune Planting	$ 1,465.00
APP.151899.02.01		LAS	Ngati Kahu Station Trust - (Raharahi Family Trust)	2013	$ 820.00		Coastal		Far North	Dune Planting	$ 292.00
APP.037496	296	KWE	Stuart William Brown (Redruth Trust)			Dairy	Water Quality		Kaipara	Fencing & Planting	$ 820.00
APP.037480	297	KWE	Donna Kathleen Reeves			Lifestyle Drystock	Water Quality		Kaipara	Fencing	$ 3,510.00
APP.037422	291	ASE	Wikatana Popata			Drystock	Water Quality		Far North	Fencing	$ 540.00
APP.037454	298	ASE	Orzogna Harris			Drystock	Water Quality		Far North	Fencing	$ 3,360.00
APP.037453	299	ASE	Miriama Harris			Drystock	Water Quality		Far North	Fencing	$ 5,885.00
APP.037493	301	ASE	PKS Herekino Farming Limited			Drystock	Water Quality		Far North	Fencing	$ 1,715.00
APP.037456	305	ASE	Gwilliam MacPherson			Dairy	Water Quality		Far North	Fencing	$ 2,850.00
APP.037495	306	DUK	KP Trust Holdings Limited DECLINE			Drystock	Water Quality		Far North	Fencing	$ ~~1,030.60~~
										TOTAL	$ ~~25,666.60~~

$25,637.00

Approved Under Delegated Authority

Bruce Howse
Land & Rivers Senior Programme Manager

Date:

Summary Sighted by Councillor

Bill Shepherd
Chairman - Northland Regional Council

Date:

ITEM: 4
Page 1 of 10

ISSUE: River Management Update

ID: A735970

To: Environmental Management Committee, 28 April 2015

From: Joseph Camuso, Rivers Programme Manager

Date: 31 March 2015

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☑	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:
The rivers work focus continues to be the Kotuku Street dam, resource consenting and design for the Kerikeri River Spillway and Whangatane Spillway weir adjustment, along with the maintenance works programme for Awanui, Kaeo, Kerikeri, Kaihu and Whangarei Urban Rivers along with the minor rivers works programme.

Legal compliance and significance assessment:
The council activities detailed in this report are provided for in activities described in the council's Long Term Plan and as such are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. This matter is considered to be of low significance, as the report is only provided to be received for information.

Recommendation:

---

1. That the report Rivers Management Update by Joseph Camuso, Rivers Programme Manager and dated 31 March 2015 be received.

2. That the minutes of the following liaison committee meetings be received:
   a. Whangarei Urban Rivers Liaison Committee, 10 March 2015
   b. That Mira Norris be appointed to the Whangarei Urban Rivers Liaison Committee as an iwi representative.

Whangarei
Slip repair work is progressing on the Raumanga Stream. Some targeted tree removal is also planned.

A meeting of the Whangarei Urban Rivers Liaison Committee with a site visit to the Kotuku dam was held on 10 March 2015. A nomination has been received that Mira Norris be appointed to the Whangarei Urban Rivers Liaison Committee as an iwi representative.

Kotuku Dam Update
The Kotuku Street dam is currently progressing on a one season construction basis with hold points agreed between the parties. The hold points allow for the Engineer and NRC to agree if construction will continue and allow for construction of an emergency spillway if it is deemed construction is not possible in one season. The decision to complete construction in the current season remains in a constant state of review (weekly basis).

As at 1 April the upstream rockfill section of the dam embankment was at RL56, clay core at RL55 and downstream rockfill at RL51 and currently being filled. For reference the invert of the service spillway is RL49. We are pleased with the contractors' production rates, and ripping of rock (75T dozer) has been supplemented with a 50T excavator. An additional 75T dozer remains available on standby should this be required.

Kotuku Street Dam 7 April 2015, Upstream rock-fill @ RL 56 clay core approximately 1 metre lower.

Kotuku Street Dam 7 April 2015, Forming the clay core and downstream shoulders

Awanui

Resource consent applications for modifying the intake for the Whangatane Spillway are nearing completion with intention to lodge by mid-April. The proposed split level spillway intake will allow earlier and later flood flow into the spillway with only minor increase to peak flow.

The Awanui annual scheme maintenance work is approximately 85% complete with the lower Awanui longreach and the Tarawhataroa grade control work completed. The team is now focusing on the stopbank setting back along the Awanui River between Gills Road Bridge and Awanui Township. The mulching programme has been completed and the spraying, flood gate inspection, maintenance and renewals are nearing completion.

Tarawhataroa Grade Control

Awanui Stopbank setback downstream Gills Road Bridge

Kaeo-Whangaroa

Stage 1 flood scheme tidy-up works are complete. Annual maintenance works in the Whangaroa Streams catchments are well underway with work continuing in Taupo Bay, Totara North, Te Ngaere and Tauranga Bay.

Kerikeri-Waipapa
Work is continuing with landowner engagement regarding the acquisition of land use required for the proposed Kerikeri River spillway scheme. Tenders close on 9 April for engineering services required for detailed design, construction drawings, construction methodology and specifications as well as tendering and site supervision for the physical works.

The prefeasibility investigation, design and cost estimation of a multi-purpose dam on the Kerikeri River is being reviewed by staff and will be circulated to the Liaison Committee. The dam site is located upstream of the Waipapa industrial estate, with the design considering multipurpose use for water storage and flood detention.

Waitangi
Resource consent for bank stabilization work along the stretch the Waiaruhe River between SH-1 and SH-10 has been lodged. During the rain events of June-July 2014 this section of river experienced some significant bank erosion, with the river trying to re-establish its meander pattern. If granted this consent will allow landowners to undertake bank stabilization works.

Lake Omapere
A site visit was held with the Lake Omapere Trustees (LOT), Federated Farmers, the farmer affected by flooding from high lake levels (during last winter) and NRC on 24 February. LOT are working with downstream stakeholders to enable outlet channel and clearing weed from the stone weir to proceed. NRC will progress and fund these works pending stakeholder approvals being obtained.

Kawakawa – Taumarere
A joint site meeting was held with FNDC drainage engineers and NRC Rivers team for Otiria/Moerewa flooding and stormwater issues to further consider other potential mitigation options. Staff have drawn up some high level proposals from the field visit and will look to obtain rough order costing and progress these proposals with the stakeholders.

Some log blockages in the Waiomio Stream near the Railroad Bridge in Kawakawa have been removed.

Kaihu
The 2014-15 maintenance works programme is nearing completion. Staff are assessing the provisional elements remaining in the contract, principally the contingency targeted for the log jams and spraying.

We are also extending the flood model to include Dargaville flood prone areas that were not included in the original model due to unavailability of lidar.

Ngunguru
The targeted willow drill and kill programme work is completed and the dead willows will be scheduled for removal and burning next season.

Minor Rivers
The table below summarises the scheduled minor river works programme. To note the before and after groyne work completed at Pawarenga is shown below, highlighting the protection of the bridge build-up of gravel on the outside bend.

River	Description of Work Programmed for Current Season	Proposed Start Date/Status
Awanui - Bells Hill Drains	Clean Drains	May-15
	Reprofile cutoff drain	Completed
	Inclinometer reading May 2015	May-15
Pawarenga Streams	Minor clean -up (vegetation/sediment removal)	Not required
Rotokakahi @ Pawarenga Bridge	Follow up maintenance for Groynes if required (contingency)	Not required
Mangonuiowae/Broadwood	Stream bank protection	Completed
Waihou/Rahiri-Rangiahua	Lower Berm Rahiri Settlement Rd	May-15
Panguru and Lower Waihou	Gravel management around bridges	April-15
Waitangi	Gravel management at Lily Pond	Low priority
	Willow spraying/removal	Completed
Waima	Channel maintenance	April-15
	Resource consent for gravel management lodged and in progress with appeal period complete.	Progressing
Awapokonui/Pakanae	Follow up spraying of Arundo Donax	Completed
Waimamaku	Gravel works at Wekaweka Road and Mason Dwelling	Completed
Otiria	Test pit investigations	Not to progress
	Tree removal	Completed
	Lodgement for spillway resource consent	Not to progress
Helena Bay	Tree / Gravel management	Completed
Ngunguru	Gravel management resource consent	Completed
	Gravel extraction / Willow poison	Completed
Kawakawa	Tree felling at Tirihonga and willow drill and kill Waiomio	Completed
Otaika	Tree removal follow-up / poison	Completed
Paparoa	Gravel and Timber Extraction	Underway
Maungaturoto	Tree poisoning / removal	Completed

ATTACHMENTS:
Attachment: Minutes of the Liaison Committee Meetings

a) Whangarei Urban Rivers Liaison Committee, 10 March 2015

URBAN WHANGAREI RIVERS LIAISON COMMITTEE

Minutes of the Urban Whangarei Rivers Liaison Committee meeting, held on Tuesday 10 March 2015
Council Chambers, Northland Regional Council, Water Street, Whangarei.
commencing at 10.30 am

Present :
Committee Members

Craig Brown	Chair
Vince Cocurullo	Whangarei Chamber of Commerce

Also in Attendance

Mira Norris	Member of public
Bruce Howse	Northland Regional Council
Toby Kay	Northland Regional Council
Nola Sooner	Northland Regional Council
Joseph Camuso	Northland Regional Council
Andrew Carvell	Whangarei District Council
Joanna Wilson	Whangarei District Council
Kerry Grundy	Whangarei District Council

Apologies: Selwyn Norris, Murray Coop, Peter Geddes, David Sinclair

Moved (Cocurullo/Brown)

That the apologies from Selwyn Norris, Murray Coop, Peter Geddes and David Sinclair for absence be received.

Carried

WELCOME
Mira Norris was welcomed (to be appointed as an iwi representative to the committee).

MINUTES OF PREVIOUS MEETING

Moved (Cocurullo/Brown)

That the Minutes of the Urban Whangarei River Liaison Committee dated 18 August 2014 be accepted.

Carried

MATTERS ARISING
Bruce confirmed Northland Regional Council (NRC) rates are collected by Whangarei District Council on behalf of NRC. Mr Cocurullo requested staff to confirm if the District Council include an overhead on the rates collection service under the agreement with NRC. **Action: Bruce Howse**

BUDGET 2014-2015
Bruce summarised the Budget 2014-2015. He noted capital works budget should be recorded as $4,100,000 (not $3,265,954 as recorded in the budget spreadsheet).

PROPOSED MAINTENANCE WORKS 2015
Joe summarised the proposed maintenance works for Year 2015. It was noted gravel extraction has been completed from Whangarei Boys High School gravel traps. In response to a query, he explained phase 1 of the cycleway has been built on the Raumanga Stream from the hospital to State Highway 1. Joe summarised the second phase and confirmed it will continue along the Raumanga Stream to Bernard Street Bridge and ultimately connecting to Cafler Park. The plan is to have an underpass on State Highway 1 Bridge.

KOTUKU DAM UPDATE
Bruce provided an update on construction of the Kotuku Dam:

- Dam key features
    - Stream diversion to service spillway intake
    - Service spillway
    - Outlet structure
    - Emergency spillway (40m total width)
- Progress
    - Shear key slip stabilisation
    - Left spillway and abutment excavation
    - Service spillway concrete encasement, inlet/outlet structure
    - Stream diversion and undercut
    - Borrow site stripping and rock production
- Program
    - Stream diversion on 19 February, programmed for 24 Dec – 39 working days late
    - 17 working days extension claimed up to end of January, 21 days late on critical path
    - Two season risk
    - Contractors programme shows Stage 2 to Stage 9 being 43 days
    - 3 March to 30 April = 48 working days, less average of 10 wet days for this period = 38 working days
    - May provides a further 26 working days, average of 8 wet days
    - Decision will be influenced by contractors' ability to produce rock fill
    - 75T dozer producing around 300-500m³/day, programme indicates production of all materials of up to 1800 m³/day.
- Construction budget (and long term plan estimates)
    - Revised project estimate is $11,416,743. This includes 2 seasons cost.
    - Revised rate estimates have been prepared for the draft LTP
    - Council may explore options to borrow funds at a lower interest rate.

Discussion was held on rates options as proposed during January 2015 LTP workshops – revised rates options based on additional $1,542,025.29 capital showing 25 and 30 year repayment terms with 7% or 4.5% interest rate terms. Vince cautioned ratepayers will not be happy to have a rates increase and felt the rates should be charged over the whole district as a whole (not just CBD and targeted rates).

Mira raised a query re provision for a road linking Raumanga to Maunu.

Bruce concluded by recommending attendees check the NRC's website – environment section which has two web cams installed for the public to view which document the progress of development of the Kotuku Dam.

NAMING OF THE KOTUKU ST DAM

Bruce advised he has been approached by Fred Tito who asked if iwi can have the naming rights. Mira recommended it would be fitting to name the dam as "Kotuku Dam". Craig recommended Mira to obtain a mandate from the Parawhau hapu to proceed with naming the development "Kotuku Dam". **Action: Mira**

UPDATE FROM WDC RE DEVELOPMENT OF A STORMWATER CONSENTING FRAMEWORK

Andrew put forward a proposal from WDC to develop a framework to guide the scope of stormwater discharge consent applications to NRC. It was noted there are currently 19 catchment management plans covering Whangarei City and the smaller urbanised areas in the district. Andrew advised there are 12 catchments with resource consent with 5 to expire over the next 2 years. The proposed method is to combine many of the existing catchments into larger catchments based on common receiving environments and land use. It was noted the following urban catchments discharge into the upper harbour or to waterways that discharge into the upper harbour:

- Waitaua/Mangakino
- Waiarohia
- Hatea
- Kirikiri
- Raumanga
- City
- Awaroa
- Limeburners
- Port
- Onerahi

Andrew advised at present some of the above catchments have consents (but not all). WDC has proposed to seek a Comprehensive Stormwater Consent for the 10 catchments listed above. In response to a query, Andrew confirmed this Comprehensive Stormwater Consent is expected to include conditions covering water quality and quantities matters such as standards, targets, limits and monitoring requirements as well as details of flood hazards. It was noted greater use of management plans is envisaged covering for example maintenance issues, flood management, development within the catchment and any network upgrading work.

Andrew concluded by advising WDC is in the process of developing a Comprehensive Stormwater Consent Framework that will be discussed at WDC's infrastructure and Services Committee meeting in April.

ANY OTHER BUSINESS

There was no general business.

Craig thanked everyone for their input which was greatly valued.

The meeting closed at 12.05 p.m.

The next meeting date will be advised in due course.

ITEM: 5
Page 1 of 10

ISSUE: **Recreational Swimming Water Quality Programme – Final Results 2014-15**

ID: A736358

To: Environmental Management Committee, 28 April 2015

From: Jean-Charles Perquin, Environmental Monitoring Programme Manager

Date: 26 March 2015

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☑	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:
This report provides the Committee with a summary of the final results of the 2014-15 recreational swimming water quality programme which was outlined at, and supported by the Committee, at its 13 October 2014 meeting[1].

The council collected water samples from 47 coastal and 13 freshwater swimming sites throughout Northland at weekly intervals from 24 November 2014 to either 9 or 23 February 2015.

The samples were tested for bacterial indicators of faecal contamination to indicate the risk to swimmers of contracting gastro intestinal illnesses and other infections. The results of each sampling run were published on the council's website[2] and the LAWA ("Land, Air, Water Aotearoa) website[3].

In general, microbiological water quality was good for swimming at the vast majority of coastal and most of the freshwater swimming sites either all or most of the time.

A total of 31 coastal sites met the guideline values considered suitable for swimming 100% of the time. A further 13 sites had *Enterococci* concentrations within the guideline values on all but one sampling occasion, and the remaining three sites on all but two sampling occasions. Overall, 590 out of 609 (96.9%) samples met the guideline values.

Four freshwater sites met the guideline values considered suitable for swimming 100% of the time. Six sites had *E. coli* concentrations within the guideline value on all but one sampling occasion and two sites on all but two sampling occasions. The remaining site was classified as unsuitable for swimming on five sampling occasions. Overall, 146 out of 161 (90.7%) samples met the guideline value.

[1] http://www.nrc.govt.nz/upload/18722/EMC%20Agenda%20-%2013%20October%202014.pdf
[2] http://www.nrc.govt.nz/Living-in-Northland/At-the-beach/Swimming-water-quality/Swimming-water-quality-results/
[3] http://www.nrc.govt.nz/Environment/LAWA/

Microbial Source Tracking (MST) to identify the source(s) of contamination at sites with consistently elevated faecal bacteria levels was undertaken at eight sites in the 2014-15 swimming season, with strong ruminant markers being detected at five of the eight sites.

Additional sampling was commenced at the Whangarei Falls site for pathogens in June 2014. Two sampling rounds have been completed, with few pathogens being detected.

Legal compliance and significant assessment:
The activities detailed in this report are part of the council's day to day operations, which are provided for in the council's 2012-22 Long Term Plan and 2014-15 Annual Plan, and are therefore in accordance with the Council's decision making process and sections 76-82 of the Local Government Act 2002.

The programme also contributes to the council's statutory obligations under section 35 of the Resource Management Act 1991 for state of the environment and plan effectiveness monitoring and reporting.

Recommendation:

---

1. That the report Recreational Swimming Water Quality Programme – Results 2014-15 dated 26 March 2015, prepared by Jean-Charles Perquin, Environmental Monitoring Programme Manager, be received.

Report

Testing
Water samples collected from coastal and freshwater swimming sites were tested for faecal indicator bacteria *Enterococci* (*Ent.*) and *Escherichia coli* (*E. coli*) respectively.

Guidelines and grading system
Test results were compared with the Ministry for the Environment (MfE) and Ministry of Health (MoH) *Microbiological Water Quality Guidelines (2003)* – Table 1.

Table 1: MfE/MoH microbiological guidelines for coastal and freshwater swimming water quality

	Freshwater	Coastal
Acceptable level (suitable for swimming)	*E. Coli* ≤ 260/100mL	*Ent.* ≤ 140/100mL
Alert level (potentially unsuitable for swimming)	260/100mL < *E. Coli* ≤ 550/100mL	140/100mL < *Ent.* ≤ 280/100mL
Action level (unsuitable for swimming)	*E. Coli* > 550/100mL	*Ent.* > 280/100mL

Summary of final results for 2014-15
Table 2 and Table 3 show the comparison of test results for each coastal and freshwater swimming site with the guidelines.

Many of the test results that exceeded guidelines values occurred around the time of rain events and are therefore attributed to stormwater runoff from land contaminated by faecal material. More detailed results including a map and tables are presented in Appendix 1.

Table 2: Comparison of test results for coastal swimming sites with the microbiological water quality guidelines

	Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	% Within guidelines
		24/11	1/12	8/12	15/12	22/12	29/12	5/1	12/1	19/1	26/1	2/2	9/2	16/2	23/2	
	Rain event	yes	no	no	yes	yes	no	no	no	no	no	no	no	no	no	
Far North District Sites																
Ahipara @ beach off Kaka St (camp ground)																92
Waipapa Kauri @ West Coast Rd motor camp																100
Cable Bay @ East beach																100
Cooper's Beach Foreshore @ Kanekane St mouth																100
Maitai Bay @ south end of beach																100
Matauri Bay @ Right of camp ground																100
Taipa estuary @ beside Motor Camp																92
Tokerau Beach @ Melissa Road																100
Omapere @ Pioneer Walk Road																92
Opononi Shoreline @ Hokianga Harbour																92
Rawene @ past ramp*																92
Paihia @ Te Haumi River																83
Paihia @ Waitangi Bridge (beach)																92
Paihia @ in front of toilets																100
Russell @ Mid North Moorings																100
Kaipara District Sites																
Baylys beach @ Sea View Rd																100
Glinks Gully @ Beach off Marine Drive																100
Omamari Beach @ beach by stream																92
Pahi @ 150m NW of jetty*																83
Tinopai @ below shops*																100
Tinopai @ Foreshore below Puapua Creek*																100
Langs Beach @ Mid-way along beach.																100
Mangawhai Harbour @ Picnic Bay*																100
Mangawhai Heads @ Motor Camp foreshore*																93

	Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	% Within guidelines
		24/11	1/12	8/12	15/12	22/12	29/12	5/1	12/1	19/1	26/1	2/2	9/2	16/2	23/2	
	Rain event	yes	no	no	yes	yes	no	no	no	no	no	no	no	no	no	
Whangarei District Sites																
One Tree Point east cliffs																100
Mangawhai Heads @ open coast																93
Ruakaka Beach @ Near surfclub																86
Ruakaka River @ Below Motor Camp																86
Uretiti Beach @ Tip Road																93
Waipu Cove @ Beach																100
Oakura Bay @ Beach - Nth end of bay																100
Ohawini Bay @ Parutahi Beach Whangaruru																100
Teal Bay @ Beach																100
Church Bay @ Mid Bay																100
Matapouri Bay @ Northern Bridge*																100
Matapouri Bay @ Southern Bridge*																100
Ngunguru Estuary @ Pakapaka Road*																93
Ngunguru Estuary @ school																100
Pacific Bay @ Beach																100
Sandy Bay @ centre of beach																100
Wellingtons Bay @ beach																100
Whananaki @ east beach																100
Woolleys Bay @ centre of beach																100
Ocean beach @ centre of beach																100
Onerahi @ opposite play boat*																93
Pataua South @ East end of beach																100
Taurikura Beach (Whangarei harbour)																100

Table 3: Comparison of test results for freshwater swimming sites with the microbiological water quality guidelines

	Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	% Within guidelines
		24/11	1/12	8/12	15/12	22/12	29/12	5/1	12/1	19/1	26/1	2/2	9/2	16/0	23/2	
	Rain event	yes	no	no	yes	yes	no	no	no	no	no	no	no	no	no	
Far North District Sites																
Kerikeri River @ Rainbow Falls																83
Kerikeri River @ Stone Store bridge																83
Lake Ngatu @ South end																100
Tirohanga Stream @ D/S 50m FNDC Take																92
Victoria River @ DOC Reserve Crossing																92
Waimamaku River @ Wekaweka Rd bridge																92
Waipapa River @ Swimming pool																92
Waipoua River @ Swimming hole at DOC HQ																100
Waitangi River @ Wakelins																92
Kaipara District Sites																
Lake Taharoa @ Pump house																100
Whangarei District Sites																
Lake Waro @ Launching Area, Hikurangi																100
Raumanga Stream @ Swimming pool																93
Whangarei Falls @ above falls (Hatea River)																64

Microbial source tracking

Microbial Source Tracking (MST) to narrow down the source(s) of contamination at sites with consistently elevated faecal bacteria levels was undertaken at eight sites in the 2014-15 swimming season. Strong ruminant markers were detected at five of the eight sites. Weak ruminant and strong wildfowl and plant decay markers were detected at two sites (both at Matapouri), while a weak human marker was detected at the "Victoria River" site. The latter result, if confirmed, warrants further investigation, particularly given previous results for the site.

MST has been undertaken at a total of 25 sites – listed in Table 4 – since the 2007-08 swimming season with the results showing that:

- 22 sites were contaminated by wildfowl (ducks and/or gulls) faeces,
- 18 sites by ruminant faeces,
- 4 sites with dog faeces, and
- 3 sites by human faeces.

Table 4: Results from MST work undertaken since 2007. Sources in bold indicate a strong positive marker. Sources not in bold designate a positive or a weak positive marker. Site names in bold are permanent monitoring sites and sites with an asterisk indicate a coastal enclosed site. D: Dog, H: Human, R: Ruminant, W: Wildfowl, P: Plant decay. Note: 2014-15 results for Ruakaka and Victoria river sites are provisional.

Site	2007-08	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Coopers Beach stream		**D/W**	**R/W**				
Kaihu River			**R/W**				
Kapiro Stream			**R/W**				
Kerikeri River			**W**	**R**	**R/W**/P		
Langs Beach stream (car park)	**R/W**	**W**	**D/R/W**				
Langs Beach stream (midway)	**R/W**	**W**					
Mangawhai motor camp*			**W**	**W**			
Matapouri northern bridge*			**R/W**		R/**W**/P	**R/W/P**	R/**W/P**
Matapouri southern bridge*			**W**				R/**W/P**
Ngunguru by school			**W**	**W**			
Ocean Beach stream	**W**		**H/R/W**				
Omamari Beach stream			**R**				
Otamure Bay stream	**R/W**	**R/W**	**R/W**				
Pacific Bay stream		**W**					
Pahi 150m NW of jetty*		**H**		**W**	**W**/P		
Pahia at Te Haumi River					W/P		
Pahia at Waitangi Bridge					**R**/W	**R/W**	**R**
Raumanga Stream	**W**				**H**	R/W/P	**R**
Ruakaka River below motor camp					**R**	**R**	**R**/W
Tirohanga Stream						**R**/P	**R**
Victoria River				**W**	W/P/H	W/**P**	H
Waipu Cove stream		**W**	**D/R/W**				
Waitangi River						**R/W/P**	**R**
Whangarei Falls	**R/W**	**W**	**D/R/W**				
Woolleys Bay Stream						**W**/P	

Update on pathogen testing at Whangarei Falls

Additional sampling, which was outlined and supported by the Committee at its 14 April 2014 meeting[4], was commenced at Whangarei Falls site in June 2014 to investigate further the relationship between faecal indicator bacteria levels and the presence of pathogens in the water. A further sampling round will be carried out in the near future after a rain event. Preliminary results from the first two sampling rounds are summarised in Table 5.

Table 5: Pathogen testing at Whangarei Falls – interim results. ND: Not detected.

Pathogen analysis	Count	
Bacteria (MPN/100mL)	**11/6/14**	**20/1/15**
Total coliforms	>24,000	9,200
Escherichia coli	**880**	230
Enterococci	260	<10
Salmonella spp.	<0.3	<0.3
Campylobacter spp.	**12**	<0.3
Escherichia coli O157	<0.3	<0.3
Protozoa (/10L)		
Cryptosporidium parvum oocysts	<1	<1
Giardia lamblia cysts	**1**	<1
Viruses (presence/absence)		
Enteric viruses incl.: Norovirus, Enterovirus, Adenovirus, Hepatitis A & E viruses, Rotavirus	ND	ND

Results from water sampling undertaken on 11 June 2014 showed that the faecal indicator bacteria (FIB) level exceeded the "Action/Red'" level for the swimming guidelines. Several pathogens were also detected, namely 12 Campylobacter and 3 Giardia cysts (detected in a 30L sample, giving a result of 1 Giardia cyst per 10L). However, no viruses were detected in the sample.

Results from water sampling undertaken on 20 January 2015 showed that the FIB level was below the "Action/Red" level for the swimming guidelines. No pathogens were detected in the water sample.

In summary, the results indicated that a few pathogens were present in water when the FIB level was elevated and exceeded the swimming guideline, whereas no pathogens were found in water when the FIB level was low and below the guideline. This, albeit small sample set, supports that the swimming guideline is indicative of health risk/swimming suitability. However, given the level of pathogens detected in the sample which had an elevated FIB level, the guideline appears to be conservative.

Proposed mitigation work in the Hatea River catchment

A letter has been received from the Whangarei District Council (WDC) requesting development of a collaborative approach for riparian planting and fencing improvements within the Hatea River catchment. An approach is currently being scoped and will be developed in collaboration with the WDC. The proposed scope will be discussed with the Whangarei Catchment Group and reported to the Environmental Management Committee for formal adoption.

[4] http://www.nrc.govt.nz/Resource-Library-Archive/Agendas-and-minutes-archive2/Environmental-Management-Committee/2014/Environmental-Management-Committee-Agenda---14-April-2014/

APPENDIX 1
Results for 2014-15

In total, there were either 12 to 14 sampling occasions for each site during the season. Results for both coastal and freshwater sites are presented in Table 6 (together with a comparison with previous swimming seasons dating back to 2007-08), Figure 1 and Figure 2. The total number of sites monitored varies from season to season, although a core set of 20 permanent sites are monitored each season. Appendix 2 lists the sites that have been removed from the programme since 2007 following the site selection process in collaboration with relevant stakeholders.

Table 6: Coastal and freshwater percentage of samples within the 'suitable for swimming' criteria – interim results

COASTAL

Category	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
95-100% samples <280/100mL *Ent.*	27	21	45	22	26	29	29	31
90-95% samples <280/100mL *Ent.*	13	8	13	21	16	13	11	13
75-90% samples <280/100mL *Ent.*	4	12	5	16	5	5	7	3
<75% samples <280/100mL *Ent.*	1	2	0	2	1	0	0	0
Total number of sites	**45**	**43**	**63**	**61**	**48**	**47**	**47**	**47**

FRESHWATER

Category	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
95-100% samples <550/100mL *E. coli*	1	2	6	4	2	4	3	4
90-95% samples <550/100mL *E. coli*	2	5	2	2	3	0	4	6
75-90% samples <550/100mL *E. coli*	6	7	6	9	3	6	4	2
<75% samples <550/100mL *E. coli*	12	5	9	9	2	2	1	1
Total number of sites	**21**	**19**	**23**	**24**	**10**	**12**	**12**	**13**

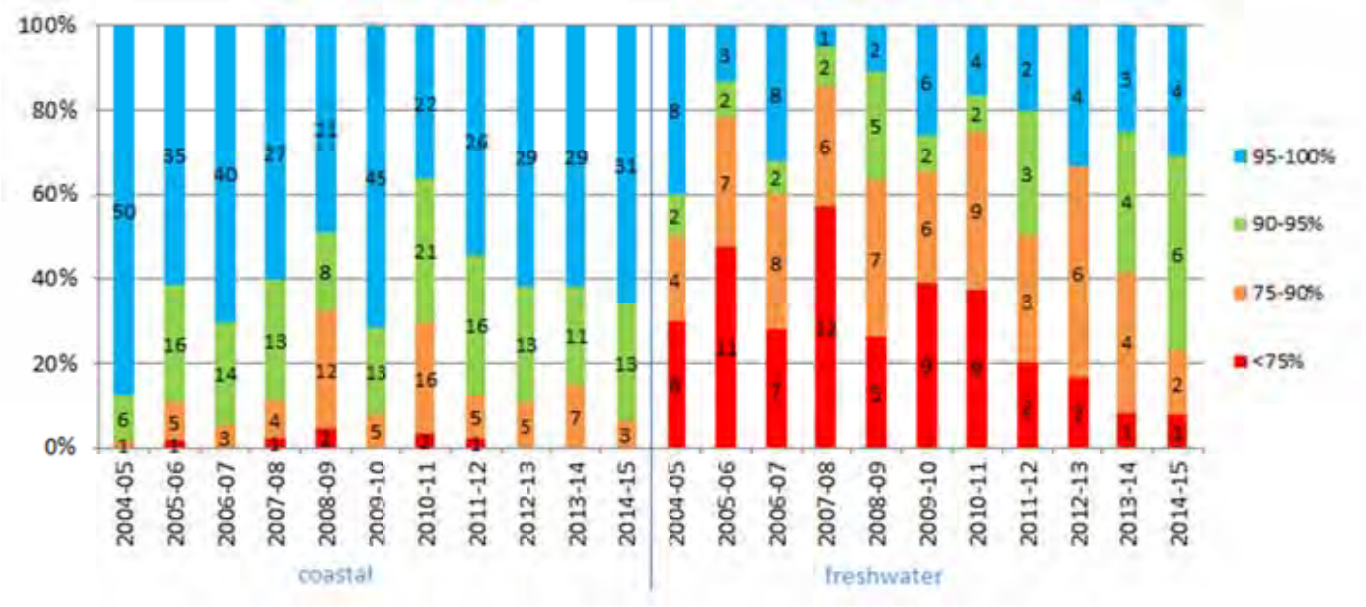


Figure 1: Coastal and freshwater percentage of samples within the "suitable for swimming" criteria

The results from faecal indicator bacteria testing in 2014-15 were improved for both freshwater and coastal sites compared with the 2013-14 season.

Figure 2: End of season (MfE) suitability for swimming grades 2014-2015

APPENDIX 2: Sites removed from the swimming water quality monitoring programme since 2007-08

Site name	Site No.	Year removed	Reason for removal
Wairoa Stream (Ahipara)	105053	2007-08	Consistent high bacteria level
Lake Taharoa	100452	2007-08	Redundant site
Doves Bay	101537	2007-08	Consistent low bacteria level
Windsor Landing (Kerikeri)	105707	2007-08	Consistent low bacteria level
Opito Bay	101538	2007-08	Consistent low bacteria level
Russell mid-south	105711	2007-08	Consistent low bacteria level
Matauwhi Bay	102636	2007-08	Consistent low bacteria level
English Bay	100802	2007-08	Consistent low bacteria level
Kawakawa River	100643	2007-08	Consistent low bacteria level
Otiria Stream	105376	2007-08	Consistent high bacteria level
Ngunguru cable marker	100061	2007-08	Redundant site
Pataua North	105992	2007-08	Redundant site
Okiato Point	105712	2008-09	Consistent low bacteria level
Ngunguru boat ramp	101300	2008-09	Redundant site
Paihia below junction	101186	2008-09	Redundant site
Kaikou River	108919	2009-10	Staff safety concerns
Whakapirau	106100	2009-10	Staff safety concerns
Langs Beach stream middle	104539	2010-11	Consistent high bacteria level
Langs Beach north	108317	2010-11	Redundant site
Rarawa camp site	109874	2010-11	Consistent low bacteria level
Taupo Bay	109868	2010-11	Consistent low bacteria level
Tauranga Bay	109869	2010-11	Consistent low bacteria level
Coopers Beach stream	101870	2011-12	Consistent high bacteria level
Lake Coca Cola	110323	2011-12	Consistent low bacteria level
Aurere River Beach Road	110324	2011-12	Rationalisation
Waitangi River Lily Pond	110325	2011-12	Staff safety concerns
Kapiro Stream Purerua Road	102838	2011-12	Consistent high bacteria level
Waipapa Stream Charlies Rock	110348	2011-12	Not popular site
Mangakahia River Twin Bridges	105973	2011-12	Consistent high bacteria level
Otaua Stream	108510	2011-12	Consistent high bacteria level
Kaihu River at campground	102221	2011-12	Consistent high bacteria level
Omamari Beach Stream	102305	2011-12	Rationalisation
Ocean Beach Stream	102077	2011-12	Consistent high bacteria level
Langs Beach Stream	100686	2011-12	Consistent high bacteria level
Waipu Cove Stream	101207	2011-12	Rationalisation
Otamure Bay Stream	108859	2011-12	Consistent high bacteria level
Kerikeri Skudders Beach	100974	2011-12	Not popular site
Opua foreshore	101418	2011-12	Rationalisation
Shipwreck Bay	109870	2011-12	Consistent low bacteria level
Pahi rocky groyne	102579	2011-12	Redundant site
Mangawhai Harbour pontoon	110320	2011-12	Rationalisation
Urquart's Bay	108311	2011-12	Rationalisation
McLeod Bay	101254	2011-12	Rationalisation
Pataua South footbridge	102217	2011-12	Consistent low bacteria level
Pataua South Frog Town	109887	2011-12	Consistent low bacteria level
Matapouri Beach	110321	2011-12	Consistent low bacteria level
Kowharewa Bay	106444	2011-12	Rationalisation
Ngunguru Norfolk pine	100076	2011-12	Consistent low bacteria level
Whananaki footbridge	103147	2011-12	Rationalisation
Bland Bay	109889	2011-12	Consistent low bacteria level
Pahi at rocky Groyne	102579	2012-13	Redundant site

ITEM: 6
Page 1 of 6

ISSUE: Environmental Monitoring for the period 1 – 31 March 2015

ID: A736576

To: Environmental Management Committee Meeting, 28 April 2015

From: Colin Dall, Consents/Monitoring Manager

Date: 2 April 2015

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☑	Regulatory function
	☑	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:

The purpose of this report is to provide an update on council's monitoring and compliance work for the period 1 – 31 March 2015. It concludes with the recommendation that the report be received.

Attachment 1 shows a graph of the number and type of environmental incidents received during the reporting period compared with the 10 year mean for that period, and a graph of the number of compliance assessments made during the reporting period summarised by type and compliance grading.

Attachment 2 contains a table summarising the State of Environment monitoring undertaken during the reporting period.

Legal Compliance and Significance Assessment:

The receiving of this report is provided for in the council's 2012-22 Long Term Plan, meets the council's obligations under section 35 of the Resource Management Act 1991, and is in line with the council's decision making process and sections 76-82 of the Local Government Act 2002.

In relation to section 79 of the Local Government Act 2002, this issue is considered to be of low significance under Council policy because the report does not seek a decision other than that information be received.

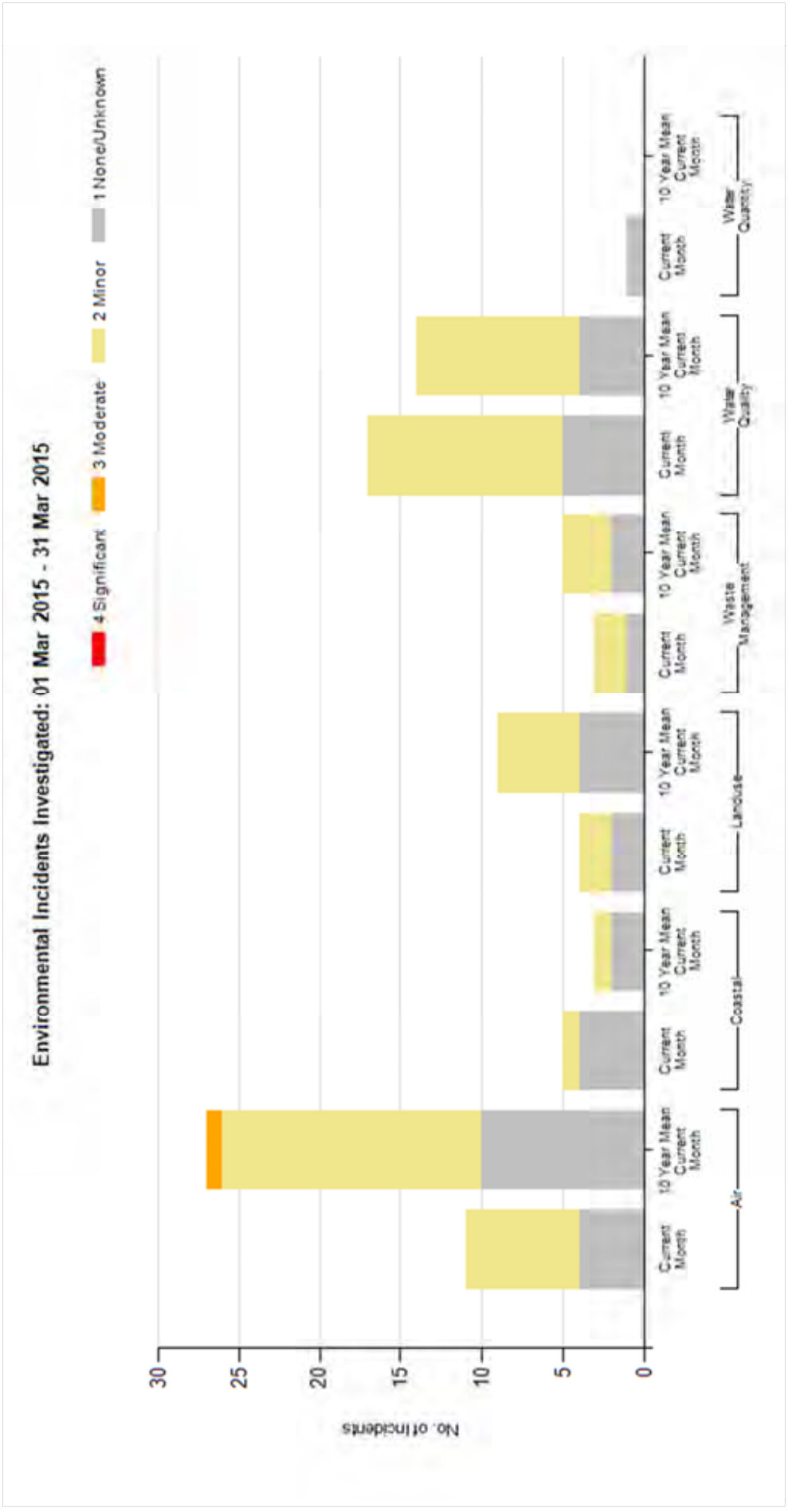
Recommendation:

---

1. That the Environmental Monitoring report for the period 1 – 31 March 2015 from Colin Dall, Consents/Monitoring Manager, dated 2 April 2015 be received.

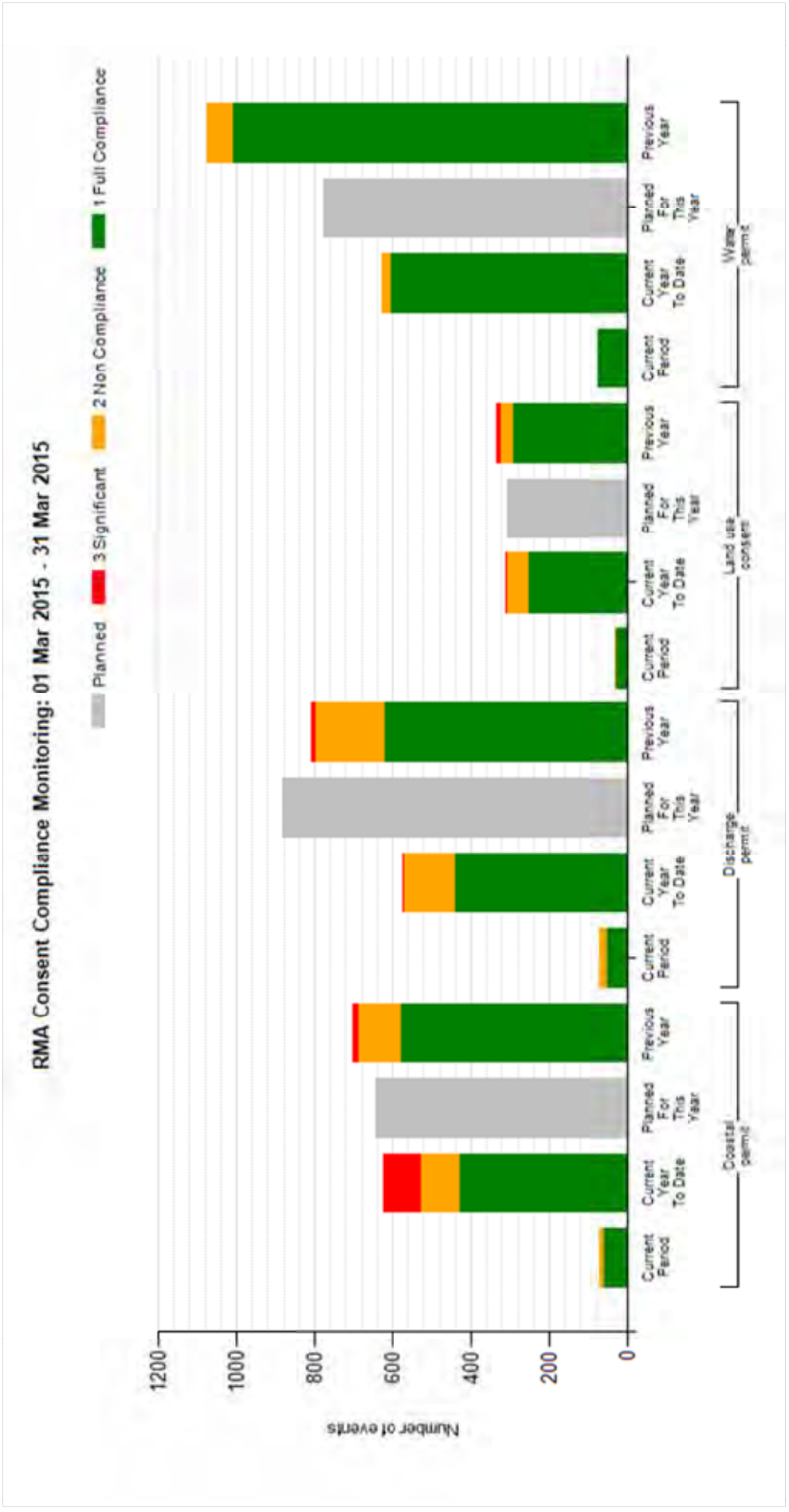
Attachment 1 to Item 6
Page 2 of 6

Environmental Incidents Investigated: 1 – 31 March 2015



Attachment 1 to Item 6
Page 3 of 6

Resource Consent Compliance Monitoring: 1 – 31 March 2015



ABBREVIATIONS KEY

	Whāngārei District Council	**FNDC**	Far North District Council	**KDC**	Kaipara District Council	**DOC**	Department of Conservation
NPC	Northland Port Corporation	**NZRC**	NZ Refining Company	**NRC**	Northland Regional Council	**FNHL**	Far North Holdings Ltd
CH	Consent Holder	**STS**	Sewage Treatment System	**POD**	Point of Discharge	**PA**	Permitted Activity
ESCP	Erosion and Sediment Control Plan	**RAQP**	Regional Air Quality Plan	**RWSPN**	Regional Water and Soil Plan for Northland		
RC	Resource Consent	**CMA**	Coastal Marine Area	**RCPN**	Regional Coastal Plan for Northland		

COASTAL ACTIVITIES – No significant non-compliant events were recorded during the period 1 – 31 March 2015.

DISCHARGES TO AIR – No significant non-compliant events were recorded during the period 1 – 31 March 2015.

DISCHARGES TO WATER OR LAND – No significant non-compliant events were recorded during the period 1 – 31 March 2015.

FARM DAIRY EFFLUENT DISCHARGES – No significant non-compliant events were recorded during the period 1 – 31 March 2015.

LAND USE ACTIVITIES – No significant non-compliant events were recorded during the period 1 – 31 March 2015.

WATER TAKES – No significant non-compliant events were recorded during the period 1 – 31 March 2015.

ENVIRONMENTAL INCIDENTS – No incidents resulting in a significant or moderate environmental impact were recorded during the period 1 – 31 March 2015.

SOE MONITORING – AIR, LAKES AND WATER

Classification	Date	Project	Notes
Air Quality	5/03/2015	Whāngārei Airshed – Ambient Air Monitoring	• Continuous ambient air monitoring results for $PM_{10,}$ sulphur dioxide and carbon monoxide at the Robert Street site, Whāngārei, indicated compliance with the National Environmental Standard in February 2015. • Routine monthly audit calibration on particulate, sulphur dioxide and carbon monoxide monitors at Robert Street was carried out.

	30/03/2015	Marsden Point Airshed – Ambient Air Monitoring	• Continuous ambient air monitoring results for PM_{10} at Bream Bay College, Ruakaka, indicated compliance with the National Environmental Standard in February 2015.
	30/03/2015	Kaitāia Airshed – Ambient Air Monitoring	• Continuous ambient air monitoring results for PM_{10} at North Road, Kaitāia, indicated compliance with the National Environmental Standard in February 2015.
Catchment Investigation	11/03/2015	Waiora Northland Water – Doubtless Bay Catchment Investigation	• Routine water quality monitoring of 10 sites along the Oruaiti, Kenana, Oruru and Peria Rivers and Stony, Paranui, Parapara and Aurere Streams.
	25/03/2015	Waiora Northland Water – Mangere Catchment Investigation	• Routine water quality monitoring of six sites along the Mangere River and Mangapiu and Mangere Streams.
Coastal - Water	22/01/2015	Whāngārei Harbour Water Quality Programme – Harbour Boat Run	• Seventeen water quality sites sampled in the Whāngārei Harbour. • Results indicated that nutrient levels exceeded relevant guidelines at all sites. Faecal indicator bacteria was low at all sites.
	22/01/2015	Kerikeri Coastal Water Quality Programme	• Sixteen water quality sites sampled in the Bay of Islands. • Result indicated that nutrient levels were generally higher at upper harbour locations. Faecal indicator bacteria was low at all sites.
	2/03/2015	Kaipara Harbour Water Quality Programme	• Eight water quality sites sampled in the Kaipara Harbour. • Results pending.
Groundwater	24/02/2015	Mangawhai – Nitrate Investigation	• Routine groundwater monitoring at Mangawhai.
	26/02/2015	Maungakaramea – Nitrate Investigation	• Routine groundwater monitoring at Maungakaramea.
	26/02/2015	Whatitiri – Nitrate Investigation	• Routine groundwater monitoring at Whatitiri.
Lake Water Quality Monitoring Network (LWQMN)	5/02/2015	LWQMN – Poutō Lakes	• Routine water quality monitoring of Lakes Mokeno, Karaka, Wainui, Kahuparere, Kanono, Rotokawau, Humuhumu, Swan and Rototuna.
	17/02/2015	LWQMN – Kai Iwi Lakes	• Routine water quality monitoring of Lakes Kai Iwi, Taharoa and Waikare.
	18/02/2015	LWQMN – Lake Ōmāpere	• Routine water quality monitoring of Lake Ōmāpere and its outlet.
River	18/02/2015	RWQMN – Eastern	• Routine monthly water quality monitoring of Waitangi, Waipapa,

Water Quality Monitoring Network (RWQMN)			Kerikeri, Waiharakeke, Waiotu, Ngunguru, Hātea and Whakapara Rivers and Mangahahuru Stream.
	18/03/2015	RWQMN – Northern	• Routine monthly water quality monitoring of the Mangamuku, Awanui, Oruru and Kaeo Rivers.
	18/03/2015	RWQMN – Western	• Routine monthly water quality monitoring of the Kaihu, Waipoua, Waimamaku, Punakitere, Utakura, Mangakahia and Opouteke Rivers.
	18/03/2015	RWQMN – Southern	• Routine monthly water quality monitoring of the Ruakaka, Hakaru, Manganui, Waipao, Waiarohia and Otaika Rivers, including two sites on the Mangere River.

ITEM: 7

ISSUE: Farm Dairy Effluent – update on FDE monitoring activities

ID: A721686

To: Environmental Management Committee, 28 April 2015

From: Tess Dacre, Compliance Monitoring Senior Programme Manager

Date: 1 April 2015

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☑	Regulatory function
	☑	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary
The purpose of this report is to give an update on the FDE monitoring programme.

Legal Compliance and significance assessment:
The activities detailed in this report are provided for in the council's 2012-22 Long Term Plan, and as such are in accordance with the council's decision-making process and Sections 76-82 of the Local Government Act 2002.

In relation to section 79 of the Local Government Act 2002, this issue is considered to be of low significance under Council policy because the report does not seek a decision other than that information be received.

Recommendation

1. That the report Farm Dairy Effluent – update on FDE monitoring activities from Tess Dacre, Compliance Monitoring Senior Programme Manager, dated 1 April 2015 be received.

Background
In Northland there are currently about 965 dairy farms (the spread of the farms across Northland is shown in Figure 1). Of these:

- About 710 have resource consents which allow discharge of treated farm dairy effluent to water; and
- About 255 operate under the permitted activity rules in section 16 (Rules for Animal Effluent Discharges) of the Regional Water & Soil Plan for Northland (RWSP).

Of the 710 consented farms, approximately 425 (about 60%) also have land application systems. When undertaking land application of effluent these farms must also comply with rule 16.1 of the RWSP. Overall, approximately 70% of Northland's

farms have land application systems. Many of these are small farms situated in low dairy intensity catchments on marginal land.

Many of the resource consents which allow a discharge to water require that ponds are emptied prior to winter each year and the consent is only exercised when conditions for land application are unsuitable. This ensures that discharges to water only occur when conditions are too wet for the effluent to be applied to land effectively. This is particularly important in Northland where the discharges are often into small ephemeral streams.

Monitoring results 2014/15 season

Monitoring and reporting of all dairy farms was completed by 12 December 2014. A total of 963 farms were visited for compliance monitoring between 11 August 2014 and 30 November 2014. The results for consented and permitted activity farms are shown in Tables 1 and 2 below. Final figures show that the significant non-compliant rate for consented farms increased from 16% last year to 20% this year. The significant non-compliant rate for non-consented farms dropped from 29% last year to 26% this year. Overall there was a 1% increase in the rate of significant non-compliance (see Figure 2) from the previous year. A total of 79% of Northland farms were either fully complying or had only minor compliance issues.

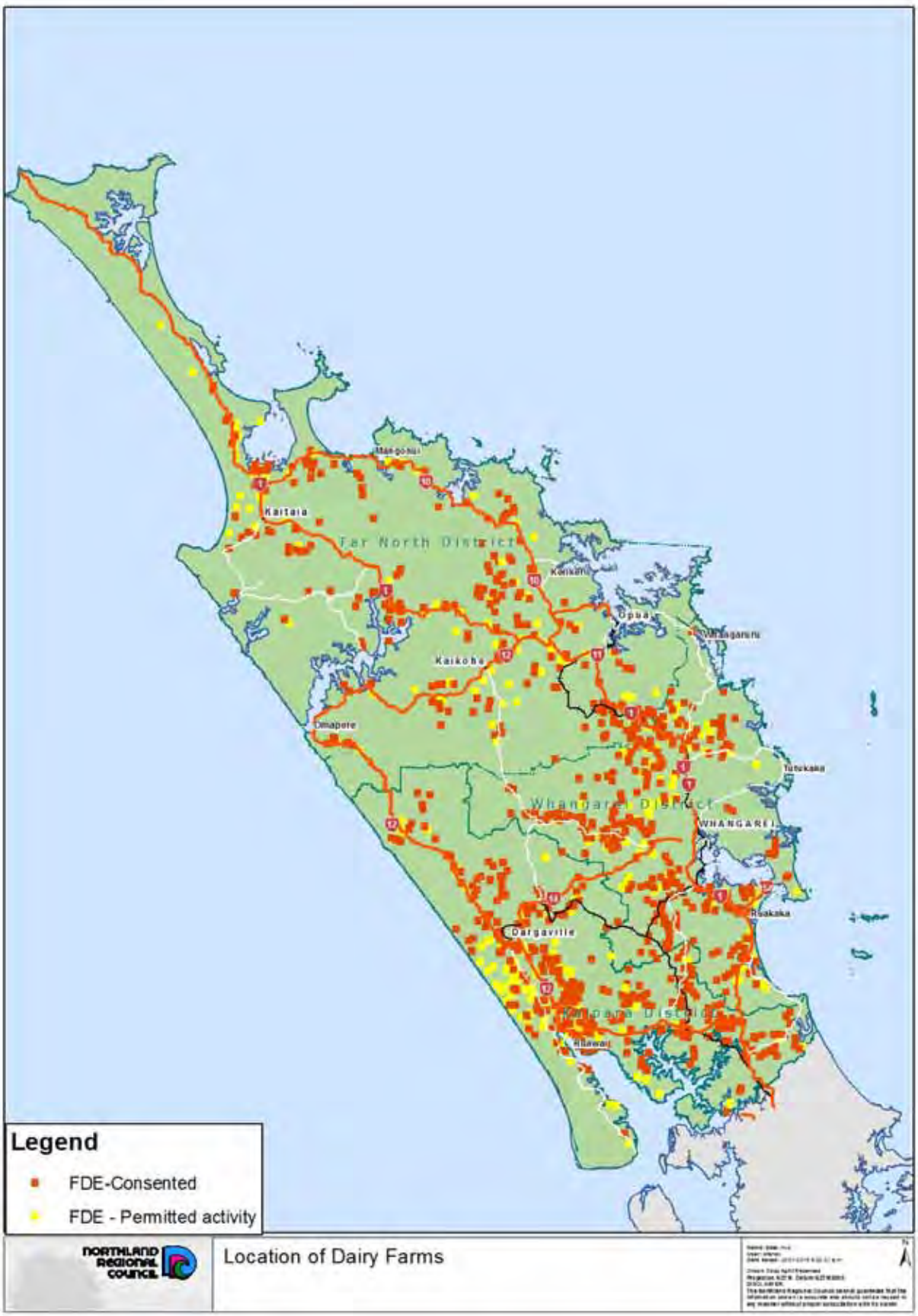


Figure 1 – Location of Northland's dairy farms

There was a 14% increase in the number of permitted activity farms which were fully compliant this year compared to last year. Thus there were considerable gains with the non-

WAIORA NORTHLAND WATER

consented farms, but some lost ground with the consented farms.

Despite the improvements in non-consented farm compliance, these farms continue to have a much poorer compliance rate. This is partly due to the high management input required for land application systems. A summary of the reasons for significant non-compliance is tabled below.

Table 1 - Consented farms compliance summary

Full Compliance		Non-Compliance		Significant Non-Compliance	
This Year	Last Year	**This Year**	Last Year	**This Year**	Last Year
385	432	**185**	162	**139**	114
54%	61%	**26%**	23%	**20%**	16%

Table 2 - Non-consented farms compliance summary

Full Compliance		Non-Compliance		Significant Non-Compliance	
This Year	Last Year	**This Year**	Last Year	**This Year**	Last Year
162	132	**25**	54	**67**	75
64%	50%	**10%**	21%	**26%**	29%

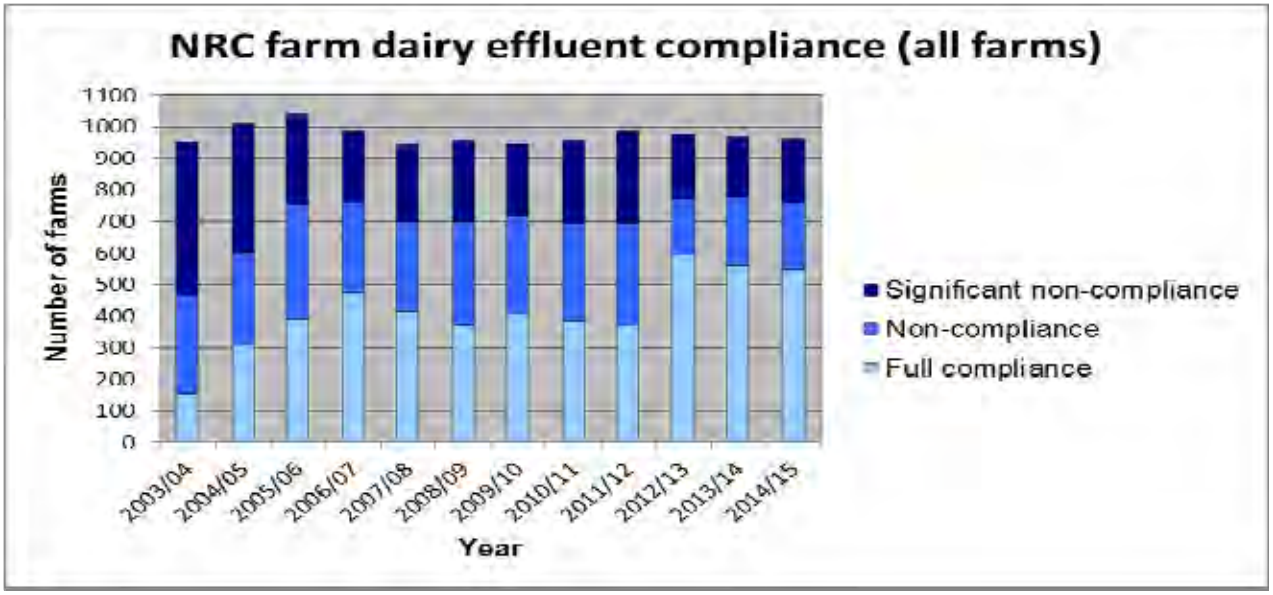


Figure 2 – Compliance trends for all farms (past 12 years data)

Reasons for significant non-compliance

Tables 3 and 4 below summarise the main reason for a farm being allocated the significant non-compliance grade. Many of the farms which are in the "water quality test results outside consent limits" category are there as a result of management issues as opposed to substandard infrastructure. Untreated effluent discharges are the single main reason - accounting for about one-third of the significant non-compliance. The sources of these discharges include feed/standoff pads, entry/exit races and underpasses. The trend for increasing herd sizes continues to add pressure to existing infrastructure where this is not upgraded.

Table 3 – Reasons for significant non-compliance on consented farms 2014/15 season

Main reason for non-compliance	Aug	Sep	Oct	Nov	Dec	Total
Water quality test results outside consent limits	4	8	7	17	0	36
Untreated effluent discharged to water (e.g. feedpad; underpass; entry/exit race; stormwater bypass)	12	17	11	7	1	48
Discharge from irrigator to water	0	0	5	1	0	6
Excessive ponding; overland flow; discharge from irrigator into setback distances	2	3	5	2	0	12
Inadequate management (e.g. broken pipes, sump overflow)	7	7	6	3	0	23
High risk of adverse environmental effects (but no discharge to water at time of inspection)	2	2	1	0	0	5
Required upgrade not completed by due date	2	2	0	0	0	4
Discharge to water when should be irrigating	0	0	2	3	0	5
	29	**39**	**37**	**33**	**1**	**139**

Table 4 – Reasons for significant non-compliance on non-consented farms 2014/15 season

Main reason for non-compliance	Aug	Sep	Oct	Nov	Dec	Total
Untreated effluent discharged to water (e.g. feedpad; underpass; entry/exit race; discharge via stormwater bypass)	0	11	1	3	0	15
Unauthorised discharge of treated effluent from ponds to water	4	9	5	7	0	25
Discharge from irrigator to water	2	2	1	0	0	5
Excessive ponding; overland flow; discharge from irrigator into setback distances	4	1	3	1	0	9
No (or inadequate) contingency storage	0	0	0	2	0	2
Inadequate management (e.g. broken or blocked pipes; sump overflow; irrigator/pump maintenance)	2	3	2	0	0	7
High risk of adverse environmental effects (but no discharge to water at time of inspection)	1	0	1	2	0	4
Total	**13**	**26**	**13**	**15**	**0**	**67**

Weather considerations 2014/15 season

During the period 1 May to 1 December 2014 many areas of Northland received unusually high volumes of rainfall. There were also a high number of rain days. Table 5 gives an indication of the above average rainfall for winter 2014. September and October were also extremely wet in some areas.

There is no doubt that the wet weather caused major issues for effluent management on a number of farms - especially those undertaking winter milking. The intensive use of off- pasture stand-off and feeding areas resulted in effluent volumes being much higher than usual. Some farms used dairy yards for stand-off over long periods or fed supplement on races to mitigate pasture damage.

While these practices resulted in an increased significant non-compliance with rules or consent conditions, there has been a significant reduction in the use of “sacrifice” paddocks.

Table 5 – Winter rainfall for 2014 at various sites across Northland compared to historical data

Location and Year Records Commenced	Total Winter Rainfall 2014 (mm)	Mean Winter Rainfall (mm)	Mean Annual Rainfall (mm)	Winter 2014 Ranking	Highest Winter Rainfall on Record	Years Recorded
Kaitaia (1893)	729	453	1379	4th Highest	1946	122
Kaikohe (1922)	1170	503	1569	Highest	2014	93
Dargaville (1922)	591	405	1219	6th Highest	1946	93
Puhipuhi (1905)	1509	661	2004	Highest	2014	110
Whangarei (1909)	925	498	1523	2nd Highest	1946	106

Discharges to water on consented farms

Despite the very wet beginning to the season, overall only 52% of consented farms were discharging to water when inspected (slightly up on the 46% for the 2013/14 season). This is because more consented farms are installing land application systems and are only discharging from their ponds during extremely wet conditions. The spread of farms found to be discharging to water over the 2014/15 season was August – 61%; September – 64%; October – 46%; and November – 40%

The trend for discharges across the season for the last five years is shown in Figure 3.

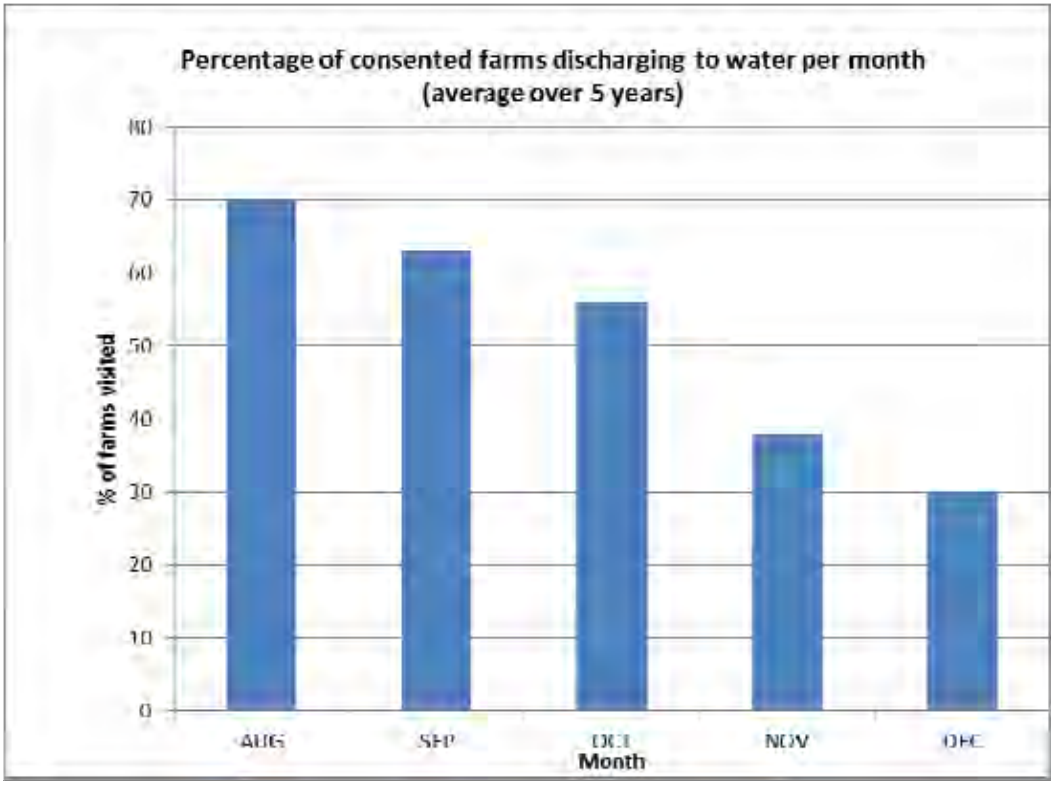


Figure 3 - Trend of discharges to water on consented farms over the year

Assessment of compliance in relation to water quality test results

Where a farm is discharging to water when inspected, water samples are always taken. Where possible three samples are taken:

- An upstream (to establish background levels in the receiving waters);
- Point of discharge; and

- Downstream (to establish any changes in receiving water quality and to assess compliance).

The downstream sample site is the compliance site stipulated in the resource consent and is typically 20 metres downstream of the point of discharge. The water samples are analysed for ammoniacal nitrogen (NH_4), pH and faecal coliforms. Field measurements of dissolved oxygen and temperature are also taken.

In every case where the downstream water sample significantly exceeds the resource consent limits, the farm is assessed as significantly non-compliant. This has been the regime since 2002 and since then Council has taken over 11,000 individual samples on dairy farms. Examination of this data shows that there are large numbers of farms which discharge to water which individually have no more than minor adverse effects on water quality.

Discharge trends

Analysis of all point of discharge samples for the last 8 years (2006-2014) shows that there has been an improving trend in the faecal coliform counts (Figure 4) and ammoniacal nitrogen concentrations (Figure 5). This is as expected, given that the majority of farms have upgraded their ponds over this period. This data includes all discharges, including significant non-compliant discharges and those with runoff or discharge from irrigators, broken pipes etc (that is, it includes some untreated effluent discharges).

Apart from the above trends in concentrations, the volume of discharge is also reducing (as ponds become larger and more farms are installing land application). These are very positive trends. Considerable work is being done by the FDE team on achieving overall reductions in effluent volumes and water use efficiency at the dairy shed (see section below on this).

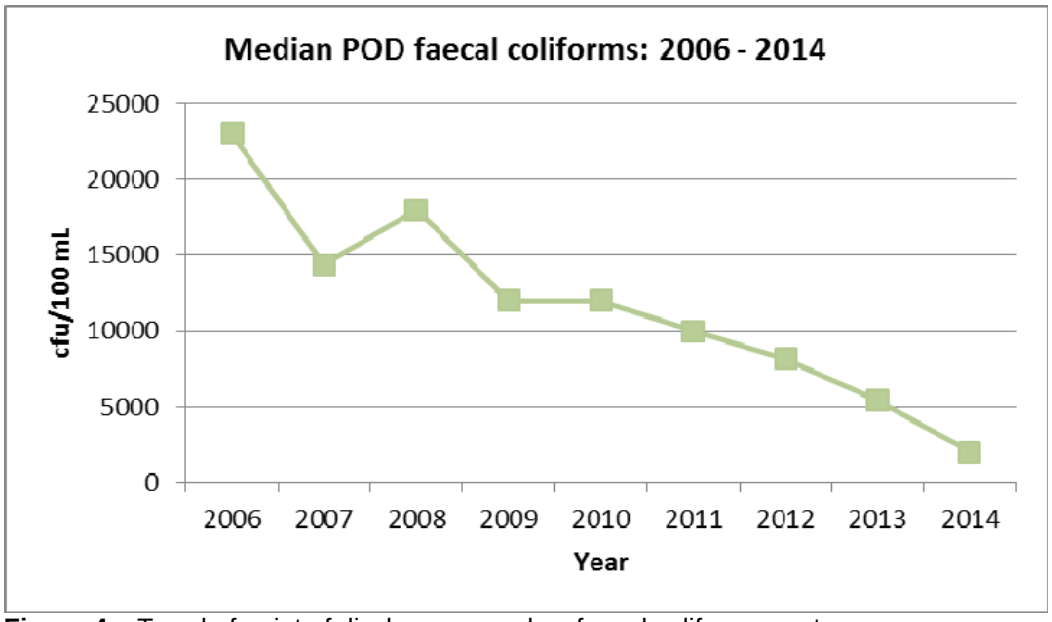


Figure 4 – Trend of point of discharge samples, faecal coliform count.

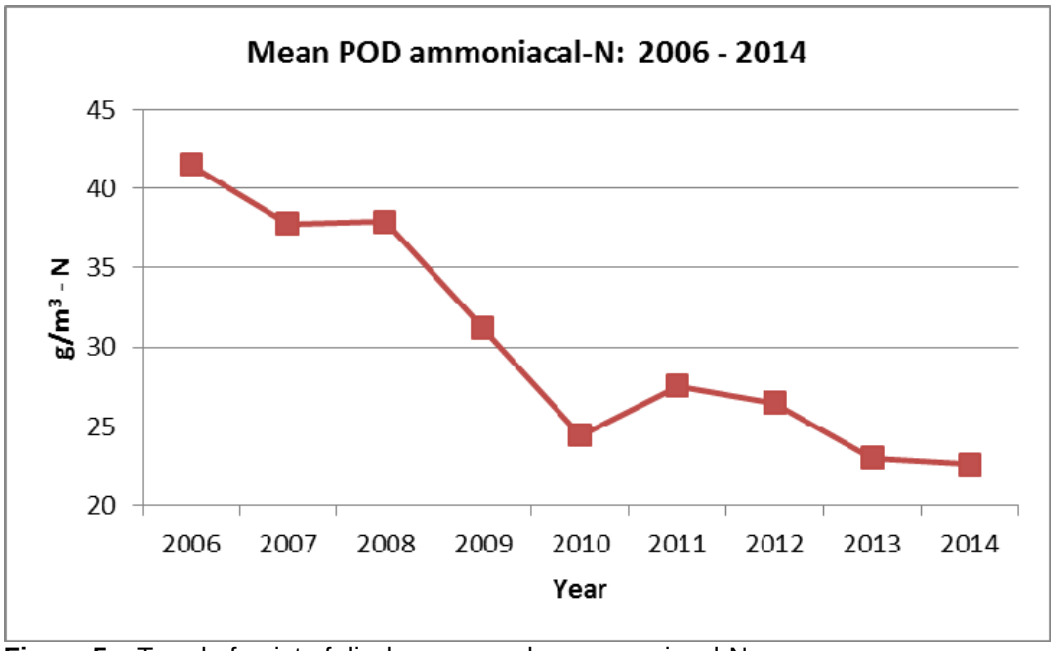


Figure 5 – Trend of point of discharge samples, ammoniacal-N.

Enforcement action

Table 5 shows enforcement action taken for FDE non-compliance and offences.

Table 5 – FDE Enforcement action for 2014/15 season

Action	Jul	Aug	Sep	Oct	Nov	Dec	Total
Abatement notice	0	4	23	28	33	20	108
Infringement notice	2	4	14	14	32	17	83

There are no outstanding FDE prosecutions (no FDE prosecutions were initiated in the 2014/15 season).

Water volume reduction project

The FDE team have been working with two farmers (one in Maungaturoto and one in Waiotu) to explore options for reducing water use at the farm dairy – with the ultimate aim of reducing effluent volumes. The generation of excessive volumes of effluent is seen as a major cause for effluent non-compliance. Reduced effluent volumes will result in:

- More consistent compliance with consents and rules;
- Reduced operating costs; and
- Easier management.

The goals of the project were to:

- Install infrastructure and operating systems for optimum control of stormwater.
- Measure and record actual total water volumes used at the dairy.
- Measure and record the actual volumes used by as many of the major individual use points as was practicable.
- Improve the existing infrastructure and management systems, to reduce water use wherever practicable without affecting hygiene standards or increasing labour or operating costs.
- Make the changes with minimal expenditure.

The types of changes being made include:

- Changes to stormwater controls/management;
- Changes to spouting and downpipes;
- Changes to washdown hose fittings and nozzles;
- Changes to backing gate fittings; and
- Use of mechanical scrapers for yard cleaning.

The FDE team arranged for 15 meters (in total) to be installed at the two farms to enable data collection and to measure the effects of any changes made. To date, reductions in water use have been measured in total on the two farms up to 30%. Specific water use areas within the dairy have seen a reduction of up to 80%. On one of the farms the irrigator is on average operated every 3-4 days, compared to almost every day previously.

More changes are to be implemented and documented. The benefit of managing lower effluent volumes versus the inputs into implementing changes will be assessed as part of the project.

NRC actions to improve FDE compliance and water quality

The significant non-compliance rate is a result of a robust, transparent monitoring programme. The compliance trends over time is one of improvement. There is no silver bullet to fix non-compliance, rather a multi-prong approach is required.

The following actions will be taken by NRC:

- Continue with the current routine annual monitoring regime, including non-notified visits.
- The one-on-one follow-up visits to significantly non-compliant farms will be done as soon after the routine inspection as is practicable.
- Continue with one-on-one visits to farms where requested by farm owners.
- Increase the number of issues of the *Dairy Farmer News*.
- Increase the number of effluent publications and resources for farmers.
- Upgrade and improve the effluent section on the NRC website.
- Continue to promote Effluent Management Plans tailor made to individual farms.
- Jointly run a series of “EnviroReady” workshops with DairyNZ and Fonterra. These on-farm workshops are planned for April 2015. Topics addressed will include general land/riparian management issues, water metering and FDE system management.
- Continue to work with the farmers involved with the effluent volume reduction project.
- Implement a plan to get all permitted activity farms which periodically discharge to water consented (this season the number was 25).
- Increase farmer communications to address untreated effluent discharges from sources such as feedpads, underpasses and entry/exit races.
- Continue to work collaboratively with DairyNZ and Fonterra.
- Continue to take appropriate enforcement action when necessary.
- Continue to support DairyNZ in their work with rural professionals.
- Continue to engage with the Dairy Industry Liaison Group.

ITEM: 8

ISSUE: Biosecurity Responses Update

ID: A736540

To: Environmental Management Committee, 28 April 2015

From: Don Mckenzie, Biosecurity Senior Programme Manager

Date: 2 April 2015

Report Type:	☐	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☑	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:
The purpose of this report is to update the Committee on kauri dieback, and marine pest responses.

Legal compliance and significance assessment:
The council activities detailed in this report are provided for in activities described in the council's Long Term Plan and as such are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. This matter is considered to be of low significance, as the report is only provided to be received for information.

Recommendation:

---

1. That the report Biosecurity Responses update by Don Mckenzie, Biosecurity Senior Programme Manager and dated 2 April 2015, be received.

2. That the committee note the information.

Report
Kauri dieback
Recent soil testing on private property at Puketotara in the mid north has revealed evidence of kauri dieback disease in a stand of mature kauri. Staff are developing a management plan with the owner to reduce risk of disease transfer and also examine the options to boost kauri health. Although there is no specific cure for the disease actions to boost soil fertility or target a wide range of phytophthora using phosphine will be considered.

Although this recent discovery is concerning two other sites previously thought to be infected by the disease at Kaiwaka and Waipoua have returned negative results. In

addition soil testing undertaken at one quarry near Dargaville previously thought to be infected also produced negative results which has been encouraging for the owners and staff alike.

The results have highlighted the vulnerability of kauri to other phytophthora and drought and research projects to improve unhealthy Kauri especially in Kaipara and elsewhere are underway.

Installation of footwear cleaning stations at Matakohe Kauri Museum are progressing and biosecurity staff have also assisted in helping organise regular landowner meetings at the Museum to build awareness of the risks and what can be done to reduce disease transfer.

A new track cleaning station has also been erected by the members of the local community at the Manaia reserve track with the help of Biosecurity and Department of Conservation staff. New signage warning people to clean their footwear is also being prepared.

Marine pests
Mediterranean fanworm
Marsden Cove Marina, Marsden Maritime Holdings, and Marsden Cove Canal Management Company have declared their intention to comply with the Notices of Direction that were issued to them in February. New Zealand Dive and Salvage were contracted by the owners during March to undertake fanworm removals in Stage two of Marsden Cove and removed over 20000 fanworm from the area. Northland Regional Council staff are working together with NIWA to develop comprehensive auditing procedures aimed at assessing if the owners have met the reduction targets as set out in the notices.

Biosecurity staff were alerted to a barge that had entered Mangawhai Harbour from Auckland by the council's Maritime staff and the vessel was later confirmed as having juvenile fanworm on its hull. The vessel managers were issued a Notice of Direction and it was hauled out at ShipCo in Whangarei less than seven days after it arrived in the Harbour. An inspection of the sites where the vessel had grounded was also undertaken and staff found mussel shells with worm fragments attached, however the worms were all dead. Continued monitoring is planned for these sites.

Staff from Bay of Plenty Regional Council alerted biosecurity staff to a fanworm infected vessel that had been hauled out in Tauranga. During traceback it was confirmed that the vessel had spent the majority of its time in Tutukaka marina and some time on a mooring in Totara North. Commercial divers have been checking the structures in Tutukaka and have so far found three juvenile fanworm. MPI have agreed to cover a portion of the costs of this work as this infection represents a significant range extension of fanworm. Staff are hopeful that the incursion in Tutukaka has been eradicated but further monitoring will have to occur.

In late February a sunken vessel was salvaged at Kaiwaka point in Onerahi and lifted at Docklands 5 where it was discovered there was fanworm on the hull. The commercial divers involved in the salvage said that fanworm were found on the sediment where the vessel had hit the seafloor, however they were dead. Trackback investigations on the vessel revealed it had arrived from Bayswater marina in Auckland the week prior.

Other marine pests:
NRC staff collected native and introduced bortylloides species for DNA and anatomical analysis to ensure correct identification of the introduced species has taken place. The new species were identified from One Tree Point, Tutukaka harbour and the outer bay of islands and samples were sent to Marine Invasive Taxonomic services for further analysis. Bortylloides has been found to be a nuisance fouler on mussel farms in Brazil however MPI are not concerned at this stage about its presence in New Zealand.

ITEM: 9

ISSUE: Kai Iwi Lakes Pest Control and Catchment Update

ID: A739088

To: Environmental Management Committee, 28 April 2015

From: Kane McElrea, Biosecurity Programme Manager

Date: 29 March 2015

Report Type:	☐	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☑	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:

The purpose of this report is to update the Committee on work being carried out in the Kai Iwi Lakes catchment. This report highlights the work being carried out by Biosecurity and Land Management departments.

Legal compliance and significance assessment:

The council activities detailed in this report are provided for in activities described in the council's Long Term Plan and as such are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. This matter is considered to be of low significance, as the report is only provided to be received for information.

Recommendation:

---

1. That the report Kai Iwi Lakes Pest Control and Catchment Update by Kane McElrea, Biosecurity Programme Manager and dated 29 March 2015, be received.

2. That the committee note the information.

Kai iwi lakes

Pest control work at Kai Iwi lakes has been ongoing over the last few months to reduce the impact of introduced pests and improve wetland and water quality on adjacent farms.

Key pest control actions over the last two months include:

- Wilding pine control – Over 25ha of wilding pines have been cleared from behind Pine Beach campground using ground crews. Wilding pine control work has also been carried out around the eastern lake edge of Taharoa.
- Aerial control of pampas carried out in late 2014 and is now showing great results with very few pampas plants remaining in the sprayed area.

- The removal of acacia from the road entrances.
- Biosecurity staff removing nine large goldfish from a nearby freshwater pond using a purpose built fish trap. Remaining fish are currently contained however staff are still evaluating the best options for removal.
- Ground water sampling underway to determine if introduced plants are adding nitrogen to the lake systems and to monitor what impact any control methods may have. This work is being carried out in conjunction with NIWA.
- The Kai Iwi "Big Day Out" held in February. This is a community event focused on promoting the unique values of the Kai Iwi lakes and over 150 people were in attendance.
- Spraying of research trial plots undertaken. Initial results look positive however ongoing research is needed to gather conclusive results.
- Maintaining regular communication with adjoining landowners.

Planned activities to be carried out at Kai Iwi Lakes include:

- A large scale possum control operation through a network of possum bait stations which is being established throughout the Taharoa Domain.
- Further aerial spraying of pampas.
- Acacia removal from the domain roadsides and in selected areas.
- Ongoing wilding pine control throughout the domain using a variety of methods as well as follow up in treated areas.
- Feral pig response over the winter months to ensure populations remain low.
- A research proposal to investigate the use of locally made predator traps for the control of ferrets.

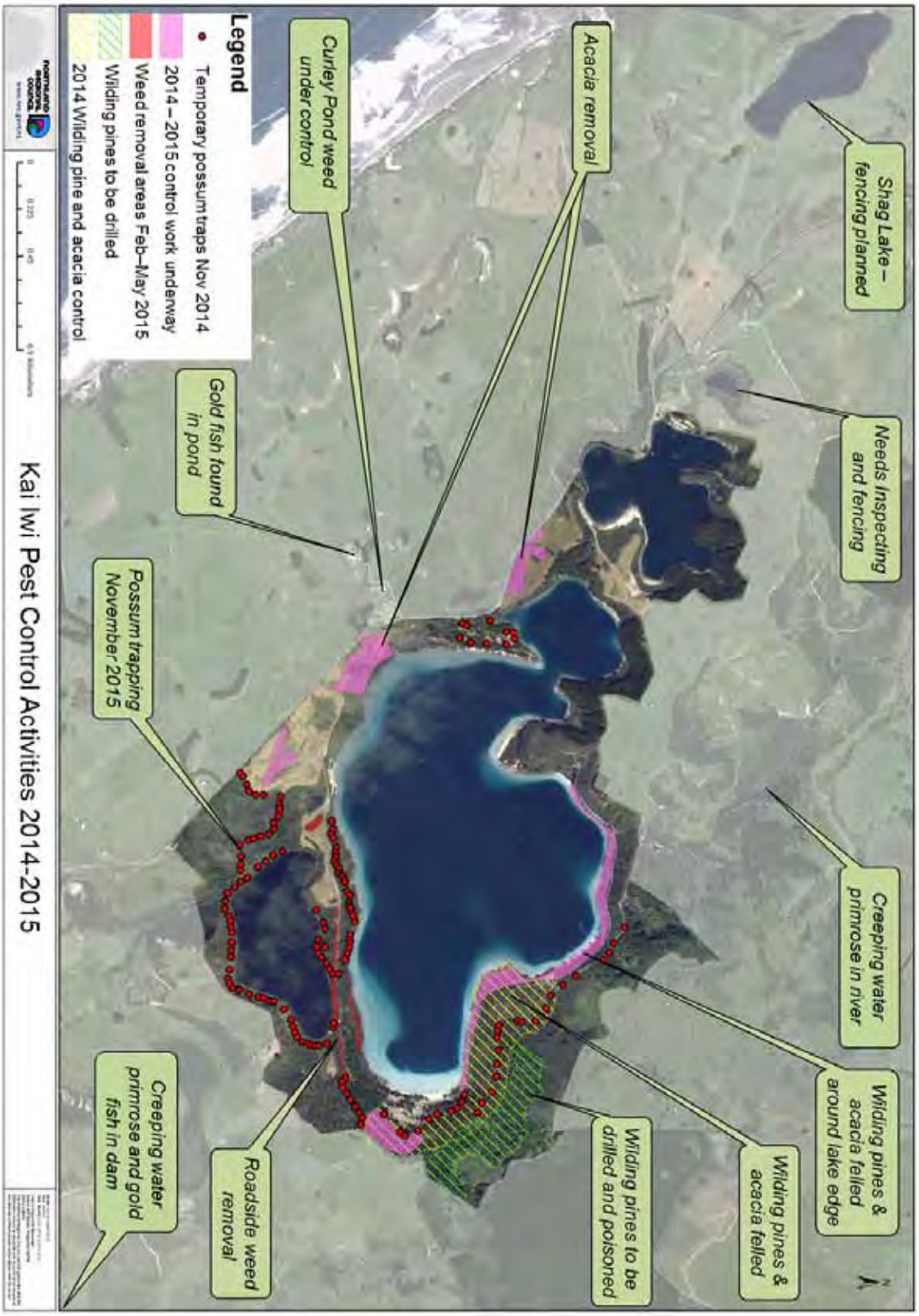
Land Management

Shag Lake - Land Management staff have started working with lessees (Kai Iwi Farms) and land owners (Te Roroa) to complete fencing and to establish reticulated water to adjacent paddocks via the Environment Fund and possibly Nga Whenua Rahui.

Wetland Fencing - Fencing wetlands in the catchment is currently being carried out via the Environment Fund.

Farm water quality improvement plans - Two farms neighbouring the lakes have had farm water quality improvement plans (FWQIP) developed by staff. These plans are individualised for landowners, used to identify on-farm opportunities to reduce the impact of land use on water quality. Contact has been made with other farms neighbouring the lakes to initiate FWQIPs. Other farms in the catchment have been sent letters inviting them to contact NRC land management staff for FWQIP and Environmental funding for wetland fencing, follow up FWQIP brochures will be sent out late April 2015.

The attached map describes where pest and land management actions are underway at Kai iwi Lakes.


Shag Lake – fencing planned
Needs inspecting and fencing
Creeping water primrose in river
Wilding pines & acacia felled around lake edge
Wilding pines & acacia felled
Wilding pines to be drilled and poisoned
Roadside weed removal
Creeping water primrose and gold fish in dam
Possum trapping November 2015
Gold fish found in pond
Curley Pond weed under control
Acacia removal
Legend
Temporary possum traps Nov 2014
2014 – 2015 control work underway
Weed removal areas Feb–May 2015
Wilding pines to be drilled
2014 Wilding pine and acacia control
Kai Iwi Pest Control Activities 2014-2015

ITEM: 10

ISSUE: "Go Slow" Disease

ID: A736725

To: Environmental Management Committee, 28 April 2015

From: Don Mckenzie, Biosecurity Senior Programme Manager

Date: 2 April 2015

Report Type:	☐	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☑	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:

This report updates the Committee on the "Go Slow" disease and advises the committee that Ministry For Primary Industries has indicated they would assist with supporting further research into this issue.

Background

"Go Slow" is an unexplained muscle disease which has been reported in working dogs for many years. Nineteen cases from around New Zealand have so far been investigated and although occurrences in Northland are more common, examples have also been found in the King Country, Wairarapa and Canterbury regions. In almost every case there has been a history of feeding wild pork (raw or cooked) to the dog. The effects develop suddenly and include muscle tremors and shaking - dogs tire very quickly when working and sometimes never recover to full fitness.

Council supported research being undertaken by Massey University to investigate the cause of "Go Slow" disease and Biosecurity staff have been able to assist by encouraging hunters to present more case studies as part of the study. However more funding is required to determine the causal agents.

The Chief Executive wrote to the Ministry of Primary Industries during January seeking their interest in this issue and received back the attached reply.

Key points to note

- MPI led an investigation into the disease in 2003 and this ran for 2-3 years.
- The investigation team concluded the incidence of Go Slow disease appeared low but there was geographical, seasonal, occupational and perhaps property risk factors involved.
- MPI have indicated their willingness to support the current research into the disease which is being led by Dr Hayley Hunt of Massey University.

The Chief Executive also sought comment from the Northland District Health Board (NDHB) to understand any human health issues which could be linked to this disease.

An email response has been received from the CEO of NDHB in consideration of the human health issues. The response indicates that NDHB is not intending to undertake any further action.

Legal compliance and significance assessment:

The council activities detailed in this report are provided for in activities described in the council's Long Term Plan and as such are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. This matter is considered to be of low significance, as the report is only provided to be received for information.

Recommendation:

---

1. That the report "Go Slow" disease by Don Mckenzie, Biosecurity Senior Programme Manager and dated 2 April 2015, be received.

2. That the committee note the information.

Ministry for Primary Industries
Manatū Ahu Matua

12 February 2015

Malcolm Nicholson
Northland Regional Council
Private Bag 9021
36 Water Street
Whangarei
0148

Dear Malcolm

"Go slow disease in working dogs".

Thank you for your letter dated 22 January 2015 regarding "Go sow disease in working dogs".

I have consulted with the Ministry for Primary Industries (MPI) Incursion Investigation team about this condition. This teams mandate is to investigate any suspected exotic, new or emerging infectious conditions of animals throughout New Zealand.

"Go slow" or "Northland dog myopathy" was investigated by the MPI investigation team in 2003. At that time the team developed a case description, establish what investigation has been done up until that date (by veterinarians and veterinary pathologists at the regional laboratories), developed a diagnostic list of possible endemic and exotic causes and developed an investigation plan. An investigation was then undertaken over the following two to three years.

The investigation included the involvement of the Institute of Veterinary, Animal and Biomedical Sciences at Massey University who were funded by MPI to work up a number of cases transported to Palmerston North from Northland, the MPI animal health laboratory who ruled out any exotic disease involvement, as well as the MPI investigator who travelled to Northland and interviewed twelve affected property/dog owners with a total of 77 dogs, 47 of which were affected. A questionnaire was used to collect information on both affected and unaffected dogs.

The conclusions from our investigation were that a myopathy is being seen in pig hunting and working dogs, the overall incidence appears low but single property prevalence can be high, the condition appears (in many cases) to be exacerbated by exercise, there does appear to be geographical (Northland), time (winter) and occupational (hunting and to a lesser extent working dogs) risk factors together with (as yet undefined) affected property risk factors. The frequency of the condition year to year appears highly variable.

We could find no evidence for a parasitic or infectious cause and no association with diet or dog breed. At that time we also found no evidence that the condition occurs outside of the Northland area despite questioning veterinary practices in other areas. The investigation team have had reports of the condition through the MPI passive surveillance system and to date have had no confirmed cases reported outside of Northland that did not have a recent travel history including that region.

Compliance and Response
Investigation and Diagnostic Centres and Response
66 Ward Street, Wallaceville, PO Box 40742, Upper Hutt 5140, New Zealand
Telephone: +64-4-894-5600, Facsimile: +64-4-894 4973
www.mpi.govt.nz

Ministry for Primary Industries
Manatū Ahu Matua

We cannot comment on human health but it is evident from questioning veterinarians and pathologists familiar with the condition that it has been described in dogs in Northland for at least 12 years and possibly as long as 20 years. Should there be human health issues associated with farming or pig hunting in this region that could also be associated with the myopathy seen in dogs the Medical office of Health is best placed to comment and investigate.

Our investigation team lead by Dr Paul Bingham is aware of Dr Hayley Hunt's PhD study and has offered her their support and assistance. Should she find suitable dogs which meet the case definition and wish to pursue diagnostic testing including toxicology we have already indicated that on a case by case basis we will look at assisting her.

Yours sincerely

Veronica E Herrera

Director Investigation Diagnostic Centres and Response
IDC and Response Directorate
Operations Branch
Ministry for Primary Industries | Pastoral House 25 The Terrace | PO Box 2526 | Wellington | New Zealand
Telephone: 64-4-8940645 | Facsimile: 64-4-8940285 | Mobile: 6429-894 0285 | Web: www.mpi.govt.nz

ITEM: 11

ISSUE: Review of Regional Pest Management Strategies and Proposed Marine Pathway Management Plan - Review of the Proposed Timeline

ID: A733216

To: Environmental Management Committee, 28 April 2015

From: Don McKenzie, Biosecurity Senior Programme Manager

Date: 20 April 2015

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:

At the August 2014 Environmental Management Committee meeting, committee members approved revised timing for the formal statutory process of public consultation for the new Regional Pest Management Plan (RPMP) and Marine Pathway Management Plan (PMP). The main reasons for this were a delay in the release of the National Policy Direction (NPD) and to allow coordination with Auckland Council.

The formal statutory process of public consultation was planned to begin in July this year with notification of proposed plans. However, it would be beneficial to further extend the timeline for both the Northland RPMP and the PMP, with the aim of notifying a proposal in March 2016. The main reasons to extend the timeline involve further delays in the release of the NPD and the start of a new national alignment project, as well ongoing work on regional alignment with Auckland Council who now plan to notify a proposal in early 2016. It would also allow LTP funding to be clarified prior to proceeding with the plan proposals.

It is recommended that Council resolve to extend the expiry date of the Regional Pest Management Strategies 2010-2015 by 12 months to provide for further development of the proposed RPMP and PMP.

Legal compliance and significance assessment:

The activities detailed in this report are part of the council's day to day operations, are provided for in the council's 2012-2022 Long Term Plan, and are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. The matters are not significant under council policy and are in accordance with the above legislation and Biosecurity Act 1993.

Recommendation:

---

1. That the report Review of Regional Pest Management Strategies and Proposed Marine Pathway Management Plan - Review of the Proposed Timeline by Don McKenzie, Biosecurity Senior Programme Manager and dated 20 April 2015, be received.

2. That the Committee agree to the revised timing for formal notification of the proposed Regional Pest Management Plan and Pathway Management Plan.

3. That the Committee resolve pursuant to section 100G of the Biosecurity Act 1993 and section 83(19) Biosecurity Law Reform Act 2012 to extend the expiry date of the Regional Pest Management Strategies 2010-2015 to 20 July 2016.

Regional Pest Management Plans and Regional Pathway Management Plans
The Biosecurity Act 1993 (BSA) now provides for the development of 10 year regional pest management plans and regional pathway management plans. The introduction of pathway management plans in the 2012 Biosecurity Law Reform Act aimed to address the lack of risk management in the BSA. A Regional Pest Management Plan will manage identified pests, whereas a Pathway Management Plan will aim to manage the pathways through which pests may be introduced.

The two plans will progress through the same statutory process as separate documents under different sections of the BSA, but will come together in one physical document at the completion of the process (see attached diagram).

Pathway management plans can apply throughout the region. Making the first Northland pathway management plan for marine pests is beneficial as the pathways are relatively easily identified, there are no private land issues, and the fast distribution of marine pests is a growing concern.

National Policy Direction
The development of the National Policy Direction (NPD) required by the Biosecurity Act has been delayed again, and it is now not likely to be finalised until May or June. The NPD will contain directions on the process and content of Regional Pest Management Plans and Pathway Management Plans, as well as their implementation, monitoring and good neighbour rules. All new plans are required by the Act to not be inconsistent with the National Policy Direction.

It is important that we allow time to fully understand and implement the NPD in the new RPMP and PMP to ensure that we meet the requirements for consistency. If we notify a RPMP and PMP prior to implementing the NPD, we would then have to undertake a review of our new plans to ensure there were no inconsistencies. If there were any, we would have to undertake our review process again to resolve them, which would be a time consuming and costly process.

National alignment project
In addition to our discussions with Auckland Council regarding regional collaboration and possible alignment of species and rules, the NRC is now also part of a national

alignment project with other regional councils. The Regional Chief Executives Group endorsed the concept of a more collective process for the development of the next generation of RPMPs at their meeting in November 2014, and endorsed a project brief in February 2015. The aim of the project is to develop new RPMPs that are consistent with the NPD, look and feel similar, align pest programmes across regions where it makes sense to do so and recognise efficiencies from common methodologies and cost sharing in their development to achieve better pest outcomes for our regional communities. Delaying our process to better coincide with the national alignment project, and Auckland Council's process will allow for closer alignment both regionally and nationally and future coordination of implementation.

Expiry of Northland Regional Pest Management Strategies 2010-2015
The current RPMS expire on 20 July 2015, and it would be beneficial to extend the operation of these strategies. The recent high level review of the pest management strategies (August 2014) demonstrated a high level of effectiveness of the current strategies, and extending the operation of the strategies would allow for effective management of Northland's pests while the new Regional Pest Management Plan proceeds through the statutory process.

The transitional provisions of the Biosecurity Law Reform Act 2012 provide for extension of the expiry date of Pest Management Strategies by up to 12 months (section 83(19) Biosecurity Law Reform Act 2012). The process for extending the expiry date of the RPMS is resolution under section 100G of the Biosecurity Act 1993 and section 83(19) Biosecurity Law Reform Act 2012. To make a resolution under section 100G the Council must be satisfied that the resolution does not have a significant effect on any person's rights and obligations.

It is considered that continuance of the RMPS for 12 months will not have a significant effect on any person's rights and obligations, these will remain the same.

The relationship between the statutory process of regional pest management plans and pathway management plans.

ITEM: 12

ISSUE: Preparing the new regional plan

ID: A735881

To: Environmental Management Committee, 28 April 2015

From: Ben Lee, Programme Manager – Policy Development

Date: 31 March 2015

Report Type:	☐	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☑	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:
The purpose of this report is to provide an overview of the process for preparing the new regional plan.

There are currently three regional plans which regulate the use of the coast, water, air and land. These plans are over 10 years old and council is legally required to review and update these plans. The review of the plans was completed December 2014.

The three regional plans will be combined into a single new regional plan.

The key process steps for developing the new regional plan are:
- Release a draft for public feedback – Mid 2016
- Notify the proposed regional plan for submissions (the start of the formal process) – mid 2017

The Regional Policy Committee is overseeing the new regional plan preparation.

The new regional plan is of particular relevance to the Environmental Management Committee as it will put in place the recommended catchment specific provisions being developed by the priority catchment groups.

Legal compliance and significance assessment:
The activities detailed in this report are part of the council's day to day operations, are provided for in the council's 2012-2022 Long Term Plan, and are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. The matters are not significant under council policy.

Recommendation(s):

---

1. That the report "Preparing the new regional plan" by Ben Lee, Programme Manager – Policy Development and dated 31 March 2015, be received.

Report

The council administers three regional plans:
- Regional Air Quality Plan
- Regional Water and Soil Plan
- Regional Coastal Plan

The plans set out the way Northland's air, water, land and the coast are managed. Most importantly they set the rules for when resource consents are (and aren't) required.

As required by law[1], a review of the three regional plans was carried out last year and included a series of over 13 workshops and hui with key stakeholders and Maori. The review looked at the plans' performance and made recommendations on how they can be improved.

As a result of the review, the Regional Policy Committee[2] decided to commence the preparation of a new single regional plan to replace the three current plans. The key steps for developing the new regional plan are:
- Release a draft for public feedback – Mid 2016
- Notify the proposed regional plan for submissions (the start of the formal process) – mid 2017

The preparation of the draft new regional plan will involve staff working with the Regional Policy Committee to prepare provisions, supported by the necessary justification[3]. There is no predetermined process for stakeholders or Maori to be involved in preparing the draft. The logic being we elicited good feedback through the review process to inform the preparation of the draft. However staff will have (and are already having) informal discussions with particular key stakeholders and Maori for further advice and to test ideas.

Anyone can provide feedback on the draft new regional plan when it is released and / or make submissions on the new regional plan when it is notified.

The Regional Policy Committee has indicated that the new regional plan will:
- Be more streamlined than the current regional plans (only include necessary content).
- Recognise that the regional plan firstly a 'rule book' and secondly a set of provisions to guide resource consent decision making.
- Be more specific about the values and characteristics we want / need to protect.
- Provide for the 'clipping on' of new catchment specific provisions as these are developed.

Of particular relevance to the Environmental Management Committee is the role the new regional plan will play in implementing the work of the priority catchment groups.

---

[1]Section 79 of the RMA requires all provisions in a regional plan to be reviewed every 10 years. After the review, the plan(s) must go through the full Schedule 1 process (submissions, hearings etc.) regardless of whether there are changes or not.
[2]The committee charged with overseeing the review of the regional plans and the preparation of the new regional plan.
[3]Council is required to prepare a "Section 32 Report". Section 32 refers to the section of the RMA which sets out the requirements for the analysis and justification of plan provisions.

These groups are developing catchment management plans, which are a combination of on-the-ground actions and recommended catchment specific regulation. The latter will ultimately be implemented in the new regional plan[4] alongside the more general provisions for water management.

[4] The process of getting the catchment group recommendations into the new regional plan firstly involves the Environmental Management Committee endorsing the catchment group recommendations. The recommendations will then be passed to the Regional Policy Committee to consider for inclusion in the new regional plan. Assuming they are included in the notified new regional plan, they will then progress through the formal submissions, hearings and appeals process. It's important to note that the provisions will be subject to challenge through this process and therefore there's the potential they'll be altered.

ITEM: 13
Page 1 of 10

ISSUE: Water Allocation Update

ID: A736325

To: Environmental Management Committee, 28 April 2015

From: Pride Mangeya - Water Resource Analyst, Susie Osbaldiston-Groundwater Management Specialist and Ben Tait - Policy Specialist.

Date: 15 April 2015

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive Summary:
The Water Allocation Project, now part of Waiora Northland Water, was approved through the regional Long Term Plan process in 2009. The aim of the project is to ensure the sustainable management of Northland's water resources by establishing minimum flows/levels and allocation limits that protect the environment and provide users with reasonable reliability of supply. This report gives a summary of the work being carried out as part of the council's Water Allocation Programme to:

- provide information on freshwater availability to assist in the setting of minimum flows/levels and water quantity allocation limits for surface water and groundwater as part of the Regional Plan Review as required by the National Policy Statement on Freshwater Management 2014 (NPS-FM).
- ensure that information on resource availability is available for current and potential resource users to meet objective CC1 (b) of the NPS-FM.

A presentation will accompany this report.

Legal Compliance and Significance Assessment:
The relevant legislation in relation to this issue is the Local Government Act 2002. The information provided in this report and its recommendations are compliant with that legislation. This issue is considered to be of low significance under council policy because it is in keeping with the Water Allocation Plan in the council's Long Term Plan 2009 and the overarching programme for the National Policy Statement for Freshwater Management implementation adopted in July 2014 as detailed in the 2012-2022 Long Term Plan.

Recommendations:

---

1. That the report Water Allocation Update by Pride Mangeya, Susie Osbaldiston and Ben Tait dated 15 April 2015 be received.

INTRODUCTION:

The Water Allocation Project, now part of Waiora Northland Water, was approved through the regional Long Term Plan process in 2009. The aim of the project is to ensure the sustainable management of Northland's water resources by establishing minimum flows/levels and allocation limits that protect the environment and provide users with reasonable reliability of supply. This report gives a summary of the work being carried out as part of the council's Water Allocation Programme to:

- provide information on freshwater availability to assist in the setting of minimum flows/levels and water quantity allocation limits for surface water and groundwater as part of the Regional Plan Review as required by the National Policy Statement on Freshwater Management 2014 (NPS-FM).
- ensure that information on resource availability is available for current and potential resource users to meet objective CC1 (b) of the NPS-FM.

REGIONAL PLAN REVIEW

The council is in the process of developing a new regional plan. As part of the regional plan review, the council has to establish freshwater management units (FMUs) as required by the NPS-FM. Staff are in the process of developing a framework for establishing FMUs for groundwater and surface water quantity.

Minimum flows/levels and allocation limits have to be set for the FMUs. Where available, results from detailed hydrological, hydrogeological and in-stream habitat assessments can be used to set catchment-specific minimum flows/levels and allocation limits. In the rest of areas, however, default minimum flows/levels and allocation limits have to be set. The following work is being carried out under Water Allocation Programme to provide information for setting default minimum flows/levels and water allocation limits for FMUs.

Surface Water Minimum Flows and Allocation Limits

Staff propose that a scientific tool, the Environmental Flow Strategic Assessment Platform (EFSAP), developed by NIWA should be used to support the decision making process for setting default minimum flows and allocation limits for surface water FMUs. EFSAP will be used to evaluate the expected outcomes for two values: ecosystem health (as measured by physical habitat for fish) and water use (as measured by reliability of supply) across a range of alternative minimum flows and water allocation limits.

The results from EFSAP can be used by the council and communities to decide which limits best satisfy their objectives for managing freshwater values.

In 2013, NIWA developed a preliminary EFSAP model for Northland. Staff are currently evaluating the results of this preliminary modelling to assess its suitability for use as a decision-support tool in setting minimum flows and allocation limits. The preliminary model may have to be modified before it can be used as a decision-making support tool if the boundaries for FMUs to be established by Council are different from the boundaries used in the preliminary EFSAP model.

Groundwater Allocation Limits

Staff consider that groundwater allocation limits should be set as a percentage of the mean annual rainfall recharge to groundwater. The percentage of recharge that is allocated in each FMU will depend on the values and management objectives for each FMU that are set by the council in consultation with community stakeholders.

Staff consider that conservative groundwater allocation limits should be set for:

- coastal aquifers that are at risk from sea-water intrusion,
- groundwater systems that discharge to water bodies with outstanding values such as dune lakes, significant wetlands and springs.

Integrated Management of Groundwater and Surface Water

In the existing Regional Soil and Regional Plan (RSWP), surface water and groundwater are managed independently of each other. However, groundwater aquifers such as basalt systems can be an important source of the base flow for streams and rivers. High rates of abstraction from low yielding groundwater units can lead to a significant reduction in small streams flows.

Staff are evaluating methods for managing surface water and groundwater in an integrated way given the high degree connection of groundwater and surface in a large number catchments in Northland. One of the approaches that staff are exploring involves establishing combined FMUs that include the groundwater and surface water resources for catchments with low groundwater use. High-use aquifers, however, will continue to be managed independently and catchment specific investigations will be used to set allocation limits.

THE WATER ALLOCATION MODEL AND FRESHWATER ACCOUNTING

The council is required, under the NPS-FM, to ensure that information on resource availability is available for current and potential resource users. To do this, the council is required to establish a freshwater quantity accounting system for freshwater management units to meet the objectives of the NPS-FM. A fresh water accounting system means a system that, for each freshwater management unit, records, aggregates and keeps regularly updated, information on the measured, modelled or estimated:

- total freshwater take;
- proportion of freshwater taken by each major category of use; and
- where limits have been set, proportion of the limit that has been taken.

The Water Allocation Model (WAM) developed in 2013 under the Water Allocation Programme was capable of providing some of the information required for surface water accounting only. Staff have been developing a revised WAM that can also be used to account for both surface water and groundwater. In addition, the revised WAM uses the latest water allocation consents information from the the council's IRIS database. The main differences between the previous model and the revised model are presented in Table 1.

SAMPLE RESULTS FROM THE WATER ALLOCATION MODEL

The Water Allocation Model (WAM) computes the level of freshwater allocation in each of the 1,701 catchments that have been defined for Northland.

The level of allocation is calculated as the ratio of the volume of allocated water (the sum of unauthorised takes, and permitted and consented takes in a catchment) to the allocation limit. Note that allocation limits have yet to be defined. However, for the purposes of benchmarking existing levels of allocation staff have used the default allocation limits that are contained in the Proposed National Environmental Standard on Ecological Flows and Water Levels 2008 (Proposed NES).[1]

Level of Surface Water Allocation

- Figure 1 shows the level of surface water allocation for all Northland catchments based on the default allocation limit of 30% MALF in the Proposed NES.
- Table 2 and 3 lists the main drivers of the high surface water allocation in the highly allocated catchments.
- The highest proportion of high allocation is on tributaries to the Wairua River.

Level of Groundwater Allocation

The level of groundwater allocation for all Northland aquifers was based on the Proposed NES default allocation limit of 15% and 35% of groundwater recharge for coastal and non-coastal groundwater systems respectively.

However, the Proposed NES approach used to calculate default allocation limits does consider the connection between surface water and groundwater. Groundwater discharges to sustain the baseflow in a large number of Northland streams and rivers especially during the dry periods. Therefore, the groundwater allocation should be set in such a way that minimises the risk of groundwater abstraction causing either:

1. reduction in stream baseflows to levels below the minimum surface water flows required to sustain stream/river ecosystems.
2. Reduction in stream flows resulting in a reduction of surface water that can be taken from the stream for out-of-stream users.

WHERE TO FROM HERE?

1. The yet to be determined default allocation limits that will be set for FMUs in the new regional plan should be applied in the Water Allocation Model (WAM) instead of the Proposed NES default allocation limits that have been used in this preliminary assessment to benchmark existing levels of allocation WAM can assist with assessing the level of allocation in Northland's catchments based on alternative allocation limits.
2. Staff will use decision support tools such as the Environmental Flow Strategic Allocation Platform (EFSAP) to characterise the trade-off of alternative minimum flow and allocation limits on aquatic ecosystem health and extractive uses.
3. Staff are assessing options for setting more stringent groundwater allocation limits in catchments where the groundwater is a significant source of the stream flow. Another option could involve capping groundwater allocation at current levels for catchments with highly allocated surface water.
4. WAM will be used to collate information on regional water resource availability required by central government agencies (e.g. MfE and LAWA).

Table 1: Previous and Revised Model Comparisons.

Parameter	**Previous Model**	**Revised Model**
Groundwater availability	Not included	Accounts for groundwater availability.
Consented Allocation Database	Worksmart Database	IRIS Database
Permitted activity use data for dairy.	FDE Data [(1)]	FDE Data
Permitted activity use data for other stock	Land Resource Inventory (LRI) database.	Statistics New Zealand database.
Surface Water Allocation Limits (Default)	Based on NES[(2)]	Based on limits to be set in the new Regional Plan.
Groundwater Allocation Limits (Default)	Not included	Based on limits to be set in the new Regional Plan.

Note: [(1)] Data on herd numbers contained in the database for farm dairy effluent discharge.
[(2)] NES 2008[2].

[2].

Figure 1: Level of surface water allocation in Northland

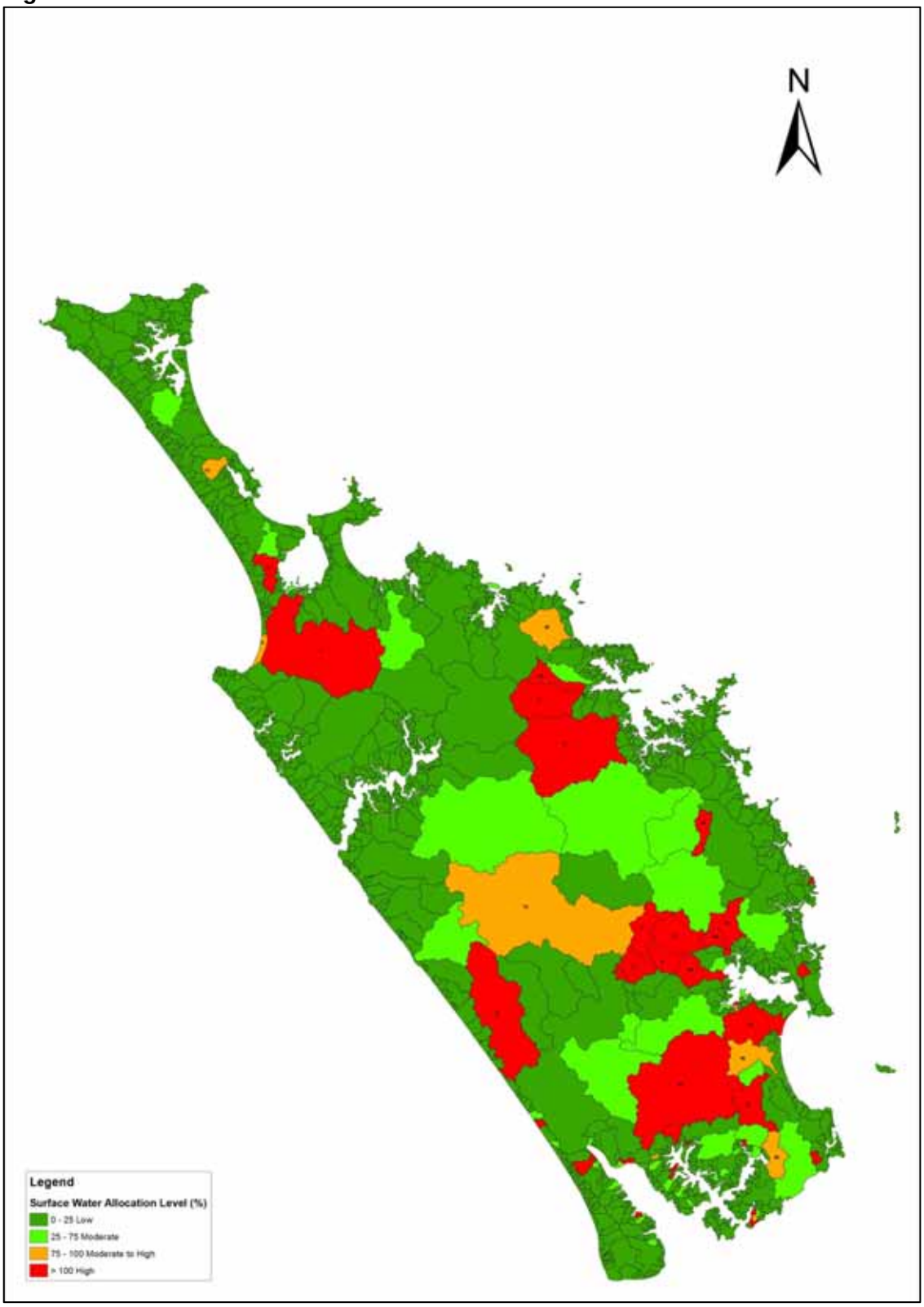


Table 2: Water Allocation Summary for Highly Allocated Sub-catchments of the Wairoa River

Catchment	No.	Consent Holder	Volume (L/s)	Type	Use	Summary
Waiariki	84	Kerry Lee Family Trust	104	Dam	Pasture Irrigation	• Allocation Level =721 % • SAA[3] = 36.8 L/s. • Consented take = 260 L/s. • Estimated Permitted Water take = 5.4 L/s
		Williams G S & J E	156	Dam	Horticulture Irrigation	
Wairua Bridge	6	Maungatapere Water Co Limited	485	Stream	Horticulture irrigation	• Allocation Level =199 % • SAA = 674 L/s. • Consented take = 1336 L/s. • Estimated Permitted Water take = 4 L/s
		WDC	255	Stream	Public Water Supply	
Mangere	37	McKegg E R & M D Family	46	Dam	Pasture Irrigation	• Allocation Level = 314%. • SAA = 37.5 L/s. • Consented take = 104.67 L/s. • Estimated Permitted Water take = 13L/s.
		Anderson D G & L S	21	Stream	Pasture Irrigation	
		Kokich B M & C A & Anderson	33	Stream	Pasture Irrigation	
Waipao	71	WDC - Poroti water take	179	Spring	Public Water Supply	• Allocation Level =410 %. • SAA = 54.9L/s. • Consented take = 224L/s. • Estimated Permitted Water take =1.3 L/s.
		Maungatapere Water Company Limited	34	Spring	Water Supply	
Lower Wairua	5	Court.Co Limited	84	Stream	Pasture Irrigation	• Allocation Level = 233% • SAA = 755 L/s. • Consented take = 1,688 L/s. • Estimated Permitted Water take = 72 L/s
Lower Mangakahia	2	Hoddi Limited	174	Stream	Pasture irrigation	• Allocation Level =80 %. • SAA = 943 L/s. • Consented take = 725.84L/s. • Estimated Permitted Water take =32 L/s.
		Rehford Farms Limited	156	Stream	Pasture irrigation	
		McBeth Farms Limited	94	Stream	Pasture irrigation	
		Rika W A & G H	87	Stream	Pasture irrigation	
		Glen Mor Limited	76	Stream	Pasture irrigation	
		Leeuwenburg J A & G M	69	Dam	Pasture irrigation	
		Glen Mor Limited	76	Stream	Pasture irrigation	
Manganui	10	Totara Creek Limited & Gunson J C	116	Dam	Pasture irrigation	• Allocation Level =334 %. • SAA = 91 L/s. • Consented take = 260L/s. • Estimated Permitted Water take =44 L/s.
Lower Kaihu	12	West Coast Dairy Investments	180	Stream	Pasture irrigation	• Allocation Level =195 %. • SAA = 282 L/s.
		KDC	83	Stream	Public Water Supply	

[3] Surface Water available for allocation (SAA) = allocation limit

Catchment	No.	Consent Holder	Volume (L/s)	Type	Use	Summary
		Opanake Dairy Farms Limited	61.34	Stream	Pasture irrigation	• Consented take = 515L/s. • Estimated Permitted Water take =36 L/s.
		KDC	52	Stream	Pasture irrigation	

Table 3: Water Allocation Summary for Other Highly Allocated Catchments in Northland

Catchment	No.	Consent Holder	Volume (L/s)	Type	Use	Summary
Awanui	11	Thomson D M & J G	50	River	Pasture irrigation	• Allocation Level =300 %. • SAA = 100 L/s. • Consented take = 285L/s. • Estimated Permitted Water take =15 L/s.
		Far North District Council	63	River	Public water supply	
		Landcorp Farming Ltd & Te Runanga O Te Rarawa	121	River	Irrigation	
Kerikeri	33	Kerikeri Irrigation Company Limited	660	Dam	Irrigation & Water Supply	• Allocation Level =100 %. • SAA = 125L/s (+620 diversion). • Consented take = 730 L/s. • Estimated Permitted Water take =14 L/s.
Waitangi	13	Kerikeri Irrigation Company Limited	260	Dam	Irrigation	• Allocation Level = 179%. • SAA = 306L/s. • Consented take = 523 L/s. • Estimated Permitted Water take =24 L/s.
		Ngawha Geothermal Resource Co Limited	100	River	Geothermal Electricity generation	
		Stanners G T	50	Stream	Pasture irrigation	
Waipapa	66	Kerikeri Irrigation Company Limited	600	Dam	Horticulture irrigation	• Allocation Level =3,000 %. • SAA = 36 L/s. • Consented take = 1,100L/s. • Estimated Permitted Water take =1.0 L/s.
		Kerikeri Irrigation Company Limited	420	Dam	Horticulture irrigation	
		Kerikeri Irrigation Company Limited	75	Dam	General	
Hatea	51	WDC	115	Stream	Public Water Supply	• Allocation Level =268 %. • SAA = 45.7 L/s. • Consented take = 122L/s. • Estimated Permitted Water take =0.66 L/s.
Waiarohia	100	WDC	185	Dam	Public Water Supply	• Allocation Level =965 %. • SAA = 19.2 L/s. • Consented take = 185L/s.

Catchment	No.	Consent Holder	Volume (L/s)	Type	Use	Summary
						• Estimated Permitted Water take =0.3 L/s.
Otaika	42	Golden Bay Cement	100	Stream	Industrial	• Allocation Level =384 %. • SAA = 40.7 L/s. • Consented take = 153.3L/s. • Estimated Permitted Water take =2.8 L/s.
		WDC	31	Stream	Public Supply	
Ruakaka	35	WDC	243	Dam	Public water supply	• Allocation Level =730 %. • SAA = 47 L/s. • Consented take = 337L/s. • Estimated Permitted Water take =4 L/s.
		WDC	42.8	Stream	Public water supply	
North	44	Gordon P & T Limited	33.6	Dam	Pasture irrigation	• Allocation Level = 98%. • SAA = 39 L/s. • Consented take = 34L/s. • Estimated Permitted Water take = 4 L/s.
Ahuroa	41	WDC	81	Stream	Public water supply	• Allocation Level = 188%. • SAA = 55 L/s. • Consented take = 100L/s. • Estimated Permitted Water take = 4 L/s.
Kaiwaka	64	Wearmouth W J & M A	6	Stream	Horticulture irrigation	• Allocation Level = 80%. • SAA = 16.8 L/s. • Consented take = 9.5 L/s. • Estimated Permitted Water take = 4 L/s.
Mangawhai	252	Mangawhai Developments Limited	30	Dam	Pasture irrigation	• Allocation Level = 1,732%. • SAA = 1.75 L/s. • Consented take = 30 L/s. • Estimated Permitted Water take = 0.3 L/s.
Waiharara	77	Frost MW	35	River	Pasture irrigation	• Allocation Level =265 %. • SAA = 13.3 L/s. • Consented take = 35L/s. • Estimated Permitted Water take =0.2 L/s.
Takou	39	Waiaua Bay Farms Limited	55	River	Irrigation – Golf Course	• Allocation Level =92 %. • SAA = 69 L/s. • Consented take = 60 L/s. • Estimated Permitted Water take = 4 L/s.
		Imerys Ceramics NZ Limited	4.6	River	Industrial	
Waihopo	102	Cheron Avocados Limited	1.75	River	Horticulture irrigation	• Allocation Level =80.5 %.

Catchment	No.	Consent Holder	Volume (L/s)	Type	Use	Summary
		Orison Investments Limited	3	River	Horticulture irrigation	• SAA = 6 L/s. • Consented take = 4.75 L/s. • Estimated Permitted Water take = 0.1 L/s.

ITEM: 14

ISSUE: Agenda items for next EMC Meeting – 29 June 2015

ID: A740535

To: Environmental Management Committee, 28 April 2015

From: Tony Phipps, Operation Director

Date: 15 April 2015

Report Type:	☐	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☐	Annual\Long Term Plan	☑	Other
Significance:	☐	Triggered	☑	Not Triggered		

Executive summary

The purpose of this report is to request committee members for agenda items for the next Environmental Management Committee meeting on 29 June 2015.

Legal compliance and significance assessment:

Councils are required to keep minutes of proceedings in accordance with the Local Government Act 2002.

Recommendation:

That the Environmental Management Committee members suggest agenda items for inclusion into the agenda for the next Environmental Management Committee meeting on 29 June 2015.
