NORTHLAND REGIONAL COUNCIL
ENVIRONMENTAL MANAGEMENT COMMITTEE

Agenda

Meeting to be held in the Council Chambers, 36 Water Street, Whangarei
on Monday, 13 October 2014 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		

OPEN MEETING

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ISSUE: Confirmation of Minutes – 25 August 2014

ID: A692287

To: Environmental Management Committee, 13 October 2014

From: Peternel McLean, Committee Secretary

Date: 26 September 2014

Report Type:	☑	Normal operations	☐	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☑	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive summary:

The purpose of this report is to present the minutes of the Environmental Management Committee meeting held on 25 August 2014 **(attached)** for confirmation.

Legal compliance:

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

Recommendation:

That the minutes of the Environmental Management Committee meeting held on 25 August 2014 be confirmed.

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 25 August 2014, commencing at 9.30 am

Present:

Northland Regional Council
Cr Joe Carr (Chairman)
Cr Bill Shepherd (ex officio)
Cr Paul Dimery
Cr Dennis Bowman

Kaipara District Council
Commissioner Richard Booth

Whangarei District Council
Cr Tricia Cutforth

Department of Conservation
Ms Sue Reed-Thomas

Farming Community
Mr Alan Clarkson

Forest Industry
Mr Geoff Gover

Māori Interests
Mr Keir Volkerling

In Attendance:

Helen Moodie (DairyNZ)
Ngaire Tyson (NZ Landcare Trust) (part)

NRC Staff:
Chief Executive Officer
Operations Director
Consents/Monitoring Senior Programme Manager
Land/Rivers Senior Programme Manager
Biosecurity Senior Programme Manager
Water Resources/Hydrology Programme Manager (part)
Policy Programme Manager (part)
Policy Specialists (part)
Senior Land Management Officer (part)
Policy Analysts (part)
Biosecurity Officer (part)
Committee Secretary

The Chairman declared the meeting open at 9.33 am.

Apologies

Moved (Bowman/Dimery)

That the apologies for non-attendance from Cr Ann Court (FNDC) and Cr Craig Brown 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 23 June 2014 (Item 1.0)

Report from Peternel McLean, Committee Secretary, dated 5 August 2014. A666363

Moved (Dimery/Clarkson)

That the minutes of the Environmental Management Committee meeting held on 23 June 2014 be confirmed.

Carried

Matters arising from 1.0:

- **Whangarei Falls pathogen testing**: Consents/Monitoring Senior Programme Manager reported that two more rounds of sampling were to be undertaken prior to assessing the results. The Northland DHB had not offered any funding in this regard.
- **Agenda format**: The Chairman advised his wish for the committee to have a greater input into agenda compilation and proposed that the committee discuss this at the end of the meeting, where members would be given the opportunity to raise topics for possible inclusion in future agendas.

Environmental Interest Groups Representative on Environmental Management Committee (Item 2.0)

Report from Peternel McLean, Committee Secretary, dated 5 August 2014. A666387

Moved (Gover/Dimery)

That the report Environmental Interest Groups Representative on Environmental Management Committee from Peternel McLean, Committee Secretary, dated 5 August 2014, be received.

Carried

Matters arising from 2.0:

The calling for nominations, shortlisting and selection process had been tasked by Northland Regional Council to Committee Chair Joe Carr and Council Chair Bill Shepherd to determine. One further interview was scheduled, after which final selection for the position of Environmental Interest Groups representative on the committee would be made.

Waiora Northland Water Progress (Item 3.0)

Report from Natalie Glover, Water Policy Specialist, dated 8 August 2014. A663497

Moved (Bowman/Clarkson)

1. That the report Waiora Northland Water Progress by Natalie Glover, Water Policy Specialist, and dated 8 August 2014, be received.

2. That Cr Paul Dimery formally replace Cr David Sinclair as the Councillor representative on the Whāngārei Harbour Catchment Group.

3. That Chris Frost be appointed as horticultural representative on the Mangere Catchment Group.

4. That Marty Robinson be appointed as Community Board Representative on the Waitangi Catchment Group.

5. That Peter Bullen and his alternate Tiwha Everitt be appointed as additional forestry industry representatives on Poutō Catchment Group.

Carried

Matters arising from 3.0:
Sediment concerns: The Chairman noted that as a result of the recent storm, significant scouring had occurred in several rivers in the Far North, notably the Waitangi River above Puketona Junction. The Chairman considered the scale of the problem was large and needed to be the subject of a report coming back to the committee.

National Policy Statement for Freshwater Management 2014 (Item 4.0)

Report from Justin Murfitt, Senior Programme Manager (Resource Management) and Ben Tait, Policy Analyst, dated 12 August 2014. A667229

Moved (Dimery/Shepherd)

That the report National Policy Statement for Freshwater Management 2014 by Justin Murfitt, Senior Programme Manager (Resource Management) and Ben Tait, Policy Analyst, and dated 12 August 2014, be received.

Carried

Matters arising from 4.0:
Water quality data: Considerable discussion focused on the setting of bottom lines regionally as well as factors that impacted negatively on water quality such as the recent storm event. Many of these issues are currently being considered by the catchment groups and through the regional plan review.

Community Wastewater Treatment Plant Discharges – Current Compliance Status (updated) (Item 5.0)

Report from Tess Dacre, Monitoring Programme Manager – Water and Wastes, dated 13 August 2014.
A628807

Moved (Gover/Clarkson)

That the report Community Wastewater Treatment Plant Discharges – Current Compliance Status (updated) from Tess Dacre, Monitoring Programme Manager – Water and Wastes, dated 13 August 2014, be received.

Carried

Matters arising from 5.0:
Cr Dimery requested reporting to include clear timeframes for compliance action. NRC staff would endeavour to work with FNDC to establish realistic programmes working towards full compliance for the various wastewater plants.

Dairy Industry Liaison Group Update (Item 7.0)

Report from Tony Phipps, Operations Director, dated 12 August 2014.
A649546

Moved (Dimery/Volkerling)

That the report Dairy Industry Liaison Group Update by Tony Phipps, Operations Director, and dated 12 August 2014, be received.

Carried

Ballance Farm Environment Awards - 2014 Update (Item 8.0)

Report from Debbie Johnson, Senior Land Management Advisor, dated 12 August 2014.
A667789

Moved (Carr/Clarkson)

1. That the Ballance Farm Environment Awards – 2014 Update by Debbie Johnson, Senior Land Management Advisor, dated 12 August 2014, be received.

2. That the committee recommends to the council that it provides continued support for the Ballance Farm Environment Awards in its draft Long Term Plan.

Carried

Environment Fund Report for the 2014/15 Financial Year to Date (Item 9.0)

Report from Dean Evans, Land Programme Manager, dated 1 August 2014. A663722

Moved (Clarkson/Carr)

1. That the report Environment Fund Report for the 2014/15 Financial Year to Date by Dean Evans, Land Programme Manager, and dated 1 August 2014, including:
   - That a total of $58,884 for the 2014/15 financial year first delegated authority consisting of 19 projects; and
   - That a total of $166,083.25 for the 2014/15 financial year 2nd delegated authority consisting of 45 projects;

   be received.

Carried

It was further moved (Gover/Booth)

2. That the committee recommends to council that an additional $17,550 is made available from the Land Management Reserve to fund the cost of Biosecurity Fund pest control applications in excess of the current budget.

Carried

It was further moved following amendment (Cutforth/Volkerling)

3. That the application for the Portland Farms Fencing Project is approved to the value of **$7,000**.

It was further moved (Clarkson/Gover)

4. That the application for the Sunvalley Livestock Fencing Project is approved for the amount of **$9,900**.

Carried

It was further moved (Shepherd/Clarkson)

5. That the application for the Dung Beetle Release Project is not approved.

Carried

Matters arising from 9.0:

- **Dung Beetle Release Project**: It was advised that a current application for this project was before the DairyNZ for funding. The committee advised that should this application not be successful, then the Northland Regional Council could be approached to decide whether any funds could be made available for the project.

- **E-Fund Criteria**: Staff were requested to consider and report back on options for criteria where large scale properties were applying for funding in excess of the current funding cap criteria. A further request was made to provide a broader report to include funding trends.

Review of Regional Pest Management Strategies -Review of the Proposed Timeline (Item 10)

Report by Don Mckenzie, Biosecurity Senior Programme Manager, dated 11 August 2014.
A667504

Moved (Shepherd/Cutforth)

1. That the report Review of Regional Pest Management Strategies – Review of the Proposed Timeline by Don Mckenzie, Biosecurity Senior Programme Manager, and dated 11 August 2014, be received.

2. That the committee agree to the revised timing for formal notification of the Regional Pest Management Plan, from January 2015 to July 2015.

Carried

Biosecurity Responses Update (Item 11.0)

Report from Don Mckenzie, Biosecurity Senior Programme Manager, dated 11 August 2014.
A667899

Moved (Dimery/Bowman)

That the report Biosecurity Responses Update by Don Mckenzie, Biosecurity Senior Programme Manager, and dated 11 August 2014, be received.

Carried

Matters arising from 11.0:
Pipi Stock Decline – Mair Bank: The committee was advised that a decision on the closure of Mair Bank was expected shortly and that this would be notified via the Ministry of Primary Industries website.

River Management Update (Item 12.0)

Report from Joseph Camuso, Rivers Programme Manager, dated 13 August 2014.
A668238

Moved (Shepherd/Reed-Thomas)

1. That the report - Rivers Management Update by Joseph Camuso, Rivers Programme Manager, dated 13 August 2014, be received.

2. That the minutes of the following liaison committee meetings be received:
   a. Ruakaka River Liaison Committee, 23 July 2014
   b. Awanui River Liaison Committee, 1 August 2014
   c. Kaihu River Liaison Committee, 5 August 2014
   d. Waitangi River Liaison Committee, 6 August 2014
   e. Kerikeri-Waipapa River Liaison Committee, 6 August 2014
   f. Kaeo River Whangaroa Catchment Liaison Committee, 12 August 2014.

Carried

Environmental Monitoring for Period 1 – 31 July 2014 (Item 13.0)

Report by Colin Dall, Consents/Monitoring Senior Programme Manager, dated 11 August 2014.
A667256

Moved (Clarkson/Dimery)

That the report Environmental Monitoring for the Period 1 – 31 July 2014 from Colin Dall, Consents/Monitoring Senior Programme Manager, dated 11 August 2014, be received.

Carried

Kiwi Coast – Reconnecting Northland (Item 14.0)

Report by Tony Phipps, Operations Director, dated 12 August 2014.
A667495

Moved (Volkerling/Gover)

1. That the report Kiwi Coast – Reconnecting Northland by Tony Phipps, Operations Director, dated 12 August 2014, be received.

2. That the presentation provided by Ngaire Tyson on Kiwi Coast be received, and that thanks be given.

Carried

Severe Weather Event – 8-12 July 2014 (Item 15.0)

Report by Dale Hansen, Water Resources/Hydrology Programme Manager, dated 14 August 2014.
A668769

Moved (Clarkson/Bowman)

That the report Severe Weather Event – 8-12 July 2014 by Dale Hansen, Water Resources/Hydrology Programme Manager, and dated 14 August 2014, be received.

Carried

Matters arising:
"Go Slow" disease: A future agenda item to be brought to the committee on this disease manifesting in pig dogs was requested by Alan Clarkson, and there was agreement to work with staff in this regard.

Conclusion

The meeting closed at 12.36 pm.

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ISSUE: Waiora Northland Water Progress

ID: A667289

To: Environmental Management Committee, 13 October 2014

From: Natalie Glover, Water Policy Specialist

Date: 13 September 2014

Report Type:	☑	Normal operations	☐	Information	☑	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☑	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive Summary:
The purpose of this report is to provide an update on progress with Waiora Northland Water and contributing programmes between 9 August and 12 September 2014. It also recommends appointment of two members to the Waitangi Catchment Group to represent the Lake Omapere Trust and public interests.

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:

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1. That the report Waiora Northland Water progress by Natalie Glover, Water Policy Specialist and dated 13 September 2014, be received.

2. That Hone Tiatoa be appointed as Tauwhara marae representative on the Waitangi Catchment Group.

3. That Maurice Williamson be appointed as a public representative on the Waitangi Catchment Group.

WAIORA NORTHLAND WATER

Report:

NPS FM IMPLEMENTATION

As reported to the last meeting of the committee, the National Policy Statement for Freshwater Management (NPS FM) was amended in July with effect from 1 August 2014. This means there is now certainty as to the content of the National Objectives Framework and the water quality attribute states and compulsory national bottom lines that council must give effect to. In light of the revised NPS FM, staff continue to look into the options for water quality and quantity freshwater management units and associated objectives and limits for Northland.

The NPS FM 2014 directs that regional plans be amended as necessary to include transitional water quality provisions to provide for the compulsory human health value (until such time as limits are set). This change is made under Section 55 of the Resource management Act 1991 without the need for Schedule 1 processes (consultation, submissions or hearings). The Regional Water and Soil Plan has been amended accordingly.

Developing NPS FM Implementation tools

Council continues to work with the Ministry for the Environment and other regional councils to develop NPS FM implementation tools. Staff met with the Ministry's NPS FM implementation team on 6 August 2014 in Whangarei to discuss issues / impediments experienced to date and opportunities for guidance from MfE (such as for collaborative planning and economic analysis for proposed plan changes).

Ministry for the Environment CEF Funding

MfE recently announced the Round 6 Community Environment Fund (CEF) funding recipients. The funding was targeted at freshwater management projects led by regional councils that will assist implementation of the NPS FM 2014. Projects with benefits transferable to other regions or catchments were given preference.

Northland Regional Council is collaborating on a sediment prediction model project with Auckland and Waikato Regional Councils that has been awarded $115,000 under the CEF. The overarching goal of the project is a sediment yield predictive model responsive to land use/cover, hydrology, geology, soil type, erosion processes and the identification of sediment sources. At the outcome we'll be able to reliably predict sediment yields for any freshwater catchment and identify which actions will be required to manage the problem. The outcomes are intended to be transferable to other regions.

The total cost of the project is $160,000, comprised of $115,000 Central Government funding, $25,000 from Auckland Council and $20,000 from Waikato Regional Council. Northland Regional Council is contributing in-kind support only, with staff time from our State of Environment and Land Management teams. The funds will be spent on engaging an independent researcher/consultant and a model provider.

A full list of the projects awarded funding under the CEF is available at: http://www.mfe.govt.nz/withyou/funding/community-environment-fund/community-environment-fund-round-6-for-regional-councils.html.

Regional Plans Review
The draft reports evaluating the performance of our three current regional plans and identifying options for how they can be improved were uploaded to the website 11 September 2014. Staff will deliver water quality and quantity workshops to catchment groups during September/October and workshops on all regional plan review topics to iwi and key stakeholders during October. Staff anticipate finalising reports by December 2014.

Sediment Investigations in Waitangi Catchment
Council is investigating sources of sediment in the Waitangi catchment, due to the effect of sediment on a number of uses and values of freshwater, including ecosystem health and natural character. The project involves analysing the sources of material found in sediment cores taken from locations distributed across the catchment.

Outstanding Freshwater Bodies
One of the projects to receive funding in Round 6 of the Community Environment Fund (CEF) was a proposal by Hawkes Bay Regional Council to develop assessment criteria and assessment methodology to identify outstanding freshwater bodies. Council supported this proposal and staff hope to provide some input into the project as it progresses. The outcomes from the project should be able to be applied across New Zealand, and will be tested in the Northland context, including in relation to our dune lakes.

Council has produced a short film called “Hidden Gems”, showcasing the region’s dune lakes and featuring their values, issues and actions for their protection. After editing to fine-tune the content, staff envisage opportunities to leverage dune lake messages across multiple council activities. A showing of the ‘draft’ version of the short film (approximately 20 minutes long) will be given at the end of the EMC meeting if time permits.

PRIORITY CATCHMENTS
Waiora Northland Water web pages http://www.nrc.govt.nz/waiora

Whangārei Harbour
The Whangārei Harbour catchment group met 26 August and received a presentation about water quantity in the Whangārei Harbour catchment. There was discussion around the extent of groundwater aquifers in the catchment, the potential metering of water takes, and how permitted stock and domestic water takes might be assessed in future.

The group also scheduled a forestry field trip for Saturday 22 November 2014.

Further refinement of the Group’s freshwater uses and values statement for the catchment will occur next meeting once these have been aligned by staff to the uses and values set out in the NPS FM 2014.

The next catchment group event is a workshop scheduled for 23 September 2014.

Mangere
The Mangere catchment group met 2 September 2014 and finalised their uses and values. The group also: requested a survey of water use in the catchment; sought advice on whether *Gambusia* pest fish can be controlled in the catchment given their

large numbers; and whether septic tanks were likely to be a groundwater contamination source in the catchment.

The group also acknowledged the contribution to the catchment group of former staff catchment lead Dean Evans. A replacement is yet to be appointed.

The next catchment group workshop is scheduled for Tuesday 14 October 2014.

Doubtless Bay
Members of the Doubtless Bay catchment group, staff and community members participated in a riparian planting day held 24 August 2014 on a local drystock property adjacent to Parapara stream. The event was promoted by Doubtless Bay catchment group "Clean Waters to the Sea" representatives, and made possible by a council Environment Fund grant of $2,000 for the purchase of over 900 native trees.

The next catchment group meeting is scheduled for 24 September 2014.

Waitangi

The Waitangi catchment group met 4 September 2014 and selected Don Jack and Cr Joe Carr as their Chair and Deputy Chair respectively. The group also participated in a workshop to brainstorm their freshwater uses and values.

Discussion included a proposal for an online forum for catchment group members to share documents and links and discuss freshwater management topics.

The group also agreed to recommend two new representatives on the group: Maurice Williamson to fill the vacant public interests position, and Hone Tiatoa to represent Lake Omapere Trust in a proposed new position on the group (noting that Lake Omapere is not in the Waitangi catchment).

Sediment in Waitangi catchment was also discussed and staff will report on this topic at the next workshop, scheduled for Thursday 9 October 2014.

Pouto

The Pouto catchment group learned about the Freshwater Policy framework at their meeting held 8 September 2014. The group also refined their uses and values for freshwater, discussed prioritisation of lake monitoring, options for a permanent chair, and heard about the Environment Fund and associated Farm Water Quality Improvement Plan process. Catchment group member Allister McCahon gave a presentation detailing his experience with restoring Lake Wainui.

The next catchment group meeting is scheduled for Monday 13 October 2014.

CONTRIBUTING PROGRAMMES

Kaipara Catchment
Integrated Kaipara Harbour Management Group (IKHMG)

The Kaipara Harbour Symposium *Looking Back- Thinking Forward* is scheduled for Saturday 15 and Sunday 16 November 2014. The event offers an opportunity for networking and knowledge sharing under the theme of a 'healthy and

productive Kaipara Harbour'. Programme details are available from the event website: http://www.kaiparaharbour.net.nz/

The next quarterly IKHMG hui is scheduled for Wednesday 17 September, 10am – 3.30pm at Kaiwaka Sports Complex, Gibbons Road, Kaiwaka.

Flagship sites
Planting days have been held during the period at the Pouto Topu farm, Hanerau farm and Aoroa Farms. Dargaville Intermediate School provided 10,000 plants this year for this project through their school nursery. Students that grew the plants came along to the planting day at Aoroa Farm and helped with getting the plants in the ground. Staff from the local BNZ branch also assisted as part of the Closed for Good initiative.
At Hanerau Farms, help was provided by the students from Otamatea College working alongside farm staff, and at Pouto Topu the local Pouto Landcare Group and the Waikaretu Marae kaitiaki spent two days planting the fenced out areas alongside the Pukemiro Stream.

Further planting days are scheduled for Avoca and JV Farms before the end of September. Water quality monitoring will also take place at all of the flagship sites before the end of September.

Kai Iwi Lakes
The formal review process for the Taharoa Domain Reserve Management Plan is progressing with a consultant (Littoralis) being engaged to undertake the preparation of a new draft plan. Northland Regional Council will supply GIS mapping for the project, and will be working with Kaipara District Council and DoC on scoping self-funding options and governance models for the management of the reserve. Council will also be contributing the Pest Management and Biodiversity strategies and water quality research information for the draft Reserve Management Plan.

The Council has also received a draft report on the groundwater / surface water balance for the Kai Iwi Lakes. The final report will be available next month.

Water Allocation
Council has commissioned the following reports to assist in understanding Northland's river flows and instream values, and inform decisions on allocation limits. The reports show how Northland's rivers and instream habitats are likely to respond to different limit scenarios.

Ecological flow requirements in the Otaika catchment, NIWA; and
Flow requirements for instream habitat in Northland – RHYHABSIM assessment for the Waitangi, Mangere and Hatea catchments, NIWA. This work looks at the relationship between suitable habitat for fish species and actual river flow to inform decisions on how much water is required in streams to maintain ecological values.

CHES for NRC – Application of CHES to two Northland catchments, NIWA (draft report). This work shows how water takes (consented and estimated permitted) within the Waitangi and Mangere catchments change the flows and instream habitats available throughout the catchments. The work will inform decisions on catchment specific limits, and also where mitigation measures could be focused.

The following draft reports have also been received and will be finalised in the next month.

Aupouri Aquifer Review. Lincoln Agritech. (draft report) The report investigates how much water can be allocated and what levels may be required to be maintained in the sub aquifers.

Hydrogeological Assessments for Kai Iwi and Pouto Dune Lakes, Jacobs. (draft report). The report provides a hydrological assessment, conceptual cross section and water balance model for each high priority lake in the Kai Iwi and Pouto areas, and recommends future monitoring to improve our understanding of each lake.

Community Wastewater and Dairy Effluent Improvement
The programmes that manage community wastewater and dairy effluent point source discharges were reported in the previous agenda and will next be reported in the 8 December 2014 EMC agenda.

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

Industry liaison

Living Waters DoC/Fonterra partnership
Staff attended a Hikurangi Swamp stakeholder meeting 22 August 2014 at Fonterra's Jordan Valley Farm. The meeting was an opportunity to present the Hikurangi catchment baseline report commissioned by Fonterra. Living Waters have scheduled a public open day to launch the report for Friday 17 October 2014 at Jordan Valley Farm.

Dairy Industry Liaison Group
Water allocation and water take consenting were major topics of discussion during a Dairy Industry Liaison Group meeting held 26 August 2014. Resource consents for stock drinking and dairy shed water for legal security of supply, allocation certainty, efficient use and metering were all discussed. To illustrate to the dairy and other livestock based industries how consents could work and what they could look like for various circumstances, staff will trial processing a number of mock consents, using real farm situations.

Northland Forestry Liaison Group
The group is scheduled to meet on 16 September 2014 to discuss the review of the regional plans, Forestry Earthworks and Harvesting Guidelines, Northland Kiwi Working Group activities, and the June/July extreme weather events.

FNDC Consent Compliance
A meeting has been scheduled between council and Far North District Council (FNDC) staff to discuss waste water treatment plant compliance issues, projects underway, possible improvement measures that could be implemented within existing FNDC budgets, and Long Term Plan budgets. If time permits, water take issues will also be discussed, including an update on the South Hokianga project and Drought Management Plans.

Northland Enviroschools
WaiFencing assessment workshops held
WaiFencing is a component of the WaiRestoration project and aimed at boosting participants' qualifications and future employment opportunities as well as better protecting the region's waterways from stock. Staff held three fencing skills assessment days during August.

Cr Craig Brown and Land Management staff joined with CanTrain NZ to support students from 11 secondary schools to construct fences on the council's Flyger Road property and the Northland College dairy farm. The senior students were assessed on specific fencing skills, including fencing knots and ties, strainer assemblies and running a multi-wire fence line.

WaiNurseries shade houses under construction
Seven schools – Hurupaki, Kamo Primary, Maungaturoto, Okaihau Primary, Otaika Valley, Kokopu and Tauraroa – are beginning to set up nurseries in their school grounds. WaiNurseries is a component of the WaiRestoration project aimed at growing riparian plants. Through council's Enviroschools Programme, The Enviroschools Foundation funded shade house materials and expert in-school nursery advice.

Te Kura o Hato Hohepa te Kamura streams and wetlands project planned
An Enviroschool near Kaeo – Te Kura o Hato Hohepa te Kamura – is working with a council Land Management Advisor to improve its waterways. The 42ha block includes wetlands, streams and farm drains which will benefit from fencing, drain maintenance, weed control and riparian planting. This long-term project highlights the opportunities for integrated land and water quality management where schools have large properties.

WAIORA NORTHLAND WATER

ITEM: 3
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ISSUE: Environment Fund & Farm Water Quality Improvement Plan Update

ID: A674850

To: Environmental Management Committee, 13 October 2014

From: Bruce Howse, Land/Rivers Senior Programme Manager

Date: 17 September 2014

Report Type:	✓	Normal operations	☐	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	✓	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	✓	Low

Executive Summary:
Year to date 60% ($414,669.05) of the Environment Fund budget has been allocated (to a total of 128 projects).

Changes to the Environment Fund criteria have been proposed to better align with environmental priorities and incentivise land owners to participate in good management practices, particularly in respect to large scale properties.

Year to date a total of 5 FWQIP have been completed, with a further 22 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:

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1. That the report Environment Fund & Farm Water Quality Improvement Plan Update by Bruce Howse, Land/Rivers Senior Programme Manager and dated 17 September 2014 be received.

2. That the Committee supports in principle the proposed changes to the Environment Fund criteria, with any changes to be confirmed by the Committee following the outcomes of Council LTP workshops, and with any changes not to commence until after 1 July 2015.

Report

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

Year to date 60% ($414,669.05) of the Environment Fund budget has been allocated (to a total of 128 projects), leaving $277,880.95 of budget remaining for allocation.

Table 1. Environment Fund funding allocation to date.

Delegated Authority	**Land/ Biosecurity**	**Number 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]	1	$ 16,900.00	
3 – Aug 2014	Biosecurity	42	$ 92,550.00	
4 – Sept 2014	Land	21	$ 80,251.90	
Allocation to date			**$414,669.05**	
Budget	Land			$600,000
	Biosecurity			$ 75,000
	Biosecurity – approved from Land Management Reserve			$ 17,550
Total Budget				**$692,550**
Less Allocation To Date			**($414,669.05)**	
Unallocated Budget Year To Date				**$277,880.95**

The delegated authority list of approved funding allocations for September 2014 is provided as **Attachment 4**.

[1] Sunvalley Livestock fencing project ($9,900) and Portland Farms fencing project ($7,000)

Environment Fund – Criteria for Large Scale Projects
At the EMC meeting of 25 August 2014 the committee requested a report on options for fund criteria where large scale properties were applying for funding in excess of the funding cap criteria.

The following changes to the fund criteria are proposed:

- Changing funding caps for **dry stock farm waterway fencing** based on farm area as per Table 2. No change is recommended for **dairy waterway fencing**, as dairy fencing is typically less costly to undertake than dry stock.

Table 2. Summary of drystock farm classes and recommended funding subsidy rate, data from Statistics NZ 2012 Agricultural Production Census – refer attachment 3.

Northland drystock farm size	%	Number	Recommended EFund Subsidy Rate
199 ha or less	78.3	1740	Up to $10,000 (50% max)
200 ha to 599 ha	17.7	393	Up to $15,000 (50% max)
600 ha or greater	4.0	90	Up to $20,000 (50% max)

- Changing the **Top Wetlands** category to a **Wetlands & Lakes** category, maintaining the existing 50% funding subsidy without a funding cap under delegated authority approval, and providing up to 100% funding by EMC approval for high priority projects in exceptional circumstances (i.e. outstanding waterbodies and top welands, landowner unable to make any contribution)

- Removing the separate **NPS priority catchments/ lakes and community groups** funding category, as this would be covered by the above proposed category and other existing categories including the exceptional projects category.

- No changes are recommended to the **Soil conservation - poplar poles and willows, Biosecurity or Coast Care criteria.**

The proposed changes to the Environment Fund criteria are provided in **Attachment 1**. The existing Environment Fund criteria are provided in **Attachment 2** for comparison.

The proposed changes adjust the funding caps and categories so that these are more aligned with environmental priorities and better incentivise owners of larger properties with high-value/threatened/fragile ecosystems (i.e. wetlands and lakes) to implement good management practices and provide protection.

Increasing funding caps for larger scale dry stock properties based on farm size provides a better incentive to enable good management practices to be implemented in a timelier manner.

A potential risk is that these projects have the potential to utilise a larger proportion of the Environment Fund. However, this matter will be discussed with Council during LTP workshops, including the above proposed changes to the Environment Fund criteria and options to consider for increasing the overall quantum of the fund.

At this stage the Committees support in principle of the proposed changes is sought, with any changes to be confirmed following the outcomes of Council LTP workshops. Any changes would not commence until after 1 July 2015 to ensure continuity with the current criteria is maintained.

Farm Water Quality Improvement Plans (FWQIP)
Year to date a total of 10 FWQIP have been completed, with a further 26 in progress as per Table 3.

Table 3. Farm Water Quality Improvement Plans (FWQIP) from 1 July to 12 September 2014

Status of FWQIP	Farm Type	Far North	Kaipara	Whangarei	Total
Completed	Drystock	3		5	8
	Lifestyle	2			2
In progress	Dairy		1	2	3
	Drystock	13	3	6	22
	Lifestyle			1	1
TOTAL		**18**	**4**	**14**	**36**

93 and 140 FWQIP were prepared in 2012/13 and 2013/14 respectively.

The progress of 36 FWQIP for 2014/15 may appear low, based on previous years. This is primarially due to:

- Nearly 30% of 2014/15 Enviornment Fund allocations to date have been for projects which already have a FWQIP.
- A few Environment Fund allocations have been provided to small properties which will not benefit from a formal FWQIP.
- Many of the properties that have received funding this current financial year (since 1 July 2014) had farm visits in autumn, with the FWQIP number assigned in the 2013/14 year.
- During July /August/September farms are wet and calving is underway and farm visits, and hence new FWQIP, are lower than other times of the year.

It is estimated that between 100-140 FWQIP will be progressed during 2014/15.

Attachment 1 – Proposed revised Environment Fund criteria.

	Farm properties - water quality improvement and biodiversity[2] **Farm water quality improvement plan priority actions, plus high priority biodiversity restoration/protection**	**Outstanding waterbody protection & Top Wetlands**	**Soil conservation/ erosion control - poplar poles and willows**	**CoastCare**	**Biosecurity**[3]	**Exceptional projects**
Recommended subsidy up to	Dairy farm waterway fencing 30%; funding up to $5000. Dry stock waterway fencing 50%; -funding of up to $10,000 for 199 ha or less sized farm; -funding of up to $15,000 for 200 ha to 599 ha sized farm; -funding of up to $20,000 for 600 ha or greater sized farm.	50% via delegated authority, or up to 100% with EMC approval	50% provision of materials (i.e. poles provided at $4 each)	100% provision of materials	100% provision of materials	Up to 100% for projects not fitting the criteria but of exceptional environmental merit, subject to EMC approval
Land owner contribution	Balance of cost of works or labour and/or materials		Plant material purchased at 50% cost	Labour	Labour	N/A

[2] Focused on supporting water quality and biodiversity initiatives on farm properties, supporting the Farm Water Quality Improvement Plan programme.
[3] Funding to ensure that qualifying pest control projects outside the Community Pest Control Area programme are assisted.

Attachment 2 – Current Environment Fund criteria.

	Farm properties - water quality improvement and biodiversity[4]	**Top wetlands**	**NPS priority catchments/ lakes and community groups**[5]	**Soil conservation - poplar poles and willows**	**CoastCare**	**Biosecurity**[6]	**Exceptional projects**
Recommended subsidy up to	Dairy farm waterway fencing 30%; funding range $1000 to $5000. Dry stock 50%; funding range $1000 to $7000.	50%	Up to 100%	50% provision of materials (i.e. poles provided at $4 each)	100% provision of materials	100% provision of materials	Up to 100% for projects not fitting the criteria but of exceptional environmental merit, subject to EMC approval
Land owner contribution	Balance of cost of works or labour and/or materials			Plant material purchased at 50% cost	Labour	Labour	N/A

[4] Focused on supporting water quality and biodiversity initiatives on farm properties, supporting the Farm Water Quality Improvement Plan programme.
[5] Supporting water quality initiatives within NPS Freshwater Priority Catchments/Lakes and for supporting other community-group based land management initiatives.
[6] Funding to ensure that qualifying pest control projects outside the Community Pest Control Area programme are assisted.

Attachment 3. Statistics NZ 2012 Agricultural Production Census - dairy and drystock farms in Northland by farm size.

	Farm type (ANZSIC06)		A0141 Sheep farming (specialised)	A0142 Beef cattle farming (specialised)	A0144 Sheep-beef cattle farming	A0160 Dairy cattle farming		A0141 Sheep farming (specialised)	A0142 Beef cattle farming (specialised)	A0144 Sheep-beef cattle farming	A0160 Dairy cattle farming		A0141 Sheep farming (specialised)	A0142 Beef cattle farming (specialised)	A0144 Sheep-beef cattle farming	A0160 Dairy cattle farming
Farm size (hectares)	Under 5	Number of farms	18	153	18	30	% of farm type	18.2%	8.2%	6.7%	3.1%	% of farm type (cumulative)	18.2%	8.2%	6.7%	3.1%
	5–9		15	162	18	9		15.2%	8.7%	6.7%	0.9%		33.3%	17.0%	13.3%	4.0%
	10–19		12	234	21	6		12.1%	12.6%	7.8%	0.6%		45.5%	29.6%	21.1%	4.7%
	20–39		6	225	21	27		6.1%	12.1%	7.8%	2.8%		51.5%	41.7%	28.9%	7.5%
	40–59		9	222	3	30		9.1%	12.0%	1.1%	3.1%		60.6%	53.6%	30.0%	10.6%
	60–79		6	120	6	42		6.1%	6.5%	2.2%	4.3%		66.7%	60.1%	32.2%	14.9%
	80–99		3	120	9	84		3.0%	6.5%	3.3%	8.7%		69.7%	66.6%	35.6%	23.6%
	100–199		3	297	39	342		3.0%	16.0%	14.4%	35.4%		72.7%	82.6%	50.0%	59.0%
	200–399		12	213	60	279		12.1%	11.5%	22.2%	28.9%		84.8%	94.0%	72.2%	87.9%
	400–599		3	66	39	78		3.0%	3.6%	14.4%	8.1%		87.9%	97.6%	86.7%	96.0%
	600–799		3	15	9	18		3.0%	0.8%	3.3%	1.9%		90.9%	98.4%	90.0%	97.8%
	800–999		3	15	6	12		3.0%	0.8%	2.2%	1.2%		93.9%	99.2%	92.2%	99.1%
	1,000–1,999		6	12	15	6		6.1%	0.6%	5.6%	0.6%		100.0%	99.8%	97.8%	99.7%
	2,000–3,999		0	0	6	0		0.0%	0.0%	2.2%	0.0%		100.0%	99.8%	100.0%	99.7%
	4,000 and over		0	0	0	0		0.0%	0.0%	0.0%	0.0%		100.0%	99.8%	100.0%	99.7%
	Total		99	1857	270	966		100.0%	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%

Delegated Authority Recommendations - September 2014

EFD No.	FWQIP	NRC STAFF MEMBER	Applicant	Previous Funding Year(s)	Previous Funding Amount(s)	Farm Type	Funding Stream	District	Brief Project Description	Amount Recommended
APP.036614	215	DUK	Katrina Upperton & Stephen McManus			Drystock	Water Quality	Far North	Riparian Fencing	$ 4,030.00
APP.036757	229	DUK	Jason Smith (Kaipara View Farming Ltd)			Drystock	Water Quality	Kaipara	Fencing	$ 6,135.00
APP.036758	230	DUK	Paul Cullimore			Drystock	Water Quality	Far North	Fencing	$ 6,252.40
APP.036850	235	DUK	Simon & Lesley Brown			Drystock	Water Quality	Far North	Fencing	$ 6,300.00
APP.036956	32	ASE	Ruth Renner	2012	$ 5,508.00	Drystock	Water Quality	Far North	Fencing	$ 5,800.00
APP.036974	41	ROM	Gumtown Holdings Ltd			Dairy	Water Quality	Whangarei	Fencing	$ 5,000.00
APP.037018	14	DEJ	Margaret Hughes			Drystock	Water Quality	Whangarei	Fencing & Planting	$ 2,868.00
APP.037066	N/A	DEJ	Toenga Trust			Drystock	Water Quality	Whangarei	Fencing	$ 3,148.00
APP.037065	N/A	DEJ	Sydney Eru			Drystock	Water Quality	Whangarei	Fencing	$ 1,987.00
APP.037064	268	DEJ	Eric & Jacqueline Read			Drystock	Water Quality	Whangarei	Fencing	$ 3,510.00
APP.036368.02.01	N/A	DEJ	Geoffrey & Joanne Crawford	2013	$ 3,337.00	Drystock	Water Quality	Whangarei	Fencing	$ 5,000.00
APP.037080	13	DEJ	Lawton Family Trust			Drystock	Water Quality	Whangarei	Fencing	$ 4,635.00
APP.151838.03.01	12	DEJ	Cherry Lane Farm Ltd	2012 & 2013	$ 11,780.00	Dairy	Water Quality	Whangarei	Fencing	$ 2,670.00
APP.037062	267	LOD	Andrew Carvell & Miriam Von Mulert			Drystock	Water Quality	Whangarei	Fencing	$ 2,240.00
APP.037069	269	LOD	Jock Palmer			Drystock	Water Quality	Whangarei	Fencing	$ 2,450.00
APP.037036	95	LOD	Bruce Shepherd			Drystock	Water Quality	Far North	Fencing	$ 3,639.50
APP.037057	263	LOD	Graeme David Darroch			Drystock	Water Quality	Far North	Fencing	$ 1,570.00
APP.036938	172	LOD	Hoddi Limited	2013	$ 4,424.00	Dairy	Water Quality	Whangarei	Fencing	$ 5,000.00
APP.037095	96	LOD	David Asplin			Drystock	Water Quality	Whangarei	Fencing	$ 1,722.00
APP.151473.04.01	N/A	LAS	Friends of Rarawa	2013	$ 3,530.00		Coastal	Far North	Planting	$ 1,632.00
APP.036518	203	KWE	Mayflower Farms Ltd	2013	$ 5,553.00	Dairy	Water Quality	Kaipara	Fencing	$ 4,663.00
									TOTAL	**$ 80,251.90**

Approved Under Delegated Authority

Bruce Howse
Land & Rivers Senior Programme Manager
Date:

Summary Sighted by Councillor

Bill Shepheard
Chairman - Northland Regional Council
Date: 12/09/14

ITEM: 4
Page 1 of 6

ISSUE: River Management Update

ID: A676349

To: Environmental Management Committee, 13 October 2014

From: Joseph Camuso, Rivers Programme Manager

Date: 11 September 2014

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☑	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive Summary:

Investigation and design works are progressing for flood mitigation options in the Awanui, Kerikeri and Kawakawa catchments.

Preparation is underway for the coming works season with works planned and/or tendered, and some works already commenced.

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:

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1. That the report - Rivers Management Update by Joseph Camuso, Rivers Programme Manager dated 11 September 2014 be received.

2. That the minutes of the following liaison committee meetings be received:
   a. Whangarei Urban Rivers Liaison Committee, 18 August 2014

Report

Awanui
Model simulations for the preliminary scheme design scenario are complete, with the final drawings and report due 19 September. Model runs are underway to simulate the modification of the Whangatane Spillway weir. Several options are being simulated, including lowering the entire weir uniformly (broad crested weir) by 0.5 m as well as a split level weir or v-notch type weir. This will be used to determine downstream affects and will be required for resource consenting. It is anticipated that the model results will be presented to the liaison committee and affected parties in October. Flood maps are being verified and reviewed and will be presented to the Liaison Committee in November.

The tender for the 2014-2015 works programme closes 15 October 2014.

The water level at Bells Hill piezometer 3 was at the highest recorded for approximately 4 years; the monitoring schedule has been increased and discussions are taking place with the geotechnical engineers.

Kaeo
A site visit is scheduled with Liaison Committee representatives in early October to visit each of the outer catchments and to prioritise work for this season. The 2014-2015 works programme for the Kaeo River will commence once ground conditions are suitable.

Kerikeri-Waipapa
The Kerikeri-Waipapa River Liaison Committee resolved to delay the construction of the proposed high level spillway for 12 months until additional work is completed on assessing feasibility of a flood detention/water storage/multipurpose dam. A further meeting will be held with the Liaison Committee to seek its advice over the lodgement of the spillway resource consents and land acquisition before commencing these elements.

The 2014-2015 works programme is scheduled to start in the New Year.

Waitangi
The June - July 2014 storm events caused a large amount of stream bank erosion along the reach of the Waiaruhe River between SH-1 and SH-10. Staff have met on site with several farmers along this stretch of river to help understand the scale of stream bank erosion and to pro-actively develop a strategy for stream bank protection measures. We envision NRC's role as assisting farmers with rules around stream bank protection and obtaining resource consent to authorise bank protection works.

Flood level survey data from the July 2014 flood has been reviewed against the river flood hazard map extents, showing extremely good correlation. Peak flood stage recorded by the lower Waitangi (Wakelins) river gauge (NIWA site) was RL11.8m with flood level survey recorded in range RL11.9m – 12.1m at the site, and consistent with the 10yr ARI flood map extent. The peak flow at Wakelins river gauge for the July 2014 flood was 462 m3/s, which is the new 5th highest peak flow event recorded at Wakelins. The 10yr ARI flow at Wakelins is estimated to be 457 m3/s; putting the July 2014 flood peak flow at around a 10yr ARI event.

Kawakawa - Taumarere

Results have been received for a flood model simulation of a spillway option (v1) at Otiria. The spillway option is located on the east side of the Pokapu Road, and extends from the South bank of the Otiria Stream discharging to the Waiharakeke stream. Box culverts under the Otiria Road have been incorporated in the design. The spillway option is intended to divert overland flow that affects Otiria Road properties, and reduce overland flow towards Moerewa. This overland flow originates from both the Otiria and Waiharakeke streams.

Model results show that the spillway diverts approximately 120 m^3/s of peak flow into the Waiharakeke Stream downstream of the Pokapu Road Bridge, and this reduces flood plain water level to the East of the spillway. The benefit is 0.4m reduction at 350m (50% of flood depth), 0.2m at 800m (25% of flood depth) and 0.1m at 1km (20% of flood depth).

There are no dwellings which benefit from flood level reduction exceeding 0.4m, but 12 dwellings have flood level reduction between 0.1m and 0.3m. The Otiria Marae on Kingi Road has a 0.05m benefit, and the cemetery at the end of Wahamiti Lane (South of railway track) has a 0.35m benefit.

Additional benefit includes substantial reduction in overtopping of the Otiria Road between Moerewa and the Pokapu Road junction. The spillway also reduces downstream flow in the Otiria Stream by around 10m^3/s, but this does not appear to significantly reduce flood level at the Turntable Hill SH1 bridge.

The Kawakawa flood model is likely to under represent overland flow into Moerewa along the Otiria Road, as model surface does not incorporate the detail of roadside drainage. The model results do however show a significant flow across Lucas Road, towards Pembroke Street in Moerewa, and the spillway simulation shows this flow would be reduced as a result of the spillway. Model results show that the spillway effectively protects Pembroke Street properties from this Otiria overland flow. It is likely that a refined spillway design would deliver more significant benefit to Moerewa. Attachment 1 to this report shows flood level reduction contours for the land East of the proposed spillway. The cost of spillway construction is likely to be around $500,000, and it is considered that the design does not deliver sufficient benefit to justify the cost.

The reasons for continued flooding to the east of the spillway are: diversion around the spillway due to insufficient capacity, and overflow from the Otiria Stream east of the spillway. The spillway concept is still considered to be the most viable scheme option for flood management along the Otiria Road, and staff are considering design adjustments to maximise benefit. These include spillway enlargement, increasing capacity under the Otiria Road, and reducing Otiria Stream berm crest level at the North end of the spillway to divert flow to the spillway and reduce downstream overflow. Increasing spillway capacity under the Otiria Road is likely to require a bridge crossing. This will also mitigate predicted increase in flood level west of the Otiria Scheme stopbank, as shown in Attachment 1.

Geotechnical site investigations have not yet been undertaken to determine sub-surface constraints to excavation.

Whangarei
A site blessing for the Kotuku detention dam was given by local Iwi on 1 September. Five of the eight houses have been demolished to prepare the dam footprint for construction. The main contractor takes possession of the site 15 September for establishment, preparatory works and targeted tree clearing. The 2.1 meter diameter concrete service spillway pipes are scheduled for delivery the week of 22 September and the start of earthworks October 1. Northpower has installed the overhead power lines which completes the services relocation contract (to relocate utilities around the footprint of the dam).

Gravel trap maintenance was completed on the Waiarohia Stream in late August, with approximately 350 m^3 removed from two sites immediately downstream of Whangarei Boys High School.

Staff have met with Whangarei District Council engineers regarding the greenways project (grass lined flood corridors that follow the Waiarohia River through Whangarei CBD) to coordinate maintenance works that do not compromise the greenway project.

Kaihu
Staff have met with landowners during the flooding events to observe the performance of the Kaihu River in flood and what appears to be a location for a possible high level spillway upstream of Parore Road Bridge. This area would benefit from additional longreach digger works and this has been added to this year's maintenance programme. In addition, staff have are working on a desk top preliminary design for the possible high level spillway upstream of the Parore Road Bridge. This preliminary design will be presented to the committee for consideration.

The 2014-15 works tender closes 21 October.

Ruakaka
Staff have met with Tom Pow of the Ruakaka River Liaison Committee to identify possible works for this catchment. Staff will estimate costs for river clearance work (log jam and fallen tree removal) and around improving the SH-1 Bridge conveyance and report back to the committee to help determine if there is a demand for a catchment wide targeted rate to pay for the works.

Ngunguru
Following Iwi and local resident consultation, the Ngunguru River resource consent for gravel extraction has been lodged on a limited notified basis. The consent submissions period closes on 2 October.

Minor Rivers
A priority list for the minor rivers works has been prepared. The majority of works will begin in summer or when site conditions allow.

River	Description of Work Programmed for Current Season	Proposed Start Date
Awanui - Bells Hill Drains	Clean Drains	May-15
	Reprofile cutoff drain	Completed
	Inclinometer read Sept 2014 and March 2015	Completed

River	Description of Work Programmed for Current Season	Proposed Start Date
Pawarenga Streams	Minor clean -up (vegetation/sediment removal)	Dec-14
Rotokakahi @ Pawarenga Bridge	Follow up maintenance for Groynes if required (contingency fund)	Dec-14
Mangonuiowae/Broadwood	Stream bank protection	Sep-14
Waihou/Rahiri-Rangiahua	Lower Berm Rahiri Settlement Rd	Dec-14
Panguru and Lower Waihou	Gravel management around bridges	Dec-14
Waitangi	Gravel management at Lily Pond	Jan-15
	Willow spraying/removal	Nov-14
Waima	Hokianga General Channel Maintenance	Feb-15
	Lodgement for resource consent	Oct-14
Awapokonui/Pakanae	Follow up spraying of Arundo Donax	Oct-14
Waimamaku	Gravel works at Wekaweka Road and Mason Dwelling	Completed
Otiria	Test pit investigations	Oct-14
	Lodgement for resource consent	June-15
Helena Bay	Tree / Gravel management	Jan-15
Ngunguru	Lodgement for resource consent	Aug-14
	Gravel extraction / Willow poison	Feb-15
Kawakawa	Tree felling at Tirihonga and willow drill and kill Waiomio	Feb-15
Otaika	Tree removal follow-up / poison	Feb-15
Mangaturoto	Tree poisoning / removal	Jan-15

Lake Omapere
NRC, Lake Omapere Trustees, local landowners and the owner of the low lying flooded farmland have attended several meetings to discuss cleaning of the lake outlet channel.

The owner of the flooded farmland machine cleaned the a section of the outlet from approximately 15 m downstream of cycle track bridge to the Lake Road bridge (a total distance of approximately 140 m) on 16 September.

Flow gauging of the outlet are presented in the following table. The flow rate increased by 0.68 m^3/s due to the cleaning, based on comparison to the 20 August gauging where water levels were virtually identical. The owner of the flooded farmland intends to undertake further machine cleaning of other sections of the outlet.

Date	Flow (m^3/s)	Outlet water level (Lake Road bridge local datum)
21 July 2014	3.17	-1.47
4 August 2014	3.01	-1.66
20 August 2014	2.23	-1.81
18 September 2014	2.91	-1.80

Lake Rototuna
Survey of the upper and lower lake levels show the upper lake level to be approximately 8 meters higher than the lower lake and approximately 1 km apart. Given the elevation differential between the two lakes it is unlikely that raising the lower lake level by 1 to 2 meters would have an effect on the upper lake level. The reason for the decline in the water level of the upper lake remains undefined.

Natural Hazards
LiDAR flights have been delayed due to weather and the company being in liquidation. The receivers have confirmed that the company will not be able to complete the LiDAR survey for the remaining Kaipara areas, and negotiations are in progress on contract completion / termination. Waipu, Whangarei, Mangere and Ruawai areas are data capture are complete and the company will be completing the data processing. This data is being acquired to support future flood mapping and coastal hazard assessments.

ATTACHMENTS:
Attachment 1: Otiria Scheme v1 Design: Impact as Flood Level Difference

Otiria Scheme Spillway v1 Design
Impact on Flood Levels for 100yr ARI CC event
Scale 1:5000 (A3)

0 250 500 1,000 Meters

Diversion bund

Box culverts
Area 10m2

Excavated
spillway

-0.4m

-0.2m

-0.05m

KiwiRail
Logging Yard

Pokapu Road Bridge
over Waiharakeke Stream

Railway bridge

Otiria Road

Ngapipito Road

Wahamiti Lane

Otiria Station Road

Kingi Road

Pokapu Road

1899 252 231 235 3 211 190 187 183 177 175 146 149 1 15 23 25 45 49 53 47 25 41 61 124 117 113 112 114 109 107 105 14

Environmental Management Committee
13 October 2014

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Legend

Otiria Scheme Stopbank

Depth Change, m

<VALUE>

- -4.2 - -1
- -0.99 - -0.8
- -0.79 - -0.6
- -0.59 - -0.4
- -0.39 - -0.2
- -0.19 - -0.05
- -0.04 - 0.05
- 0.06 - 0.2
- 0.21 - 0.4
- 0.41 - 0.6
- 0.61 - 0.8
- 0.81 - 1
- 1.01 - 11.95

N

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ISSUE: Review of Regional Pest Management Strategies

ID: A667504

To: Environmental Management Committee, 13 October 2014

From: Don McKenzie, Biosecurity Senior Programme Manager

Date: 11 September 2014

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive Summary:

An issues and options paper on biosecurity and pest management has been prepared as part of a review of how we manage pests (attached). The paper was developed following the Biosecurity workshop held with committee members on 26 May.

Several key pest management issues and potential options to address these are highlighted and we hope this will stimulate discussion and provide a lead for stakeholders to raise other issues they feel are important. The first stakeholder workshop is planned for 16 October, with further consultation to follow.

Feedback from stakeholders will be used to help develop a proposed Regional Pest Management Plan which will be notified for consultation as part of the formal statutory process in July 2015.

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:

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1. That the report Review of Regional Pest Management Strategies by Don McKenzie, Biosecurity Senior Programme Manager and dated 11 September 2014, be received.

Introduction

This issues and options paper on biosecurity and pest management has been prepared as part of a review of how we manage pests, and is aimed at prompting discussion and gaining feedback. The outcome of the review will inform our Long Term Plan 2015-2025 and a new Regional Pest Management Plan.

Several key pest management issues and potential options to address these are highlighted and we hope this will stimulate discussion and provide a lead for stakeholders to raise other issues they feel are important.

Feedback

Feedback on this paper can be provided by:

- commenting on the issues raised and preferred options;
- highlighting additional matters and options to resolve these.

Feedback can be provided at workshops for stakeholders or by email to: KarenG@nrc.govt.nz

Overview of the Regional Pest Management Review

The Regional Pest Management Strategies (RPMS) provide a strategic and statutory framework for the management of pests in Northland. They include objectives to limit the spread of pests, as well as controlling, managing, and where possible, eradicating them. The current strategies, which became operative on 20 July 2010, are currently being reviewed and will be replaced with a 10-year Regional Pest Management Plan (RPMP). A proposed RPMP is expected to be notified in July 2015 and while the review is underway, all existing strategies will remain in force.

The review includes plant, animal and marine pests across land, freshwater and marine environments. The approach is set out in the Biosecurity Act 1993 and the intent is to identify the actual and potential impact of pest species, along with the cost and benefits of various response options. The Act requires consideration of:

- The degree of success in achieving plan objectives;
- Stakeholder satisfaction with the existing plan;
- Whether any new plan should include additional pest species or remove species no longer appropriate to include;
- The appropriateness of the current level of regional intervention;
- Occupier obligations pertaining to each pest;
- Including pathway (vector) management plans as well as species-led plans;
- The emergence of any new issues.

The review does not include Resource Management Act provisions such as options to improve marine pest management in the Regional Coastal Plan. Our regional plan is also currently being reviewed and summary documents can be found on our website at: www.nrc.nz/newregionalplan.

Summary of issues and options

Issue	Risks	Options
1. Arrival of new pests is predicted to undermine current attempts to improve freshwater quality, and the regional economy/environment.	Reactive management, higher costs and reduced effectiveness.	· Retain the status quo. · Prepare and increase regional resourcing for preparedness and address urgent management needs.
2. High-value lakes are being impacted by established pests and there is no long term plan to prevent their impacts.	Spread of pests into high-value water bodies and adverse effects from aquatic pests will increase in scale.	· Retain the status quo. · Provide for urgent measures and develop freshwater pest management plan. · Include high value water bodies in site-led programmes.
3. Site-led programmes do not explicitly aim to 'protect values in place'". The Regional Pest Management Plan must specify either the geographic area to which the outcome applies, a description of the place, or criteria for defining the place.	· Reduced flexibility to support community projects. · Continued decline in biodiversity values in Northland due to introduced pests. · Currently no plan to protect the highest-value forests in the region.	· Existing Community Pest Control Area (CPCA) programme continues but needs clear definitions/criteria to meet requirements. · Increase regional resourcing so that highest-value forests receive pest management. · Establish pest control standards
4. The region remains vulnerable to the spread of marine pests via pathways such as vessel hulls.	Currently difficult to prevent spread of pests to Northland using existing options	· Retain current species approach where possible. · Include Marine Pathway plan as part of new Regional Pest Management Plan.
5. Opportunity to use 'good neighbour' rules to help reduce costs to neighbours from spread of pests.	Unmanaged weeds on property boundaries, road and rail corridors continue to spread and impose costs on neighbours.	· Introduce good neighbour rules which can apply to all land occupiers. · Include additional species in the good neighbour rules.
6. Opportunity to utilise new technology and collaboration where there are benefits to the effectiveness and efficiency of pest management	Uncertainty over the scale of benefits and scale of investment.	· Invest a proportion of time and resource into new technology (e.g. electronic pest detection and bio-control).

National Policy Direction for Pest Management

The Biosecurity Act now requires that Regional Pest Management Plans are not inconsistent with the National Policy Direction on Pest Management. The proposed National Policy Direction specifies the types of programmes that can be included within pest management plans (Table 1). Only these types of programme may be used, and no others. If a species is identified as a pest in a plan, one or more of these programmes must be applied to the pest.

Table 1: Pest Management Programmes

Pest Management Programme	Intermediate outcomes specified in the National Policy Direction
Exclusion Programme	Prevent the establishment of a pest that is present in New Zealand but not yet established in an area.
Eradication Programme	To reduce the infestation level of the pest to zero levels in an area in the short to medium term.
Progressive Containment Programme	To contain or reduce the geographic distribution of the subject, or an organism being spread by the subject, to an area over time.
Sustained Control Programme	To provide for the ongoing control of the subject to reduce its impacts on values and spread to other properties.
Site-led Pest Programme	A pest that is capable of causing damage to a place is excluded or eradicated from that place, or is contained, reduced, or controlled within the place to an extent that protects the values of that place.
Pathway Programme	Any of the above outcomes may attach to a pathway programme or the pathway programme may simply seek to reduce the spread of harmful organisms.

What are the values at risk from pests?

1. Northland's unique biodiversity

Northland's especially-diverse ecology presents a very complex task to manage. The region's biodiversity includes natural values of international and national significance, encompassing an extensive coastline, dunelands, thick native bushlands and forest, rivers, and lakes. Pest management is vital to maintain the ecological balance, which can easily be tipped, with weeds, animal and insect pests competing directly and altering the habitats of rare and endangered species, and preventing regeneration.

2. Significance to Northland's industries

With an economy that relies largely on agriculture, tourism, forestry, horticulture and aquaculture, pest management is integral to daily life and livelihood. Invasion of pest species can have a devastating effect and pest control remains a significant ongoing cost for businesses in the agriculture, forestry and horticulture sectors.

3. Social and cultural values

People of all cultures value Northland's natural environment for its amenity and sense of place. The coastal environment, waterways, lakes, bushland and native forests are valued for aesthetic and recreational qualities, and are all at risk from the impacts of invasive pest species. Māori cultural values are intrinsically linked to the environment and its guardianship, along with accompanying activities such as food gathering and managing indigenous species for future generations.

The people of Northland place huge value on the quality and amenity of their environment, and recognise the importance of pest control within this environment.

Why Northland is vulnerable

Pests threaten Northland's forests, waterways and the marine environment, putting ecology, health, culture and our regional economy at risk. There are constant new pest threats as well as established pests that require ongoing management.

Northland is at the higher end of New Zealand's biosecurity risk profile given its:

- warm wet climate, suitable for many invasive species including those sensitive to frosts; and
- wide range of habitats, and
- its status as a national biodiversity 'hot spot' containing sites of both national and international significance (e.g. Te Paki, Poor Knights Marine Reserve, Waipoua Forest, Dune Lakes and gumlands).

The region has 15 harbours (including two customs clearance ports).Shipping traffic is high, with Northland often the first destination for incoming recreational vessels and commercial shipping also serving the Marsden Point oil refinery, Northport and Portland Cement. Marine pests can be readily transported on unclean vessel hulls or as live-aboard stowaways on board international and domestic vessels.

Overview of the current Regional Pest Management Strategies

The current Regional Pest Management Strategies describe five-year objectives and management methods for a total of 192 pest organisms, comprising 118 weeds, 47 pest animals and 27 marine pests. The current strategies were developed within the existing resources allocated to the previous strategies, and include a significant number of additional species as well as a new marine pest strategy.

The species in the current strategies are managed across 22 operational plans with multiple objectives and performance targets. Approximately 80% of the performance measures are being achieved or are in progress across all of the operational plans. Some performance measures are not being achieved, or are in jeopardy of failing, due to factors such as resources being stretched to cover the additional species and diversion of resources to other higher priority responses, (e.g. Mediterranean fanworm, kiwifruit PSA-v, koi carp and kauri dieback). Other common issues include limitations in data collection and lack of structured communications planning.

Of concern is the lack of resources to enable better response planning and preparation. Response planning is currently on an 'as required' basis. If a new pest arrives, a response plan for the species is developed and additional resources must be found to respond. This may delay the speed of the response, and have ongoing

implications for other biosecurity programmes if resources are diverted. This lack of preparedness is a significant risk to biosecurity effectiveness and efficiency.

Several of the plant eradication programmes are also severely limited both by constraints on staff time and funding. These species were included in the Regional Pest Management Strategies in 2010, and originally being led by the Crown (through the Department of Conservation), which had established programmes for them. However, these programmes ceased and the Regional Pest Management Strategies have attempted to lead them via operational plans and within existing resources.

What does the Regional Pest Management Plan need to address?

1. Freshwater pests

1.1 Background and current issues

Northland has more than 400 freshwater lakes, most of which are coastal dune lakes. Dune lakes occur in only five places in the world and are regarded as globally imperilled, due to their rarity and the impacts of degradation by human influences. Northland lakes and wetland margins support a range of endemic endangered species providing the only known habitat, or the national strongholds for a range of species. Currently, perhaps the most outstanding character of Northland's dune lakes is the limited impact of invasive species, which is unparalleled in any other region of mainland New Zealand.

Northland's extensive network of rivers and streams is also at risk from both established and new pests, which threaten water quality and native freshwater species. However, to date, no freshwater pest responses have been attempted in these types of water bodies.

Freshwater pests may spread to new sites by a range of means, but most commonly through the deliberate or accidental actions of people. This includes release of aquaria species, illegal transfer of coarse fish or dumping of garden waste into waterways, and accidental spread via contaminated boats, vehicles, fishing gear, dive gear and heavy machinery. Once established, aquatic pests are very difficult to eradicate. Therefore a pro-active approach, attempting to prevent the establishment of the pests, is considered the best and most cost effective option. Understanding which pests are currently present also needs greater scrutiny, particularly for pest fish.

1.2 Current RPMS

Despite the high ecological values provided by many Northland water bodies, their status is not secure due to threats from aquatic weeds and pest fish and risk of their spread. The current Regional Pest Management Strategies include 30 freshwater pest plants, fish and reptiles spread across the plant and animal strategies, with no over-arching strategy or plan.

Table 2: Aquatic pest fish and weed categories and number of species

Strategy	Current Category and Species	Number of species
Animal (includes a range of pest fish and an exotic crayfish [Marron])	Exclusion (orfe and marron),	2
	Containment (koi carp, perch and tench)	3
	Suppression (catfish, gambusia and rudd)	3
	Risk assessment (Caudo [fish], Eastern water dragon. Red-eared slider and Snake-neck turtles)	4
Plant	Exclusion (e.g. entire marshwort and fringed water lily)	3
	Eradication (e.g. eel grass, nardoo, salvina, Senegal tea, spartina, water hyacinth and water poppy)	7
	Containment (Manchurian wild rice)	1
	Suppression (alligator weed)	1
	Community Pest Control Area (CPCA) (e.g. arum lily, oxygen weed)	6

Successes

- Since 2005, the regional council, in conjunction with NIWA, has undertaken annual ecological status surveys in more than 80 lakes throughout Northland on a rotational basis.

- Targeted aquatic weed surveillance is also undertaken in six lakes considered to be at high risk of aquatic weed incursions.

- In conjunction with the Ministry for Primary Industries (MPI), we also run an ongoing 'Check, Clean, Dry' public education programme aimed at raising awareness and reducing the spread of aquatic pests.

- We have undertaken aquatic pest plant eradication programmes in three lakes during the time period of the current Regional Pest Management Strategies. All three programmes are nearing successful completion, with the aquatic weeds fully eradicated from two of the lakes, and only fragments currently remaining in the third. Although the three species involved in the eradication programmes were listed as Community Pest Control Area species, the eradication programmes were established to help protect nearby high-value lakes in view of the risk of spread of the aquatic weeds.

- In partnership with the Department of Conservation, we have responded to several pest fish incursions, involving koi carp mainly in farm dams.

- The council developed a lakes management strategy during 2012-13, which provided additional information to assist with prioritising Northland lakes, and therefore the management actions required to better protect them from a range of pressures.

Issues

- Northland is currently at risk from pest fish incursions, and there is a lack of regional and interagency coordination. Work by the council and the

Department of Conservation work on pest fish is currently very reactive, and lacks an overarching plan. Reporting from the public is relatively rare, despite a significant increase in public awareness activities in the past three years. Pest fish surveys in high-value waterways are not yet part of annual work plans or resourcing, and the number of lakes under regular assessment by NIWA is reducing due to resourcing limitations.

- Response planning, resourcing and capability in the region is currently limited. Knowledge of diseases/parasites spread by pest fish and the impacts of these on native fish is currently limited, and needs further research. The development of a business case to control the spread of introduced warm-water fish in Northland is urgently needed because of the acute vulnerability of the region's existing lakes and waters. Additional urgent work is also required to address already-established freshwater pests in some of our highest-value lakes and waterways.

- Although several effective responses to aquatic weeds and pest fish have been made during the current Regional Pest Management Strategies, the work has been very reactive and lacks an overall strategy or plan. Many other recommendations from annual surveys have not been actioned due to a lack of resources and overall prioritisation.

- While the council's Lakes Management Strategy and the National Policy Statement for Freshwater Management provide clarity and assist with prioritisation, and it is important for biosecurity actions to align with these programmes, they are aimed at general freshwater management actions. Without an effective overarching plan for freshwater pests, Northland will remain vulnerable and the pest threats will continue to grow. Without effective resourcing for freshwater pests it will be difficult to maintain surveillance and public education, as well as to prioritise actions and respond quickly in the event of an incursion.

1.3 Options

Option One – retain current RPMS approach

This option provides for freshwater pests continuing to be managed in a limited capacity through new plant and animal pest management plans for the next 10 years. This option does not provide for an overarching view of freshwater pest management, and it is likely that work in this area would continue to be ad hoc and reactive, within limited resources. There will be little control over the random spread of pests including into high value water bodies and adverse effects from aquatic pests will increase in scale.

Option Two – provide for urgent measures and develop a freshwater pest management plan

This option would require that urgent measures are put in place aimed at preventing further spread of established freshwater pests and responses to any new incursions. It will also provide for an overarching plan for freshwater pest management in Northland for the next 10 years and would combine freshwater pest plants, animals and reptiles into one freshwater plan. This would assist with prioritisation and response preparedness for all types of freshwater pests, and allow dedicated resources to be targeted towards freshwater pest management. A freshwater plan could enable better targeting of management actions and potentially the introduction of rules to provide additional protection in high-value areas (see section 2, Site-led programmes, below).

However, in order to address urgent needs and enable surveillance for pest fish and additional response work, further resourcing would be required.

2. Site-led Programmes

One of the main management methods used in the current Regional Pest Management Strategies is Site-led programmes, including Community Pest Control Areas (CPCAs) and High Value Areas. CPCAs were established by council policy in 2005. High Value areas were included when the RPMS was reviewed in 2010.

The Site-led programme aimed to build on the gains made through community-led pest control by linking existing schemes and increasing the area of protected private land in Northland. The current Regional Pest Management Strategies list 24 species of animals, 67 plants and 9 marine species that can be included in site-led programmes.

2.1 Community Pest Control Areas (CPCAs)

Successes

- CPCAs, volunteers and other partners have been the cornerstones of significant work to improve biodiversity values in Northland, and this is particularly evident with increases in kiwi populations at some high-value locations.

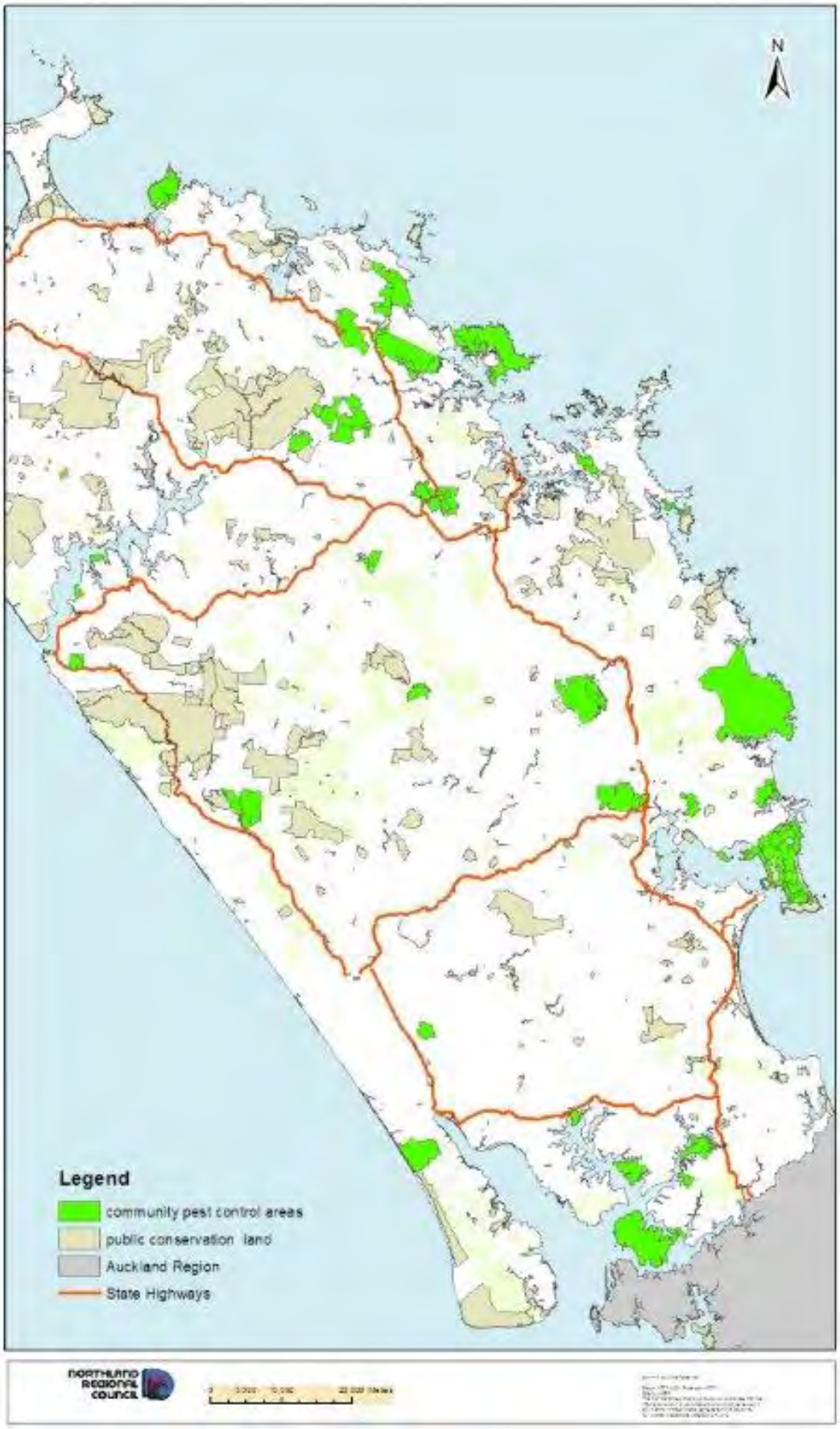
- 49 CPCAs have been implemented since the programme was established in 2005 (including four renewed as part of larger new areas; Figure 1). More than 56,000 hectares of land and 1900+ people/properties have been involved, and there is an increasing focus on improving biodiversity and iconic species (e.g. kiwi).

- CPCAs have been used to protect forests from browsing pests such as possums; to target predators such as stoats, wild cats and rats; and to target ants and environmental weeds. Most have been set up in areas identified by a local community as worth protecting and usually target multiple pests at the same site. Plans are developed with the landowners and help support the protection of kiwi, brown teal and other endangered fauna as well as deliver pest ant and weed control. The agreements are usually for five years, but can be extended.

- Since 2010, there has been more focus on larger-scale Community Pest Control Areas and the average size has more than doubled since 2010.

- Approximately 50% of Community Pest Control Areas now involve landowners, the regional council and other groups or agencies (e.g. landcare trust, Residents Association, NZ Kiwi foundation). CPCAs involving other groups as well as landowners may have greater chance at maintaining an ongoing programme without further assistance from the council.

Figure 1: Community Pest Control Areas



Issues

- To succeed, Community Pest Control Areas required a willing and able community to drive them. As a result, the majority are in eastern Northland, and are not necessarily well aligned with areas of high biodiversity values.

- Those in the Kaipara area seem to be more likely to require some form of additional support to continue after the initial five years.

- Community Pest Control Areas have been far more popular for animals than for plants or insects, and although it is technically possible for them to be set up for freshwater or marine pests, we do not currently have any of these plans, and it has not been actively promoted as an option.

- 95% of the Community Pest Control Areas that are older than five years are still ongoing in some form, but 50% of these have required some form of additional funding from the council.

Site-led projects are also funded through the council's Environment Fund. Applications from property owners for pest control grants are assessed for their environmental benefit and successful applicants sign up to a three-year agreement. Our grant pays for the first year of pest knockdown and property owners must maintain the pest control. Around 30 such applications are funded each year.

2.2 High value areas

The current Regional Pest Management Strategies allow for pest control plans to be developed targeting areas of high biodiversity or cultural, recreational or economic values. They not identify high value areas, but require that these be identified in conjunction with occupiers, stakeholders and other Crown agencies. The strategies also states that the role of the council will depend on the area, and the role of other agencies, stakeholders and the community.

Successes

- In conjunction with Kaipara District Council, we developed a preliminary plan for the Kai iwi lakes through the high value area programme during 2013-2014.

- The plan involves surveillance for aquatic plants and animals, as well as research and control programmes for terrestrial weeds and animal pests.

- The lakes remain free of the highest risk aquatic weeds and pest fish, and surveillance programmes are ongoing.

- An extended animal pest control programme is currently being implemented and research is underway into the best control options for some of the terrestrial weeds which could threaten the water quality of these outstanding lakes.

Issues

- The intention of the current Regional Pest Management Strategies was to provide a flexible approach, rather than a prescriptive one that pre-defined the high value areas which could be included. However, the lack of definition has

meant that this programme has remained undeveloped, and we currently have one plan using this approach, at the Kai iwi lakes. There are, however, several Community Pest Control Areas involving multiple agencies, a combination of private and Crown land, and an alternative funding structure that could instead have been included in the high value areas programme.

2.3 New Requirements for Site-led programmes

The proposed National Policy Direction for Pest Management requires that Site-led programmes have the intermediate outcome of 'protecting values in places'. The Regional Pest Management Plan must specify either the geographic area to which the outcome applies, a description of the place, or criteria for defining the place. Site-led pest management may seek to protect the values of places that have aesthetic, biological, cultural, ecological, environmental, historical, or recreational values that are of significance to the general public or specific communities.

These programmes may also specify rules that impose obligations on land owners and occupiers. Therefore, it is necessary to ensure that land owners and occupiers have certainty as to whether or not they are they are subject to a site-led programmes under pest management plans. It is likely to be easier for land owners and occupiers to determine this if the geographic areas are stated or mapped in the RPMP. However, where this is not practicable, a description or criteria may be used.

These requirements mean that significant changes to the council's Community Pest Control and High value areas programmes will be needed in our new Regional Pest Management Plan. These changes will potentially enable us to better align Site-led programmes to protect the values of high biodiversity areas.

2.4 Options

Option One – Outstanding water bodies

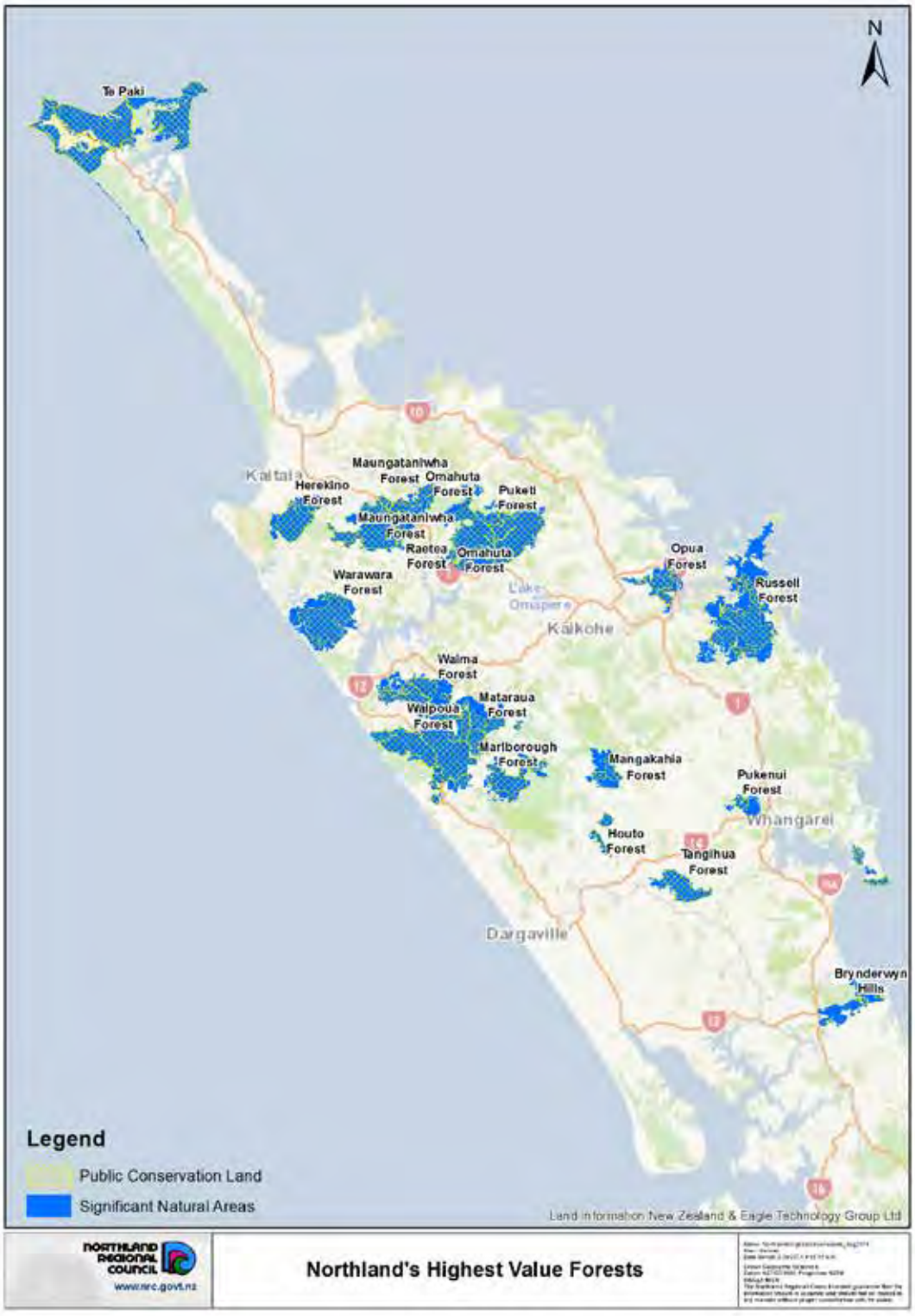
Much of the NRC's current response and surveillance work in freshwater is site-led rather than species-led, and doesn't fit well in the structure of the current Regional Pest Management Plans. We are currently responding to three aquatic weed species in three dune lakes because of where the weeds are, rather than the weeds themselves (which are too widespread in Northland for eradication to be feasible). However, undertaking biosecurity prevention and response work will play a significant role in the future protection of the significant values of Northland's dune lakes.

A site-led programme for lakes could target a range of aquatic weeds and pest fish and reptiles, with accompanying surveillance and emergency response planning. Terrestrial weeds and animal pests which threaten the values of the dune lakes could also be included.

In order to provide a buffer around the lakes, the geographic area could be extended to the catchment around the specified lakes, with the potential to introduce rules to minimise the risk of spread of aquatic pests (e.g. rules about the type of species that may may not be present in garden or farm ponds in the immediate vicinity of a high value lake).

However, to undertake programmes such as the one at Kai iwi lakes in other outstanding lakes, additional resources for a freshwater plan would be required.

Figure 2: Northland's highest value forests



Option Two – Northland's highest value forests
There are 20 large native forests of very high ecological value spread throughout Northland which are biodiversity assets for the region (Figure 2). Although these areas represent some of the highest-value biodiversity habitats in New Zealand, their pest management needs are not all being addressed. . Tenure is a characteristic mix of Department of Conservation (DOC) administered estate and privately owned forest, often including large areas of Māori land and all are having their values degraded as a consequence of introduced pests.

A Site-led programme could be created aimed at protecting the biodiversity values of these high value forests.

We are already involved in one plan of this type which is getting underway in the Hokianga area, and involves the council, Department of Conservation, Reconnecting Northland and the local community. The objective is protection of biodiversity values through large scale animal pest control.

A programme involving local communities and other agencies to treat a minimum of two large forests per annum over the next 10 years would see pest impacts reduced. This programme could set standards for pest control, which agencies could use to measure results. However, current pest resourcing would have to be increased if pest management were to occur across the 20 high value forests.

Option Three – modified status quo
The existing Community Pest Control Areas programme could continue in a similar way, and funded at a similar level, but with clear definitions in the Regional Pest Management Plan of areas eligible for funding and assistance to meet the requirements of the National Policy Direction on Pest Management.

A site-led programme could be created which aimed to protect the habitat of threatened species e.g. to protect places with rare, indigenous birdlife in the region that meet specified criteria. Another option is programmes which aim to protect the outstanding natural features and landscapes of particular types of habitat, e.g. threatened wetlands, coastal vegetation zones, threatened or at-risk forest, treeland scrub or shrubland.

Option Four – Improve use of technology and collaboration to achieve results
Invest in greater commitment to increasing pest management effectiveness and efficiency through improved collaboration with other agencies and smart investment in new technology such as electronic pest detection and bio-control.

3. 'Good neighbour' rules

The Biosecurity Act now defines 'Good neighbour' rules, which can apply to all land occupiers, including the Crown. The focus is on managing the costs caused to neighbours by the spread of pests.

The Act defines a 'good neighbour rule' as one that:

- applies to the occupier of land and to a pest or pest agent that is present on the land; and
- seeks to manage the spread of a pest that would cause costs to occupiers of land that is adjacent or nearby; and
- is identified in a Regional Pest Management Plan as a good neighbour rule; and

- complies with the directions in the National Policy Direction on Pest Management relating to the setting of good neighbour rules.

The National Policy Direction sets out requirements for the establishment of good neighbour rules, and sets out that any rule must take in to consideration the pest itself such as its likelihood to spread, biological characteristics and behaviour, as well as the land characteristics. It states that the rules can only be established when a pest is likely to spread and cause unreasonable costs to neighbouring land occupiers, the neighbouring land is clear of that pest, and the rule will not set a requirement on an occupier that is greater than that required to manage the spread of the pest.

3.1 Current Regional Pest Management Strategies

The current Regional Pest Management Strategies contain a number of widespread and well-established pests. These pests are often perceived to be a priority for pest control due to their high visibility across the landscape, and nuisance factor. However, we believe new incursions should be prioritised over widespread pest plants, which are already so well established that they are very expensive and difficult to control.

Most pest plant enquiries and complaints to the council relate to these widespread species. However it is not cost effective to do more than attempt to provide for the ongoing control of these pests to reduce impacts on values and spread to other properties. The current Regional Pest Management Strategies includes six pest plant species that are subject to occupier control rules, (similar to good neighbour rules) – gorse, gravel groundsel, pampas, privet, ragwort and wild ginger. The strategies include requirements for boundary control, quarry control and/or roadside control. In the 2013-2014 year, we received almost 250 enquiries for these species and responded to 30 boundary control incidents as well as a number of quarry inspections.

The current roadside rules require district councils to develop management plans for the control of roadside weeds. During the time period of the current Regional Pest Management Strategies, additional funding was made available during to assist district councils to do this (and in some areas, more than what was required by the strategies).

The current occupier control rules apply to the species throughout Northland, regardless of land type or situation, and consume a significant amount of staff time. We are regularly requested to consider extending the list of boundary control plants; however, there is a resourcing cost to ensure compliance.

3.2 Options

Option One – create good neighbour rules for the existing six species
This option provides the council with powers to compel land occupiers to control these pests along property boundaries in situations where the pests are spreading from their property onto land which has been, or is being, cleared of that pest. We would need to consider whether it is still appropriate for the current species to be included, whether any rules should apply to all of Northland, or whether targeting the rules for particular species to certain areas or land use types is more appropriate.

Option Two – create good neighbour rules for a wider range of species
While we are regularly asked to include additional species in the boundary control rules, lack of resourcing has prevented this. We could investigate the possibility of

including additional species in the new Regional Pest Management Plan – e.g. moth plant, woolly nightshade, blackberry and more extensive rules for wild ginger. If they met the requirements and resourcing was available, suitable species could then be included in the new Regional Pest Management Plan.

Option Three – Roadside and rail corridors
Northland roadsides and rail corridors are currently not very resilient to weed incursions. After control the weeds generally regrow or other weeds invade. Discussion is needed about what Northlanders want these corridors to look like. This may enable better planning and more effective rules. There is a lack of ability within the current RPMS for district councils to prioritise actions to areas where the weed control may be of greater value.

4. Marine pests

4.1 Background and current issues

Northland has more than 1700km of coastline that is made up of a range of rugged cliffs, rocky shoreline, sandy beaches, 15 sheltered harbours, and a multitude of offshore islands. The mix of subtropical species that survive in Northland along with the many endemic species, make these areas ecologically unique. Northland contains the country's largest area of relatively unmodified dunelands, some of the largest areas of mudflats, and the largest areas of mangrove forest.

Tourism is Northland's second-biggest income earner and brings more than $540 million into the region each year. One of the main attractions for tourists is the coast's natural beauty and associated recreational opportunities. In addition, commercial marine farming (principally oyster farming) and the harvesting of crayfish are significant sources of revenue for the region. The region's large Māori population has traditionally depended on the sea for kaimoana (food), viewing fisheries and coastal resources as taonga (treasures).

Northland is the first port of call for many overseas vessels coming to New Zealand. As a consequence of this and the region's proximity to Auckland, Northland is visited by 2000 recreational vessels annually. Visiting vessels are a large component of the marine industry in Northland but also provide a vector for the introduction and spread of marine pests. Many marine pests are inadvertently introduced by hitching a ride on vessels – e.g. attached to the hull or in ballast water. New and established marine pests have the potential to adversely impact upon key areas of Northland's economy and ecology– in particular, fishing, aquaculture and tourism.

Once established, marine pests and spread rapidly and are virtually impossible to eradicate, therefore a pro-active approach aimed at reducing the chances of marine pests becoming established is essential. However, many marine pests are already established in New Zealand and a number are present in Northland. Minimising the impact of these organisms on our marine environment has been the principal purpose of including them in our Regional Pest Management Strategies. The Ministry for Primary Industries (MPI) is the lead agency for new-to-New Zealand incursions, and these can involve multi-agency responses involving the Department of Conservation and regional councils. However, once a species arrives, responsibility often moves to regional councils.

4.2 Current Regional Pest Management Strategies

The current Regional Pest Management Strategies includes 28 marine pests spread between the plant strategy and the marine strategy.

Table 3: Marine pest categories and number of species

Strategy	Current Category	Number of species
Marine	Exclusion	6
	Suppression	5
	Risk assessment	12
	Community pest Control Area	4
Plants	Eradication (Spartina)	1

Successes

- Over the last five years, the council has responded to three marine pest incursions in Northland (in addition to the Spartina eradication programme which is currently managed under the pest plant strategy). All of the responses have been facilitated by the inclusion of these species in the Regional Pest Management Strategies.

- After detection of a Pyura sea squirt in the Far North, the Ministry for Primary Industries and the council teamed up with local Hapu to map Pyura and carry out trial removals at a two isolated sites. Initial results were promising, suggested that small scale management of marine pests may be possible using a partnership approach between agencies and communities.

- An initial attempt to manage the sea squirt Styela had limited success, but is likely to have assisted in slowing down the spread of this pest.

- The response to the exclusion pest Mediterranean fanworm in Whangarei has been led by the council with assistance from other agencies. We are continuing to manage existing fanworm populations and have put a lot of effort into public awareness campaigns.

- Since the discovery of fanworm in Whangarei, the awareness of marine pests among boat owners has skyrocketed and hawse have also set up working groups with industry partners to develop tools to minimise the spread of marine pests inside and outside of our region.

- Nationally we are seen as one of the leading regional councils when it comes to marine pest eradication work and public awareness, particularly amongst recreational boat owners. We are one of only two councils in NZ to have marine pests in our Regional Pest Management Strategies and the only council in NZ that has used the powers under the Biosecurity Act to slow the spread of marine pests.

Issues

- The current Regional Pest Management Strategies attempted to ensure a level of future preparedness by including species that could have significant impacts if they arrived in NZ (five of the six exclusion species are not known to be present). However, only species which are already present in NZ may be included in the new Regional Pest Management Plan, which may limit the

ability to respond quickly and effectively to newly detected threats, especially if we are solely reliant on a species-led approach.

- Northland has a somewhat unique marine environment due to its subtropical temperatures. Many marine pests that pose a significant risk for Northland may not be able to survive elsewhere in NZ. Currently only Northland and Southland have Marine pests in their Regional Pest Management Strategies. Marine pests that enter other regions may not be controlled and will often spread naturally or by human-assisted vectors to Northland and other regions.

- Once established, there are very few management tools available for the suppression organisms in the Regional Pest Management Strategies. Although some pose only a minimal threat to our ecosystem values, they are often highly visible and encountered by members of the public. Reporting for species such as Eudistoma is high but resourcing and prioritisation within the council is low. This brings with it a disjoint between the values the public may see and a perceived lack of response by the council, undermining awareness campaigns and public engagement.

- Very little monitoring for marine pests happens in Marine Protected areas in Northland. An interagency approach to systematically check these areas is needed. Areas of high natural value also need to be identified to be able to focus surveillance for marine pests in not only high risk but also high value areas.

- There is limited resourcing for marine surveillance, awareness and management currently less than one full-time equivalent staff member is dedicated to marine biosecurity, covering the 27 pests in the marine Regional Pest Management Strategies throughout the whole of Northland.

4.3 Options

Option One – retain current RPMS approach, where possible

This option provides for marine pests continuing to be managed in a limited capacity through a new marine pest management plan for the next 10 years. Significantly fewer species would be included as only species already present in NZ can be included in the new Regional Pest Management Plan. This option does not provide well for preventing the spread of species not yet in Northland, but is necessary to ensure that management options exist for species-specific responses, and that resources are still allocated after the initial entry of a new pest species.

Option Two – develop a marine pathway management plan

Pathway plans are new options which focus on reducing spread via pathways to prevent establishment of pests, and/or protect values. It is not necessary to name the specific pests covered by a pathway plan, and they are intended to be used where there is a suite of pests that could be spread by the pathway (if they were present at the originating site). Rules can be developed for situations where a pathway can spread a pest. For example, this type of plan would enable the council to consider rules to help prevent vessels with dirty hulls from putting Northland marine values at risk.

ITEM: 6

ISSUE: Kai iwi lakes and marine pests

ID: A675976

To: Environmental Management Committee, 13 October 2014

From: Don McKenzie, Biosecurity Senior Programme Manager

Date: 17 September 2014

Report Type:	☐	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☑	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive Summary:

The purpose of this report is to update the Environmental Management Committee on Kai iwi lakes, and marine pests.

Kai iwi lakes

Pig control

High pig numbers within the domain has attracted the attention of local hunters and created a conflict with campers – pig dogs can also impact on native wildlife like kiwi. A programme to remove wild pigs within the Taharoa domain and adjoining farmland began during September 2014. The project has been welcomed by several adjoining landowners who also want to see pig numbers reduced as they are attributed to damaging crops and ruining pastures.

During the latter half of September a professional hunting team using kiwi aversion trained dogs has removed 8 piglets, 4 sows and two large boars which will reduce the future breeding potential of the population. Hunting will continue throughout spring as there is a large source population of pigs outside the domain and before the contract ends a specific hunt to cull a mob of wild goats that are in the domain will also be undertaken.

Other pests

Monitoring with game trail cameras has demonstrated the presence of numerous cats, possums rats, pigs and stoats and a mature male ferret was located on the roadway adjacent to Taharoa. Ferrets are efficient killers of adult kiwi and the find has highlighted a need to ensure control methods target these predators as part of the wider predator control programme.

Weed control

Ten hectares of emergent wilding pines and other weeds have so far been cleared from behind the campground and eastern side of Lake Taharoa. This work will continue through October with the aim of clearing the major weeds from all the eastern side of the lake. Removal of the wilding pines will allow the remaining native plants to flourish resulting in dense undergrowth which will be resistant to weed invasion and provide ideal habitat for kiwi and other native wildlife.

Research is also being carried out to find the best way to manage and control selected weeds (such as brush wattle) with specialist advice sort from NIWA. In addition an assessment of the potential contribution of nitrogen, phosphorus and ammonia from weed control activities is proposed. The investigation will require drilling bore holes to test for nutrient flow and confirmation of this project is expected toward the end of October.

Possum control

Possums are present in high numbers throughout the Taharoa Domain (Domain) and surrounding land. Recently, wax tag monitoring was carried out within the Domain to determine relative possum abundance, with one line returning 100% interference. This indicates possum populations are extremely high and above the Northland average.

It is proposed that possum control be urgently carried out throughout the Domain using contractors before the busy period starts in summer. Possum control would be carried out by pre-feeding with non-toxic bait then using a toxin such as cyanide which is fast acting and has a low rick of secondary poisoning. This work would need to be undertaken midweek while the Domain is closed to ensure public safety. All bait and animal carcasses would then be removed and the park reopened.

Ongoing and long term possum and rodent control is proposed for the next financial year involving the establishment of a network of bait stations throughout the Domain which can be serviced annually.

Marine Pests

Ministry For Primary Industries (MPI) have advised that a sea squirt, *Distaplia viridis,* new to New Zealand, was found in Marsden Cove during the last high risk port survey. According to advice received from MPI staff this new sea squirt was originally described from Victor Harbour, South Australia and has been recorded in South Australia from Spencer Gulf to St Vincent Gulf and Heron Island, Queensland. It is most common in Port Phillip Bay and is considered native to South Australia. Although potential impacts are unknown they are not considered significant to trigger a national response and monitoring of the species will continue. This latest find follows the discovery of another new sea squirt *Botrylloides spp in* Marsden cove last summer. Both new species have been added to our own “watch list” as checks of hulls and other harbours are made during summer.

Following laboratory trials to test new ultrasonic equipment designed to destroy static marine pests such as fanworm, staff have requested a proposal from the company to begin treatment in a part of Marsden cove marina as part of a larger open water trial. Details of this proposal will be worked through during October.

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 17 September 2014, be received.

ITEM: 7

ISSUE: Manchurian Wild Rice Programme Update

ID: A676205

To: Environmental Management Committee, 13 October 2014

From: Curtis Harris, Manchurian Wild Rice Project Officer

Date: 18/09/2014

Report Type:	☑	Normal operations	☐	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☐	Legislative function	☐	Annual\Long Term Plan	☑	Other
Significance:	☐	High	☑	Moderate	☐	Low

Executive Summary:
The purpose of this report is to update the Environmental Management Committee on the Manchurian Wild Rice Project. Of particular note is the renewal of the existing contract with Ministry of Primary Industries (MPI) for another three years and an option for a further extension beyond 2017. This will secure $300K of Crown funding per annum.

Background

In Northland, Manchurian wild rice (MWR) covers approximately 500 hectares. It is widespread in the Kaipara district, with the main infestation found next to the Northern Wairoa River and its tributaries. There are also a small number of sites in Whāngārei, and Kerikeri catchments.

The council is working with the MPI to ensure the eradication of Manchurian wild rice where possible and containment at all other sites within Northland. The council manages the programme and to date MPI have provided $1.6 million dollars towards the control of this aquatic weed in Northland. It is the largest weed led project in the Regional Pest Management Strategy. Having considered the progress made to date MPI have recently renewed the existing contract with the NRC and have agreed to fund all costs up to maximum of $300k per annum until 2017 with an option for further extension beyond that year.

Key Programme objectives:

The council must ensure that:

- The number of managed sites decreases over time so that by May 2018 no outlier sites still have actively growing plants; or where eradication is not feasible the risk of the plant spreading any further has been minimised.
- Monitoring of all sites continues long term (for at least 8 years) as the plant regrows from rhizomes.
- Trace-back of all new populations of the plant occurs to determine the source, as rhizome fragments can be spread by farm machinery, particularly diggers.

- Opportunities are created to raise public reporting and awareness of the plant, the risks, and the cost it imposes.

The programme has focused initially on the eradication of outlier sites, those sites not connected to the main infestation area which adjoin the margins of the Northern Wairoa River. Infested sites require repeated spraying and a programme of sustained control is necessary for eradication of the plant at each site. Staff expect that in a further four years all outlier sites will be gone and work on the major infestations of the Northern Wairoa will begin

Dargaville farming communities have been very supportive of the programme and NRC biosecurity staff work alongside landowners to access farms and conduct the eradication work. There are 330 sites of infestation under management and spraying work is conducted during the summer months when farm access tracks are dry and periods of fine weather are more common.

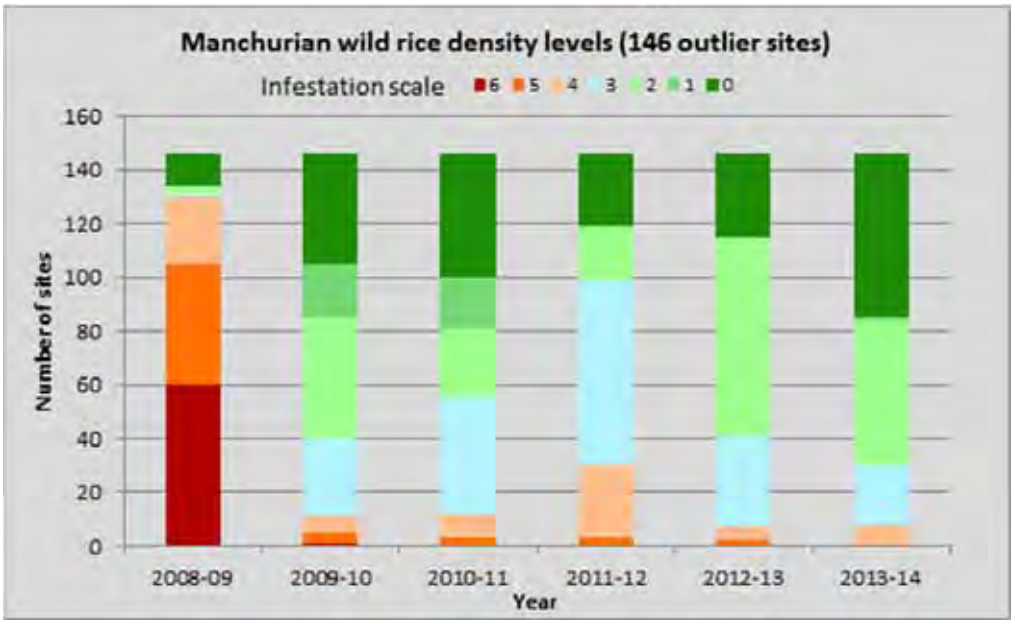
The density of MWR at outlier sites that have been in the programme has decreased dramatically so that most sites have less than 5% MWR ground cover (Figure 1). This is a good indication that the programme is on track to achieving its goals.

Farmer Working Groups
As control progresses at outlier sites, other sites closer to the main infestation area of the Northern Wairoa river will be brought into the programme. Farmers close to new spray areas and who are keen to actively control MWR on their properties have been encouraged to start spray programmes in anticipation of the programme and with assistance from NRC staff.

Last year the Pukehuia working group near Tangiteroria was established between seven land owners and the council, with all parties signing a control agreement. Collectively, the group own a 12 kilometre contiguous stretch of the Northern Wairoa River bank containing approximately 10 hectares of MWR. Council conducted an initial knockdown of MWR on the signatory's property in May. Land owners are now responsible for continuation of MWR treatment for a further five years or until MWR is no longer present. The council will provide the herbicide for the ongoing treatment. Partnership agreements of this type will reduce the cost to the programme and enable further areas of MWR to be targeted ahead of schedule.

Contractors
Four different contracting firms undertake all the herbicide treatment work and conditions and standards are set as part of the contract tender process.
All four contractors performed well over the previous year with a high standard of workmanship and positive feedback from land owners. The contractors are very familiar with their sites and have an excellent track record of success which makes the programme both efficient and effective. They have agreed to continue working with the MWR programme this year and will be each awarded contracts of approximately 200 hours.

Figure 1: MWR density levels over time



Infestation scale

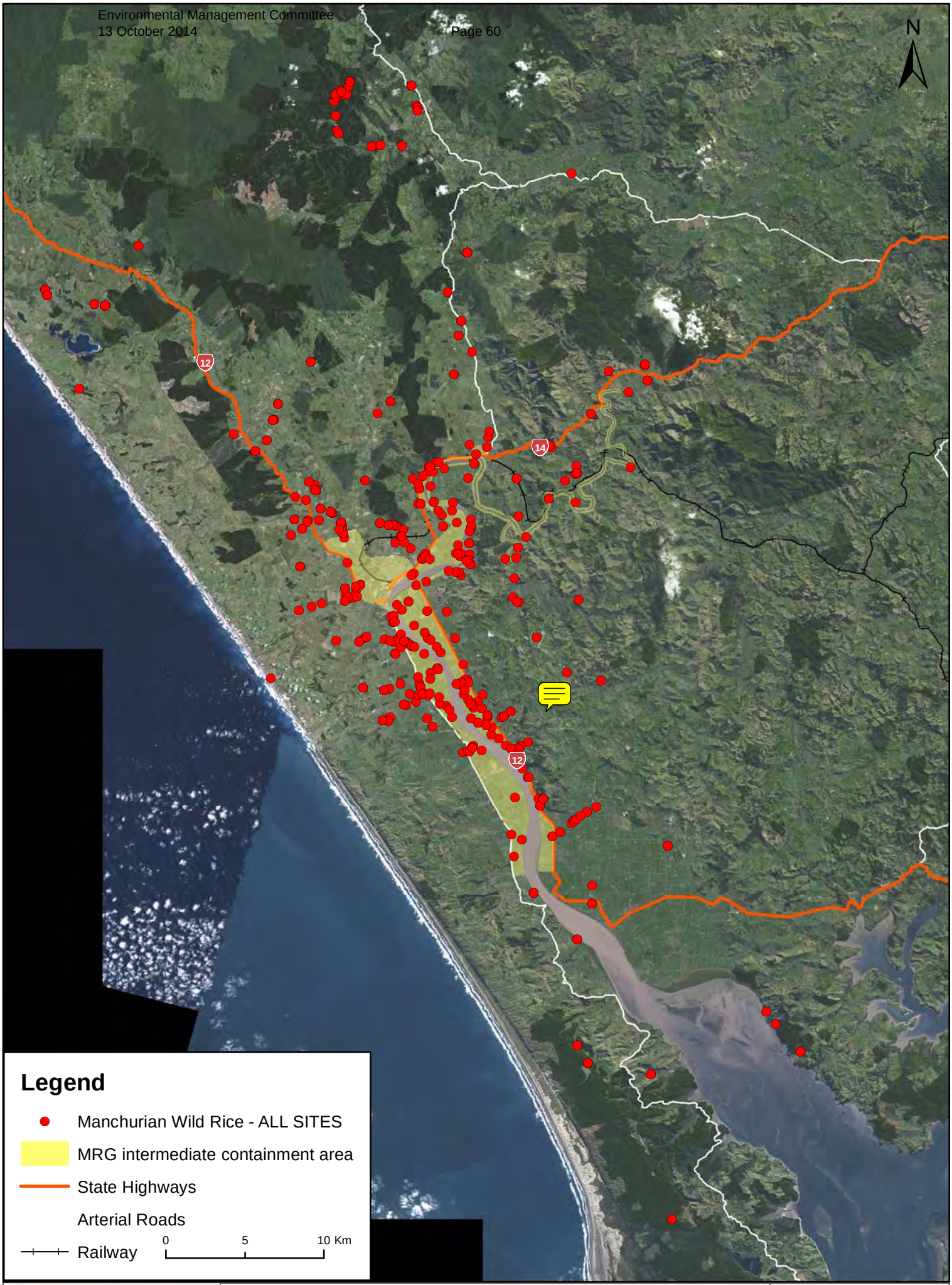
Density scale	Description of density scale
6	Infestation is 2-3 metres high with 80 – 100% over site
5	Infestation regrowth is more than 1metre high and occurring over 50 – 80% of the site
4	Infestation regrowth is 500mm – 1metre high and occurring over 10 – 50% of the site
3	Infestation regrowth is 200mm – 500mm high and occurring over 5 – 10% of the site
2	Infestation regrowth is less than 200mm high and occurring over less than 5% of the site
1	Infestation is grazed and managed in pasture and less than 200mm high
0	None found

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(s):

1. That the report Manchurian Wild Rice Programme Update by Curtis Harris, Manchurian Wild Rice Project Officer and dated 18 September 2015, be received.



NORTHLAND REGIONAL COUNCIL
www.nrc.govt.nz

Manchurian Wild Rice Sites

Name: MRG Curtis map
User: kanem
Date Saved: 14/07/2014 1:24:31 p.m.

ITEM: 8

ISSUE: Environmental Monitoring for the period 1 – 24 September 2014

ID: A678889

To: Environmental Management Committee Meeting, 13 October 2014

From: Colin Dall, Consents/Monitoring Senior Programme Manager

Date: 25 September 2014

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☑	Regulatory function
	☑	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive Summary:

The purpose of this report is to provide an update on council's monitoring and compliance work for the period 1 September – 24 September 2014. 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 tables giving details of activities which have been monitored and found to have more than minor environmental effects, and 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:

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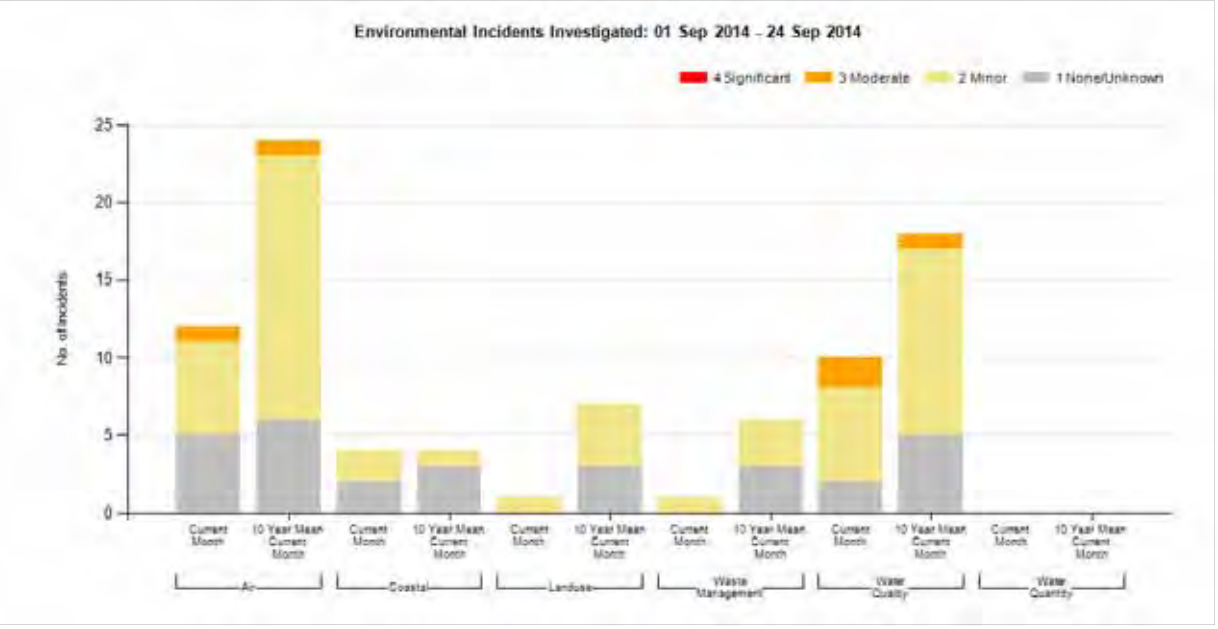
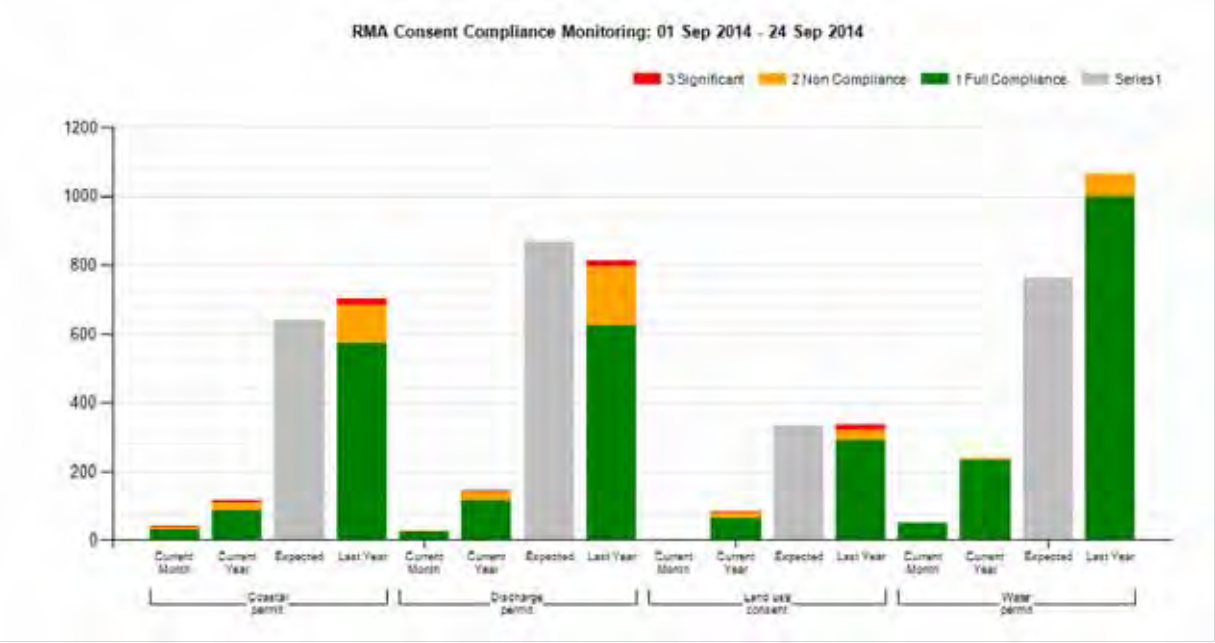
1. That the Environmental Monitoring report for the period 1 – 24 September 2014 from Colin Dall, Consents/Monitoring Senior Programme Manager, be received.

Attachment 1 to Item 8

Environmental Incidents Investigated: 1 – 24 September 2014



Resource Consent Compliance Monitoring: 1 – 24 September 2014



ABBREVIATIONS KEY

WDC	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		

DISCHARGES TO AIR – No significant non-compliant events were recorded during the period 1 September – 24 September 2014.

DISCHARGES TO WATER OR LAND – No significant non-compliant events were recorded during the period 1 September – 24 September 2014.

LAND USE ACTIVITIES – No significant non-compliant events were recorded during the period 1 September – 24 September 2014.

WATER TAKES – No significant non-compliant events were recorded during the period 1 September – 24 September 2014.

FARM DAIRY EFFLUENT DISCHARGES – CONSENTED

Date	Consent Reference No.	Name	Description	Notes	Environmental impact
04/09/2014	REG.009874.01	Kirk R H & P E	FDE 1418 at Poyner Road, Matakohe	• T-piece was disconnected. • Pond 2 was discharging over the embankment.	Unknown
04/09/2014	REG.009965.01	Carter G J & J L	FDE 1435 at Lindquist Road, Matakohe	• Feed bins had been set up on a race, the effluent was not contained and was likely to enter water.	Unknown
04/09/2014	REG.009458.01	Fenwick S L	FDE 1430 at Ararua Road, Ararua	• Silage waste and sediment discharged to land and to water.	Unknown
04/09/2014	REG.009511.01	Meghoven Farms Ltd	FDE 1421 at Poyner Road West, Ararua	• Excessive overland flow from irrigator. • Water quality test results outside RC limits.	Moderate
04/09/2014	REG.009179.01	Pierce M G & R A	FDE 1436 at Linquist Road, Ararua	• Untreated effluent discharged from a race to land and then to water.	Unknown

Date	Consent Reference No.	Name	Description	Notes	Environmental impact
05/09/2014	REG.011393.01	Moonrock Farm Ltd	FDE 8125 at Pouto Road, Aratapu	• Untreated effluent from an underpass discharged to water.	Significant
08/09/2014	REG.008804.01	Pilkington M L & C M	FDE 1503 at Wairere Road, Paparoa	• Milking pit waste discharged to water.	Moderate
09/09/2014	REG.012245.01	Madsen B C & B Y	FDE 4240 at Te Kowhai Road, Ruāwai	• Effluent from a leak in the base of the storage pond discharged to water.	Moderate
10/09/2014	REG.013111.01	Tony Brcich Ltd	FDE 4329 at Hodgson Road, Ruāwai	• The required system upgrade had not been completed.	Unknown
11/09/2014	REG.009653.01	Waterson Partnership	FDE 4315 at Tramline Road, Ruāwai	• Ground conditions were unsuitable for irrigation. • Effluent from the irrigator had caused excessive ponding.	Unknown
15/09/2014	REG.011328.01	Fonterra Cooperative Group Limited	FDE 2207 at State Highway 1, Kauri	• Effluent from the solids collection pond had overflowed to a stock race. • Effluent from pond 1 bypassed pond 2. • Untreated effluent from three stand-off pads flowed overland and was likely to enter water.	Moderate
19/08/2014	REG.009248.01	Hokonui Farms Ltd	FDE 1006 at Baldrock Road, Kaiwaka	• Untreated effluent from the feedpad and entry/exit race discharged to land and was likely to enter water.	Moderate
21/08/2014	REG.009155.01	Thornton Farms (2001) Ltd	FDE 1134 at Mountain Road, Maungaturoto	• The discharge pipe from pond 4 was disconnected. • There was a large volume flow out of the pond. • Water quality test results were outside RC limits.	Moderate
21/08/2014	REG.009598.01	Windmill Products Ltd	FDE 5724 at Valley Road, Kaiwaka	• Untreated effluent discharged down the stormwater bypass to water.	Significant

Attachment 2 to Item 8

Date	Consent Reference No.	Name	Description	Notes	Environmental impact
21/08/2014	REG.017239.01	Underwood B K & D K D	FDE 1129 at Tain Road, Maungaturoto	• Management was inadequate. • There was no t-piece on pond 1 outlet. • Pond 2 was overtopping the embankment. • There was stock damage to the embankments.	Unknown
21/08/2014	REG.023216.01	Mount Moriah Jerseys Ltd	FDE 5717 at Settlement Road, Kaiwaka	• Water quality test results were outside RC limits.	Moderate
22/08/2014	REG.012161.01	Guy Family Ltd	FDE 8775 at Te Maire Road, Te Maire	• Water quality test results were outside RC limits.	Moderate
22/08/2014	REG.009014.01	Guest W J & N M	FDE 8768 at Pouto Road, Repia	• The upgrade required by the RC (by 30 April 2012) had not been completed.	Moderate
25/08/2014	REG.009705.01	Cullen B T	FDE 1112 at State Highway 12, Brynderwyn	• Silage waste had been placed very close to a drain. • There was a high risk of adverse environmental effects.	Unknown
25/08/2014	REG.009514.01	Paton B J & Musgrave B J	FDE 1102 at State Highway 12, Maungaturoto	• Silage leachate discharged to water.	Unknown
26/08/2014	REG.029941.01	Logan King Trust	FDE 205 at 400C Kumi Road, Awanui	• The upgrade required by the RC (by 2012) had not been done. • Effluent from a stand-off area was likely to enter water.	Minor
26/08/2014	REG.012141.01	Brynmenin Partnership	FDE 4037 at Speechly Road, Matakohe	• Maintenance was inadequate. • Water quality test results were outside RC limits.	Moderate
26/08/2014	REG.010472.01	McInnes N F& C M	FDE 1404 at Pahi Road, Paparoa	• There was overland flow of effluent due to over-application from an irrigator.	Unknown

Date	Consent Reference No.	Name	Description	Notes	Environmental impact
26/08/2014	REG.008811.01	Faraway Ltd	FDE 143 at Pukepoto Road, Pukepoto	• Untreated effluent had discharged via a stormwater bypass to water.	Moderate
26/08/2014	REG.012281.01	Maw J J & C A	FDE 1412 at Horniblow Road, Matakohe	• Untreated effluent from a feedpad had discharged to land and to water.	Minor
26/08/2014	REG.009268.01	Greville J W & R P	FDE 4015 at Arapoa Road, Huketere	• There was overland flow of effluent due to over-application from an irrigator.	Unknown
27/08/2014	REG.008808.01	Jones D A & E D	FDE 2525 at Ormandy Road, Mangapai	• Water quality test results were outside RC limits.	Moderate
27/08/2014	REG.009546.01	Ahrens Y	FDE 2510 at Maungakaramea Road, Puwera	• Effluent from pond leaked to water.	Unknown
29/08/2014	REG.029773.01	Clanrye Trust	FDE 8012 at Guy Road, Tatarariki, Te Kopuru	• Effluent discharged through the pond embankment to water.	Minor

FARM DAIRY EFFLUENT DISCHARGES – NON-CONSENTED

Date	Consent Reference No.	Name	Description	Notes	Environmental impact
03/09/2014	REG.800293.01	Moulds M B & M K	FDE 1424 at Poyner Road, Ararua	• Untreated effluent from a dairy sump discharged to water. • Over-application of effluent from the irrigator discharged to water.	Moderate
04/09/2014	REG.804060.01	Taylor G R N & S J	FDE 9013 at State Highway 12, Paparoa	• Piggery effluent from irrigators and a storage pond discharged to water.	Moderate
04/09/2014	REG.864667.01	Whiteford S R & A G	FDE 1428 at Ararua Road, Ararua	• Treated effluent from pond 2 discharged to water.	Unknown
05/09/2014	REG.801106.01	Greville Partnership	FDE 8066 at Coast Road, Redhill	• The pond was overtopping the embankment. • Effluent from a race was likely to enter water.	Unknown

Attachment 2 to Item 8

Date	Consent Reference No.	Name	Description	Notes	Environmental impact
05/09/2014	REG.800861.01	Pulman Farms Ltd	FDE 8156 at Notorious West Road, Aoroa	• Effluent from the pond leaked to water.	Unknown
05/09/2014	REG.800832.01	Bega Farms Ltd	FDE 8060 at Redhill Road, Redhill	• The storage pond was discharging.	Unknown
11/09/2014	REG.803989.01	Sanford Family Trust	FDE 4418 at Tramline Road, Ruāwai	• A calf shed and pig pen discharged to water.	Unknown
17/09/2014	REG.800347.01	McAulay B I	FDE 1741 at Nova Scotia Drive, Waipū	• Untreated effluent discharge to water and unauthorised discharge of treated effluent to water.	Unknown
17/09/2014	REG.804135.01	McAulay B I	FDE 1814 at Cullen Road, Waipu Cove	• Effluent from a feedpad pond discharged to water. • Effluent from pond 2 was overtopping the embankment and discharged to water. • Pond 3 was also discharging to water. • The discharges were causing gross discolouration of the stream.	Unknown
19/08/2014	REG.800709.01	Ōruawharo Incorporated	FDE 6769 at Ōruawharo Road, Ōruawharo	• Untreated effluent likely to discharge via stormwater bypass due to pipe damage.	Unknown
19/08/2014	REG.804405.01	Ōruawharo Inc	FDE 6768 at Ōruawharo Road, Ōruawharo	• Effluent from the storage pond overflowed to water. • Effluent from irrigator hose discharged to land and to water.	Moderate
26/08/2014	REG.800596.01	Watkins R L Trust	FDE 4009 at Tinopai Road, Hukatere	• Effluent leaked through a pond embankment and flowed overland to water.	Unknown

Date	Consent Reference No.	Name	Description	Notes	Environmental impact
27/08/2014	REG.800412.01	J K D Farms Ltd	FDE 2513 at Marshville Road, Maungakaramea	• Effluent from a pond discharged to water. • The discharge caused gross discolouration of the stream.	Unknown
28/08/2014	REG.800568.01	Bint M C & J A	FDE 3701 at Codlin Road, Tangihua	• Ground conditions were unsuitable for land application. • Contingency storage was available in the ponds. • Over-application of effluent from the irrigator had resulted in ponding and overland flow.	Unknown
28/08/2014	REG.800579.01	Ahrens A T J	FDE 3743 at Haywood Road, Mangapai	• There was inadequate contingency storage. • There was evidence that the storage pond had been overflowing. • Over-application of effluent from the irrigator had resulted in overland flow.	Unknown
28/08/2014	REG.801416.01	Robson V	FDE 3643 at Otuhi Road, Tangihua	• Effluent from pond 1 discharged to stormwater drain.	Unknown
29/08/2014	REG.804510.01	Sanford B F	FDE 8083 at Redhill Road, Dargaville	• Effluent leaked from pond to a tributary of a dune lake.	Minor

COASTAL ACTIVITIES

Date	Consent Reference No.	Name	Description	Notes	Environmental Impact
20/08/2013	REG.012972.01	Parengarenga Fisheries Limited	Oyster farm lease No. 227 @ Parengarenga Harbour	• Ongoing non-compliance with RC conditions.	None
02/09/2014	REG.004204.01	Fonterra Limited (Maungaturoto)	Discharge process wastewater to the Otamatea River estuary @ Maungaturoto Dairy Factory	• Discharge of casein washwater to the estuary due to operator error.	Minor

ENVIRONMENTAL INCIDENTS

Date	Reference No.	Description	Notes	Environmental Impact
5/09/2014	REQ.574683	Contaminant discharge @ Hiko Rd, Kamo	• Contaminated discharge via stormwater runoff from trade/industrial site. • WDC has been investigating ongoing issues at the site in regard to stormwater.	Moderate
11/09/2014	REQ.574743	Smoke nuisance @ Port Rd, Whāngārei	• Incident investigation confirmed non-compliance with the relevant rule of the RAQP. • Formal enforcement action taken.	Moderate

SOE MONITORING – AIR, LAKES AND WATER

Classification	Date	Project	Notes
Air Quality	4/09/2014	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 during August 2014. • Routine monthly audit calibration of particulate, sulphur dioxide and carbon monoxide monitors at Robert Street, Whāngārei.
	10/09/2014	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 during August 2014. • Routine monthly audit calibration of PM10 monitor at Marsden Point, Ruakaka.
Catchment Investigation	10/09/2014	Waiora Northland Water - Waitangi Catchment Investigation	• Routine water quality monitoring of the Mania, Pekapeka, Waiaruhe, Waipapa, Watercress and Waitangi Rivers.
Coastal - Water	8/09/2014	Kaipara Harbour Water Quality Programme	• Eight water quality sites sampled in the Kaipara Harbour. • Results Pending.
	18/09/2014	Bay of Islands / Kerikeri Water Quality Programme	• Sixteen water quality sites sampled in the Bay of Islands. • Results pending.
Groundwater	9/09/2014	Groundwater - Ruāwai Aquifer Investigation	• Routine groundwater monitoring at Ruāwai.
	10/09/2014	Mangawhai – Nitrate Investigation	• Routine groundwater monitoring at Mangawhai.

Classification	Date	Project	Notes
Groundwater	18/09/2014	Groundwater Investigation – Taipā Aquifer	• Routine groundwater monitoring at Taipā.
Kaipara Harbour Study	1/09/2014	Sediment sampling – Wairua / Mangakahia	• Samples collected by an automated sampler for NIWA Kaipara Harbour study. • To be analysed for TSS and microbial concentrations.
Lake Water Quality Monitoring Network (LWQMN)	2/09/2014	LWQMN – Pouto Lakes	• Routine water quality monitoring of Lakes Mokeno, Karaka, Wainui, Kahuparere, Kanono, Rotokawau, Humuhumu, Swan and Rototuna.
	9/09/2014	LWQMN – Kai Iwi Lakes	• Routine water quality monitoring of Lakes Kai Iwi, Taharoa and Waikare.
	17/09/2014	LWQMN – Lake Omapere	• Routine water quality monitoring of Lake Omapere and its outlet.
River Water Quality Monitoring Network (RWQMN)	17/09/2014	RWQMN – Northern	• Routine monthly water quality monitoring of the Mangamuku, Awanui, Oruru and Kaeo Rivers.
	17/09/2014	RWQMN – Eastern	• Routine monthly water quality Monitoring of the Waitangi, Waipapa, Kerikeri, Waiharakeke, Waiotu, Ngunguru, Hātea and Whakapara Rivers and the Mangahahuru Stream

ISSUE: **Recreational Swimming Water Quality Programme**

ID: A676293

To: Environmental Management Committee, 13 October 2014

From: John Ballinger, Environmental Monitoring Programme Manager

Date: 16 September 2014

Report Type:	☑	Normal operations	☑	Information	☐	Decision
Purpose:	☐	Infrastructure	☑	Public service	☐	Regulatory function
	☐	Legislative function	☑	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive Summary:
The purpose of this report is to summarise the results of the 2013-14 recreational swimming water quality programme and to outline the proposed programme for 2014-15.

The recreational swimming water quality programme is a joint project, administered by the Northland Regional Council (NRC), in partnership with the Northland District Health Board (DHB), the Far North District Council (FNDC), Whangarei District Council (WDC) and Kaipara District Council (KDC). The aim of the programme is to provide information on water quality at popular freshwater and coastal swimming sites in Northland, to allow the public to make informed decisions about where to swim. Once swimming sites with elevated levels of faecal indicator bacteria are identified the NRC and relevant district council identify the source of contamination, and together work towards improving water quality at these sites where possible.

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.

Recommendations:

1. That the report Recreational Swimming Water Quality Programme dated 16 September 2014, prepared by John Ballinger, Environmental Monitoring Programme Manager, dated 16 September 2014, be received.
2. That the report programme for 2014/15 as outlined in the report be supported.

Proposed recreational swimming water quality programme 2014-15:
This proposed programme will be subject to discussion at the pre-season stakeholder meeting in October 2014.

Sites and sampling regime
Council staff propose that in 2014-15, the number of coastal and freshwater sites will remain the same as for the 2013-14 season (i.e. 47 and 12 sites respectively). All sites will be monitored weekly until 10 February 2015 by staff and students employed over the summer period, and then up to 26 sites will be monitored until 24 March 2015 by staff only. This later period is outside the 'peak' recreation period as the school term begins on 5 February 2015.

Data recorded from some of these sites will also be used to inform objective and limit setting for the NPS Freshwater project.

Results from the sampling are sent to District Councils and the District Health Board for action (erect warning signs and undertake follow up sampling), and are displayed on NRC's website.

Site investigations
Sites which meet the guidelines on <75% of sampling occasions will be investigated to try and determine where the contamination is coming from, and wherever possible, the problem will be remedied.

Table 1 below lists the sites that we intend to investigate in 2014-15 to try and determine the source of contamination.

Investigative work includes the use of microbial source tracking (MST), catchment profiling and undertaking sanitary surveys. Catchment profiling is only carried out if the first MST result returns a contamination source either from ruminants or humans. Sanitary surveys are only done at sites where the MST returns a positive human result, or where specific toilets/septic tank systems are suspected to be faulty.

Table 1: Site investigation schedule 2014-15 – IR: If Required, n/a: Not Applicable

Site Name	Weekly Monitoring	Faecal Source Analysis	Catchment Profiling	Sanitary Survey
Matapouri 2nd bridge	✓	✓	Done	n/a
Pahi 150m NW of jetty	✓	✓	✓	Done
Paihia at Te Haumi River	✓	✓	IR	n/a
Paihia at Waitangi Bridge	✓	✓	IR	n/a
Raumanga Stream	✓	✓	IR	n/a
Ruakaka River below motor camp	✓	✓	IR	n/a
Tirohanga Stream	✓	✓	IR	IR
Victoria River	✓	✓	In progress	In progress
Waitangi River at Watea	✓	✓	IR	IR

Pathogen testing at Whangarei falls
In addition to the investigations at the sites above, 2 more rounds of pathogen testing will be carried out at Whangarei Falls as a follow up to the first round of sampling conducted last winter. The results from this testing will be included in the next bathing summary report to the EMC and the 2014-15 recreational bathing technical report.

The cost of running the bathing programme for the 2014-15 season is expected to be the same as last season, i.e. approximately $136,500. The cost of the programme was reduced considerably in 2011-12 as the number of sites monitored was reduced by 30% by removing sites with bacterial levels consistently within the guidelines, which saved approximately $20,000.

Appendix 1

Summary of results from 2013-14

From November 2013 to February/March 2014, a total of 12 freshwater and 47 coastal sites were monitored through the recreational swimming water quality programme.

Action and alert levels are determined using the Ministry for the Environment (MfE) and Ministry of Health (MoH) guidelines for coastal and freshwater swimming water quality. Enterococci (Ent.) bacteria are quantified for coastal sites and Escherichia coli (*E. coli*) bacteria for freshwater sites. Guidelines are presented in 2.

Table 2: MfE, MoH 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

In total, there were between 11 to 17 sampling occasions for each site during the season. Results for both coastal (3 and Figure 1) and freshwater (4 and Figure 2) sites are presented below.

In comparison with the guidelines, 29 coastal sites met the suitable for swimming criteria 100% of the time in 2013-14. A further 11 were suitable for swimming on all but one occasion, and 7 were suitable for swimming on all but two occasions.

Three freshwater sites met the suitable for swimming criteria 100% of the time, and four sites were suitable for swimming on all but two sampling occasions. The remaining five freshwater sites were classified as unsuitable for swimming on more than two occasions during the season.

The results from faecal indicator bacteria testing in 2013-14 were similar at coastal sites and slightly improved at freshwater sites when compared with the 2012-13 season.

Table 3: Seasonal COASTAL grades compared to national guidelines

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

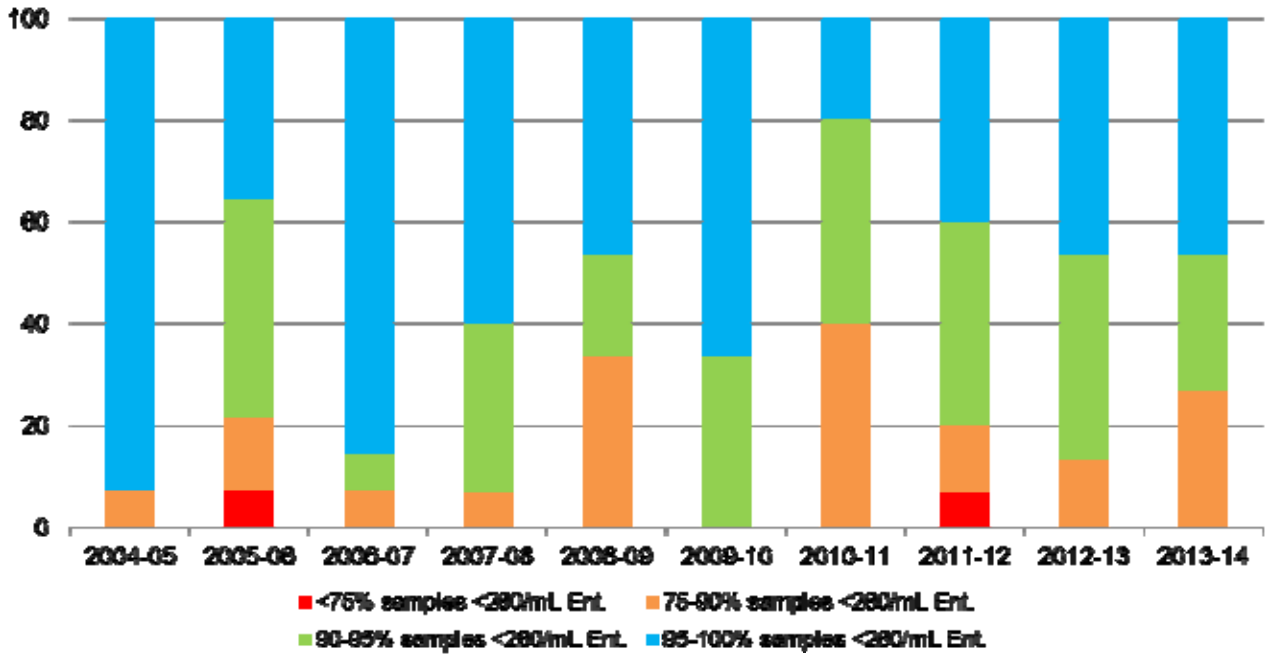


Figure 1: Seasonal percentage of COASTAL sites within each grade from 2007 to 2014

Table 4: Seasonal FRESHWATER grades compared to national guidelines

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

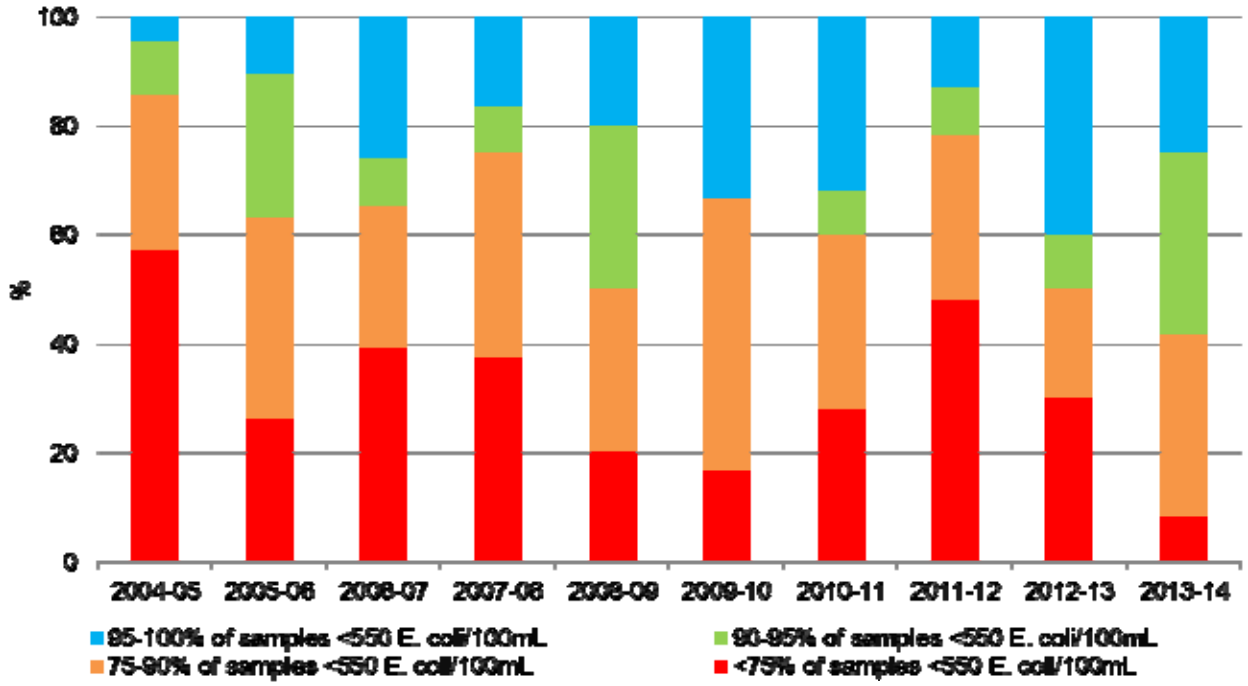


Figure 2: Seasonal percentage of FRESHWATER sites within each grade from 2007 to 2014

Catchment investigations

A total of 22 sites have now been studied as part of a council initiative to investigate water quality issues at sites not meeting the guidelines. Microbial source tracking to isolate the source(s) of contamination at these sites has shown that 20 sites were contaminated by wildfowl (ducks and/or gulls), 14 sites were contaminated by ruminant faecal material; four sites with dog faecal material and three sites by a human source of pollution.

The three sites that showed a source of contamination to be human were Pahi (150m NW of jetty), Ocean Beach stream and Raumanga Stream. Where the source of contamination is from natural sources, i.e. avian (birds), little can be done to rectify the problem. Where the source of contamination is related to humans or human activities (i.e. human, herbivore or dogs), council staff work with landowners to remedy the situation such as developing farm water quality improvement plans.

Appendix 2

End of season MfE grades 2013-2014

ITEM: 10

ISSUE: Agenda items for next EMC meeting– 8 December 2014

ID: A692853

To: Environmental Management Committee, 13 October 2014

From: Peternel McLean, Committee Secretary

Date: 29 September 2014

Report Type:	☑	Normal operations	☐	Information	☐	Decision
Purpose:	☐	Infrastructure	☐	Public service	☐	Regulatory function
	☑	Legislative function	☐	Annual\Long Term Plan	☐	Other
Significance:	☐	High	☐	Moderate	☑	Low

Executive summary:

The purpose of this report is to request committee members for agenda items for the next Environmental Management Committee meeting on the 8 December 2014.

Legal compliance:

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 the 8 December 2014.
