

# **AGENDA**

## **ENVIRONMENTAL MANAGEMENT COMMITTEE**

**Monday 27 June 2016 9.30am**

**NORTHLAND REGIONAL COUNCIL  
ENVIRONMENTAL MANAGEMENT COMMITTEE**

**Agenda**

|   |
|---|
| Meeting to be held in the Council Chambers, 36 Water Street, Whangarei<br>on Monday 27 June 2016 commencing at 9:30am |
|---|

**MEMBERSHIP OF THE ENVIRONMENTAL MANAGEMENT COMMITTEE**

Cr J Carr, Chairman

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

**OPEN MEETING**

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| <b>2 Declarations of Conflicts of Interest</b>   |              |
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**ISSUE: Confirmation of Minutes – 26 April 2016**

**ID:** A851809

**To:** Environmental Management Committee, 26 April 2016

**From:** Nola Sooner, Committee Secretary

**Date:** 12 June 2016

|                      |  |   |  |
|----------------------|--|---|--|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations    | <input type="checkbox"/> Information              | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure                  | <input type="checkbox"/> Public service           | <input type="checkbox"/> Regulatory function |
|                      | <input checked="" type="checkbox"/> Legislative function | <input type="checkbox"/> Annual\Long Term Plan    | <input type="checkbox"/> Other               |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                       | <input checked="" type="checkbox"/> Not Triggered |  |

**Executive summary:**

The purpose of this report is to present the minutes of the Environmental Management Committee meeting held on 26 April 2016 (**attached**) for confirmation.

**Legal compliance:**

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

**Recommendations:**

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That the minutes of the Environmental Management Committee meeting held on 26 April 2016 be received.

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**NORTHLAND REGIONAL COUNCIL  
ENVIRONMENTAL MANAGEMENT COMMITTEE**

Minutes of the Environmental Management Committee Meeting  
held in the Council Chamber,  
Northland Regional Council, 36 Water Street, Whangārei, on  
Tuesday 26 April 2016, commencing at 9.30 am

**Present:**

**Northland Regional Council**

Cr Joe Carr (Chairman)  
Cr Craig Brown (Deputy Chairman)  
Cr Bill Shepherd (ex officio)  
Cr Paul Dimery  
Cr Monty Knight

**Whangarei District Council**

Cr Tricia Cutforth

**Far North District Council**

Cr Ann Court

**Farming Community**

Alan Clarkson

**Māori Interests**

Keir Volkerling

**In Attendance:**

**NRC Staff - Full Meeting:**

Group Manager Environmental Services  
Group Manager Regulatory Services  
Committee Secretary

**NRC Staff - Part Meeting:**

Chief Executive Officer  
Biosecurity Manager  
Resource Management Planning and Policy Manager  
Waiora Northland Water Project Manager  
Environmental Assets Manager  
Biodiversity Advisor  
Biosecurity Officer – Aquatic  
Land Manager  
Kaitaia Area Manager  
Policy Specialist – Water Quality  
Economist

The Chairman declared the meeting open at 9.30 am.

**Apologies**

**Moved (Carr/Brown)**

That the apologies from Richard Booth, Martin Hunt, Geoff Gover and Sue Reed-Thomas for absence be received.

**Carried**

## **Declarations of Conflicts of Interest**

It was advised that councillors should make declarations item-by-item as the meeting progressed.

## **Confirmation of Minutes: Environmental Management Committee Meeting – 29 February 2016 (Item 3.0)**

**Report from Nola Sooner, Committee Secretary.  
A834106**

### **Moved (Brown/Cutforth)**

That the minutes of the Environmental Management Committee meeting held on 29 February 2016 be confirmed as a true and correct record.

**Carried**

## **Update on Far North Wild Fowl Management (Item 4.0)**

**Report from Lisa Forester, Environmental Assets Manager.  
A826242**

### **Moved (Carr/Knight)**

1. That the report "Update on the impacts of Black Swan and Canada Geese on Far North Habitats" by Lisa Forester, Environmental Assets Manager and dated 5 April 2016 be received.
2. That NRC supports other agencies and stakeholders of problem wildfowl and assists with management at sites where issues arise.
3. That NRC receives the verbal report presented by Kevin Matthews and that a small group of Council staff should work with Kevin Matthews to identify the issues and present a strategy to deal with wildfowl in the Far North.

**Carried**

## **Waioira Northland Water Progress (Item 5.0)**

**Report from Natalie Blandford, Waioira Northland Water Project Manager.  
A826313**

### **Moved (Brown/Knight)**

1. That the report Waioira Northland Water progress by Natalie Blandford, Waioira Northland Water Project Manager and dated 1 April 2016, be received.
2. That Diane Ruawhare, be approved as additional Waitangi catchment group hapu representative (Ngawha).
3. That the catchment group resignations of Gerry Brackenbury (Mangere) and Nathan Burkepile (Waitangi), and Paul Dunn (Whāngārei) be accepted.
4. That the nomination of Aaron Woolam as Forestry Industry representative to the Poutō catchment group be approved.
5. That the nomination of Mark Dudley as Pukenui/Western Hills Forest Charitable Trust representative on the Mangere catchment group be approved.
6. That letters of appreciation be sent to the catchment group members that have tendered their resignation as noted in this report.

**Carried**

## **Sustainable Land Management Update (Item 6.0)**

**Report from Duncan Kervell, Land Manager.  
A826411**

**Moved (Carr/Dimery)**

That the report 'Sustainable Land Management Update' by Duncan Kervell, Land Manager and dated 31 March 2016, be received.

**Carried**

## **Biosecurity Update (Item 7.0)**

**Report from Don Mckenzie, Biosecurity Manager.  
A833081**

**Moved (Knight/Dimery)**

1. That the report Biosecurity Update by Don McKenzie, Biosecurity Manager and dated 5 April 2016 be received.
2. That the Environmental Management Committee agrees the CEO is to provide a submission to the Fiordland Marine Pest Pathways Plan on behalf of the committee and that an electronic copy of the draft submission be sent to Environmental Management Committee members for their comment.

**Carried**

## **Kauri Dieback Update (Item 8.0)**

**Report from Kane McElrea, Biosecurity Projects Manager.  
A832205**

**Moved (Brown/Cutforth)**

That the report Kauri Dieback Update by Kane McElrea, Biosecurity Projects Manager and dated 04 April 2016 be received.

**Carried**

## **Review of Regional Pest Management Strategies (Item 9.0)**

**Report from Don McKenzie, Biosecurity Manager.  
A832755**

**Moved (Clarkson/Brown)**

1. That the report Review of Regional Pest Management Strategies - extension of timeline by Don McKenzie, Biosecurity Manager and dated 06 April 2016, be received.
2. That the Committee support a revised timing for formal notification of the proposed Regional Pest Management Plan and Pathway Management Plan.

**Carried**

**River Management & Natural Hazards Update (Item 10.0)**  
**Report from Joseph Camuso, Rivers and Natural Hazards Manager.**  
**A833096**

**Moved (Carr/Dimery)**

That the report River Management & Natural Hazards Update by Joseph Camuso, Rivers and Natural Hazards Manager and dated 6 April 2016 be received.

**Carried**

**Proposed Release of Coastal Hazards Maps (Item 11.0)**  
**Report from Toby Kay, Natural Hazards Advisor.**  
**A833303**

**Moved (Brown/Clarkson)**

1. That the report 'Proposed Release of Coastal Hazards Maps' by Toby Kay, Natural Hazards Advisor, and dated 30 March 2016, be received.
2. That the Environmental Management Committee confirms its support for Council to make the mapping available to the public as a draft version via the online maps, and that property owners in the mapped areas are notified and invited to provide feedback on the maps.

**Carried**

**Environmental Monitoring for the period 1 March 2016 – 31 March 2016 (Item 12.0)**  
**Report from Colin Dall, Group Manager Regulatory Services.**  
**A832105**

**Moved (Carr/Brown)**

That the Environmental Monitoring report for the period 1– 31 March 2016 from Colin Dall, Group Manager Regulatory Services, dated 5 April 2016 be received.

**Carried**

**NRC & DOC Memorandum of Understanding (Item 13.0)**  
**Report from Bruce Howse, Group Manager Environmental Services.**  
**A831823**

**Moved (Volkerling/Dimery)**

1. That the report 'NRC & DOC Memorandum Of Understanding' by Bruce Howse, Group Manager Environmental Services, and dated 4 April 2016, be received.
2. That the Committee recommends to Council the approval of the draft memorandum of understanding and that Council delegates authority to the NRC Chairman to sign the memorandum on behalf of Council at a signing ceremony to be held at the 27 June 2016 Environmental Management Committee meeting.

**Carried**

**Managing risk to Human Health/Pathogens in Waterways**  
**Presentation (Item 13)**  
**Report from Nola Sooner, Committee Secretary.**  
**A834109**

**Moved (Clarkson/Brown)**

That the presentation from Dr Jacqueline Rowarth be received.

**Carried**

**Agenda items for next Environmental Management Committee**  
**Meeting – 27 June 2016 (Item 15.0)**  
**Report by Nola Sooner, Committee Secretary.**  
**A834113**

**Moved (Dimery/Clarkson)**

That the Environmental Management Committee members recommend agenda items for inclusion into the agenda for the next Environmental Management Committee meeting on 26 April 2016.

**Carried**

**Conclusion**

The meeting closed at 12.20 pm.



**ISSUE: Waiora Northland Water Progress**

**ID:** A834870

**To:** Environmental Management Committee, 27 June 2016

**From:** Natalie Blandford, Waiora Northland Water Project Manager

**Date:** 3 June 2016

|                      |  |   |  |
|----------------------|--|---|--|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations    | <input checked="" type="checkbox"/> Information   | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure                  | <input type="checkbox"/> Public service           | <input type="checkbox"/> Regulatory function |
|                      | <input checked="" type="checkbox"/> Legislative function | <input type="checkbox"/> Annual\Long Term Plan    | <input type="checkbox"/> Other               |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                       | <input checked="" type="checkbox"/> Not Triggered |  |

**Executive Summary:**

The purpose of this report is to provide an update on progress with Waiora Northland Water and contributing programmes between 1 April and 1 June 2016.

**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 2015-2025 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.

**Recommendation:**

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That the report Waiora Northland Water Progress by Natalie Blandford, Waiora Northland Water Project Manager and dated 3 June 2016, be received.

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### **Report:**

Waioara Northland Water is council's programme to implement the National Policy Statement for Freshwater Management (NPS FM) and progressively improve water management in Northland. The programme comprises three core elements as follows:

- Regional planning
- Catchment planning (Priority catchments)
- Operational programmes.

### **NATIONAL INITIATIVES**

#### **Land and Water Forum**

The Land and Water Forum (LAWF) has been asked to review the work by the National Objectives Framework Reference Group by September 2016. LAWF will provide commentary on the overall implementation of the NPS FM (2011 and 2014) drawing on the experience of regional councils to date. The aim is to highlight common threads and areas of work that would aid in the implementation of the NPS FM through to 2025.

Following this review, LAWF has been tasked to consider water policy and its implementation (including experience with collaborative processes) and identify further work required to achieve the overall objective of improved water management in New Zealand. LAWF has until 31 December 2017 to complete this wider review.

#### **Resource Legislation Amendment Bill 2015**

The local government and environment select committee was due to report back to Parliament on the Resource Legislation Amendment Bill on 3 July 2016, but has now been granted until 6 September 2016 to deliberate on the range of major issues identified in the more than 1000 submissions received.

### **REGIONAL PLANNING**

#### **Draft regional plan**

Development of the draft regional plan is on-track for release for public feedback between early August and late September 2016. This consultation is non-statutory and designed to 'road-test' the draft. The draft will then be revised as needed considering the feedback received and formally notified under Schedule 1 of the Resource Management Act 1991 mid-late 2017. Draft catchment plans for Doubtless Bay, Mangere, Pouto, Waitangi and Whangarei Harbour will follow a parallel feedback process.

### **CATCHMENT PLANNING**

Catchment plan development for Doubtless Bay, Mangere, Waitangi, Poutō and Whangārei catchments is addressed in a separate item in this agenda.

### **CATCHMENT UPDATE**

#### **Mangere catchment group**

A planting day is scheduled at catchment group member Rob Pye's drystock property for Friday 24 June 2016, to supplement the riparian planting with 600 plants carried out last year. Reconnecting Northland has again funded 500 plants and Mangere catchment group members, Regional Council staff, Kokopu school students, teachers and parent helpers will provide the labour.

During the same planting season, the Reconnecting Northland planting crew are planting a further 500 plants at catchment group co-chair Royce Kokich's and another 500 at Mangere catchment farmer Kevin Sidwell's. DairyNZ was instrumental in coordinating all 1500 plants for Mangere catchment environmental enhancement.

### **Whāngārei catchment group**

#### **Hātea project**

The application to the Ministry for the Environment Community Environment Fund was submitted 2 May 2016. If successful, the project will receive \$260,000, with the aim of having 70% of the catchment waterways fenced from stock; planting 20,000 native riparian plants on private land and increasing community awareness of water quality issues via signage and running two open days at the Hātea Falls. An NRC contribution of \$50,000 per financial year from the Environment Fund has been allocated for fencing in the catchment as a co-funding requirement for the three year life of the project, if the application is successful.

### **Doubtless Bay catchment group**

#### **Lake Waiporohita**

Staff met with the Rangiputa Landcorp Site Manager in late May 2016 to discuss a proposal to improve water quality in Lake Waiporohita. Options put forward for the proposal include new and upgraded fencing, work on the drain leading to the lake, removal of weeds (including some large trees like pines, wattles and gorse), and a much larger setback area incorporating all wet areas and land draining to the lake. A pedestrian track to provide walking access right around the lake was also proposed.

Landcorp has agreed in principle to the options discussed. Subject to Ngati Kahu approval, Landcorp will submit an Envirofund application for the fencing and removal of weeds.

### **Ngunguru catchment working group**

The Ngunguru catchment working group held a workshop 18 May 2016 to define their chief water quality concerns and receive updates on coastal water quality monitoring. Staff will develop an operational programme based on the groups' feedback, and present it to the next meeting of the catchment group for approval.

The group has scheduled a fieldtrip for July to examine sedimentation and coastal processes in the estuary.

## **OPERATIONAL PROGRAMMES**

### **Integrated Kaipara Harbour Management Group (IKHMG).**

- William Wright has been confirmed in the part-time IKHMG programme manager role, and will now resign as co-chair of the IKHMG. The programme manager role will include building and developing relationships with existing and new partners and investigating options for additional funding. Current funding from Ministry for the Environment (MfE) is due to end in August 2016.
- IKHMG quarterly hui is scheduled for 8 June and to be hosted by Otamatea marae. MfE and Council will give a brief presentation on the proposed Kaipara catchment study on mitigation of sediment run-off.

### **Kai Iwi – Taharoa Reserve Management Plan submission**

- Staff prepared a submission to the Taharoa Domain Reserve Management Plan and spoke to the submission at the hearing held Wednesday 13 April 2016.
- The submission supports the intent of the Plan, and highlights particular threats to the biodiversity of the lakes, including from fire, aquatic and terrestrial plant and animal invaders.

### **Environmental Education**

On Tuesday 5 April, Enviroschools Northland held the annual WaiRestoration professional development day for school

communities. 40 teachers and other school community members worked together at Trefoil Park, near Kaikohe.

Practical workshops covered several of the WaiRestoration project components:

- WaiMonitoring led by the late George Tuhiwai
- WaiMaintenance led by Kamo Intermediate
- WaiEnterprise led by Dargavile Intermediate
- WaiNurseries led by secondary EnviroSchools Facilitator Jacque Knight; and
- A WaiRestoration connection – Rongoā Māori – led by Vivienne and Joe Body.

The overall foci of the day were Māori perspectives and empowering students to take action.



The late George Tuhiwai leads a Waimonitoring workshop at Trefoil Park. George was a member of the Mangere catchment group and will be sadly missed.



**ISSUE: Draft Catchment Plans for Consultation**

**ID:** A844377

**To:** Environmental Management Committee meeting 27 June 2016

**From:** Natalie Blandford, Project Manager Waiora Northland Water

**Date:** 15 June 2016

|                      |  |   |  |
|----------------------|--|---|--|
| <b>Report Type:</b>  | <input type="checkbox"/> Normal operations               | <input checked="" type="checkbox"/> Information   | <input checked="" type="checkbox"/> Decision |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure                  | <input type="checkbox"/> Public service           | <input type="checkbox"/> Regulatory function |
|                      | <input checked="" type="checkbox"/> Legislative function | <input type="checkbox"/> Annual\Long Term Plan    | <input type="checkbox"/> Other               |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                       | <input checked="" type="checkbox"/> Not Triggered |  |

**Executive Summary:**

The purpose of this report is to brief the committee on the catchment specific rules and non-regulatory methods of the draft catchment plans recommended by the priority catchment groups in Doubtless Bay, Mangere, Whangārei, Waitangi and Poutō. There have been changes to draft regional plan content the groups did not have an opportunity to consider (livestock exclusion rules, earthworks provisions and regional maps of erosion prone land). Therefore the report recommends the draft catchment plans be approved for consultation, subject to changes should the groups wish to adjust catchment plan content prior to release in the light of these changes.

The consultation period runs from 8 August to 23 September 2016.

**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 2015-2025 Long Term Plan, and are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002. The report is therefore of low significance in terms of council's significance policy.

**Recommendations:**

- 
1. That the report Draft Catchment Plans for Consultation by Natalie Blandford, Project Manager Waiora Northland Water and dated 15 June 2016, be received.
  2. That subject to minor adjustments to provisions, the draft catchment plans recommended by the Doubtless Bay, Mangere, Poutō, Waitangi and Whangārei catchment groups be approved for consultation.
-

**Table 1 Key steps in the development of catchment plans in the five priority catchments and alignment with the development of the new regional plan**

| <b>Key Milestones</b>   | <b>Description</b>   | <b>Indicative timing</b>            |
|---|--|-------------------------------------|
| <b>Knowledge building</b>   | <ul style="list-style-type: none"> <li>• Catchment descriptions</li> <li>• Collation of monitoring data</li> <li>• Understanding the science</li> </ul>  | Complete (all 5 established groups) |
| <b>Identify uses &amp; values</b>   | <ul style="list-style-type: none"> <li>• Identify freshwater values</li> <li>• Identify uses of water</li> </ul>   | Complete (all 5 established groups) |
| <b>Draft objectives</b>   | <ul style="list-style-type: none"> <li>• Draft objectives (outcomes sought)</li> </ul>   | Complete                            |
| <b>Test &amp; confirm objectives and methods</b>                          | <ul style="list-style-type: none"> <li>• Consistency with RPS and NPS FM</li> <li>• Implications</li> <li>• Revise as needed</li> </ul>  | Complete                            |
| <b>Test need for catchment specific provisions in draft regional plan</b> | <ul style="list-style-type: none"> <li>• Compare catchment objectives with draft regional plan</li> <li>• Cost / benefit analysis</li> <li>• Identify any additional regulatory measures required</li> <li>• Identify catchment specific, non-regulatory actions</li> </ul>          | Complete                            |
| <b>Draft catchment plan approval</b>                                      | <ul style="list-style-type: none"> <li>• Draft catchment plans approved for consultation</li> </ul>  | 27 June 2016                        |
| <b>Draft catchment plan feedback</b>                                      | <ul style="list-style-type: none"> <li>• Public consultation period for draft catchment plans, alongside draft regional plan</li> </ul>  | 8 August – 23 September 2016        |
| <b>Feedback analysis</b>  | <ul style="list-style-type: none"> <li>• Analyse submissions</li> <li>• Report back to catchment groups</li> </ul>   | 26 September – 28 October 2016      |
| <b>Incorporate catchment provisions in regional plan</b>                  | <ul style="list-style-type: none"> <li>• Revise as needed and finalise catchment plan</li> <li>• Final catchment plan approved</li> <li>• Catchment specific provisions included in notified regional plan (as needed)</li> <li>• Catchment plan implementation (ongoing)</li> </ul> | November 2016 - Mid-2017            |

**The collaborative catchment group process:**

Priority catchment groups commenced their collaborative, consensus based process of preparing draft catchment plans in mid-2013 (Doubtless Bay, Mangere, Whangārei), and mid-2014 (Waitangi and Poutō).

Tangata Whenua, community members, primary industry and sector representatives, commercial and industrial interests, environmental groups, Department of Conservation and Fish and Game staff have all represented their interests on the catchment groups. DairyNZ were also key in supporting the process and their farmer representatives.

The members of each catchment group worked together to identify freshwater uses and values, build knowledge of catchment management processes, and contribute their local knowledge. The process culminated in a series of intensive topic-based workshops held January – May 2016, in which catchment groups finalised their recommended freshwater objectives and methods.

The groups have also considered the content of the draft regional plan (as it has developed) in order to identify how far it would go towards addressing the objectives for their catchments and in some areas have recommended a different approach be used in their catchments.

At their meetings held in late May and mid-June 2016, priority catchment groups in Doubtless Bay, Mangere, Waitangi, Poutō and Whangārei recommended that their draft catchment plans should be approved for public consultation release.

### **Draft catchment plans: Regulatory recommendations**

#### **Doubtless Bay**

**Table 2 Doubtless Bay regulatory recommendations (Attachment A)**

| <b>Regulatory</b>   | <b>Rationale</b>   |
|---|--|
| <p>Compulsory <b>erosion control plans</b> in mapped <b>hill-country pastoral use erosion-prone land</b> by 2025.</p> <p><i>Otherwise, resource consent for a controlled activity required.</i></p> | <ul style="list-style-type: none"> <li>Hotspots (gully &amp; landslide) high yield by area</li> <li>Voluntary measures used before rules</li> </ul>  |
| <p>Stock exclusion – all permanently flowing lowland rivers and drains (dairy milking and pigs – operative date, other stock by 2025)</p>   | <ul style="list-style-type: none"> <li>Mitigate streambank erosion</li> <li>Reduce E.coli</li> <li>Limit damage to habitat in stream beds</li> </ul>   |
| <p>No permitted water takes from Lake Waiporohita</p> <p><i>Resource consent for a discretionary activity required for all water takes.</i></p>   | <ul style="list-style-type: none"> <li>Small, shallow, enriched lake with outstanding ecological value</li> <li>Particularly vulnerable to takes</li> </ul>                                    |
| <p>Coastal Rivers water quantity FMU / limits and water take rules applied to whole catchment<sup>1</sup></p>   | <ul style="list-style-type: none"> <li>Low levels of allocation</li> <li>Fish habitat highly valued &amp; similar values in Oruaiti as other part of catchment</li> <li>Mahinga kai</li> </ul> |

<sup>1</sup> Oruaiti subcatchment of Doubtless Bay was identified as a Small Rivers Freshwater Management Unit (FMU) in draft regional plan



## Mangere

**Table 3 Mangere regulatory recommendations (Attachment B)**

| Regulatory  | Rationale   |
|---|---|
| <p>Compulsory <b>erosion control plans</b> in mapped <b>hill-country pastoral use erosion-prone land</b> by 2025.</p> <p><i>Otherwise, resource consent for a controlled activity required.</i></p> | <ul style="list-style-type: none"> <li>• Sediment a concern - hotspots high yield by area</li> <li>• Affects small proportion of catchment (18% hill country in pasture)</li> <li>• Voluntary measures used before rules</li> </ul>       |
| <p>Stock exclusion – whole catchment (including hill country – (dairy milking and pigs – operative date, other stock by 2025))</p>  | <ul style="list-style-type: none"> <li>• Mitigate streambank erosion &amp; E.coli</li> <li>• Hill country is comparatively ‘gentle’</li> <li>• Small additional area affected (18%) with low density of rivers in hill country</li> </ul> |
| <p>Retain current water minimum flows &amp; allocation (no ‘claw back’)</p>   | <ul style="list-style-type: none"> <li>• Current allocation / minimum flows sustainable</li> <li>• No reason to reduce allocation / raise minimum flows</li> <li>• Enables growth if ‘efficiencies’ found</li> </ul>                      |

## Whangārei (To be tabled on the day )

### Waitangi

**Table 4 Waitangi regulatory recommendations (Attachment D)**

| Regulatory  | Rationale   |
|---|---|
| <p>Compulsory <b>erosion control plans</b> in mapped <b>hill-country pastoral use erosion-prone land</b> by 2025.</p> <p><i>Otherwise, resource consent for a controlled activity required.</i></p> | <ul style="list-style-type: none"> <li>• Sediment a concern - hotspots high yield by area</li> <li>• Small proportion of catchment</li> <li>• Voluntary measures used before rules</li> </ul> |

## Poutō

**Table 5 Poutō regulatory recommendations (Attachment E)**

| Regulatory   | Rationale  |
|--|--|
| Additional outstanding water body  | <ul style="list-style-type: none"> <li>• High ecological value wetland / lake complex</li> <li>• Unique characteristics (on dune-field edge)</li> </ul>  |
| More permissive permitted activity water takes (20 & 50m <sup>3</sup> ) daily  | <ul style="list-style-type: none"> <li>• Poutō lakes are a reliable water resource &amp; low demand</li> <li>• Takes currently occurring (authorised or otherwise)</li> <li>• Controls in rule to protect lakes (lake size, depth &amp; min water level)</li> </ul>  |
| Controls on new forestry >5ha in surface water catchments of outstanding lakes | <ul style="list-style-type: none"> <li>• Precautionary - afforestation can significantly reduce yield to lakes (30-80%)</li> <li>• Forestry does not rely on water extraction (like other land uses)</li> <li>• Setbacks, earthworks rules &amp; GMP not likely to address reduced water yield to lakes</li> <li>• Large scale afforestation could mean limits for minimum lake levels not met.</li> </ul> |

### Non-regulatory methods

Non-regulatory methods in the draft plans take an integrated catchment management approach and many will require liaison with external agencies to implement.

Key themes include controlling sediment, enhancing native aquatic and riparian biodiversity, preventing further release of exotic aquatic species (such as trout), the impact of commercial eeling on mahinga kai and use of good management practice for land and nutrient management. The Waitangi catchment group have also recommended enhancing public access along the Waitangi River.

### Draft plan consultation

Consultation on the draft catchment plans is scheduled to run concurrently with the draft regional plan from 8 August to 23 September 2016.

- The public will be encouraged to make online submissions (hard copy forms will still be available).
- During August and September 2016, staff will hold a series of public drop-in sessions in priority catchments.
- Draft regional plan drop-in sessions have been scheduled for weeknight evenings in August/early September.

**ITEM: 5.0**

Page 6 of 6

- Staff at all events will be equipped to respond to queries about draft regional and catchment plan content.
- A number of catchment group members will make themselves available to attend the drop-in sessions being held in their communities.

### **Implementation Plans**

Community feedback will inform the development of the implementation plans and it is hoped will provide a basis for prioritisation and targeting of these actions within the respective catchments. Where implementation requires funding and / or resourcing commitments from council or other agencies, these will need to be sought under the relevant Local Government or equivalent funding processes.

### **Conclusion**

Catchment plans have been successfully drafted by collaborative catchment groups with a high level of consensus. This represents a significant effort and commitment in time and energy by the members of the groups. The next step is to test these draft catchment plans with the relevant communities. The drafts will then be refined as needed on the basis of feedback received.

**ISSUE:**        **Sustainable Land Management Update**

**ID:**            A844586

**To:**            Environmental Management Committee, 27 June 2016

**From:**        Duncan Kervell, Land Manager

**Date:**         3 June 2016

|                      |                                     |                      |                                     |                       |                          |                     |
|----------------------|-------------------------------------|----------------------|-------------------------------------|-----------------------|--------------------------|---------------------|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> | Normal operations    | <input checked="" type="checkbox"/> | Information           | <input type="checkbox"/> | Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/>            | Infrastructure       | <input type="checkbox"/>            | Public service        | <input type="checkbox"/> | Regulatory function |
|                      | <input type="checkbox"/>            | Legislative function | <input checked="" type="checkbox"/> | Annual\Long Term Plan | <input type="checkbox"/> | Other               |
| <b>Significance:</b> | <input type="checkbox"/>            | Triggered            | <input checked="" type="checkbox"/> | Not Triggered         |                          |                     |

**Executive Summary:**

- Year to date **\$913,742.10** of the Environment Fund budget has been allocated to a total of **181** projects for land management, biodiversity and biosecurity projects (Inclusive of a \$100K over allocation to be met from the Land Management Reserve).
- Year to date a total of 114 FWQIPs have been commenced, 87 FWQIPs have been completed, with a further 74 still in progress.
- Over allocation of efund.
- An update is provided on the Flyger Road nursery.
- This report updates the Kaipara Hill Country Erosion Project.

**Legal compliance and significance assessment:**

The activities detailed in this report are provided for in the council's 2015-2025 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.

**Recommendation(s):**

- 
1. That the report Sustainable Land Management Update by Duncan Kervell, Land Programme Manager and dated 3 June 2016 be received.
  2. That for 2016/2017 staff over allocate the Environment Fund budget by up to \$100K to account for withdrawn projects and underspends to ensure full utilisation of the Environment Fund budget. Any year-end variation to budget arising from the over allocation is to be funded from the Land Management Reserve.
-

**ENVIRONMENTAL SERVICES GROUP**

**LAND MANAGEMENT**

**Environment Fund Update**

The current status of the Environment Fund allocation year to date is shown below.

**Environment Fund funding allocation for 2015/16**

| Delegated Authority   | Land/<br>Biosecurity | NO of<br>Projects | Allocation \$       | Budget \$           |
|---|----------------------|-------------------|---------------------|---------------------|
| 1 – June 2015   | Land                 | 22                | 114,380.67          |                     |
| 2 – June 2015   | Biosecurity          | 44                | 138,166.00          |                     |
| 3 – July 2015   | Land                 | 42                | 171,613.60          |                     |
| 4 – August 2015   | Land                 | 28                | 143,593.50          |                     |
| 5 – September 2015  | Land                 | 18                | 98,464.30           |                     |
| 6 – October 2015  | Land                 | 21                | 188,541.03          |                     |
| 7 – October 2015  | Land                 | 5                 | 18,893.00           |                     |
| 8 – Wild Cat Traps  | Biosecurity          |                   | 13,000.00           |                     |
| 9 – March 2016  | Land                 | 1                 | 2090.00             |                     |
| Funded from Land Management Reserve   |                      |                   |                     | 13,000.00           |
| Soil Conservation   |                      |                   | 25,000.00           |                     |
| Allocation to date  |                      |                   | <b>\$913,742.10</b> |                     |
| <b>Budget</b>   | Land                 |                   |                     | 825,000.00          |
|   | Biosecurity          |                   |                     | 75,000.00           |
| <b>Total Budget</b>   |                      |                   |                     | <b>913,000.00</b>   |
| Less Allocation to date   |                      |                   |                     | 913,742.10          |
| <b>Balance Remaining</b>  |                      |                   |                     | <b>-742.10</b>      |
| <b>Withdrawals/Underspends to date to return to Land Management Reserve</b> |                      |                   |                     | <b>\$90,866.20*</b> |

\*Reasons for withdrawals and withdrawal amounts are provided below.

| Withdrawals  | \$                 |
|--|--------------------|
| 4 projects were withdrawn due to financial reasons                       | 16,467.00          |
| 2 projects withdrawn due to time constraints                             | 6175.00            |
| 2 projects withdrawn due to selling the farm                             | 11,344.20          |
| 1 projects withdrawn because of work restrictions                        | 6,725.00           |
| 1 project withdrawn due to lack of manpower                              | 1235.00            |
| 3 projects withdrawn for personal reasons                                | 7529.00            |
| 3 projects withdrawn – fence in incorrect location/fencer not turning up | 24,548.00          |
| <b>16 Total (withdrawal amount)</b>                                      | <b>74,023.20</b>   |
| <b>Underspends</b>   | <b>19,393</b>      |
| <b>Total</b>   | <b>\$93,416.20</b> |

**Over Allocation of Efund.**

The over allocation of \$100,000 for the 2015/16 Environment Fund has been successful in utilising the entire budget for this year. Interim figures as at 13 June 2016 indicates a withdrawal of approximately 16 projects totalling \$74,023.20, with an underspend of \$19,393.00 on projects that were not fully completed, making a total of \$93,416.20. This figure matches closely with the 2014/15 financial year of \$95,460.00 for withdrawals and \$23,123.00 for underspends.

It is recommended that an over allocation of \$100K is repeated in the 2016/2017 financial year to achieve full allocation of the Environment Fund budget.

**Farm Water Quality Improvement Plans (FWQIP) 1 July 2015 to 31 May 2016**

Year to date a total of 114 FWQIP's have been commenced, 88 FWQIP's have been completed, with a further 74 in progress.

| Status of FWQIP  | Farm Type | Far North | Kaipara   | Whāngārei | Total      |
|--|-----------|-----------|-----------|-----------|------------|
| <b>Plans commenced :</b><br>1 July 2015 to 31 May 2016 | Dairy     | 4         | 4         | 8         | <b>16</b>  |
|  | Drystock  | 24        | 24        | 19        | <b>67</b>  |
|  | Lifestyle | 10        | 4         | 14        | <b>28</b>  |
|  | Other     | 0         | 3         | 0         | <b>3</b>   |
|  |           | <b>38</b> | <b>35</b> | <b>41</b> | <b>114</b> |
| <b>Plans completed:</b><br>1 July 2015 to 31 May 2016  | Dairy     | 4         | 6         | 6         | <b>16</b>  |
|  | Drystock  | 19        | 20        | 12        | <b>51</b>  |
|  | Lifestyle | 7         | 2         | 11        | <b>20</b>  |
|  | Other     | 0         | 1         | 0         | <b>1</b>   |
|  |           | <b>30</b> | <b>29</b> | <b>29</b> | <b>88</b>  |
| <b>Plans still in progress</b>                         | Dairy     | 3         | 8         | 4         | <b>15</b>  |
|  | Drystock  | 20        | 12        | 13        | <b>45</b>  |
|  | Lifestyle | 5         | 2         | 4         | <b>11</b>  |
|  | Other     | 0         | 2         | 1         | <b>3</b>   |
|  |           | <b>28</b> | <b>24</b> | <b>22</b> | <b>74</b>  |

**SOIL CONSERVATION**

**Flyger Road Poplar and Willow Nursery**

Block 4 capital works development will commence within the next week weather permitting. Twenty more rows of predominantly poplars are planned.



1 View of Block 4

NRC is due to receive some improved willow clones material from the Poplars and Willow Trust this June which will be established in the new block 4.

The first harvest of block 1 is planned from 10 June weather and contractors permitting. Last week a meeting was held with the contractor who will be involved with block development and the harvest to formulate a plan, discuss methods and health and safety requirements.

**Poplar and Willow Season**

The season is now open and orders are being taken for material. A hill country erosion field day will be run to promote the project and the Flyger Road nursery on the 17 June 2016 to be held at 277 Carruth Road, Poroti (Gravatt's property).

#### **Ngunguru Catchment Group**

Ngunguru catchment working group met on the 18 May 2016. This meeting included a workshop to consider catchment issues and priorities. It was determined that sediment was the key contaminant to address.

Coastal monitoring estuarine sediment results were presented at the close of the meeting and group members were surprised to see the results that overall showed the Ngunguru estuary was in good condition for the parameters measured which included heavy metals, nitrogen and phosphorus.

Cr. Dimery, the group's chair, has stated that the group needs to understand the real issues concerning the catchment. As a part of this the group would like to pursue the idea of utilising a boat trip to view the estuary and tidal Ngunguru River for its next group meeting.

#### **Kaipara Hill Country Erosion (HCEF) Programme**

The first 2 milestones have been reported to MPI for the 2015/2016 financial year; successfully conducting field visits to select target areas and survey of historic soil conservation projects.

Consultation has begun with approximately 28 landowners who have property that contain HCEF areas of high erosion risk within the Kaipara catchment.

Field visits were conducted with AgFirst Consultant (and former NRC Soil Conservator) Bob Cathcart throughout the Kaipara catchment. The field trips covered all the various erosion processes found at the various soil type and landform combinations throughout the catchment.

Following field visits, further GIS analysis was undertaken to confirm the ownership, land status and land management practices of the target areas, referred to as the HCEF areas of high erosion risk.

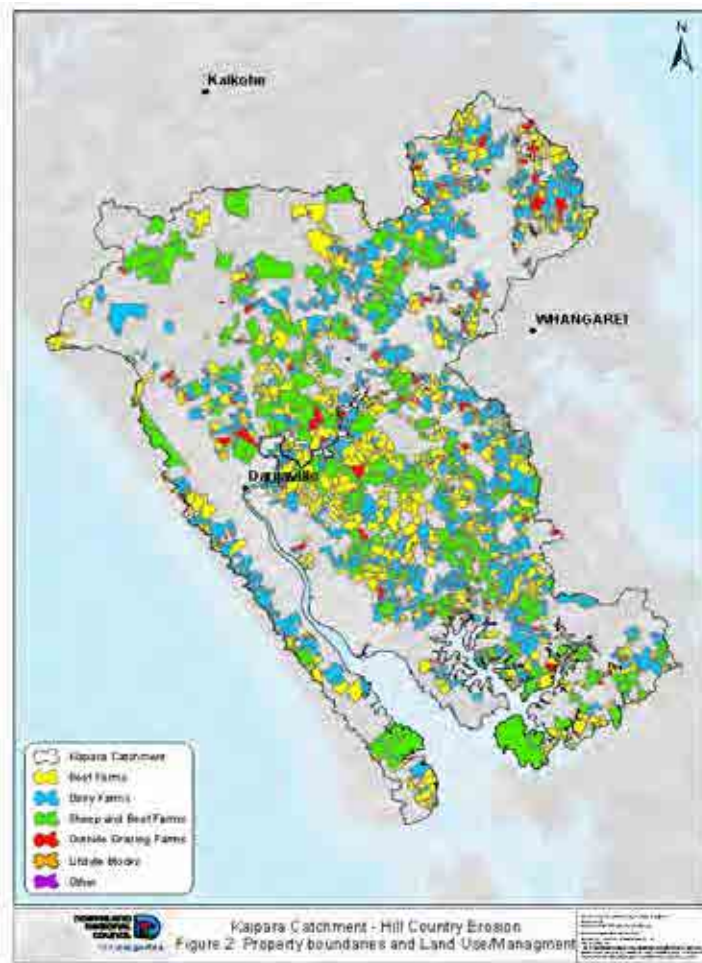


Figure 2 attached shows the farms (Agribase) which contain HCEF areas of high erosion risk and the associated land use of these properties. The most common land uses of the target areas are beef farms (31%), dairy farms (31%) and sheep and beef farms (31%).

Historic soil conservation projects (1980's and prior) were surveyed. Over 300 soil conservation plans, covering over 75,000 hectares of land were reviewed and recorded into GIS (Figure 3). Information contained within these historic soil conservation plans, interviews with landowners and considerable consultation with former NRC Soil Conservator Bob Cathcart provided valuable insight into previous soil conservation practices, what has worked and what could be improved in the future.



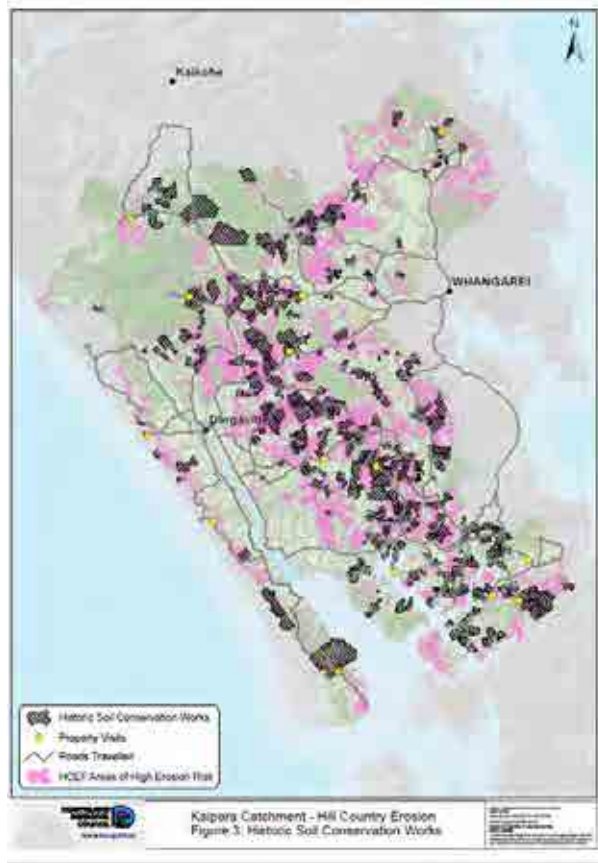


Figure 3 shows historic soil conservation schemes within Kaipara catchment.

### **Allocated Efund for Waiora Catchment Groups**

As endorsed at a council annual plan workshop, an additional \$50,000 has been allocated in 2016/2017 to deliver priority projects for improving water quality within the Waiora Northland water priority catchments. Each of the five catchments will be allocated \$10,000, the catchment groups will be asked to formulate ideas and projects for use of this funding.

Once the projects have been decided, this fund will be administered through the same process and delegated authority as the NRC Environment Fund. Catchment priority projects will be drawn up in collaboration with the catchment group members and the NRC Land Management team. The Land Management team will be tasked to manage the projects and work collaboratively with local landowners and landcare groups and, where possible, utilise other sources of funding to maximise the benefit gained by the fund.

### **Hatea Project**

The application to the Ministry for the Environment Community Environment Fund was submitted on 2 May. If successful, the project will receive \$260,000 with the aim of having 70% of the catchment waterways fenced from stock; planting 20,000 native riparian plants on private land and increasing community awareness of water quality issues via signage and running two open days at the Falls. An NRC contribution of \$50,000 per financial year from the Environment Fund has been allocated for fencing in the catchment as a co-funding requirement for the three year life of the project, if the application is successful.

**ISSUE: Update on Northland Lakes**

**ID:** A849039

**To:** Environmental Services Committee, 27 June 2016

**From:** Lisa Forester, Environmental Assets Manager

**Date:** 3 June 2016

|                      |   |   |  |
|----------------------|---|---|--|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations | <input checked="" type="checkbox"/> Information   | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure               | <input type="checkbox"/> Public service           | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function         | <input type="checkbox"/> Annual\Long Term Plan    | <input checked="" type="checkbox"/> Other    |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                    | <input checked="" type="checkbox"/> Not Triggered |  |

**Executive Summary**

The purpose of this report is to provide an update on the management of Northland's freshwater lakes.

Northland has over 400 freshwater lakes, many of which are coastal dune lakes. Northland has the greatest number of dune lakes both nationally and internationally, and these represent a large proportion of the lowland New Zealand lakes still with relatively good water quality and high ecological values.

As part of routine business, Council monitors water quality for 26 lakes, carries out annual surveillance for new pest incursions in seven at-risk lakes and has a five year rolling programme with NIWA to measure ecological condition (mainly plant based) in around 85 lakes.

Council also undertakes operational works including biosecurity response and catchment protection under Waiora Northland Water - Council's programme for delivery of the National Policy Statement for Freshwater Management, incorporating elements of regional planning, catchment specific planning and operational actions.

**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(s):**

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That the report "Update on Northland Lakes" by Lisa Forester, Environmental Assets Manager and dated 3 June 2016, be received.

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## **Report**

In 2012 NIWA delivered the Northland Lakes Strategy which included advice on the protection and management of Northland's lakes. The Strategy confirmed that Northland lakes are of considerable significance both nationally and internationally in terms of their rarity, water quality and natural values as well as their cultural and social values. This strategy ranked 76 of the most important lakes using a range of ecological values. 12 lakes were ranked outstanding and were subsequently approved by the Council's Environmental Management Committee 19 February 2013 as "outstanding freshwater bodies" for the purposes of implementing the National Policy Statement for Freshwater Management, 2011.

Despite their high value, Northland lakes are at risk and many have declining water quality. All are subject to human induced pressures such as eutrophication, adjacent land use, pest fish and weed incursions and dropping water levels. The focus of this item is to update the Committee on progress with recommendations from the Lakes Strategy 2012 and integration of lakes programmes across the council including those that fall under the Waiora Northland Water umbrella.

## **Systems and Processes**

A number of actions have been undertaken to better coordinate the council's lakes programme and gain efficiencies. These include:

- Co-ordination of lakes programme through Environmental Assets Team
- Improved cataloguing of lake monitoring within Council information management systems (management sites for each lake in IRIS and reorganisation of lake files in Objective)
- Amalgamation of budgets from across departments into a single cost centre for the annual lakes ecological survey and biosecurity surveillance
- Reorganisation of annual lakes survey to achieve resourcing efficiencies
- Review of lakes water quality monitoring platform to incorporate new technologies
- Improved staff communication and resourcing through quarterly interdepartmental "Lakes Team" meetings
- Identification of research gaps through a stocktake of current and past lakes research and reports

## **RMA Policy Development**

The National Policy Statement for Freshwater Management 2014 (NPS FM) requires regional authorities to establish and implement limits to protect water quality and ecological values of waterbodies in their region. Implementation of the NPS FM requires Council to define Freshwater Management Units (FMUs) for the purpose of setting water quantity and quality limits for individual lakes or groups of lakes.

The council engaged several of New Zealand's leading lake water quality scientists to look at how best to group the large number of Northland's lakes into FMUs. The recommended approach is to group the lakes into two management units (shallow lakes <10 deep, and deep lakes >10m deep), on the grounds that lake depth is the single best explanatory variable for lake water quality.

The council has also carried out and commissioned other research to help inform the management of water quality and quantity in Northland's dune lakes, including analysing the relationships between catchment nutrient losses and in-lake water quality, and how lake water quality affects biological indicators of ecological integrity.

### **Water Quality Monitoring**

Over the last year, staff have reviewed Council's lakes water quality monitoring platform to improve efficiency and allow for the collection of additional data. To inform the review, staff completed bathymetry surveys for all 26 monitored lakes, allowing a more accurate understanding of volumes and water budgets for these lakes.

The review has resulted in the introduction of new equipment - some of which is automated:

- Water level recorders and staff gauges are in the process of being installed in a number of lakes, with the intention of having these plus thermistor chains<sup>1</sup> for all monitored lakes as resources allow.
- A new boat dedicated to lakes monitoring plus two sondes<sup>2</sup> for continuous monitoring have been commissioned. Testing of the new equipment will begin soon.

### **Ecological Monitoring Results 2016**

The annual lakes ecological survey/monitoring with NIWA is undertaken every autumn and involves council staff across different departments. This year a total of 23 waterbodies were dived, snorkelled or visited.

- Six had full submerged plant index (SPI) monitoring, seven recreational lakes were checked for aquatic weeds, 11 reconnaissance surveys were undertaken, and bird counts and margin plant surveys were done for 13 lakes.
- Post weed eradication checks were done on two lakes with no weed regrowth found. A new incursion of the serious aquatic weed, hornwort was discovered in Lake Waiparera, which has recreational boat access, meaning that this lake is now known to have all three oxygen weeds and hornwort and could present a risk to high value lakes nearby.
- A new population of the critically endangered native bladderwort (*Utricularia australis*) was found.

Some lakes have visibly improved since they were last visited, possibly assisted by summer rain as well as cooler autumn weather. Lakes Kai Iwi and Waikare were spectacularly clear this year. An improvement in water clarity and the maximum depth of submerged plant beds was seen in Lake Mokeno on the Pouto Peninsula after an algal bloom caused major dieback several years ago. Unfortunately water clarity and the condition of submerged plant beds in Lake Ngatu and Waiporohita has declined.

NIWA is adding this year's results and recommendations for individual lakes into the report Northern Lakes Ecological Status.

### **Biosecurity Responses**

Ecological monitoring in 2015 picked up a new, early stage incursion of lagarosiphon oxygen weed at Lake Ngakapua and the lake was treated with aquatic herbicide. This appears to have been successful with three negative post checks so far. A final post-herbicide check is planned for Lake Phoebe which was treated for lagarosiphon in 2012 and is expected to result in the eradication being declared a success. Lakes Heather, Roto-otuaru (Swan) and Waingata are devoid of vegetation after grass carp were introduced to clear these lakes of the serious aquatic weed hornwort. Removal

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<sup>1</sup> Thermistor chains are a linked series of temperature sensors that offer continuous measurements of the temperature layers within a lake.

<sup>2</sup> A sonde is an instrument probe that (in this context) automatically transmits information about its surroundings under water

of the carp is planned when resources are available, which will allow native vegetation in the lakes to regenerate.

A delimitation survey of the only known Northland population of gipsywort (*Lycopus europaeus*) around Te Werahi Lagoon at Te Paki is currently being undertaken in collaboration with the Department of Conservation with the hope that this serious wetland weed can be removed before it spreads further.

The Check Clean Dry (CCD) summer campaign 2015/16 was boosted by a grant of \$20,000 from MPI. This enabled Council to run an educational programme about the risk of aquatic pests on site at lakes, rivers and field events. Survey work was also undertaken and reported. The Council and CCD crew helped organise and run a successful display at the popular Kai Iwi Lakes Public Open Day once again this year.

### **Lakes Catchment Actions**

The Environment Fund has assisted with fencing of several lakes through Farm Water Quality Improvement Plans with more projects planned for next year. A one year contract will start in July for a Lakes Catchment Advisor to deliver Lake Management Plans for the 12 outstanding lakes. This was recommended by the Northland Lakes Strategy 2012 and will set priorities and targets for work in lake catchments.

### **Lake Ngatu**

Community concerns have been expressed regarding ongoing declining water quality and plants in Lake Ngatu. After the bed of the lake was returned to NgaiTakoto as part of their cultural redress within the Treaty settlement, NgaiTakoto took the lead in galvanising the community into action to try and help the lake. A public meeting was held at the lake in December 2015, followed by a stakeholder group meeting to develop a Lake Ngatu Strategy with time bound actions including:-

- Erection of public signage
- Bollards to prevent vehicle and powerboat access to the lake
- A stocktake of drainage, water takes and other structures at the lake
- Sanitary/septic tank survey in the catchment
- Riparian planting
- Nutrient management and monitoring

Actions listed in the strategy are on track. Bollards and signage have been erected. Council and NgaiTakoto have undertaken a structures stocktake and Far North District Council has reported sanitary information as agreed. Monitoring, further planning and work at Lake Ngatu is ongoing in collaboration with iwi and others.

### **Kai Iwi Lakes**

A submission was made on the draft Kai Iwi Lakes Reserves Management Plan and the hearing was attended.

The final draft of a Kai Iwi Biodiversity Monitoring Plan by NRC and Northtec is due out soon. Control of invasive species such as wilding pines, acacia, possums and predators at the Kai Iwi lakes is progressing with the employment of a full time contractor. The total area of wilding pine treatment is now over 66ha and work is ongoing on wattle and pine regrowth. Mustelid and feral cat trap lines, serviced monthly through a joint agreement between NRC and KDC, have been established in the wider area to protect nesting birds and other fauna. Later this year a possum and rodent control operation is planned.

**ISSUE: Update on Far North Wildfowl Strategy**

**ID:** A846092

**To:** Environmental Services Committee, 27 June 2016

**From:** Lisa Forester, Environmental Assets Manager

**Date:** 3 June 2016

|                      |   |   |  |
|----------------------|---|---|--|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations | <input checked="" type="checkbox"/> Information   | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure               | <input type="checkbox"/> Public service           | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function         | <input type="checkbox"/> Annual\Long Term Plan    | <input checked="" type="checkbox"/> Other    |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                    | <input checked="" type="checkbox"/> Not Triggered |  |

**Executive Summary**

Reports of increasing numbers of black swan, paradise shelduck and Canada geese in lakes, harbours and farm land around the Far North prompted discussion over development of a strategy to manage these wildfowl. Concerns have been raised about the bird’s impact on lakes, selected fisheries, human health and farm productivity. There has been little research on the wider effects of these birds in Northland and knowledge gaps could be addressed by a research by management approach. Given that issues with these birds appear to be confined to particular sites supporting management at sites with identified issues is the recommended approach.

**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(s):**

- 
1. That the report “Update on Far North Wildfowl Strategy” by Lisa Forester, Environmental Assets Manager and dated 3 June 2016 be received.
  2. That the Committee supports the actions in the Proposed Far North Black Swan and Canada Goose Strategy.
  3. That the committee supports the Northland Regional Council to write to the Minister of Conservation expressing concerns about the impacts of Black Swan and paradise shelduck in Northland, and asking that their gamebird status be removed in Northland to allow for more effective control when necessary.
-

**ITEM: 8.0**

Page 2 of 4

Reports of increasing numbers of black swan, paradise shelduck and Canada geese impacting on dune lakes, harbours and farm land in the Far North area has prompted community and iwi requests for action to address environmental impacts of the birds.

Although there is much anecdotal information in Northland, there has been little research into the impact of black swan, paradise shelduck and Canada geese in Northland on agriculture, aquaculture and nutrient/bacteriological inputs to waterbodies. These impacts have not been fully studied or described but there are several waterbodies where wildfowl numbers are provoking iwi, landowner and public concern. Questions have also been raised about the direct and indirect impacts of black swan and Canada geese on harbour fisheries particularly juvenile flounder, which local people say are eaten by black swan. Item 11, Recreational Swimming Water Quality Monitoring Program – Results 2015-2016 Summer discusses the results of Microbial Source Tracking (MST) to identify the source(s) of contamination at sites with consistently elevated faecal bacteria levels. Of samples collected in the 2015/2016 swimming season ruminant and/or wildfowl markers were detected at four out of nine sites (Table 3, Item 11).

At the Environmental Management Committee meeting of 29 April 2016 Far North biologist Kevin Matthews outlined his knowledge and concerns about the wild fowl impacts in the Far North. The committee agreed that a small group of Council staff should work with Kevin Matthews to identify the issues and present a strategy to deal with wildfowl in the Far North, particularly black swan and Canada geese. Support of management at problem sites was also agreed.

Landowners and Iwi in the Far North have been expressing concerns to council since at least 2007 about the impacts of wildfowl on crops, pasture and waterbodies. Because of their increasing numbers and impacts around New Zealand in 2011 Canada Geese were removed as wildlife declared to be game in Schedule 1 of the Wildlife Act 1953 allowing them to be controlled as necessary. However, black swan and paradise shelduck remain on the schedule. To remove them from the game schedule or to have their status changed in the region so they can be controlled, would require an Order in Council. This process would start with an enquiry to the Minister of Conservation or the Director-General of the Department of Conservation. Alternatively the birds could be controlled by permit from the Director-General of the Department of Conservation through Section 54 of the Act which authorises any Fish and Game Council to kill gamebirds causing damage. Northland Fish and Game would manage this process. The recommended approach is that the council write to the Minister of Conservation outlining the known impacts and local concerns about these birds and asking that their status as protected gamebirds be changed in Northland to allow for effective control as and where necessary.

**Proposed Far North Black Swan and Canada Goose Strategy**

Black swan and Canada geese are mobile and capable of moving around in response to human threat and environmental pressures making them difficult to census or target for management. However these birds can gather in large numbers in particular harbours and lakes causing issues for landowners and the public.

Known, but unquantified, impacts on the environment are:

- Destruction of freshwater weed beds and alteration of native to exotic plant ratios
- Impacts on harbour sea grass beds and fish nurseries
- Damage to pasture and crops
- Excretion of faecal coliform bacteria and spread of diseases into water systems

- Restriction of habitat and roost sites for native birds
- Competition for food and nest sites for native birds
- Nuisance value to humans

Despite the lack of comprehensive data it is proposed that NRC undertake a number of actions over the next 12 months to help support the Far North community and look after the environment. These include reducing wildfowl numbers at priority sites, assisting with actions to discourage wildfowl to flock in waterbodies, and investigating whether black swan are impacting on juvenile flounder. This is to be achieved via the following proposed actions:

1. Investigate evidence that black swans take young flounder by:-
  - a. Support of Far North Queen's Birthday weekend swan and goose shoot, including provision of ammunition
  - b. Undertake investigation of crop contents through necropsy of black swan taken during shoot
2. Identification of priority sites for actions – fencing and wildfowl management
3. Support fencing off margins of lakes and waterbodies at priority sites through EFund and Farm Water Quality Improvement Plans
4. Support of coordinated culls of Canada geese on waterbodies where they are a problem (NRC Kaitaia Area Office staff)
5. Compilation of an information pack to support landowners, including advice on best practise to discourage or manage wildfowl and humane culling methods
6. Additional water quality sampling or other monitoring to better understand impacts of wildfowl in Northland
7. Additional water quality sampling coupled with coordinated culls at priority sites – research by management

#### **Results of Queen's Birthday weekend black swan shoot**

Over Queen's Birthday weekend NRC supported licenced hunters, including supply of ammunition, to shoot black swan and Canada geese in the Far North. Carcasses were collected over the three days and necropsied to ascertain what the birds had been feeding on. The main reason for this was to see if any of the black swan had eaten any juvenile flounder. A total of 91 black swan and 5 Canada geese were necropsied nearly all from the Te Pahi area, with a few from the Parengarenga Harbour. The gut of all birds showed no evidence of fish or other animal vertebrates, only plant material. This is consistent with the birds being herbivorous. The gizzards of the birds contained sand and plant material. Most birds were in good condition. All birds examined had loadings of various parasitic worms (helminths) mostly in the intestines including flatworms or flukes (trematodes), roundworms (nematodes) and cestodes (tapeworms). Flukes could, conceivably be mistaken for small flounder, see Photograph 1 and 2.





Photograph 1 and 2: Parasitic flukes and tapeworms found in the intestines of black swan from the Far North, 6 June 2016

**ISSUE: Biosecurity Update**

**ID:** A849530

**To:** Environmental Management Committee, 27 June 2016

**From:** Don McKenzie, Biosecurity Manager

**Date:** 3 June 2016

|                      |   |   |  |
|----------------------|---|---|--|
| <b>Report Type:</b>  | <input type="checkbox"/> Normal operations    | <input checked="" type="checkbox"/> Information           | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure       | <input type="checkbox"/> Public service                   | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function | <input checked="" type="checkbox"/> Annual\Long Term Plan | <input type="checkbox"/> Other               |
| <b>Significance:</b> | <input type="checkbox"/> Triggered            | <input checked="" type="checkbox"/> Not Triggered         |  |

**Executive Summary:**

This report describes progress on key biosecurity issues across the region including updates on biosecurity site led programmes, Kauri dieback, trap testing trial , and marine pests.

**Legal compliance and significance assessment:**

The council activities detailed in this report are provided for in activities described in the council's 2015-2025 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(s):**

- 
1. That the report Biosecurity Update by Don McKenzie, Biosecurity Manager and dated 3 June 2016 be received.
  2. The committee agree to fund a second round of trials with Landcare Research to test effectiveness of the SA2 cat trap.

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**Report**

**Kauri Dieback**

Final aerial surveillance for Northland has been approved for next year as part of the joint agency work. This will mean the remaining areas of Waipoua, South Hokianga, Kaikohe to Puketū and the remainder of the East Coast from Whaingaroa to Bay of Islands will be surveyed for kauri dieback. Biosecurity staff will follow up and undertake soil sampling of suspected disease trees.

### **Mediterranean Fanworm**

A season debrief was conducted with the marine hull surveillance contract team and planning has begun for the new financial year. We will be initiating surveillance earlier than previous years to be able to include marina vessels as well as moored vessels. A recheck of the structures in Tutukaka for fanworm is also planned for June; this will be the third check in this area; previously four juvenile and three mature worms were found in the marina.

An Audit was undertaken in May of the Marsden Cove marina structures for fanworm to both inform the marina management of the success of their removal attempts, the areas that need more work, and the compliance with existing Notices of Direction. It was decided that the Notice of Direction that was still in place at Stage 2 should be lifted and a management plan be put in place to work with marina management to continue to suppress fanworm numbers.

### **Manchurian Wild Rice – Haloxyfop test**

Northland Regional Council has an 'approval' issued by the EPA to spray the herbicide "Haloxypop" over water for the purpose of treating Manchurian wild rice. Application is subject to monitoring conditions imposed by the Environmental Protection Agency (EPA) and recently staff undertook a series of water samples to check for the presence of residual traces of the herbicide in water. The herbicide is rapidly dispersed and breaks down in water and as predicted an independent analysis of all the samples could not detect any presence of the herbicide in waterways within the treatment zone of the wild rice programme.

Treatment of Manchurian wild rice sites is on schedule for the year and spray work has been completed for the season. Resurvey of treated sites will occur next spring to search for regrowth and any new sites.

### **Other Marine Pests**

Staff attended the annual Marine Biosecurity Research Workshop in Wellington and the Top of the South biosecurity partnership AGM where we presented our hull survey data. A number of opportunities to work with agencies and research organisations to assess the impacts of marine pests in Northland were tabled.

Since the start of April two trapping trials have taken place to assess the effectiveness of trapping to control the invasive crab *Charybdis japonica* in Ngunguru estuary. So far two shore based deployments of different net types has yielded low catch rates. The next step is to trial the traps in deeper water using an NRC boat for diver deployment.

### **Survey on Biofouling**

A survey has been developed and distributed to marine stakeholders. Biofouling on vessel hulls is the main way that marine pests are moved from one place to another. The cleaner the hull the less likely it is to be carrying marine pests; however keeping hulls clean can be difficult. We need to find a balance between protecting the marine environment from marine pests and the costs of keeping vessels clean. The survey data will be used to help develop a robust cost benefit analysis as part of the development of the proposed pathways plan. The survey can be found at: <http://www.nrc.govt.nz/Environment/Weed-and-pest-control/Marine-pests/2016-marine-pests---stakeholder-survey/>

### **Trap testing results**

Earlier this year it was reported to the Committee that Landcare Research had completed the SA2 cat trap testing and advised the trap did not pass the standards required by the National Animal Welfare Association. They have advised the trap is of good design and construction and that further testing should be done given modifications to the trap. Following modifications undertaken over the last several months the kill pressure has been increased by 25 percent and the device is ready for a repeat set of trials. Several months lead in time is required to allow Landcare Research to prepare for the trial as it involves catching and holding wild cats in secure facilities. It is proposed another round of trials is organised with Landcare research for late November early December 2016. The testing and report would cost approximately \$13K and as per the previous trial it is proposed the Environment fund is used to fund this trial.

### **Progress with Pest control**

The Tanekaha Community Pest Control Area (CPCA) was established in late 2012 between number of Hikurangi farmers and the Northland Regional Council (NRC). The main objective of this CPCA was to establish a predator control programme to protect a small number of kiwi which had been found by the Department of Conservation (DOC) within the proposed CPCA area. Council biosecurity staff assisted the Tanekaha community to establish an effective trapping and poisoning programme to control stoats, ferrets, weasels, feral cats, rats and possums.

After four years of active predator control Tanekaha was deemed safe again for kiwi to be translocated to build a self-sustaining breeding population. In May 2016, around 20 kiwi were released back in to the CPCA as a result of a joint community and agency collaboration. More than 250 people attended the recent release event to celebrate the return of the kiwi to their community.

This project has been successful due to the hard work of the Tanekaha community and the multi-agency contributions from NRC, DOC, New Zealand Landcare Trust, Fonterra, and Kiwi for Kiwis,

*Link to Media Release:*

[http://www.nzherald.co.nz/northern-advocate/news/article.cfm?c\\_id=1503450&objectid=11636650](http://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=11636650)

### **Site-led Projects (CPCA's, Environment-fund)**

Biosecurity staff are continuing to work with several community and iwi groups in Northland to develop new projects and support established CPCA's for the following financial year.

Nearly eighty registrations of interest were received for pest control materials from the Environment fund for the 2016/17 financial year. Initial funding requests totalled over \$200,000 excl GST. Staff have now reviewed and prioritised all applications with 54 applications ready to be submitted for approval totalling approximately \$125,000 worth of funding from councils Environment Fund.

### **Community Pest Control Areas Update**

Purua CPCA pest plan has been signed by landowners, with final trap placement to be undertaken after July. Kowhairoa peninsula ( Whaingaroa) has also been finalised and awaiting Department of Conservation input. Russell Forest CPCA has initial support from Nga Whenua Rahui with a final program of works to be discussed at the

next hui. Initial discussions with DOC staff for a core area in Waikare Valley (Russell forest) has led to Community Management Agreements being proposed. Initial discussions held with kaumatua and landowners of Waima and surrounding areas was very successful with interest generated in CPCA for the coming year.

### **Award for Warawara Community Pest Control**

The Te Runanga O Te Rawara achieved first place in the “Excellence in Environmental Management and Awareness Award,” from the Te Hiringa Tai Tokerau Maori Business Awards. This award relates to the work undertaken for the Warawara Whakaora ake (CPCA) project which is a joint venture under the auspices of Te Rawara and the nine marae involved in the governance.

### **Reconnecting Northland wins Green Ribbon Award**

Landscape scale restoration initiative, Reconnecting Northland, was applauded at the 2016 Green Ribbon Awards recently, winning the Philanthropy and Partnership category. Staff work closely with Reconnecting Northland on joint projects like Warawara and are proud to be associated with their vision and recent achievement.

Reconnecting Northland is a large-scale ecological restoration programme and is the first of its kind in New Zealand. It is a collaboration between the NZ Landcare Trust and WWF-New Zealand, and funded by The Tindall Foundation, Foundation North and HSBC Water Programme.

### **Education**

The first assessment for project mustelid, an education course designed as a part of Enviroschools was completed at Trefoil park on 24 May 24. The students were required to demonstrate the theory they had learnt at the first course earlier this year and involved setting three different types of mustelid traps including the correct placement and location. The students came from four schools and the majority demonstrated a high level of competence- given they also pass their written assignments students will gain the unit standard for this course.

### **Wild kiwifruit vines**

Contractors have completed the clean-up of the last remaining kiwifruit vines in accordance with the joint memorandum of understanding with Kiwifruit Vine health (KVH). The recent work cost \$20k and a 50% share will be paid by KVH.

### **High Attendance for Weed Workshop- Whangarei Heads**

Approximately 70 people attended a weed workshop at Whangarei Heads School on 29 May organised and run by the Weed Action Whangarei Heads coordinator, Joanna Barr. Joanna highlighted the new initiative on weeds at Whangarei heads and how Weed Action Whangarei Heads can assist with advice, and resources to help private landowners. Weed Action has been assisted by some funding from the Whangarei heads targeted rate.

### **Ginger Stakeholder Group**

The first complete Ginger Stakeholder Group meeting was convened with representative members of all relevant agencies including forestry Department of Conservation and district councils. Ngatiwai representatives were also present. The aim of the group is to raise awareness and funding for a comprehensive programme of smarter tools to combat the spread of wild ginger- a key part of this programme is the application of how biological control can help combat this plant pest. The next meeting is arranged for early June when Lynley Hayes, Science Team Leader will be

visiting to present on the biological control options. The stakeholder group aims to raise awareness and funding for smarter tools to control wild ginger.

### **Regional pest plan review**

A national pest management cost benefit analysis workshop was held in Wellington on 25 May. The focus of the workshop was development of a consistent framework for undertaking cost benefit analysis for species that are likely to require 'Good Neighbour Rules'. NRC staff will be part of a national sub-committee to develop this framework.

### **Freshwater pests**

The Annual lakes status survey took place in April and staff visited a total of 23 waterbodies with six lakes having full submerged plant index assessment undertaken and six weed surveillance dives undertaken. One new serious weed incursion identified (hornwort in Waiparera) - this lake already has three other weed species present. One new population of a Critically Endangered aquatic plant recorded (native bladderwort at Te Kahika outlet stream)



**ISSUE: River Management & Natural Hazards Update**

**ID:** A849742

**To:** Environmental Management Committee, 27 June 2016

**From:** Joseph Camuso, Rivers and Natural Hazards Manager

**Date:** 7 June 2016

|                      |   |   |  |
|----------------------|---|---|--|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations | <input type="checkbox"/> Information                      | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input checked="" type="checkbox"/> Infrastructure    | <input type="checkbox"/> Public service                   | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function         | <input checked="" type="checkbox"/> Annual\Long Term Plan | <input type="checkbox"/> Other               |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                    | <input checked="" type="checkbox"/> Not Triggered         |  |

**Executive Summary:**

- Whangatane Spillway weir modification has been completed.
- Mathew's Bridge, giving access across the Whangatane Spillway has reached practical completion status.
- Kerikeri Spillway, staff have commissioned a third valuation report for the spillway
- Coastal hazard assessments, including maps, have been released encompassing 13,000 properties that have received letters notifying of the recent Coastal Hazard Mapping.

**Legal compliance and significance assessment:**

The council activities detailed in this report are provided for in activities described in the council's 2015-2025 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.

**Recommendations:**

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1. That the report River Management & Natural Hazards Update by Joseph Camuso, Rivers and Natural Hazards Manager and dated 7 June 2016 be received.
  2. That Donald Kerr be appointed to the Urban Whangarei Rivers Liaison Committee as the Morningside area Ratepayers representative.
  3. That the Mid Lower Waitangi River representative position be removed from the Terms of Reference for the Waitangi River Liaison Committee.
  4. That Councillor Dover Samuels be appointed as Deputy Chairperson of the Taumarere Flood Management Committee.
  5. That the minutes of the following River Liaison Committee meetings be received:
    - a. Urban Whangarei Rivers Liaison Committee, 12 April 2016
    - b. Awanui River Liaison Committee, 15 April 2016
    - c. Taumarere Flood Management Liaison Committee, 22 April 2016
- 

**RIVERS**

**Whangarei**

Scheduled annual maintenance has been completed. The Urban Whangarei Rivers Liaison Committee meeting was held on 12 April. Staff are working on final elements associated with the dam code of compliance, rentals, fencing and maintenance.



The Morningside area ratepayer position has been vacant for some time. Donald Kerr has been nominated and confirmed he is available to accept the nomination as the Morningside area ratepayer representative on the Urban Whangarei Rivers Liaison Committee.

### **Awanui**

The modification of the Whangatane Spillway Weir intake and Matthew's Bridge has been completed. An official opening ceremony is scheduled for 1 July.

The Awanui River Management Liaison Committee meeting was held on 15 April, the committee was very supportive of the recent spillway works. Annual maintenance works have been completed.



Matthew's Bridge nearing completion

### **Kaeo-Whangaroa**

Tree and sediment removal on the Tauranga Bay stream to lessen flooding of the Tauranga Bay Road has reduced the local water level by approximately 1 meter. FNDC have congratulated NRC for the pro-active approach and flood mitigation benefits.

The Kaeo-Whangaroa annual maintenance programme has been completed.

### **Kerikeri-Waipapa**

Staff have commissioned a second valuation report to assess differences in the original NRC valuation and the valuation of the main landowner of the proposed Kerikeri River spillway. We expect the valuation to be completed by mid-June.

### Waitangi River

It is noted there may be synergies in merging of the Waiora Northland Waitangi Catchment Group and Waitangi River Liaison Committee and therefore it is recommended that the current vacant position for a representative for the Mid Lower Waitangi River area not be filled.

### Kawakawa – Taumarere

The inaugural meeting of the Taumarere Flood Management Liaison Committee was held on 22 April and was well attended. Lengthy discussion was held regarding Chairpersonship of the Committee as recorded in the Committee resolutions on page 2 of the attached Minutes. Given this is a Council Flood Management Committee which requires Council decision making on funding of works, it is considered more appropriate that Chairpersonship resides with the NRC. This is consistent with NRC's seven other River Liaison Committees. On this basis, staff recommend Councillor Dover Samuels (who is a member of Taumarere Flood Management Liaison Committee) be appointed as Deputy Chairperson.

### Kaihu

Annual rice-grass spraying via helicopter has completed this year's annual maintenance works.

A boundary survey of the Kaihu Rugby Club has been completed in an attempt to settle a community dispute regarding a fence re-location after gravel extraction from the river.

### Minor Rivers Works

Minor river works for this season are complete. The table of minor river works for 2015/16 is shown below.

| River          | Description of Minor River Work Programmed for Current Season                                    | Status    |
|----------------|--|-----------|
| AWANUI         | Awanui - Bells Hill Drain installation + Drain Cleaning  | Completed |
|                | Awanui - Bells Hill Modelling revision and management option report                              | Completed |
|                | Awanui - Kinuyanangi Willow Poles at Gills Rd to transfer to Tarawhataroa                        | Completed |
| TARAWHATAROA   | Tarawhataroa - Minor river works involving Ngakahu, Cribb, Flood and Smith Properties            | Completed |
| WAITANGI       | Waitangi, Lilly Pond remove fallen trees   | Completed |
|                | Waitangi - Willow Planting on Waiaruhe River Bank adjacent to Pt OLC 4                           | Completed |
| WAIARUHE       | Waiaruhe - Tree Removal adjacent to Puketona junction near Top Energy depot                      | Completed |
| WAIOMIO        | Waiomio - Willows/Debris Removal   | Completed |
|                | Waiomio - Additional Work - Willows/Debris Removal   | Completed |
| OTIRIA/MOEREWI | Otiria/Moerewa - Willow removal upstream Pokapu Bridge - mulch/prune sides of high pass spillway | Completed |
|                | Otiria/Moerewa - Bund and vegetation   | Completed |

|                               |  |           |
|-------------------------------|--|-----------|
|                               | removal (KiwiRail and Forest Loaders)  |           |
| <b>OHURI</b>                  | Ohuri - Machine clean weeds 300 meters downstream of Duddy's Road to reduce road flooding                                  | Completed |
| <b>MANGANUIOWAE</b>           | Manganuiowae - Slip Control Work (Gravel Management) at Broadwood A&P Soceity  | Completed |
| <b>MANGATOA &amp; KAIKOHE</b> | Mangatoa - Timber Extraction along SH 12 breaching roadside stopbanks<br>Kaikohe - Willow Blackage Removal at 42 Guy Road. | Completed |
| <b>WAIMA</b>                  | Waima – Remove blockage trees and gravel from Left Span of SH Bridge   | Completed |
| <b>OMANAIA STREAM</b>         | Omanaia Vegetation Removal   | Completed |
| <b>PUNARUKU</b>               | Punaruku - Tree and blockage removal   | Completed |
| <b>AWAPOKANUI</b>             | Awapokanui - Weed Spraying   | Completed |
| <b>NGUNGURU</b>               | Ngunguru - Willows/Debris Removal  | Completed |
| <b>OTAIKA</b>                 | Otaika - Willows/Sediment Removal  | Completed |
|                               | Otaika - Remove broken Limbs Otaika Valley Road Double Barrel Culverts   | Completed |
| <b>LAKE OMAPERE</b>           | Lake Omapere - Clean Outlet  | Completed |
| <b>WAIHOU</b>                 | Works Rahiri Settlement  | Completed |

## Natural Hazards

### Storm-surge Swash Lines Surveyed

Staff surveyed storm-surge swash lines and coastal erosion for the following sites after the 22/23 May storm event; Rawene, Baylys Beach, Dargaville, Glinks Gully Opononi and Ruawai.

This event recorded the second highest water level for Dargaville, approximately 100 mm from overtopping in Dargaville. A Stopbank protecting a council reserve in Rawene was overtopped and consequently eroded during the breach. Staff also recorded approximately 2 meters of coastal erosion in Opononi and Omapere and areas where a new foot path was undermined and collapsed (see photos below).

### Coastal Flood Hazard Maps

Draft Coastal Hazard Maps for Northland have been distributed to the public. Approximately 13,000 properties have been identified within the recent mapping as potentially subject to coastal erosion and/or flooding. Landowners will have 3 months to make submissions regarding the mapping. The maps are available on line and we have encouraged landowners to view and submit comments on line. However, staff are receiving a significant amount of phone calls. The majority of callers are requesting information.



Opononi new footpath damaged from May 22/23 storm event



**Opononi coastal erosion following 22/23 May storm event (approximately 2 meters of coast line was lost in some places).**

**ITEM: 10**  
Page 6 of 6

**Regional LiDAR Project**

Staff are working with central government officials on a business case for the regional LIDAR capture project in order to progress towards Central Government agency funding contributions. Links are being drawn with the national capture project being prepared by Land Information New Zealand.

## URBAN WHANGAREI RIVERS LIAISON COMMITTEE

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Minutes of the Urban Whangarei Rivers Liaison Committee meeting, held on  
Tuesday 12 April 2016  
Kaipara Room, Northland Regional Council, Water Street, Whangarei. commencing  
at 2.00 pm

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### **Present :**

#### **Committee Members**

|                   |  |
|-------------------|--|
| Craig Brown       | Chair  |
| Vince Cocurullo   | Whangarei Chamber of Commerce                |
| Peter Geddes      | Whangarei CBD/Hatea Ratepayer representative |
| Crichton Christie | Whangarei District Council                   |
| Mira Norris       | Iwi Representative                           |

#### **Also in Attendance**

|                |                            |
|----------------|----------------------------|
| Bruce Howse    | Northland Regional Council |
| Toby Kay       | Northland Regional Council |
| Nola Sooner    | Northland Regional Council |
| Joseph Camuso  | Northland Regional Council |
| Victoria Rowe  | Northland Regional Council |
| Andrew Carvell | Whangarei District Council |
| Joanna Wilson  | Whangarei District Council |

**Apology:** Wally Yovich

#### **Moved (Geddes/Brown)**

That the apology from Wally Yovich for absence be received.

**Carried**

### **MINUTES OF PREVIOUS MEETING**

#### **Moved (Cocurullo/Norris)**

That the Minutes of the Urban Whangarei River Liaison Committee dated 10 March 2015 be accepted.

**Carried**

### **MATTERS ARISING**

There were no matters arising.

### **BUDGET OVER VIEW & UPDATE**

It was noted the escalation in costs for completion of the Kotuku Dam was largely due to unforeseen ground conditions and extensive retaining works.

### **MAINTENANCE WORKS 2015-2016 UPDATE**

Maintenance works for 2015 – 2016 were presented to the Committee.

### **KOTUKU DAM UPDATE**

An update was provided on the dam opening ceremony and a video of drone footage was played.

### **WDC UPDATE ON GREENWAYS - CYCLEWAYS**

Joanna gave a presentation on behalf of the Whangarei District Council. She covered the following:

Blue/Green Network Strategy

- Holistic approach to planning around waterways and greenspace
- Combining cycle ways, green infrastructure, riparian planting and flood mitigation measures
- Creating corridors across the city for people and for fauna
- Connecting green, blue and grey spaces
- Enhancing identity, ownership and public connection to waterways

Emerald Necklace Project

- Focus on Waiarohia Stream from Rust Avenue to the Harbour.
- Commences 2016/2017
- Starting with a section from Kotuituiwhitinga to Okara Bridge
- Pocket Park at the former H&H site, connecting through to Okara Shopping Centre

It was noted the project is a long term strategy and will be implemented over e.g. 50 years as opportunities arise. This will ensure that as various initiatives are undertaken, the blue/green network strategy will act as an overarching document. Joanna concluded by advising there is an element of cost reduction in combining flood mitigation measures and beautifying landscaping measures.

### **CURRENT PINCH POINTS**

Toby summarised several flood pinch points including the following:

- Walton Street
- Lower Tarewa Road Overflow
- Woods Road Overflow
- Downstream from Railway Road

Approval was given to identify solutions and costs. **Action: Joseph Camuso**

### **COASTAL FLOOD RISK**

The coastal flood hazard assessment work for Whangarei CDB was presented to the Committee with an outline of how the information is intended to be released.

### **FLOOD MODEL UPDATE**

- Whangarei model updates proposed:
  - Update model DEM in specific areas
  - Incorporate new flood mitigation works
  - Extend ID Channel network
  - Re-run design storms
- Areas for DEM Update (2014 Lidar)
- Incorporate new mitigation works
- Extend ID Channel Network (up to Limeburners)
- Timeframe for upgrade
  - Scope, seek quotes and commission modelling by June 2016
  - Expected completion date December 2016
  - Release new mapping by March 2017

\*3.56pm Vince Cocurullo left the meeting.

**VACANCY ON COMMITTEE**

Attendees were requested to inform Northland Regional Council if they know of anyone who could be “shoulder tapped” to fill the vacancy for a Morningside Ratepayer representative.

**UPDATE ON STORMWATER CONSENTING APPLICATION**

Andrew Carvell gave an update on a storm water consenting application. It was noted a consent application has been put in a holding position at the present time.

**ANY OTHER BUSINESS**

There was no general business.

Craig thanked everyone for their input which was greatly valued.

The meeting closed at 4.15 p.m.

The next meeting date will be advised in due course.

UNCONFIRMED



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Minutes of the meeting of the Awanui River Liaison Committee, held on Friday 15 April 2016 at the Te Ahu Centre, Church Road, Kaitaia, commencing at 10.30 a.m.

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**Committee Members present:**

|                 |                              |
|-----------------|------------------------------|
| Joe Carr        | (NRC – Councillor- Chairman) |
| Monty Knight    | (NRC Councillor)             |
| Adele Gardner   | (Te Hiku Community Board)    |
| Fiona King      | (Kaitaia Drainage Board)     |
| John Walsh      | (Te Runanga O Te Rarawa)     |
| Kaio Hooper     | (Te Runanga O Ngai Takoto)   |
| Craig Ambler    | (FNDC – Drainage)            |
| Lester Bridson  | (DOC)                        |
| Joe King        | (Eastern Area)               |
| Michael Masters | (Western Area)               |
| Bruce Howse     | (NRC)                        |

**Also Present:**

|                |       |
|----------------|-------|
| Joe Camuso     | (NRC) |
| Peter Wiessing | (NRC) |
| Wendy Jecentho | (NRC) |
| Toby Kay       | (NRC) |

**APOLOGIES**

**Resolved:** That the apologies from Gary May, Mate Radich, and Marie Berghan be received.

Cr Knight : Mrs Gardner

**CONFIRMATION OF MINUTES**

**Resolved:** That the minutes of the last ordinary Awanui Flood Management Liaison Group meeting held on 9 September 2015 be confirmed.

Mr Masters : Cr Carr

**Resolved:** That the minutes of the extraordinary Awanui Flood Management Liaison Group meeting held on 24 September 2015 be confirmed.

Cr Knight : Mrs King

**MATTERS ARISING**

The committee requested a memorandum with the final wording for the Matthews Bridge and the Yuretich easements/settlement to be emailed to them for agreement.

Fiona King requested a map showing location of easements.

Discussion followed on NRC future maintenance obligations for the Matthews Bridge and access way. Bruce Howse advised that NRC were obliged to undertake maintenance on the bridge for the life of the structure. He advised that there was no obligation for long term maintenance by NRC on the access way although for the first

year, until works settle, NRC would be undertaking any maintenance required due to stormwater or drainage.

### **RATING REVIEW**

Bruce Howse presented an early draft of the rating review and maps of the four options. He advised the goal of the review was to produce a fair and equitable rating system where the properties that benefit most pay the most. As the current rating system was adopted in 2006 and there are some anomalies a review is necessary.

Mr Howse circulated a summary and a description of the four rating options.

- Option 1        Status Quo
- Option 2        Urban area extension with commercial rate based on capital value not land value
- Option 3        New areas of benefit with ponding areas
- Option 4        New areas of benefit without ponding areas (Same as option 3 but rural class E ponding areas counted as class B (rateable 75% ) or class C (rateable 50%)

The committee viewed the maps displayed and discussed the options presented advising that option 3 was likely to be their preferred option but this option required some development.

The committee requested that the maps are circulated to the committee for further study along with the McKinlay Douglas report on 'Regional Rate Contribution to River Schemes'.

**Resolved:**     That the presentation on the rating review is received and that the general level of agreement was that option 3 is the preferred option to be developed with a conclusion to be reached by November 2016.

Mrs King                                :                                Mr Masters

### **WHANGATANE SPILLAY WEIR MODIFICATION UPDATE**

A time lapse video from the webcam showing the weir modification works and the effects of recent rain events was shown. The webcam can be accessed via: <http://www.nrc.govt.nz/Environment/Webcams/awanui-webcam/>

Toby Kay presented on the Waikuruki gauge site showing graphs of the flow velocity and area which he says have reduced since 1990. Mr Kay advised that the model rating at the gauge site is close to recent gaugings. Graphs were shown on how the rating is expected to change due to weir intake modifications and what the impact of the weir modification is on the Waihoe Flood gate outflow.

Mr Kay also presented on the concept of stopbank realignment at Matthews Park involving a high level bench on the left bank opposite the spillway intake which he says will have the following benefits:

- Reduce peak flow pressure on the Whangatane Spillway
- Reduce the impact of debris blockage at the choke
- Maintain channel capacity in the lower Awanui River
- Optimise use of channel works done in the lower Awanui
- Return Waikuruki site rating back to previous ratings

- Should not affect flood gate operation along the lower Awanui
- Discussion followed and the following resolution was reached.

**Resolved:** That staff investigate further the effects of a high level bench on the left bank of the Awanui at the intake to the choke and that a design rating is adopted for Waikuruki to be achieved through future works with the provisional recommendation that the April 1990 rating for Waikuruki is the rating achieved.

Mr King : Cr Carr

### **MATTHEWS BRIDGE AND SPILLWAY BUDGET UPDATE**

Construction photos were shown and a summary was given on progress on the Matthews Bridge. A financial summary of works for the bridge and the spillway was circulated.

Joe Camuso reported to the committee that the Spillway upgrade had come in under budget, with a projected costing of \$545k instead of the budgeted \$700k.

Joe Carr congratulated NRC staff and contractors on this outstanding achievement. The committee also acknowledged the exceptional work done by staff in the administration and supervision of both the spillway upgrade and the 15/16 maintenance works and acknowledged the dedication and guidance from Joe Carr over the years. They also acknowledged the Whangatane Spillway stakeholders and local Iwi for their support.

**Resolved:** That the committee wishes to congratulate staff for such an outstanding achievement, to acknowledge Joe Carr for his dedication and guidance over the years, and to acknowledge the spillway stakeholders and local Iwi for their support.

Mrs King : Mr Masters

The committee requested that a media release is arranged to publically acknowledge the achievements by the Awanui Flood Scheme. It was suggested that the media release should coincide with the official opening.

The committee was invited to attend a field trip at the conclusion of the meeting to view works to date on the bridge and spillway.

### **BUDGET AND WORKS PROGRAMME**

Peter Wiessing gave an update on the 15/16 works season advising that, along with the usual routine maintenance, works had been completed on fascinning, the stopbank setback at Bennetts, lower Awanui works and a grade control structure opposite the Bells Hill slip. He advised that some works on coastal stopbanks at Unahi was still underway.

Joe Camuso outlined the proposed works programme for 2016/2017 which would involve a similar programme to this season and would include coastal banks maintenance.

Bruce Howse circulated the budgets and actuals for 14/15 and 15/16 years and the proposed draft annual budget for 16/17 advising that due to savings made on the

spillway project and low interest rates the targeted rate was proposed to be reduced in the 16/17 period.

Discussion followed with the committee suggesting that rather than reduce the targeted rate the extra funds could be used to undertake additional maintenance works on the Awanui. Fiona King suggested that the scheme should be utilising the current financial climate to accelerate works.

**Resolved:** That the draft Annual Plan proposed reduction in rates from \$593K to \$542K not proceed, and that rates be held at \$593k so that any additional rates can be used to fund additional maintenance works

Mrs King : Mr Masters

**Resolved:** That a submission to the draft Annual Plan is prepared to request that the rate is held at \$593k rather than reduced to \$542k so that additional maintenance works can be funded.

Mrs King : Cr Knight

**Resolved:** That the Committee approves the draft budgets subject to the remodelling of the proposed draft annual budget 2016/17.

Mrs King : Mr Masters

Remodelled financials are to be circulated to the committee.

#### **ASSET CONDITION SURVEY**

Discussion on the asset condition survey was held. Peter Wiessing advised that after initial investigation aerial survey by helicopter would appear to be the most cost effective method to assess condition due to restricted access. The committee supported the proposed survey.

#### **BELLS HILL SLIP UPDATE**

Joe Camuso gave an update on the Bells Hill slip and circulated a graph showing groundwater levels and drain flow rates since July 2011. He advised that the additional horizontal drains had been installed at a cost of \$40,000 with \$20,000 funded by FNDC and the other \$20,000 funded by the NRC Other Rivers account.

Discussion followed on the Fletcher Concrete property and how this property could be utilised at some stage in the future to act as an emergency overflow if required. In the mean time staff would investigate the options for this site.

#### **FLOOD MAP AND MODEL UPDATE**

Toby Kay advised that the flood maps had been released and were now available for viewing in the NRC website. He advised that the maps were based on 13 year old Lidar data. He said that a new region wide Lidar survey was planned in conjunction with the three territorial councils and LINZ and could be completed in two years. Flood maps would be updated with the new Lidar data once it was to hand but in the mean time any feedback on the flood maps would be welcomed by NRC.

### **OTHER BUSINESS**

Discussion on the official opening of the spillway upgrade planned for late June. Staff to liaise with NRC Communications SPM re a media release on the scheme at this time.

Lester Bridson of DOC presented a summary of proposal for the Kaitaia catchment based on LUCI (land use capability indicator) prepared by Victoria University and Department of Conservation. The summary was circulated and discussion followed. Staff were requested to analyse this report and identify any areas that may require intervention by Awanui Scheme.

Kaio Hooper gave an update on Lake Tangonge project and advised that restoration of the remnant forest is planned. This project will include fencing around Waihoe floodgates, controlling weeds and rubbish, replanting where necessary and generally looking after the native vegetation that is already there. The works will be planned in consultation with Peter Wiessing to ensure scheme assets are not impacted.

Meeting closed 1.50pm

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Report of the meeting of the Taumarere Flood Management Liaison Committee, held on  
Friday 22 April 2016  
Ngati Hine Health Trust, 2-4 Rayner Street, Kawakawa  
commencing at 10.30 a.m.

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**Present – Committee Members:**

|                       |  |
|-----------------------|--|
| Joe Carr              | (Chairperson)  |
| Cr Dover Samuels      | Northland Regional Council (NRC)   |
| Cr Willow-Jean Prime  | Far North District Council   |
| Tui Shortland         | Tangata whenua representative  |
| Marlena (Dolly) Baker | Tangata whenua representative (on behalf of Murray Armstrong)              |
| Kevin Davidson        | Business community   |
| John Kooge            | NZTA   |
| John Te Iringa        | KiwiRail (on behalf of Peter Ramsay)                                       |
| John Harawene         | Karetu ratepayer representative  |
| Manuwai Wells         | Waiomio ratepayer representative   |
| Cilla Brown           | Motatau/Opahi/Matawaia ratepayer representative (on behalf of Rowena Tana) |

**Also in Attendance:**

|               |  |
|---------------|--|
| NRC staff:    | Malcolm Nicolson, Abe Witana, Joe Camuso, Doug Foster, Toby Kay, Nola Sooner |
| FNDC staff    | Craig Ambler   |
| Johnson Davis | Member of the public   |
| Susan Henare  | Member of the public   |
| Prime Paraha  | Member of the public   |

**APOLOGIES**

Murray Armstrong, Richard Cookson, Peter Ramsay, Rowena Tana, Bruce Howse, Bill Shepherd

**Resolved:** That the above apologies will be accepted.

Willow-Jean Prime : Kevin Davidson

**OPENING KARAKIA:** Dover Samuels

**TERMS OF REFERENCE**

Discussion was held on the draft Terms of Reference.

Malcolm advised the Northland Regional Council's Environmental Management Committee made a decision to remove Far North Holdings Ltd as a representative on this Committee. Joe Carr referred attendees to a letter received from Far North Holdings Ltd suggesting it would be more appropriate to have a Ngati Manu representative on the Taumarere Flood Management Committee instead of Far North Holdings Ltd. It was noted John Harawene will represent the interests of Far North Holdings Ltd on this committee. It was agreed Northland Regional Council will write back to Far North Holdings Ltd to advise that John Harawene will represent their interests. **Action: Joseph Camuso**

Dover noted the flooding issues in this region are historical and expressed caution not to go back and reinvent the wheel. In response to a query, Joe Carr confirmed the NDHB have not been invited to be a representative on this Committee as staff have ongoing contact with

the NDHB. Tui referred to the health risks that occur due to flooding and would welcome NDHB's input.

Tui suggested that two co-chairs be appointed i.e. have one co-Chair appointed by NRC and one co-Chair appointed by this Committee. Dover noted the effectiveness of having only one Chair that is a member of the NRC Council in terms of having influence at Council level advocating on this Committee's behalf. Tui noted we need to ensure outreach and "by-in" from our whanau. She felt that co-governance on this committee would be preferable for whanau. Manuwai supported Tui's recommendation. She felt that if communication between the two Chairs is good, it would be invaluable to the success of this committee. Dover indicated there is a distinct difference between a Deputy Chair and a co-Chair. He felt the representation on this Committee should reflect who can drive this committee. The objective is to bring about major changes and eliminate historical and current problems with flooding in this area. The aim is to use NRC staff resources to implement changes. Joe Carr explained if a Deputy Chair is required, a Councillor of the ward steps up and assumes the role of Acting Chair for the meeting. Malcolm cautioned to proceed with a co-Chair position would be seen as a new precedent for NRC.

**Resolved:** That a Co-Chair position be created on the Taumarere Flood Management Liaison Committee and that this committee make a recommendation to the Northland Regional Council that a Co-Chair position be created.

Tui Shortland : Willow-Jean Prime

Minute Taker Note: Abstained – 2 (John Kooge and John Te Iringa)  
Carried

**Resolved:** That in the event the Northland Regional Council does not approve a Co-Chair be appointed, then the Taumarere Flood Management Committee make a recommendation to the Northland Regional Council that a Deputy Chair be appointed to the Taumarere Flood Management Liaison Committee and recommends that Manuwai Wells be appointed to that role.

Willow-Jean Prime : Dolly Baker

**Resolved:** That the Terms of Reference be approved subject to the following amendments:

- Removal of Far North Holdings as a representative
- Amendment of place name (Maromaku)
- Addition of Opahi and Matawaia to Motatau ratepayer area
- Addition of Pokapu to Moerewa/Otiria ratepayer area

Willow-Jean Prime : Kevin Davidson

## MINUTES OF 7 APRIL 2008

The Minutes of 7 April 2008 were accepted as read. Sincere appreciation was noted for Margaret Wikare's efforts in recording the outcome of that community meeting.

**Resolved:** That the list of priorities identified in the Minutes of 7 April 2008 be included in the final list. **Action: Toby Kay**

Dover Samuels : Kevin Davidson

## NRC CATCHMENT OVERVIEW

Joseph Camuso gave a power point presentation on the NRC's Catchment Review and summarised a Flood Risk Matrix undertaken of Awanui. In response to a query, Joe Carr advised a lot of the issues are interrelated. Joseph explained staff are intending to undertake a flood risk matrix for this area. **Action: Joseph Camuso**

Willow-Jean noted some issues have already been identified and it is important to identify everything in order to compile the flood risk matrix.

## 5B CATCHMENT AREA FLOOD FLOW

Toby Kay provided a presentation on Catchment Area and Flood Flow. He explained flood maps are accessible on the NRC website (a 10 year and a 100 year flood hazard layer).

He summarised the following:

Taumarere Catchment and River Gauges

- Total Catchment area is 450 km<sup>2</sup>
- NRC river gauges
  - Willowbank (Waiharakeke) 1967 to present.
  - Tirohanga below Old Mill 2010 to present.

Willow-Jean asked can NRC install temporary recorders to obtain information as a starting point. Joe Carr noted after a flooding event staff undertake surveys of debris left. Toby noted the hydrology team is already at full capacity with installation of measuring equipment. If it is considered necessary, NRC will put in the resources to implement the installation of more river gauges. Toby agreed with Tui's comment that each of the sub catchments should be measured for the risks of flooding in order to have an equitable approach. Toby advised there are currently only two water level gauges in this large catchment and confirmed an extra rainfall gauge has been placed in this catchment.

Toby provided a comparison of flow hydrographs to other catchments in January 2011.

- Flow record – Waiharakeke at Willowbank 1967-2014
- Shifting probabilities in flood analysis Moerewa (Willowbank) between 2010 and 2014
- Catchment Data sets
  - LiDAR survey
  - Hydrology data
  - Flood level survey
  - Channel and structures survey
  - Flood model data and mapping



## **MAINTENANCE WORKS 2015-2016 UPDATE**

Joseph gave an update on the Maintenance Works for 2015-2016. Some illustrations are listed below of work NRC has been addressing:

- Moerewa/Otiria – Waiharakeke River - Pokapu Bridge rock obstruction
  - Some Committee members expressed concern that they would not like to see the cultural aspect modified where the river no longer represents what our cultural stories relate to. Doug noted only minor work is undertaken at the moment – any major changes will go through a comprehensive consulting process.
- Spoil pile at Kiwi Rail Yard.
- Tirohanga Road Washout

Joe Carr confirmed this committee will have input into the maintenance works.

John Harawene requested an assessment be undertaken of the flooding in the Karetu area.

**Action: Joseph Camuso**

## **NZTA ROAD NETWORK RESILIENCE STUDY**

John Kooge advised there is a study being undertaken about the vulnerability of the NZTA Road network. Auckland University is undertaking a study to identify risks on the NZTA NZ road network. However John cautioned this may still remain an internal report.

Discussion was held on concerns about the Turntable Hill Bridge. John confirmed there have been no detailed studies done of this area. John said NZTA will consider NRC's options and look at the modeling to identify where NZTA can alleviate concerns. Joe Carr emphasized the route security issue is a big problem for Northland. Johnson referred to the closure of the road to Otiria and the effect of logging to Kawakawa.

Joe Carr asked members to bring forward outstanding issues in their rohe. He cautioned that funding for maintenance works across Northland is only \$200,000 per annum and therefore the resource is competitive when prioritizing the work required. Manuwai reported there has been some clearing of the streams at Waiomio. She advised the road to the Waiomio caves floods 2-3 times more now (10 hours blockage compared to 3 hours previously). Area representatives were requested to provide feedback prior to the next meeting to ensure issues are prioritized. Tui noted there are people from high catchments that get cut off for days at a time. Willow-Jean felt more attention needs to be given to those living further up in the valley and noted the strategic plan and work completed by FNDC in 2008 should be added to the mix. Prime requested a template be created to help assess flood risks. **Action: Joseph Camuso**

Joe Carr requested that a standing agenda item will be issues arising to help build a picture. Cilla noted school kids learn from flooding issues and the swamp areas. The two biggest issues are access and water into homes. Prime advised when it floods the power ceases which can cause sewage concerns.

Toby suggested that at the next meeting it would be useful for attendees to identify specific points in the road network that are adversely affected and areas where houses are flooded. Toby confirmed a map would be provided for that purpose at the next meeting. **Action: Toby Kay**

1.25pm Johnson Davis left the meeting.

Tui noted the railway line is an alternative option in Motatau when it floods as the trains stop. She noted options are limited by cost and targeted rates for our communities are not feasible.

1.30pm Manuwai Wells left the meeting.

It was noted the rail line stops at Otiria, however the railway corridor owned by New Zealand Railway Corporation extends northwards a further 17km towards Opuia. In addition there is a closed railway line which runs from Otiria to Okaihau (approximately 39km). John Te Iringa advised the land is owned by New Zealand Railway Corporation but administered by Kiwi Rail. He acknowledged during times of flooding the rail link to Otiria has been closed. The reinstatement costs are high. In the last 10 years this has occurred at least twice. The typical damage is loss of the railway formation including ballast section and some scouring around bridge piers.

Toby summarized the Taumarere flood mitigation options assessment criteria.

- Economic
- Cultural
- Environment
- Social
- Capital cost

Toby summarized the preliminary options identified by consultants which are spread across the whole catchment. In response to Willow-Jean's query, Toby confirmed that he would provide further information to explain the options available prior to a decision being made by the Taumarere Flood Management Committee on the best way forward. **Action: Toby Kay** He advised Options 1 -4 are simply concepts. Only Spillway option 5.3 has been assessed with the flood model.

Toby summarized the options available:

- Option 1 Kawakawa Township – Waiomio Stream bunding and SH1 bridge upgrade
- Option 2 Waiomio Stream Diversion
- Option 3 Tirohanga Stream Diversion
- Option 4 Raise SH 1 over Otiria Stream – pitch to central government for funding.
- Option 5 Otiria flood plain diversion
- Option 5: Further Otiria diversion options
- Option 5.3 New large scale spillway
- Predicted effects of Option 5.3
- Option 6 Waiomio potential detention site \$0.5M - \$2M
- Option 7 Upper catchment options (Motatau – Opahi).

Toby confirmed he would email relevant reports together with the management plan to the Committee for their information. **Action: Toby Kay**

Joe Carr suggested a field trip be undertaken at some stage to identify options.

2pm – Willow-Jean Prime left the meeting.

## **GENERAL BUSINESS**

There was no general business.

### **Next Meeting**

The next meeting will be advised in due course.

**Closing Karakia:** Abe Witana

Meeting closed at 2.10 p.m.

### **NRC Contacts**

Local: Doug Foster, Land Management Officer  
Kaitiaki Office 09 408 6600/027 476 7983

River Management Team: Joe Camuso, Rivers & Natural Hazards Manager  
Whangarei Office 0800 002 004/027 438 4639

**ISSUE: Recreational Swimming Water Quality Programme  
– Results 2015/2016**

**ID:** A823442

**To:** Environmental Management Committee, 27 June 2016

**From:** Pania Te Whaiti, Environmental Monitoring Officer - SOE

**Date:** 1 June 2016

|                      |   |   |  |
|----------------------|---|---|--|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations | <input checked="" type="checkbox"/> Information           | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure               | <input checked="" type="checkbox"/> Public service        | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function         | <input checked="" type="checkbox"/> Annual\Long Term Plan | <input type="checkbox"/> Other               |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                    | <input checked="" type="checkbox"/> Not Triggered         |  |

**Executive Summary:**

This report provides the Committee with a summary of the final results of the 2015/2016 recreational swimming water quality programme which was outlined to and supported by the Committee at its 27 October 2015 meeting.

The council collected water samples from 44 coastal and 13 freshwater swimming sites throughout Northland at weekly intervals from 23 November 2015 to 23 February 2016.

The samples were tested for bacterial indicators of faecal contamination to indicate the risk to swimmers of contracting gastro intestinal illnesses and other infections. The results of each sampling run were published on the LAWA (Land, Air, Water Aotearoa) website<sup>1</sup> within two days of the results being received.

In general, bacteriological water quality was suitable for swimming at the vast majority of coastal and most of the freshwater swimming sites, either all or most of the time, with:

- A total of 40 coastal sites meeting the *Enterococci* guideline values considered suitable for swimming 100% of sampling occasions and three sites having concentrations within the guideline values on all but one sampling occasion and the remaining site on all but two sampling occasions. Overall, 606 out of 611 (99.1%) samples met the guideline values.
- Two freshwater sites met the *E. coli* guideline values considered suitable for swimming 100% of the time. Six sites had concentrations within the guideline values on all but one sampling occasion, three sites on all but two sampling occasions and one site on all but three sampling occasions. The remaining site was classified as unsuitable for swimming on four sampling occasions. Overall, 161 out of 180 (89.4%) samples met the guideline values.

<sup>1</sup> <http://www.lawa.org.nz/explore-data/northland-region/>

Microbial Source Tracking (MST) to identify the source(s) of contamination at sites with consistently elevated faecal bacteria levels was undertaken at nine sites in the 2015/2016 swimming season, with ruminant and/or wildfowl markers being detected at four of the sites.

**Legal Compliance and Significance 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 2015-25 Long Term Plan and are therefore in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002.

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

**Recommendation:**

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That the report Recreational Swimming Water Quality Programme – Results 2015-16 dated 31 May 2016, prepared by Pania Te Whaiti, Environmental Monitoring Officer, be received.

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**Report**

**Summary of results for 2015/2016**

Tables 1 and 2 show the weekly sampling results for coastal and freshwater sites (respectively) compared with the microbiological water quality guidelines. Rainfall data is provided for samples which exceeded the 'Action' level guidelines. It should be noted that there were no "full-bank" flood events during the summer monitoring period. Samples that were not collected were the result of logistical issues or sample handling errors.

Many of the results that exceeded guideline values occurred around the time of rain events and are therefore attributed to runoff from land contaminated by faecal material. More detailed results and comparisons to historical data are presented in Appendix 1.

As in the past, the bacterial sampling results for almost all coastal swimming sites consistently met the guidelines values considered suitable for swimming, while fewer freshwater swimming sites met the guidelines values considered suitable for swimming. The "Kerikeri [River] at Stone Store" and "Hatea [River] at Whangarei Falls" had the least suitable bacteriological water quality for swimming.





**Table 2: Comparison of test results for freshwater swimming sites with the microbiological water quality guidelines (Green: 'Suitable', Amber: 'Alert', Red: 'Action', Blank: No sample collected. 72h accumulated rainfall provided for sites with 'Action' level results).**

|                             | week        | 1         | 2         | 3        | 4         | 5         | 6         | 7        | 8         | 9         | 10        | 11       | 12       | 13        | 14        |              |
|-----------------------------|-------------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|----------|-----------|-----------|--------------|
|                             | rain event  | y         | y         | y        | n         | n         | n         | y        | y         | y         | n         | n        | y        | y         | y         |              |
| Site Name                   | Site Number | 23-Nov-15 | 30-Nov-15 | 7-Dec-15 | 14-Dec-15 | 21-Dec-15 | 29-Dec-15 | 5-Jan-16 | 11-Jan-16 | 18-Jan-16 | 25-Jan-16 | 2-Feb-16 | 9-Feb-16 | 15-Feb-16 | 22-Feb-16 | % compliance |
| <b>FAR NORTH DISTRICT</b>   |             |           |           |          |           |           |           |          |           |           |           |          |          |           |           |              |
| Kerikeri at Rainbow Falls   | 308794      |           |           |          |           |           |           |          |           |           |           |          |          |           | 10mm      | 93           |
| Kerikeri at Stone Store     | 101530      |           |           |          |           |           |           | 43mm     | 48mm      |           |           |          | 4.5mm    |           | 24mm      | 69           |
| Lake Ngatu at South End     | 100402      |           |           | 5mm      |           |           |           |          |           |           |           |          |          |           |           | 93           |
| Tirohanga at Tirohanga Road | 102252      |           |           |          |           |           | 0mm       |          |           |           |           |          |          |           | 7mm       | 86           |
| Victoria River              | 104908      |           |           |          |           |           |           | 21mm     |           | 9mm       |           |          |          |           |           | 86           |
| Waimamaku at Wekaweka Road  | 308844      |           |           |          |           |           |           |          |           | 13mm      |           |          |          |           | 0mm       | 86           |
| Waipapa at Waihou Valley    | 103248      |           |           |          |           |           |           |          |           |           |           |          |          |           |           | 100          |
| Waipoua at Swimming hole    | 108613      | 19mm      |           |          |           |           |           |          |           |           |           |          |          |           |           | 93           |
| Waitangi at Wakelins        | 101752      |           |           |          |           |           |           |          |           |           |           |          |          |           | 24mm      | 92           |
| <b>KAIPARA DISTRICT</b>     |             |           |           |          |           |           |           |          |           |           |           |          |          |           |           |              |
| Lake Taharoa                | 105434      |           |           |          |           |           |           |          |           |           |           |          |          |           |           | 100          |
| <b>WHANGAREI DISTRICT</b>   |             |           |           |          |           |           |           |          |           |           |           |          |          |           |           |              |
| Lake Waro                   | 107272      |           |           |          |           |           |           |          |           |           |           |          |          | 6mm       |           | 93           |
| Raumanga                    | 103246      |           |           |          |           |           |           |          |           |           |           |          |          | 8mm       |           | 93           |
| Hatea at Whangarei Falls    | 105972      |           | 3mm       |          |           |           |           |          |           | 5mm       |           |          |          |           | 20mm      | 79           |



**Microbial Source Tracking**

Microbial source tracking to investigate the source(s) of contamination at sites with elevated faecal indicator bacteria levels was undertaken at Hatea at Whangarei Falls, Kerikeri at Rainbow Falls, Raumanga at Raumanga Valley Park and Victoria River. The results are given in Table 3, along with a comparison of the previous results for those sites.

Results for both Hatea at Whangarei Falls and Victoria at DOC reserve crossing indicated ruminant contamination and possible wildfowl contamination. Results from Kerikeri at Rainbow Falls and Raumanga at Raumanga Valley Park indicated ruminant and possible wildfowl contamination, respectively.

**Table 3: Results from microbial source tracking work undertaken between 2007 and 2016 at four swimming sites.** D: Dog, H: Human, R: Ruminant, W: Wildfowl, P: Plant decay. Sources in bold indicate a strong positive marker. Sites in bold are permanent monitoring sites and sites with an asterisk indicate an enclosed coastal site.

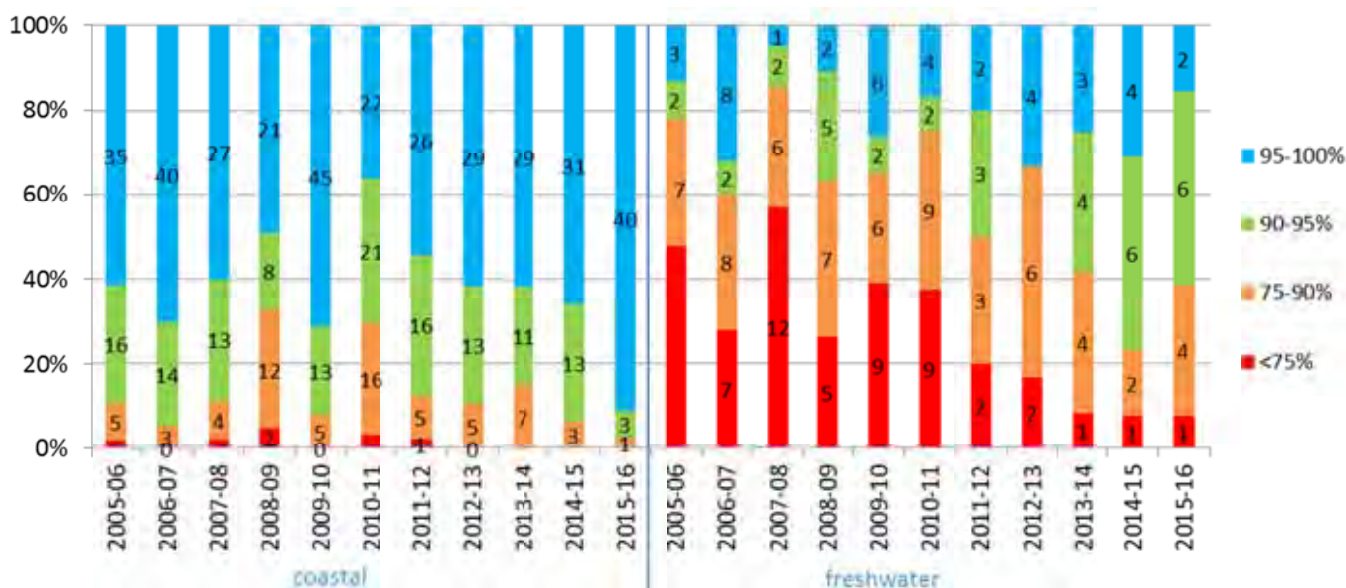
| Site                             | 2007/08    | 2009/10  | 2010/11      | 2011/12  | 2012/13  | 2013/14 | 2014/15  | 2015/16 |
|----------------------------------|------------|----------|--------------|----------|----------|---------|----------|---------|
| Kerikeri River Rainbow Falls     |            |          |              |          |          |         |          | R       |
| Raumanga at Raumanga Valley Park | <b>W</b>   |          |              |          | <b>H</b> | R/W/P   | <b>R</b> | W       |
| Victoria at DOC Reserve Crossing |            |          |              | <b>W</b> | W/P/H    | W/P     | <b>H</b> | R/W     |
| Hatea at Whangarei Falls         | <b>R/W</b> | <b>W</b> | <b>D/R/W</b> |          |          |         |          | R/W     |

**APPENDIX 1**

**Comparison of 2015/2016 results with historical data**

Figure 1 shows the extent to which sites met the bacteriological guideline values considered suitable for swimming since 2005/2006 in percentages of sampling occasions (red – < 75%; orange – 75-90%; green – 90-95%; blue – 95-100%) and by the total number of sites.

It is important to note that there have been some changes in the swimming sites over the year, although at least 20 core sites have always been monitored each swimming season. Tables 4 and 5 give the changes made to sampling sites between the 2014/2015 and 2015/2016 swimming seasons, together with the reasons for the changes.



**Figure 1: Coastal and freshwater percentages of samples meeting the “suitable for swimming” guideline values**

**Table 4: Sites removed from the 2014/2015 swimming water quality monitoring programme**

| Site Name               | Site Number | Reason for Removal                               |
|-------------------------|-------------|--|
| Cable Bay               | 105780      | Met guidelines on 100% of 120 sampling occasions |
| Mangawhai at Picnic Bay | 110322      | Met guidelines on 99% of 80 sampling occasions   |
| Ocean Beach             | 109877      | Met guidelines on 99% of 96 sampling occasions   |
| Pataua South            | 104986      | Met guidelines on 97% of 156 sampling occasions  |
| Tinopai Below Shops     | 102310      | Met guidelines on 100% of 134 sampling occasions |
| Woolleys Bay            | 109878      | Met guidelines on 100% of 97 sampling occasions  |

**Table 5: New sites included in the 2015/2016 swimming water quality monitoring programme**

| <b>Site Name</b> | <b>Site Number</b> | <b>Reason for Monitoring</b>                                       |
|------------------|--------------------|--|
| McLeod Bay       | 101254             | Reassess swimming suitability                                      |
| Otamure Bay      | 311666             | Site is popular for swimming and located near a popular campground |
| Urquhart's Bay   | 108311             | Reassess swimming suitability                                      |

**ISSUE: PM<sub>10</sub> Monitoring Results Adjacent to Unsealed Roads – 2015/2016 Summer**

**ID:** A841640

**To:** Environmental Management Committee, 27 June 2016

**From:** Obi Khanal – Air Quality Specialist and Colin Dall – Group Manager  
Regulatory Services

**Date:** 8 June 2016

|                      |   |  |  |
|----------------------|---|--|--|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations | <input type="checkbox"/> Information               | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure               | <input checked="" type="checkbox"/> Public service | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function         | <input type="checkbox"/> Annual\Long Term Plan     | <input type="checkbox"/> Other               |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                    | <input checked="" type="checkbox"/> Not Triggered  |  |

**Executive summary:**

This report provides the committee with a summary of the particulate matter (PM<sub>10</sub>) results for sites adjacent to unsealed roads that the Northland Regional Council monitored during the 2015/2016 summer

PM<sub>10</sub> monitoring was carried out from 3 December 2015 to 15 April 2016 at a total of nine sites located adjacent to unsealed roads over a minimum monitoring period of seven consecutive days. This monitoring was carried out as part of the “Regional Dust from Unsealed Roads Mitigation Framework” (“RDURMF”) that the Northland Regional Transport Committee approved in 2014. Monitoring sites were selected based on the list of roads referenced in the RDURMF, with the exception of Omahuta Road which was recommended by a council officer.

The main purpose of PM<sub>10</sub> monitoring is to identify sites adjacent to unsealed roads which experience high (problem) levels of dust as a result of traffic to assist the relevant Road Controlling Authority (district council) in prioritising the mitigation of the dust problem.

A total of 68 days of “100 percent valid data” (i.e. a full set of data) was continuously measured at 10 minute intervals over 24 hours from midnight to midnight, was obtained during the monitoring period. From the 75% percent valid data, PM<sub>10</sub> concentration was greater than an average of 50µg/m<sup>3</sup> over a 24-hour period on two occasions.

**Legal compliance and significance 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 2015-25 Long Term Plan and are therefore in accordance with the Council’s decision making process and sections 76-82 of the Local Government Act 2002.

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

**Recommendation(s):**

That the report “Results of PM<sub>10</sub> Monitoring Adjacent to Unsealed Roads – 2015/2016 Summer”, by Obi Khanal – Air Quality Specialist and Colin Dall – Group Manager Regulatory Services be received.

**Summary of results**

Table 1 shows the two highest PM<sub>10</sub> concentrations recorded at each monitoring site as well as the total rainfall recorded during each monitoring period.

Kohumaru Road and Omahuta Road recorded the highest PM<sub>10</sub> concentrations out of the nine sites monitored, with some concentrations being >50µg/m<sup>3</sup> over a 24 hour averaging period, despite those sites also recording the highest rainfall totals for during the periods sites were monitored. A 24-hour average of 50µg/m<sup>3</sup> is the limit used in the National Environmental Standards for air quality for public health protection.

Results of previous PM<sub>10</sub> monitoring of sites adjacent to unsealed roads undertaken by the Northland Regional Council in previous summers have shown higher concentrations of PM<sub>10</sub> and more occasions where the 24 hour average PM<sub>10</sub> concentration has been >50µg/m<sup>3</sup>. However, the 2015/2016 summer was wetter than those previous summers, as indicated by the rainfall data in Table 1, which would at least partly explain the lower results.

More detailed results and a map presenting the monitoring site locations can be found in Appendix 1 and 2 respectively.

**Table 1: Summary of PM<sub>10</sub> monitoring results.**

| Monitoring site location | Monitoring period     | PM <sub>10</sub> concentration (µg/m <sup>3</sup> ) |                | Total rainfall at nearby rain gauge (mm) |
|--------------------------|-----------------------|---|----------------|--|
|                          |                       | Highest   | Second highest |  |
| Rawhiti Road             | 03 Dec 15 – 11 Dec 15 | 29  | 21             | 12                                       |
| Takou Bay Road           | 11 Dec 15 – 22 Dec 15 | 12  | 11             | 6  |
| Snooks Road              | 07 Jan 16 – 12 Jan 16 | 17  | 10             | 17                                       |
| Te Maire Road            | 21 Jan 16 – 03 Feb 16 | 12  | 9              | 53                                       |
| Jubilee Road             | 03 Feb 16 – 11 Feb 16 | 12  | 10             | 49                                       |
| Kohumaru Road            | 11 Feb 16 – 19 Feb 16 | 54  | 49             | 151                                      |
| Omahuta Road             | 19 Feb 16 – 03 Mar 16 | 70  | 48             | 117                                      |
| Petley Road              | 11 Mar 16 – 21 Mar 16 | 16  | 12             | 13                                       |
| Pouto Road               | 07 Apr 16 – 15 Apr 16 | 13  | 10             | 16                                       |

### **Practical constraints of unsealed road PM<sub>10</sub> monitoring**

Practical constraints were encountered during the monitoring programme, including:

#### **1. Selection of suitable monitoring sites:**

- The location of the monitor directly influences the collection of reliable data. Therefore, factors such as the proximity of barriers, i.e. trees, walls, edges, etc., as well as reach of power supply and safety compliance and suitable ground to make monitoring equipment (E-BAM) stable are among issues which made the process challenging at times.
- On some occasions notification from landowners to further investigate dust nuisance from unsealed road near their property was received by Council. Upon site visit from the Council officer the site was not considered suitable for PM<sub>10</sub> monitoring due to insufficient dust generated from the road.

#### **2. Weather constraints:**

- Some property owners were hesitant for council to monitor PM<sub>10</sub> at their property due to concerns around the data collected being biased by wet weather conditions. However, in order to achieve PM<sub>10</sub> monitoring at as many sites as practicable, the monitoring had to be carried out with a systematic approach and therefore may have resulted in monitoring being undertaken during wet weather conditions at some sites.

#### **3. Issues with property owners:**

Some property owners interfered with the data collection process or did not follow through with arrangements/agreements made with the council:

- On one occasion power supply to the E-BAM was switched off by the property owner without informing the council. This mostly coincided with rain or non-ideal weather conditions.
- After a prearranged meeting to deploy the E-BAM at some properties, property owners failed to be present and did not respond to any further attempts of contact made by the council.
- A property owner decided against PM<sub>10</sub> monitoring due to the monitor being larger than expected after the council officers completed the setting up and calibration of the monitor.

#### **4. Monitor constraints:**

- PM<sub>10</sub> monitoring results cannot be accessed until after the E-BAM is decommissioned and data is downloaded. Therefore, if the monitor encounters any errors or power supply failure at any time between deployment and decommission then these issues will not be resolved immediately resulting in a data loss. The E-BAM encountered an error with the air flow while deployed at Omahuta Road which caused an automatic shutdown of the monitor. This resulted in a loss of more than three days of monitoring data (see gap in data in Figure 2, Appendix 1).

APPENDIX 1

Daily average PM<sub>10</sub> concentration at Kohumaru Road

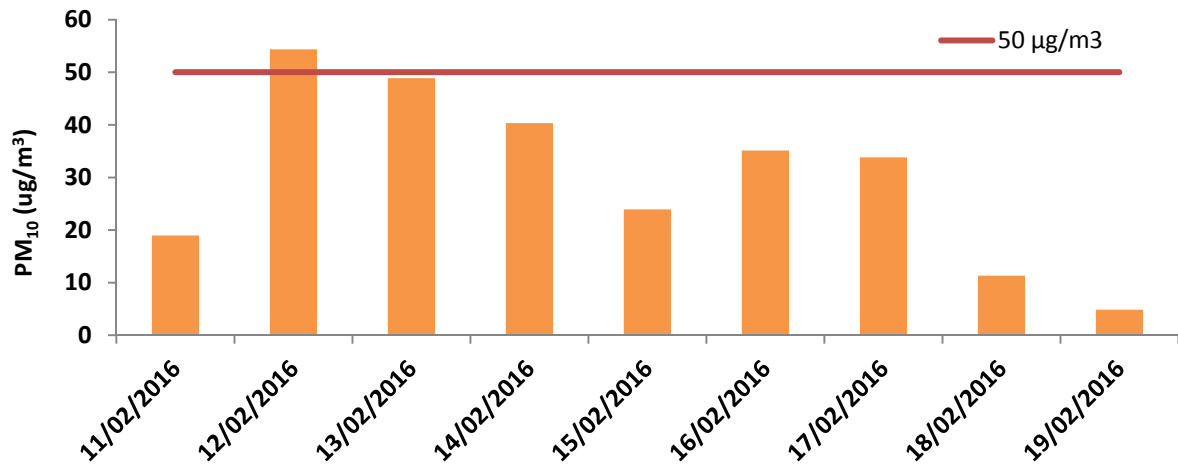


Figure 1: Daily PM<sub>10</sub> concentration at Kohumaru Road monitoring site.

Daily average PM<sub>10</sub> concentration at Omahuta Road

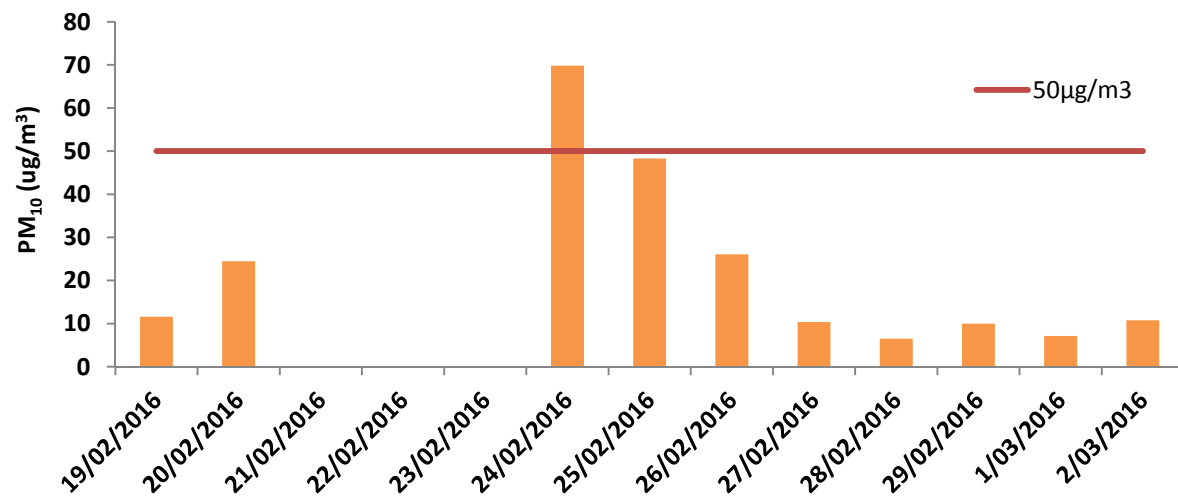


Figure 2: Daily PM<sub>10</sub> concentration at Omahuta Road monitoring site.

APPENDIX 2



Figure 3: PM<sub>10</sub> monitoring site locations.





**ISSUE: Environmental Monitoring for the period  
1 April – 31 May 2016**

**ID:** A849228

**To:** Environmental Management Committee Meeting, 27 June 2016

**From:** Colin Dall, Group Manager Regulatory Services

**Date:** 3 June 2016

|                      |  |   |   |
|----------------------|--|---|---|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations    | <input checked="" type="checkbox"/> Information           | <input type="checkbox"/> Decision                       |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure                  | <input type="checkbox"/> Public service                   | <input checked="" type="checkbox"/> Regulatory function |
|                      | <input checked="" type="checkbox"/> Legislative function | <input checked="" type="checkbox"/> Annual\Long Term Plan | <input type="checkbox"/> Other                          |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                       | <input checked="" type="checkbox"/> Not Triggered         |   |

**Executive Summary:**

The purpose of this report is to provide an update on council’s monitoring and compliance work for the period 1 April – 31 May 2016. 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.

**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 some of the State of Environment monitoring undertaken during the reporting period.

**Legal Compliance and Significance Assessment:**

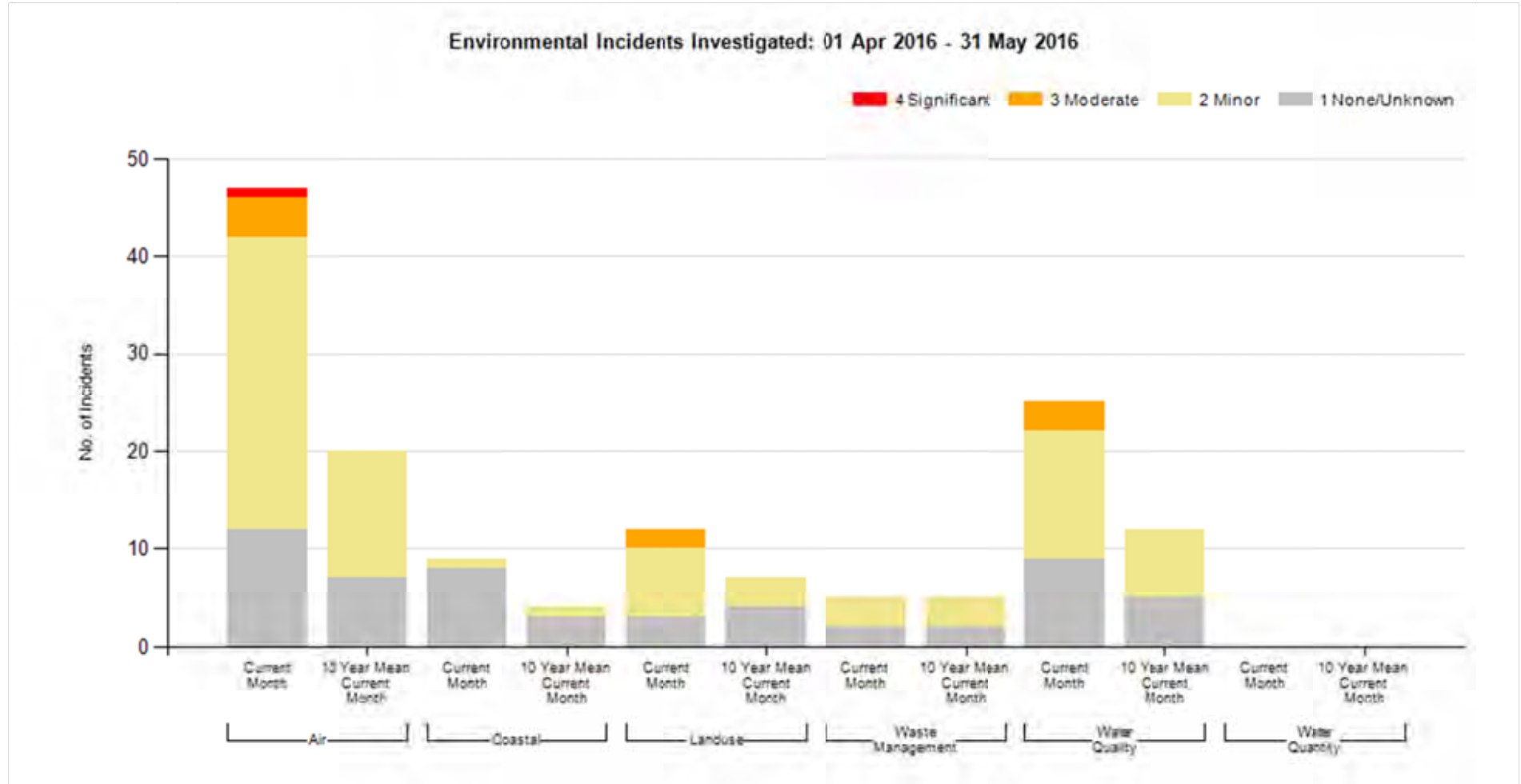
The receiving of this report is provided for in the council’s 2015-25 Long Term Plan, meets the council’s obligations under section 35 of the Resource Management Act 1991, and is in line with the council’s decision making process and sections 76-82 of the Local Government Act 2002.

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

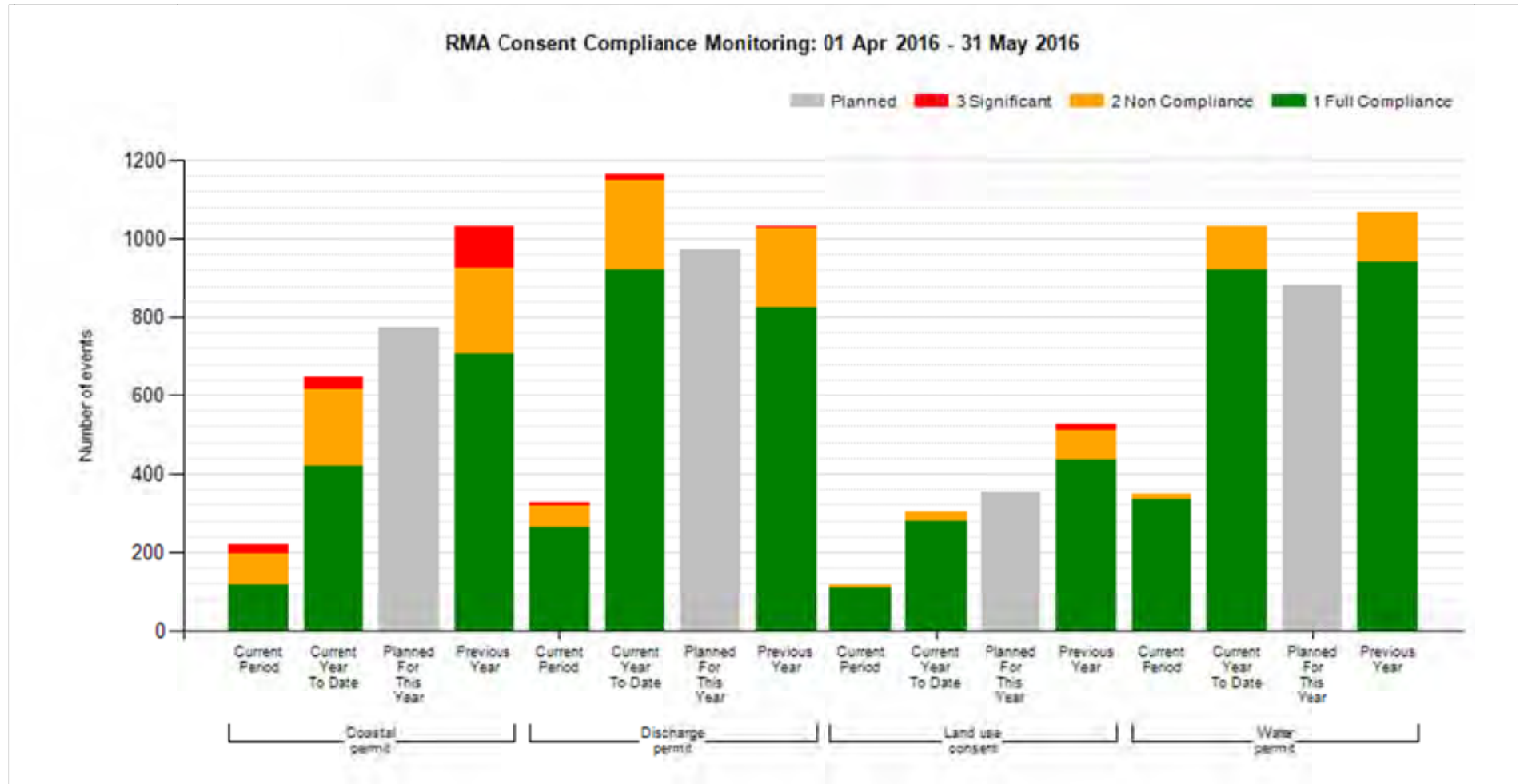
**Recommendation:**

- 
1. That the Environmental Monitoring report for the period 1 April – 31 May 2016 from Colin Dall, Group Manager Regulatory Services, dated 3 June 2016 be received.
-

Environmental Incidents Investigated: 1 April – 31 May 2016



Resource Consent Compliance Monitoring: 1 April – 31 May 2016



**ABBREVIATIONS KEY**

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

**SIGNIFICANT NON-COMPLIANT EVENTS**

**COASTAL ACTIVITIES**

| Date       | Consent Reference No. | Name                                    | Description  | Notes  |
|------------|-----------------------|---|--|--|
| 08/03/2016 | REG.012922.01         | Olsen D C & Murray S H                  | Oyster farm lease No. 62 @ Kaipara Harbour                     | <ul style="list-style-type: none"> <li>The developed area of this farm is in a derelict condition.</li> <li>Significant amount of shell debris and seafloor build-up.</li> </ul> |
| 08/03/2016 | REG.012935.01         | Paroa Bay Oysters Limited               | Oyster farm lease No. 97 @ Pahi River, Kaipara                 | <ul style="list-style-type: none"> <li>Farm structure is in a derelict condition.</li> <li>New CH who will require time to clean up.</li> </ul>                                  |
| 08/03/2016 | REG.012941.01         | Zephyr Oyster Farms Limited             | Oyster farm lease No. 111 @ Kaipara Harbour                    | <ul style="list-style-type: none"> <li>Large parts of the farm are in a very poor condition.</li> </ul>  |
| 08/03/2016 | REG.012950.01         | Transcoastal Limited                    | Oyster farm lease No.147 @ Kaipara Harbour                     | <ul style="list-style-type: none"> <li>Farm is in a derelict condition.</li> </ul>   |
| 08/03/2016 | REG.012967.01         | Symes P L & G                           | Oyster farm lease No. 185 @ Arapaoa River, Kaipara Harbour     | <ul style="list-style-type: none"> <li>Parts of the farm continue to be in a very poor condition.</li> </ul>   |
| 08/03/2016 | REG.014075.01         | Thompson G O B                          | Oyster farm lease No. 326 @ Kirikiri Inlet, Kaipara Harbour    | <ul style="list-style-type: none"> <li>Parts of the farm are in a very poor condition.</li> </ul>  |
| 08/03/2016 | REG.027395.01         | Zephyr Oyster Farms Limited             | Oyster farm lease Nos. 182 & 240 @ Pahi River, Kaipara Harbour | <ul style="list-style-type: none"> <li>Large parts of the farm are in a very poor condition.</li> </ul>  |
| 11/03/2016 | REG.012931.01         | Pakihi Marine Farms Limited and Taniwha | Oyster farm lease No. 85 @ Te Puna Inlet, Bay of Islands       | <ul style="list-style-type: none"> <li>Farm structure is in a poor condition.</li> <li>Significant amount of shell debris and seafloor build-up.</li> </ul>                      |

**Attachment 2 to Item 13**

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| Date       | Consent Reference No. | Name   | Description  | Notes  |
|------------|-----------------------|--|--|--|
|            |                       | Oysters Limited  |  |  |
| 11/03/2016 | REG.012944.01         | L R Hyland Limited   | Oyster farm lease No. 124 @ Waikare, Bay of Islands  | <ul style="list-style-type: none"> <li>Large area of the farm is in a derelict condition.</li> </ul>   |
| 11/03/2016 | REG.012977.01         | Brain A  | Oyster farm lease No. 285 @ Waikare Inlet, Bay of Islands  | <ul style="list-style-type: none"> <li>The farm continues to be in a very poor condition overall.</li> <li>Significant seafloor build-up and debris present.</li> </ul>  |
| 11/03/2016 | REG.012995.01         | Hyland L R Limited   | Oyster farm lease No. 345 @ Waikare Inlet, Bay of Islands  | <ul style="list-style-type: none"> <li>Large area of the farm is in derelict condition.</li> </ul>   |
| 11/03/2016 | REG.014047.01         | Howell J J   | Oyster farm lease No. 42 @ Waikare Inlet, Bay of Islands   | <ul style="list-style-type: none"> <li>The farm continues to be in a very poor condition overall.</li> <li>Large areas of the farm show broken structure (debris) lying on the seafloor.</li> <li>Some improvement in terms of clearing off-site structure, however there are still multiple rows with posts present that need to be removed.</li> </ul> |
| 11/03/2016 | REG.014067.01         | The Fat Oyster Company Limited                               | Oyster farm lease No. 162 @ Waikare Inlet, Bay of Islands  | <ul style="list-style-type: none"> <li>Farm is in a very poor condition overall.</li> </ul>  |
| 11/05/2016 | REG.038317.01         | Whangārei District Council - McLeod Bay boat ramp & seawalls | Seawalls / revetments; Timber groyne; Boat ramp; Earthworks within RMZ; Discharge stormwater to land @ McLeod Bay, Whangārei Heads | <ul style="list-style-type: none"> <li>Sediment plume resulting from construction activities.</li> <li>Lack of sediment controls on exposed soil areas in relation to construction activities.</li> <li>Stockpiling of rocks within CMA.</li> </ul>  |

**DISCHARGES TO WATER OR LAND**

| Date       | Consent Reference No. | Name                                     | Description   | Notes  |
|------------|-----------------------|--|---|--|
| 15/03/2016 | REG.001108.01         | Far North District Council - Paihia WWTP | Discharge treated municipal sewage @ Paihia WWTP, Waitangi Forest | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>CH is currently reviewing long term treatment options.</li> </ul> |
| 15/03/2016 | REG.004111.01         | Far North District Council - Kerikeri    | Discharge treated municipal sewage @ Kerikeri WWTP                | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> </ul>   |

**Attachment 2 to Item 13**

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| Date       | Consent Reference No. | Name                                       | Description  | Notes  |
|------------|-----------------------|--|--|--|
|            |                       | WWTP                                       |  |  |
| 15/04/2016 | REG.002667.01         | Far North District Council - Opononi WWTP  | Discharge treated municipal sewage and coastal outfall @ Opononi & Ōmāpere | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>Formal enforcement action taken.</li> </ul>   |
| 15/04/2016 | REG.001108.01         | Far North District Council - Paihia WWTP   | Discharge treated municipal sewage @ Paihia WWTP, Waitangi Forest          | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>Upgraded treatment options are being considered by the CH.</li> </ul>   |
| 15/04/2016 | REG.003775.01         | Far North District Council - Ahipara WWTP  | Discharge treated wastewater & associated activities @ Ahipara WWTP        | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>Formal enforcement action taken requiring maintenance work to be undertaken on the treatment system.</li> </ul> |
| 15/04/2016 | REG.003839.01         | Far North District Council - Kohukohu WWTP | Discharge treated municipal sewage - Kohukohu WWTP                         | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>Further water quality sampling indicated compliance with conditions of RC.</li> </ul>                           |
| 15/04/2016 | REG.004111.01         | Far North District Council - Kerikeri WWTP | Discharge treated municipal sewage @ Kerikeri WWTP                         | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>However, the downstream receiving environment did not indicate elevated levels of contamination.</li> </ul>     |
| 21/04/2016 | REG.002667.01         | Far North District Council - Opononi WWTP  | Discharge treated municipal sewage and coastal outfall @ Opononi & Ōmāpere | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>Formal enforcement action taken.</li> </ul>   |
| 12/05/2016 | REG.008532.01         | MVH Partnership                            | Discharge treated sewage to water from commercial centre @ Waipapa         | <ul style="list-style-type: none"> <li>Water quality test results were outside RC limits.</li> <li>Mechanism malfunction has since been corrected.</li> </ul>  |

**ENVIRONMENTAL INCIDENTS**

| Date      | Reference No. | Description                         | Notes   | Environmental Impact |
|-----------|---------------|-------------------------------------|---|----------------------|
| 2/04/2016 | REQ.580180    | Smoke nuisance @ Whimp Ave, Onerahi | <ul style="list-style-type: none"> <li>Incident investigation confirmed non-compliance with the RAQP.</li> <li>The person responsible was advised of the rules on open</li> </ul> | Moderate             |

**Attachment 2 to Item 13**

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|            |            |  |  |             |
|------------|------------|--|--|-------------|
|            |            |  | burning within the Whangārei airshed   |             |
| 4/04/2016  | REQ.580223 | Sewage reticulation overflows @ Kaitāia                | <ul style="list-style-type: none"> <li>• Overflows from the reticulation system enter watercourses throughout the township during heavy rain events.</li> <li>• Water quality sampling does not indicate significant elevated contamination levels as flows are normally high at the time.</li> <li>• Consultation is underway to install containment or treatment options.</li> </ul> | Moderate    |
| 8/04/2016  | REQ.580249 | Smoke nuisance @ Pipiwai Rd, Kamo                      | <ul style="list-style-type: none"> <li>• Incident investigation confirmed non-compliance with the RAQP.</li> <li>• The person responsible was advised of the relevant rules on burning.</li> </ul>   | Moderate    |
| 11/04/2016 | REQ.580261 | Sediment discharge @ Tutukaka Block Rd, Tutukaka       | <ul style="list-style-type: none"> <li>• Sediment discharge to water from earthworks activities due to a lack of sediment controls.</li> </ul>   | Moderate    |
| 13/04/2016 | REQ.580547 | Potential sediment discharge @ Takahiwai Rd, Takahiwai | <ul style="list-style-type: none"> <li>• Unconsented reclamation of a significant area of the CMA.</li> <li>• Investigation is continuing.</li> </ul>  | Moderate    |
| 14/04/2016 | REQ.580321 | Sewage spill @ George St, Hikurangi                    | <ul style="list-style-type: none"> <li>• A large volume of sewage discharged to water.</li> <li>• Ineffective clean-up of the spill site.</li> </ul>   | Moderate    |
| 19/04/2016 | REQ.580359 | Smoke nuisance @ Ormandy Rd, Mangapai                  | <ul style="list-style-type: none"> <li>• Incident investigation confirmed non-compliance with the RAQP.</li> <li>• Burning of prohibited items.</li> <li>• The person responsible was sent a warning letter advising the relevant rules on burning.</li> </ul>   | Moderate    |
| 26/04/2016 | REQ.580398 | Smoke nuisance @ Hatea Dr, Whangārei                   | <ul style="list-style-type: none"> <li>• Incident investigation confirmed non-compliance with the RAQP.</li> <li>• The person responsible was sent a warning letter advising the relevant rules on burning.</li> </ul>   | Moderate    |
| 29/04/2016 | REQ.580445 | Smoke nuisance @ Marshville Rd, Maungakaramea          | <ul style="list-style-type: none"> <li>• Incident investigation confirmed open burning that caused offensive smoke nuisance beyond the property boundary.</li> <li>• The investigation also confirmed burning of prohibited items such as tyres, treated timber and plastics with combustible materials.</li> </ul>  | Significant |



|            |            |  |   |          |
|------------|------------|--|---|----------|
|            |            |  | <ul style="list-style-type: none"> <li>Formal enforcement action taken.</li> </ul>  |          |
| 31/05/2016 | REQ.580757 | Sewage discharge from vessel @ Waiharohia Canal, Whangārei | <ul style="list-style-type: none"> <li>Ongoing issue of sewage discharges from live-aboard boats along the Waiarohia Canal is being addressed collaboratively between the Whangārei District Council and Northland Regional Council.</li> </ul> | Moderate |

**SOE MONITORING – AIR, LAKES AND WATER**

| Classification | Date       | Project  | Notes  |
|----------------|------------|--|--|
| Air Quality    | 14/04/2016 | Whangārei Airshed – Ambient Air Monitoring     | <ul style="list-style-type: none"> <li>Continuous ambient air monitoring results for PM<sub>10</sub>, sulphur dioxide and carbon monoxide at Robert Street, Whangārei, indicated compliance with the National Environmental Standard during March and April 2016.</li> <li>Three monthly calibration on particulate, sulphur dioxide and carbon monoxide monitors at Robert Street carried out.</li> </ul> |
|                | 2/05/2016  | Kerikeri Airshed – PM <sub>10</sub> monitoring | <ul style="list-style-type: none"> <li>Continuous ambient air monitoring results for PM<sub>10</sub> at Edkins Road, Kerikeri, indicated compliance with the National Environmental Standard during March and April 2016.</li> </ul>   |
|                | 12/05/2016 | Marsden Point Airshed – Ambient Air Monitoring | <ul style="list-style-type: none"> <li>Continuous ambient air monitoring results for PM<sub>10</sub> at Bream Bay College, Ruākakā, indicated compliance with the National Environmental Standard during March and April 2016.</li> <li>Routine monthly audit calibration on particulate monitor at Bream Bay College carried out.</li> </ul>  |

**ISSUE: Community wastewater treatment plant discharges – current compliance status (updated)**

**ID:** A849577

**To:** Environmental Management Committee, 27 June 2016

**From:** Tess Dacre, Compliance Monitoring Manager

**Date:** 5 June 2016

|                      |  |   |   |
|----------------------|--|---|---|
| <b>Report Type:</b>  | <input checked="" type="checkbox"/> Normal operations    | <input checked="" type="checkbox"/> Information           | <input type="checkbox"/> Decision                       |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure                  | <input type="checkbox"/> Public service                   | <input checked="" type="checkbox"/> Regulatory function |
|                      | <input checked="" type="checkbox"/> Legislative function | <input checked="" type="checkbox"/> Annual\Long Term Plan | <input type="checkbox"/> Other                          |
| <b>Significance:</b> | <input type="checkbox"/> Triggered                       | <input checked="" type="checkbox"/> Not Triggered         |   |

**Executive Summary:**

The purpose of this report is to give an update on the resource consent compliance status of Northland’s 29 community wastewater treatment plants and the actions being taken to remedy any non-compliance. Progress is being made by all three district councils in bringing their treatment plants into consistent compliance.

**Legal compliance and significance assessment:**

The activities detailed in this report are provided for in the council’s 2015-2025 Long Term Plan, and as such are in accordance with the council’s decision-making process and Sections 76-82 of the Local Government Act 2002.

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

**Recommendation(s):**

---

That the report Community wastewater treatment plant discharges – current compliance status (updated) from Tess Dacre, Compliance Monitoring Manager, dated 5 June 2016 be received.

---

**Report**

This report and the attached table provide a status update on the 29 community wastewater treatment plants (WWTP) operated by the region’s three territorial authorities: Far North, Kaipara and Whangarei District Councils (FNDC, KDC and WDC). FNDC has the most with 15 different WWTP across its district. WDC has nine and KDC has five. Also included in the table is the Hatea pump station and storage tank operated by WDC (this is also covered by a resource consent).

The majority of Northland’s community wastewater treatment plants have up-to-date consents and routinely meet the required discharge and water quality standards.

**ITEM: 14.0**

Page 2 of 2

FNDC have been having ongoing non-compliance at a number of its plants. As a result, three abatement notices have been issued to ensure that the issues are resolved as timely as possible.

NRC staff are meeting regularly with staff from all three districts to discuss any compliance issues with their respective plants. Reporting by all three districts is now being undertaken as per the consent requirements.

| Location/Consent Status  | Plant Description   | Issues & Status as at 1 June 2016   |
|--|---|---|
| <p><b>Ahipara (FNDC)</b><br/>Consent issued 2013, expires 2033</p>         | <ul style="list-style-type: none"> <li>• Oxidation pond, surface flow wetland, overland flow to drain.</li> <li>• Discharges to a tributary of Wairoa Stream.</li> </ul>                                      | <ul style="list-style-type: none"> <li>• On-going non-compliance with water quality conditions of consent.</li> <li>• Leachate flows from the Ahipara landfill (which are pumped to the WWTP) are exceeding the consented volume.</li> <li>• An abatement notice has been issued for this WWTP in relation to pond sludge management and wetland planting maintenance.</li> <li>• FNDC planned actions are:               <ul style="list-style-type: none"> <li>- A first stage weed control exercise of the wetland has been completed and further stage 2 sludge removal works and replanting is planned when weather conditions are suitable.</li> <li>- FNDC's contractors have undertaken a process review at Ahipara and found that it could benefit from additional aeration. This will be trialled along with biological sludge removal.</li> <li>- An application to amend the RC conditions in relation to the landfill leachate volume will be prepared and lodged with NRC by September 2016.</li> </ul> </li> </ul> |
| <p><b>Hihi (FNDC)</b><br/>Consent issued 2011, expires 2022</p>            | <ul style="list-style-type: none"> <li>• Extended aeration treatment system with flow equalisation and UV disinfection followed by surface flow wetland.</li> <li>• Discharges to the Hihi Stream.</li> </ul> | <ul style="list-style-type: none"> <li>• No recent compliance issues.</li> </ul>  |
| <p><b>Kaeo (FNDC)</b><br/>Change consent issued 2011, expires 2022</p>     | <ul style="list-style-type: none"> <li>• Settlement and oxidation ponds</li> <li>• Packed bed reactor incorporating vermiculture.</li> <li>• Wetland.</li> <li>• Discharges to the Kaeo River.</li> </ul>     | <ul style="list-style-type: none"> <li>• There have been ongoing technical non-compliances of the bacteriophage 4-log limit. This is more an issue with the consent condition as opposed to the treatment.</li> <li>• FNDC are going to apply for a change to the RC condition by September 2016.</li> </ul>  |
| <p><b>Kaikohe (FNDC)</b><br/>Change consent issued 2011, expires 2021</p>  | <ul style="list-style-type: none"> <li>• Anaerobic pond, large facultative pond, three surface flow wetlands.</li> <li>• Discharges to a tributary of the Wairoro stream.</li> </ul>                          | <ul style="list-style-type: none"> <li>• Intermittent non-compliance with ammonia condition of RC.</li> <li>• The major effect of the WWTP discharge on the Wairoro Stream is eutrophication, which won't be addressed by treating for ammonia.</li> <li>• FNDC staff are looking towards lodging a new consent application by late 2017 at which time they would like to see a condition for total nitrogen in order to address the eutrophication issue.</li> </ul>   |
| <p><b>Kaitiāia (FNDC)</b><br/>Change consent issued 2015, expires 2021</p> | <ul style="list-style-type: none"> <li>• Two ponds plus floating wetland cells.</li> <li>• Discharges to the Awanui River.</li> </ul>   | <ul style="list-style-type: none"> <li>• An abatement notice has been issued to ensure the issues relating to network overflows are addressed in a timely manner.</li> <li>• FNDC has completed a network model analysis to enable the assessment of upgrade options.</li> <li>• A contract for an options assessment has been tendered and</li> </ul>  |

| Location/Consent Status   | Plant Description  | Issues & Status as at 1 June 2016  |
|---|--|--|
|   |  | <p>the work is scheduled for completion by August 2016.</p> <ul style="list-style-type: none"> <li>• A work programme to address the overflows is expected to be developed late 2016 for implementation in the first quarter of 2017.</li> <li>• Screening of the existing overflows is currently under design as an interim improvement measure, which is expected to be implemented by September 2016.</li> </ul>  |
| <p><b>Kawakawa (FNDC)</b><br/>Consent issued 2012, expires 2036</p>                                       | <ul style="list-style-type: none"> <li>• Aeration tank, a secondary clarifier, a disc filter, UV treatment and then to constructed wetlands.</li> <li>• Discharges to Kawakawa River.</li> </ul>   | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Kerikeri (FNDC)</b><br/>Consent issued 2005, expired 2015<br/>(operating under expired consent)</p> | <ul style="list-style-type: none"> <li>• Aerated treatment system (solids separation, RBCs, and clarifiers).</li> <li>• System has UV unit (operates poorly).</li> <li>• Discharges to the Waitangi forest natural wetland (a tributary of the Kerikeri Inlet).</li> </ul> | <ul style="list-style-type: none"> <li>• Ongoing non-compliances with water quality conditions of consent.</li> <li>• Plant is now approaching the consented discharge volume limit.</li> <li>• FNDC plan to build a new plant outside the township and design is currently underway with planned construction expected to start 2016/17.</li> <li>• Two odour complaints received in March, none in April.</li> </ul>   |
| <p><b>Kohukohu (FNDC)</b><br/>Consent issued 2002, expires 2016</p>                                       | <ul style="list-style-type: none"> <li>• Septic tanks followed by oxidation pond and surface flow wetland.</li> <li>• Discharges to Hokianga Harbour.</li> </ul>   | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Opononi &amp; Omāpere (FNDC)</b><br/>Consent issued 2009, expires 2019</p>                          | <ul style="list-style-type: none"> <li>• Primary screen, aerated pond, facultative pond, surface flow wetland.</li> <li>• Discharges to Hokianga Harbour (on outgoing tide).</li> </ul>  | <ul style="list-style-type: none"> <li>• Non-compliant with water quality parameters.</li> <li>• An abatement notice has been issued for this WWTP.</li> <li>• FNDC advise that pond 2 needs desludging and that the sludge is resulting in reduce retention times. A plan for desludging the pond is being developed to undertake the work next summer.</li> <li>• Work will also be undertaken to investigate if pond sludge levels are also having an effect on E.coli. This work will begin by 30 June and will take 4 months to complete.</li> </ul>  |
| <p><b>Paihia (FNDC)</b><br/>Consent issued 2014, expires 2034</p>   | <ul style="list-style-type: none"> <li>• Two pond system.</li> <li>• Discharges to the Waitangi forest natural wetland (a tributary of the Kerikeri Inlet).</li> </ul>   | <ul style="list-style-type: none"> <li>• Current system in significant non-compliance with RC conditions (ammonia frequently exceeds RC limit).</li> <li>• The April 2015 deadline for upgrading the system has not been met.</li> <li>• LINZ have advised FNDC that they will not allow an upgrade to proceed outside the footprint of the licence boundary.</li> <li>• FNDC are in discussions with specialists to evaluate options for upgrade.</li> <li>• FNDC met with Top Energy on 6 May 2016 who are preparing a price for installation of underground electric supply to the</li> </ul> |

| Location/Consent Status  | Plant Description  | Issues & Status as at 1 June 2016  |
|--|--|--|
|  |  | ponds.   |
| <p><b>Rangiputa</b> (FNDC)<br/>Consent issued 2008, expires 2032</p>   | <ul style="list-style-type: none"> <li>• Oxidation ponds.</li> <li>• Discharges to ground via the base of a third pond.</li> </ul>   | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Rāwene</b> (FNDC)<br/>Consent issued 2013, expires 2023</p>  | <ul style="list-style-type: none"> <li>• Anaerobic pond, facultative pond &amp; surface flow wetland.</li> <li>• Discharges to Omanaia River.</li> </ul>   | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Russell</b> (FNDC)<br/>Consent issued 2013, expires 2024</p>   | <ul style="list-style-type: none"> <li>• Aerated treatment system, surface flow wetland, filtration and UV disinfection.</li> <li>• Discharges to deep bores.</li> </ul>                         | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Taipā</b> (FNDC)<br/>Consent expired 2008. Replacement consent in process. Significant opposition to WWTP operation.</p> | <ul style="list-style-type: none"> <li>• Facultative pond and aerated pond followed by surface flow wetland (4 cells).</li> <li>• Discharges to a tributary of the Parapara Stream.</li> </ul>   | <ul style="list-style-type: none"> <li>• Ongoing non-compliance with ammonia RC condition.</li> <li>• Long term solutions are currently being assessed as part of the RC renewal process.</li> </ul>   |
| <p><b>Whatuwhiwhi</b> (FNDC)<br/>Consent issued 2007, expires 2025</p>   | <ul style="list-style-type: none"> <li>• Two aerated ponds equipped with biological growth media.</li> <li>• Discharges to natural wetland which extends down to Karikari Bay.</li> </ul>        | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Dargaville</b> (KDC)<br/>Consent issued 2007, expires 2022</p>   | <ul style="list-style-type: none"> <li>• Facultative pond and wetland/maturation pond.</li> <li>• Discharges to the Northern Wairoa River.</li> </ul>  | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Kaiwaka</b> (KDC)<br/>Consent issued 2010, expires 2022</p>  | <ul style="list-style-type: none"> <li>• Aerated pond and constructed wetland.</li> <li>• Discharge to Pukekaroro Stream</li> </ul>  | <ul style="list-style-type: none"> <li>• Issues with complying with water quality conditions of RC.</li> <li>• After discussions with NRC, additional sampling has been implemented and the level in the wetland has been raised. The results will be reviewed after 12 months.</li> </ul>               |
| <p><b>Maungaturoto</b> (KDC)<br/>Consent issued 2008, expires 2032</p>   | <ul style="list-style-type: none"> <li>• Aerated pond, membrane filtration plant, storage pond, discharge to rock filter.</li> <li>• Discharges to the Wairau River.</li> </ul>                  | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Mangawhai – Ecocare</b> (KDC)<br/>Consent issued 2007, expires 2042</p>  | <ul style="list-style-type: none"> <li>• Screening, CASS tanks, chlorination and then pumped to storage dam.</li> <li>• Irrigated to farmland.</li> </ul>  | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>  |
| <p><b>Te Kopuru</b> (KDC)<br/>Consent issued 2010, expires 2044</p>  | <ul style="list-style-type: none"> <li>• Oxidation ponds and constructed wetland.</li> <li>• Discharges to Northern Wairoa River.</li> </ul>   | <ul style="list-style-type: none"> <li>• Ongoing non-compliance with ammonia condition of RC.</li> <li>• After discussions with NRC, additional sampling has been implemented. The results will be reviewed after 12 months.</li> </ul>  |
| <p><b>Hātea Pump Station &amp; Storage Tank</b><br/>(WDC)<br/>Consent issued 2013, expires 2047</p>                            | <ul style="list-style-type: none"> <li>• Storage tank, UV unit and chemical treatment.</li> </ul>  | <ul style="list-style-type: none"> <li>• The plant struggles to apply the required 100% UV dose all the time during a discharge.</li> <li>• Typically 95-98% compliant for each discharge.</li> <li>• PLC programming issues have been identified and work scheduled for next financial year.</li> </ul> |
| <p><b>Hikurangi</b> (WDC)<br/>Consent issued 2007 (re-issued 2010), expires 2025</p>   | <ul style="list-style-type: none"> <li>• Settling pond, aerated pond, wetland and membrane filter for disinfection and floating wetlands.</li> <li>• Discharges to Mangawhero stream.</li> </ul> | <ul style="list-style-type: none"> <li>• WDC has modelled the reticulation and found a number of issues.</li> <li>• Significant investment planned for 2016/17, anticipated to further reduce storm flows entering the reticulation/WWTP.</li> </ul>   |

| Location/Consent Status  | Plant Description   | Issues & Status as at 1 June 2016   |
|--|---|---|
| <p><b>Ngunguru</b> (WDC)<br/>Consent issued 2010, expires 2035</p>                   | <ul style="list-style-type: none"> <li>• Aerated pond, settling pond, constructed wetland and UV unit.</li> <li>• Discharges to tributary of the Waitoi creek.</li> </ul>   | <ul style="list-style-type: none"> <li>• An outfall flume has been installed, raising the DO of the effluent discharge.</li> <li>• The fish survey will be repeated in Dec 2016.</li> <li>• The sub-surface wetlands are planned to be harvested by the end of this financial year.</li> </ul>  |
| <p><b>Oakura</b> (WDC)<br/>Consent issued 2006, expires 2025</p>                     | <ul style="list-style-type: none"> <li>• Screening, sedimentation tanks, biological contactor unit, disc filter and UV unit.</li> <li>• Discharges to forest land via dripper lines.</li> </ul>   | <ul style="list-style-type: none"> <li>• An assessment of the receiving soil environment is to be undertaken this winter, with a view to possibly requesting a consent variation.</li> </ul>  |
| <p><b>Portland</b> (WDC)<br/>Consent issued 2004, expires 2024</p>                   | <ul style="list-style-type: none"> <li>• Oxidation pond and constructed wetland.</li> <li>• Discharges to Tokitoki Creek.</li> </ul>  | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>   |
| <p><b>Ruakaka</b> (WDC)<br/>Consent issued 2008, expires 2018</p>                    | <ul style="list-style-type: none"> <li>• Aerated pond and constructed wetlands.</li> <li>• Discharges to Bream Bay sand dunes.</li> </ul>   | <ul style="list-style-type: none"> <li>• Consultant engaged to assess and scope the next stage of the WWTP development as per the resource consent.</li> </ul>  |
| <p><b>Tutukaka</b> (WDC)<br/>Consent issued 2004, expires 2024</p>                   | <ul style="list-style-type: none"> <li>• Screening, primary treatment, denitrification recirculation tanks, sand filters, UV unit and constructed wetland.</li> <li>• Discharges to a tributary of Tutukaka Harbour.</li> </ul>   | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>   |
| <p><b>Waiōtira</b> (WDC)<br/>Consent issued 2008, expires 2030</p>                   | <ul style="list-style-type: none"> <li>• Septic tank and constructed wetland.</li> <li>• Discharges to Waiōtira Stream.</li> </ul>  | <ul style="list-style-type: none"> <li>• No current compliance issues.</li> </ul>   |
| <p><b>Waipū</b> (WDC)<br/>Consent issued 2009, expires 2030</p>                      | <ul style="list-style-type: none"> <li>• Aerated pond, constructed wetland with discharge to rapid in-fill basins.</li> <li>• Discharges to the Bream Bay coast via subsurface flow.</li> </ul>   | <ul style="list-style-type: none"> <li>• The rising main to the WWTP has been replaced.</li> <li>• All three surface wetlands have been replaced with floating wetlands.</li> <li>• Monitoring is ongoing to assess whether the tighter effluent quality parameters that have come into effect this year are being met.</li> <li>• New aerator due in the next few months.</li> </ul> |
| <p><b>Whāngārei Main WWTP</b> (WDC)<br/>Change consent issued 2015, expires 2022</p> | <ul style="list-style-type: none"> <li>• Screening, primary clarifiers, 1st and 2nd stage trickling filters, activated sludge basin and clarifiers, effluent filter, UV unit and normal to high flows go through wetlands.</li> <li>• Discharges to Limeburners Creek.</li> </ul> | <ul style="list-style-type: none"> <li>• New inlet screens are due in the next months.</li> <li>• A 70kW co-generation unit is due in September 2016.</li> </ul>  |

**ISSUE: Consented Earthworks in Northland - Presentation**

**ID:** A850644

**To:** Environmental Management Committee, 27 June 2016

**From:** Franco Meyer, Environmental Monitoring Officer – Land Use

**Date:** 9 June 2016

|                      |   |   |  |
|----------------------|---|---|--|
| <b>Report Type:</b>  | <input type="checkbox"/> Normal operations    | <input checked="" type="checkbox"/> Information   | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure       | <input type="checkbox"/> Public service           | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function | <input type="checkbox"/> Annual\Long Term Plan    | <input checked="" type="checkbox"/> Other    |
| <b>Significance:</b> | <input type="checkbox"/> Triggered            | <input checked="" type="checkbox"/> Not Triggered |  |

**Executive Summary:**

The purpose of this report is to introduce a brief presentation by Franco Meyer, Environmental Monitoring Officer – Consented Earthworks in Northland. It concludes with the recommendation that the presentation be received.

**Legal compliance and significance assessment:**

No decision required.

The purpose of this report is to provide an information update only. Therefore, when assessed against council policy, it is deemed to be of low significance.

**Recommendation:**

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That the presentation “Consented Earthworks in Northland” by Franco Meyer, Environmental Monitoring Officer – Land Use, dated 9 June 2016, be received.

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**ISSUE: Agenda items for next EMC Meeting – 29 August 2016**

**ID:** A851817

**To:** Environmental Management Committee, 27 June 2016

**From:** Nola Sooner, Committee Secretary

**Date:** 13 June 2016

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|----------------------|---|---|--|
| <b>Report Type:</b>  | <input type="checkbox"/> Normal operations    | <input checked="" type="checkbox"/> Information   | <input type="checkbox"/> Decision            |
| <b>Purpose:</b>      | <input type="checkbox"/> Infrastructure       | <input type="checkbox"/> Public service           | <input type="checkbox"/> Regulatory function |
|                      | <input type="checkbox"/> Legislative function | <input type="checkbox"/> Annual\Long Term Plan    | <input checked="" type="checkbox"/> Other    |
| <b>Significance:</b> | <input type="checkbox"/> Triggered            | <input checked="" type="checkbox"/> Not Triggered |  |

**Executive summary**

The purpose of this report is to request committee members for agenda items for the next Environmental Management Committee meeting on 29 August 2016.

**Legal compliance and significance assessment:**

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

**Recommendation:**

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That the Environmental Management Committee members suggest agenda items for inclusion into the agenda for the next Environmental Management Committee meeting on 29 August 2016.

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