



## Meeting of the Environment and Services Committee

**Date:** Wednesday 21 February 2018  
**Time:** 9.00am  
**Venue:** Council Chamber  
Hawke's Bay Regional Council  
159 Dalton Street  
NAPIER

### Agenda

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1.	Welcome/Notices/Apologies	
2.	Conflict of Interest Declarations	
3.	Confirmation of Minutes of the Environment and Services Committee held on 15 November 2017	
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11.	Six Monthly Public Transport Update	43
12.	<b>11:00am</b> Verbal Presentation - Chilean Needle Grass Incursion and Control	
13.	<b>11:30am</b> Verbal Presentation of the Te Mata Park Trust Vision	
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**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**SUBJECT: FOLLOW-UPS FROM PREVIOUS ENVIRONMENT & SERVICES  
COMMITTEE MEETINGS**

**Item 4**

**Reason for Report**

1. **Attachment 1** lists items raised at previous meetings that require follow-ups. All items indicate who is responsible for each, when it is expected to be completed and a brief status comment. Once the items have been completed and reported to the Committee they will be removed from the list.

**Decision Making Process**

2. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

**Recommendation**

That the Environment and Services Committee receives and notes the report ***“Follow-up Items from Previous Environment & Services Committee Meetings”***.

**Authored by:**

**Judy Buttery**  
**GOVERNANCE ADMINISTRATION**  
**ASSISTANT**

**Approved by:**

**Liz Lambert**  
**GROUP MANAGER EXTERNAL**  
**RELATIONS**

**Attachment/s**

- [!\[\]\(54a282d3ed55c9b1ac66d6fb81d5de2b\_img.jpg\)1](#) Follow-ups from Previous Environment & Services Committee Meetings



## Follow-ups from Previous Environment &amp; Services Committee Meetings

15 November 2017

	Agenda item	Follow-up item	Responsible	Status/Comment
1	NES Plantation Forestry	Use D Hewitt's 250 words available for communication of NES PF.	I Maxwell	<b>Noted</b>
2	Regional Pest Management Plan Proposal	pre-circulate (prior to 31 January 2018 Council meeting) the operational plan, plus a link to the plan on the website to councillors	G Hansen/ C Leckie	Emailed to councillors (ref 2 following) 22 January 2018
3	Hotspot/Freshwater Improvements Fund Projects Update.	<ul style="list-style-type: none"> <li>• Include D Hewitt &amp; Tamatea Taiwhenua in Tukituki/Whatuma community consultation invites</li> <li>• Send map of Tukituki site to Cr Barker</li> <li>• Provide Planting plans/profiles for Karamu &amp; Bridge Pa sites to E&amp;S</li> <li>• Future updates to include: a single map showing all Hotspots projects, clear statements of outcomes to be achieved and spending against budget.</li> </ul>	I Maxwell/ J Townshend	<ul style="list-style-type: none"> <li>• Noted</li> <li>• To be provided as part of the February meeting update</li> <li>• To be provided as part of the February meeting update</li> <li>• Noted</li> </ul>
4	Resource Use 2016-17 Annual Report	<ul style="list-style-type: none"> <li>• investigate management options including costs - of telemetered effluent dispersal information returns from dairy farms (other RC requirements)</li> <li>• future reports to include: Older hazardous sites, expansion of categories, ie TLA discharges, and SOE data</li> </ul>	J Palmer/ M Heaney  W Wright/ L Lambert	<b>Ref 4 following</b>  Comments noted for future reports.
5	November 2017 Operational Activities Update	Investigate fires in Tūtira and provide findings to councillors	I Maxwell	Fires were used to dispose of dry vegetation from an area cleared ready for planting next year
6	Minor Items not on the agenda	Distribute Cape to City material from conference to councillors	C Leckie	The link to Transforming Biodiversity conference presentations was emailed to councillors 22 January 2018

25 October 2017 Regional Council meeting

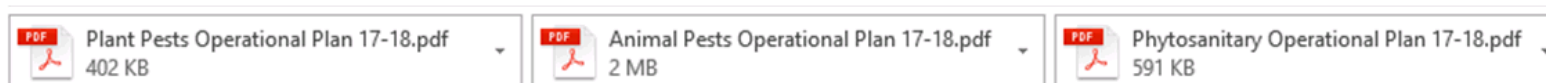
	Agenda item	Follow-up item	Responsible	Status/Comment
7	Minor items not on the Agenda	Request for report on whitebait, potential causes of stock depletion and the policy/regulatory framework around management of the species	I Maxwell	Agenda item for 11 April 2018

Item 4

Attachment 1

[Refer to follow-up Item 2](#)

**From:** Diane Wisely  
**Sent:** Monday, 22 January 2018  
**To:** HBRC Councillors  
**Subject:** Follow-ups from Environment & Services



Hi Councillors, I have been asked to forward this email to you.

We had some follow up action points from the last Environment and Services committee to be completed prior to 30 January. These were around getting the operational plans to councillors for their information and material that related to the Transforming Biodiversity conference in November. The operational plans for 17-18 are attached (available in hard copy upon request) and the link to all the conference talks is below.

[https://www.youtube.com/channel/UC1R9UzNG00yUQQ9LNiK4EzA/videos?view\\_as=subscriber](https://www.youtube.com/channel/UC1R9UzNG00yUQQ9LNiK4EzA/videos?view_as=subscriber)

Any queries let me know.

Many thanks

Campbell Leckie

Refer to follow-up Item 4

**Background**

- There are 80 dairy farms
- The number of days in a year suitable for effluent irrigation is much higher in HB than most other regions.
- Currently there are only two telemetered discharges (The Filter Room - Meanee and Puketapu school) which are recorded on Hilltop, the rest of discharges are monitored as part of compliance monitoring, some are metered but not telemetered.
- Compliance not aware of other RCs monitoring to an effluent dispersal information returns condition, however, where discharge bans may work in Southland (soil moisture is higher for longer periods of the year), in HB many of the dairy farms are irrigated (or cannot get irrigation water) or are in areas considered summer safe.
- Provided a farm has a large pond (required by consent) and available storage capacity then they are in a position to wait until soil conditions are suitable for irrigation.
- There is an actively monitored pollution hotline and a pollution response team - that fishermen or anyone should be reminded of this and advised that any reported incident or observation will be followed up. Anecdotal after the event comments aren't very useful to fix a problem. The fact that the stream was discoloured without rain suggests bad practice or a mishap and we need reporting of observations of discolouration etc to source the cause. Prompt reporting and a quick response allowing observation of the action would be the most effective and conclusive measure to address this problem. Telemetry might help corroborate.

**Technology**

- There is no standard effluent discharge telemetry system, or local mechanism to establish preventative discharge bans.
- A pre notification ban would require soil moisture content analysis at paddock level.
- We have only 20 climate sites measuring soil moisture; combined with rainfall prediction and estimated discharge volume permitted, monitoring would be problematic from a compliance perspective
- Unaware of any work done to compare the 20 climate sites to the locations of dairy farms, and underlying soil types to assess drainage rates.
- In principle smart farms could capture effluent flow data, but our consents do not require it.

**Consented activity**

- Consents of the view we could require it, but its not a requirement at the moment so to be introduced, a plan change would be required
- Existing consent conditions do encourage best practice - not discharging when surface too wet / too dry to hold – to reduce run off
- At conversion or consent renewal council requires a Dairy Effluent Storage calculator (DESC) sized pond, this is in accordance with best practice. Dairy effluent ponds have to have sufficient capacity to hold until discharge conditions are right
- Our resource consents also require any sludge that accumulates in the pond to be cleared each year.

**FEMPS**

- Concerns about leachate and run off could be addressed with FEMP nutrient budgets. Effluent discharges are included in 'overseer farm nutrient modelling' and we are seeing Tukituki farmers respond to the requirements of the plan change by increasing effluent irrigation areas so that effluent is applied to more of the farm, at lower rates.
- One farmer has found by ceasing effluent irrigation earlier in the autumn and only applying in the spring summer period there are benefits in reducing N losses. To achieve this he has constructed a much larger effluent holding pond.
- The plan change is driving change to on-farm practice at least with innovators and early adopters.

**Cost**

- On balance, a comprehensive, standard telemetered solution to inform monitoring may be cost prohibitive.

**Mark Heaney**

Manager Client Services



**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Item 5**

**Subject: CALL FOR ITEMS OF BUSINESS NOT ON THE AGENDA**

**Reason for Report**

1. Standing order 9.12 states:

*“A meeting may deal with an item of business that is not on the agenda where the meeting resolves to deal with that item and the Chairperson provides the following information during the public part of the meeting:*

*(a) the reason the item is not on the agenda; and*

*(b) the reason why the discussion of the item cannot be delayed until a subsequent meeting.*

*Items not on the agenda may be brought before the meeting through a report from either the Chief Executive or the Chairperson.*

*Please note that nothing in this standing order removes the requirement to meet the provisions of Part 6, LGA 2002 with regard to consultation and decision making.”*

2. In addition, standing order 9.13 allows “A meeting may discuss an item that is not on the agenda only if it is a minor matter relating to the general business of the meeting and the Chairperson explains at the beginning of the public part of the meeting that the item will be discussed. However, the meeting may not make a resolution, decision or recommendation about the item, except to refer it to a subsequent meeting for further discussion.”

**Recommendations**

1. That the Environment and Services Committee accepts the following “Items of Business Not on the Agenda” for discussion as Item 15:

1.1. **Urgent** items of Business (*supported by tabled CE or Chairpersons’ report*)

	Item Name	Reason not on Agenda	Reason discussion cannot be delayed
1.			
2.			

1.2. **Minor** items for discussion **only**

Item	Topic	Raised by
1.		
2.		
3.		

**Leeanne Hooper**  
**GOVERNANCE MANAGER**

**Liz Lambert**  
**GROUP MANAGER**  
**EXTERNAL RELATIONS**



**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: ENFORCEMENT POLICY REVIEW**

**Item 6**

**Reason for Report**

1. To provide the Committee with the opportunity to provide feedback on the HBRC Enforcement Policy draft document and agree amendments for inclusion to enable Council adoption.

**Background**

2. The Council's Enforcement policy has historically been housed in a series of manuals and online directories, up until this document, they had not been reviewed or updated for over 10 years.
3. With an increasing demand for transparency of all council enforcement decisions, it is important to demonstrate how we carry out our enforcement functions, what we do, why we do it and how we do it. This document will be freely available to all members of the public and published on the Council website.
4. As part of providing assurance of our decision making process, the policy outlines the principles and guidelines that we apply and adhere to. This includes transparency, consistency, fairness, proportional and evidence based approach, laws and ethics, accountability, targeted compliance and responsive and effective enforcement solutions.
5. This document will be a valuable reference tool to members of the public, Council staff Councillors, and Environmental Officers.

**Decision Making Process**

6. Council is required to make every decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements in relation to this item and have concluded:
  - 6.1. The decision does not significantly alter the service provision or affect a strategic asset.
  - 6.2. The use of the special consultative procedure is not prescribed by legislation.
  - 6.3. The decision does not fall within the definition of Council's policy on significance.
  - 6.4. The decision is not inconsistent with an existing policy or plan.
  - 6.5. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

**Recommendations**

1. The Environment and Services Committee receives and considers the **"Enforcement Policy Review"** staff report and HBRC Enforcement Policy.
2. The Environment and Services Committee recommends that Council adopts the HBRC Enforcement Policy inclusive of any amendments agreed at the 14 February 2018 Committee meeting.

## Item 6

**Authored by:**

**Wayne Wright  
MANAGER RESOURCE USE**

**Approved by:**

**Liz Lambert  
GROUP MANAGER EXTERNAL  
RELATIONS**

### **Attachment/s**

[1](#) Hawke's Bay Regional Council Enforcement Policy Under Separate Cover

**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: HAWKE'S BAY BIODIVERSITY STRATEGY IMPLEMENTATION –  
ECOSYSTEM PRIORITISATION**

**Item 7**

**Reason for Report**

1. To provide the Environment and Services Committee with an update on ecosystem prioritisation, which is one of the six priority actions identified in the *Hawke's Bay Biodiversity Action Plan 2017-2020* (the Action Plan).

**Background**

2. Ecosystem-based conservation, as opposed to species-based, has become the mainstream approach to protect indigenous biodiversity. At the heart of this approach is maintaining and restoring a *full range* of remaining natural habitats and ecosystems. It focuses on habitat and ecosystems as a means of conserving species, diversity and processes within them. This recognises that, by focusing on ecosystems we should maintain viable populations of indigenous species across their natural range.
3. Hawke's Bay region has approximately 500,000 ha of indigenous ecosystem areas remaining today. It is unrealistic to aim for protecting and restoring all of the remaining indigenous habitats and ecosystems immediately, in terms of time and resources needed to do so. This is the underlining driver for the current project - ecosystem prioritisation which will inform where to invest scarce resources in the next 10, 20 and 30 years for the best chance of achieving the outcomes sought.
4. The process of ecosystem prioritisation consists of four stages:
  - 4.1. Data preparation for Zonation, including the terrestrial ecosystem mapping (delivered by an external consultant)
  - 4.2. Zonation analysis (delivered by an external consultant)
  - 4.3. Refinement and interpretation of Zonation output (primarily delivered in-house with support from partner agencies and local experts)
  - 4.4. Development of management prescription for each site (initially facilitated by an external consultant and predominantly delivered in-house with support from partner agencies and local experts).
5. We are at the 'Refinement and interpretation' stage, and this paper reports on the process and outputs so far.

**Potential terrestrial ecosystem mapping**

6. The region was mapped for potential ecosystem types (i.e. pre-human inhabitation) using the latest ecosystem classification system developed by the Department of Conservation. Classification is based on climate and soil (including substrates and susceptibility to waterlogging), but also takes into account a known influence of volcanic (and glacial, if present) activities. A range of other existing documentations were deployed to create a comprehensive spatial layer of the ecosystem pattern.
7. The resulting map shows the pattern of terrestrial ecosystems that should occur under certain environmental conditions. 61 potential ecosystems types are mapped.
8. This base layer was intersected with the Land Cover Database (LCDB 4.0) and indigenous land cover types were extracted to estimate the remaining areas of each ecosystem type.
9. There are approximately 500,000 ha of indigenous terrestrial areas left in the region, which includes 58 ecosystems types. 22 of these ecosystems are threatened (less than

30% of original area left), mostly of lowland forest types, coastal and dune vegetation types, braided riverbed vegetation, and wetlands. Three ecosystem types were presumed extinct (one lowland forest type, one coastal herbfield type, and one wetland type) whose historic extents were very small.

### Types of rivers and lakes present in the region

10. Hawke's Bay's rivers and lakes are broadly characterized as below, using the national dataset Freshwater Ecosystem of New Zealand (FENZ);
  - 10.1. Our 22,566 km of rivers and streams consist of 33 river ecosystem types.
  - 10.2. Our 125 lakes are divided into three geomorphic types (landslide, riverine, and shoreline). There are 130 dams/reservoirs that sustain deep open water systems. The total area of deep open water ecosystem (i.e. lake area) is approximately 7,400 ha.

### Zonation – systematic conservation planning tool

11. Zonation is undertaken using a software tool that prioritises ecosystem or habitat sites based on their representation (i.e. ecosystem types for terrestrial and rivers, and geomorphic types for lakes), conditions and connectivity.
12. Zonation-based prioritisation has been adopted by a number of regional councils, including Auckland, Bay of Plenty, Greater Wellington, and Waikato. The tool was also used for Department of Conservation's prioritisation on public conservation land.
13. It requires 'a cap' in which it produces the best set of sites to achieve full representation. It is generally an area-based cap which is set by asking 'of the remaining indigenous ecosystems, how much area can we manage within a given timeframe?'
14. For the Hawke's Bay, we have set the cap of 30% (of the 500,000 ha of indigenous areas remaining) by 2050. The principle behind the 30% is the species-area curve, i.e. when habitat (or a population) is reduced to 20% of the original extent (or a population), the rate of species loss is exponentially accelerated. Therefore 30% was chosen as a reasonable target that balances species response with achievability and affordability.
15. The scope of the Zonation prioritisation included terrestrial ecosystems (including wetlands and braided riverbeds), and lakes and rivers. Three sets of rankings were made for these ecosystem domains, which required three different datasets. For terrestrial ecosystems, primarily a regional dataset was used which included the potential ecosystem layer (as explained above), logging history data and indicative pest distribution data. For the rivers and lakes, the national dataset FENZ was used, which contains stream and lake types (as described above) and freshwater conditions.
16. Although ranking was done separately for the three ecosystem domains, ranking of terrestrial ecosystems reflects the connectivity with lakes and/or rivers. For example, if there are two sites representing the same ecosystem type, but one intersects with high-ranked streams and the other doesn't, Zonation will rank the former higher as it would account for the connectivity of the terrestrial ecosystem with the river ecosystem.

### Zonation output and interpretation

17. Zonation identified 900 terrestrial sites (150,000 ha), 10,034 segments of rivers (6,700 km), and 77 lakes (1,700 ha) as the priority 30%. These sites/segments represent a full range of ecosystem types that are present in the region.
18. 529 of the 900 priority terrestrial sites are less than 10 ha in size. Many of these small sites represent threatened ecosystem types whose remnants are becoming scarce, small and fragmented.
19. Interpretation of the Zonation output has been done in collaboration with local experts with ecological and site knowledge, and involves verification of the ecosystem types and reviewing the boundaries indicated by the Zonation. Where expert knowledge or information doesn't exist, the sites were labelled as 'ground-truthing required'.
20. To date, over 200 hours of contribution by DOC and HBRC staff, and Biodiversity Strategy Implementation Planning Group members have been spent on interpreting and

refining the terrestrial ecosystem sites ranking. This process is still underway (85% complete).

21. The ranking of terrestrial ecosystem sites takes into account the connectivity to rivers and lakes. Many of the top 30% terrestrial sites adjoin to, or contain highly ranked river segments and lakes. Given the very large volume of river segment and lake sites which are ranked top 30%, staff propose that they do not review river/lake sites individually. If significant values associated with river/lake sites that are not currently associated with the top 30% terrestrial ecosystem sites, they will be added.
22. As with any modelling tool, Zonation has limitations which need to be considered in the decision making process. Examples of the limitations include the prioritisation framework on lakes, including the following issues:
  - 22.1. Lack of a regional dataset for conditions of lakes
  - 22.2. Lack of a regional dataset for degree of threats towards lakes
  - 22.3. The limitation of the area-based cap, which *discourages* larger lakes such as Waikaremoana from being ranked higher

### **Using ecosystem prioritisation to achieve the Biodiversity Strategy outcomes**

23. Ecosystem-based site prioritisation is a critical first step to achieving the Biodiversity Strategy objectives and outcomes of sustaining, protecting, and improving the full representation of native species and habitats.
24. Ecosystem prioritisation will form part of the informed conversation and decision making by the Biodiversity Guardians of HB and the HB Biodiversity Trust who drive the Action Plan and manage funding for biodiversity projects in the region.
25. The Biodiversity bid for the LTP 2018-28 includes \$200k p.a. to fund operations on the ground, that is for protection or restoration work on identified sites (the bid also includes \$200k for endowment growth, and \$150k for a Biodiversity Strategy Project Manager). Operating expenditure of \$40k for outcome monitoring is also proposed in a Science budget code. This funding will be dedicated to sites that are prioritised through this process.
26. It is critical that operational funding is available in year 1 of the LTP 2018-28, for a range of strategic reasons:
  - 26.1. Some priority sites and ecosystem sites are on the brink of extinction, and need immediate action
  - 26.2. Projects on the ground will keep up momentum generated through Action Plan development
  - 26.3. Projects on the ground are essential to win hearts and minds in the community
  - 26.4. Evidence of successful projects help when seeking new funding.

### **Application of the ecosystem prioritisation to inform other council activities**

27. The ecosystem prioritisation framework could inform other council programmes, and contribute to achieving multiple outcomes.
28. The ecosystem prioritisation framework will become an integral part of integrated catchment management being proposed through the draft Long Term Plan. Priority sites that are identified in catchments of interest could also be part of the solution to address issues such as soil erosion, sediment production, and water quality. This is because these remnants are providing ecosystem services such as soil conservation and water retention, at a varying degree depending on the their condition. These remnants are also proof that the ecosystem is resilient to the condition of the site, and could be capitalized upon by afforestation as part of integrated catchment management.
29. Landscape-scale predator controls will be targeted most appropriately where priority ecosystem sites occur. Small, fragmented priority sites would particularly benefit from wide-scale predator control in conjunction with site-specific actions (e.g. fencing) as gains are larger when pressure from pest plants and animals are reduced in the

surrounding landscape as well as within the sites. An initial analysis shows that around 350 of the 900 priority ecosystem sites would receive predator control from the first 8 years of Predator Free Hawke's Bay implementation should it proceed.

30. The Engineering section's *Ecological Management and Enhancement Plan* (EMEP) is currently targeted at the braided river systems in the region. A large part of their management footprint and adjacent lands contain some of the priority ecosystem sites. Their enhancement effort could be aligned and targeted at such sites to deliver multiple outcomes. Some of the existing enhancement work under the EMEP already coincides with priority ecosystem sites (e.g. Tukituki River mouth).

#### **Next steps**

31. We will continue interpretation of terrestrial sites identified by Zonation in partnership with DOC and with contributions from local experts from the Biodiversity Implementation Planning Group (IPG) members.
32. We will focus on terrestrial biodiversity sites in terms of data interpretation, given that most highly ranked river segments and lakes are contained or connected with the top 30% terrestrial sites.
33. It is also likely that a prescribed management plan for a terrestrial site containing/ adjoining rivers and lakes will improve the health of aquatic systems, given the connectivity of land and water. Should there be any specific actions needed to improve health of aquatic ecosystems, these will be integrated as part of the management approaches.
34. It is proposed to develop management prescriptions using the process and database template developed by an external consultant for the Bay of Plenty Regional Council in collaboration with DOC (BOP conservancy). Their process and templates enable users to identify key actions and estimate costs for those management actions.
35. We will be developing management prescriptions for up to 100 priority sites (out of 900) of various ecosystem types across the region. This exercise would be facilitated by an external consultant with participation from HBRC, DOC and local experts. Once the process and database template are set up, management prescriptions for the rest of the priority sites will be predominantly delivered in-house with support from partner agencies and local experts.

#### **Decision Making Process**

36. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

#### **Recommendation**

That the Environment and Services Committee receives and notes the "***Hawke's Bay Biodiversity Strategy Implementation – Ecosystem Prioritisation***" staff report.

#### **Authored by:**

**Keiko Hashiba**  
**TERRESTRIAL ECOLOGIST**

#### **Approved by:**

**Dr Stephen Swabey**  
**MANAGER SCIENCE**

**Iain Maxwell**  
**GROUP MANAGER RESOURCE**  
**MANAGEMENT**

#### **Attachment/s**

There are no attachments for this report.



**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Item 8**

**Subject: SCIENCE MONITORING NETWORK REVIEW**

**Reason for Report**

1. To outline the recent comprehensive review undertaken of HBRC's Environmental Monitoring Network (EMN), and identifies the key findings.

**Background**

2. HBRC operates an environmental monitoring network in part to fulfil its responsibilities under s35 of the Resource Management Act 1991 to monitor the State of the Environment (SOE), and also to provide data for other functions undertaken such as flood risk management, which are driven by other legislation such as the Soil and Rivers Control Act 1941.
3. The EMN is reviewed periodically in part or in total by external parties to ensure the network remains fit for its purposes, and was reviewed recently to inform staff of any network design issues ahead of the development of the Long Term Plan.
4. HBRC operates environmental monitoring networks (EMNs) in six domains – groundwater, surface water, coastal, ecology (including land, freshwater, and coastal), land and air/climate.
5. Our EMNs are developed and operated to provide long-term records of environmental variables such as rainfall, river flow, nutrient flux, riverine algal cover, marine water quality and habitats, groundwater quality/quantity and air quality.
6. Data may be collected from individual sites in each network very frequently (e.g. every few minutes with climate stations or river stations) or quite infrequently (e.g. 2-yearly with estuary habitat surveys).
7. Data from EMN's are used to identify state and trends in the six key domains. Monthly reports are issued for temperatures, rainfall, river flow, groundwater, soil moisture, lightning strikes, recreational water quality and the climate outlook. Annual summary reports are published for the state of all the domains. Five year reports detail long-term trends in those domains.
8. EMN data are subsequently used by HBRC as key information for other activities such as policy development, for example for TANK; for monitoring compliance with National Environmental Standard's; and for the design and operation of flood management schemes.
9. Data from our EMNs are also used by a wide range of stakeholders through our website, through the LAWA website, and through data feeds taken directly from our online databases.
10. As land-use activities, recreational activities and available technologies change over time, HBRC modifies its EMNs to ensure they continue to meet its needs, and the needs of its communities and stakeholders.
11. The review just completed considered how well the EMNs meet HBRC's objectives and targets. It examines the costs associated with existing EMNs and likely future costs. It identifies that collecting data from EMNs is not enough – the data must be shared readily with communities and stakeholders. Finally, it notes the need for transparency and quality control in data collection and dissemination.
12. The consultants undertaking the review consulted widely with HBRC teams and with external stakeholders about what matters they wished to see included in our EMNs.
13. The general conclusions of the report include:

- 13.1. HBRC's EMNs should be designed to suit its strategic goals, and their benefits should be considered against their costs
- 13.2. EMN design should focus on integrated catchment management, with a minor focus on hotspots and emerging issues
- 13.3. Mātauranga Māori and citizen science should be included in EMNs, and resourced to improve data robustness and management
- 13.4. Data should be made more accessible from HBRC's website
- 13.5. Compliance data could be integrated into databases for EMNs, with appropriate quality checking and flags to identify its source
- 13.6. Annual report cards, rather than full annual SOE reports, could be produced
- 13.7. Plan Effectiveness Reporting should be updated
- 13.8. Metrics for social, cultural and economic aspects of resource management could be developed to track resource use, revenue generated, and ratepayer satisfaction
- 13.9. Time could be given to integrating HBRC EMNs with other agencies' EMNs, to avoid duplication
- 13.10. Outside advice, such as an advisory panel, could be used to improve communication of HBRC data and analyses with communities and stakeholders
14. Specific conclusions of the report with respect to individual domains include the following:
  - 14.1. Lysimeters could be mothballed, since they are less effective than other methods
  - 14.2. Short-term weather/climate sites could be extended through time, to provide more long-term coverage
  - 14.3. River sites used for both hydrology and water quality and ecology could be better aligned to be the same site. The same analysis for groundwater quality and groundwater quantity networks could be undertaken.
  - 14.4. Continuous monitoring of groundwater quality is now feasible, and this could focus on nitrate as a key analyte. Other analytes such as arsenic could be routinely monitored. Event-based monitoring could take place, and more work on stygofauna and troglifauna could be undertaken. Water quality may need more monitoring in smaller aquifers
  - 14.5. Groundwater quantity (level) monitoring could include more telemetered sites, to reduce maintenance costs, and further monitoring could take place in smaller aquifers
  - 14.6. Coastal water quality sites could be aligned with other monitoring locations, and focus more on specific issues, now that the general baseline has been established for Hawke Bay
  - 14.7. Citizen science has significant potential in the water quality and ecology (WQE) team's work, and this could be developed further.
  - 14.8. Land science could focus more on land use management practices, and land use change, and move away from synoptic work that has established the existing baselines
  - 14.9. Biodiversity and biosecurity monitoring networks could be established to provide baseline data for these work programmes
  - 14.10. Alignment of various EMNs could be improved both to focus on policy priorities and to identify and assess linkages between land, water and coastal domains
  - 14.11. Reserve funding for emerging issue investigations is important in all domains
  - 14.12. Gradual upgrading of air quality monitoring equipment could allow for higher spatial resolution understanding of problems

### Next Steps

15. Some of the actions suggested as part of the EMN review have already been undertaken as part of existing work programmes in a variety of budgets. For example, annual report cards are now produced in lieu of reports, for the State of the Environment annual reporting (project 153).
16. Other suggested actions have been incorporated into the Long Term Plan, including a move to Integrated Catchment Management approaches and integration of citizen science and Mātauranga Māori.
17. An initial scan of the recommendations has not revealed anything that required immediate change or was of likely immediate significant cost. Some recommendations had been anticipated (moving to greater use of telemetry for example) and are included within the current LTP.
18. The further analysis and cross council discussion required for some of the suggested actions is underway. If any small changes to funding are required, these will be brought into the Annual Plan in future years. Some initiatives may occur over several years, and may be funded as part of the next Long Term Plan.

### Decision Making Process

19. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

### Recommendation

That the Environment and Services Committee receives and notes the **“Science Monitoring Network Review”** staff report.

#### Authored by:

**Dr Stephen Swabey**  
**MANAGER SCIENCE**

#### Approved by:

**Iain Maxwell**  
**GROUP MANAGER RESOURCE**  
**MANAGEMENT**

### Attachment/s

There are no attachments for this report.



**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: HAWKE'S BAY MARINE AND COASTAL GROUP UPDATE**

**Item 9**

**Reason for Report**

1. To provide the committee with an update on the Hawke's Bay Marine and Coastal Group activities.

**Background**

2. In June 2016 a Marine Information Review was presented to Council highlighting large gaps in our knowledge around the marine environment and a perceived ongoing degradation of the marine environment in the Hawke's Bay region.
3. Since this review, the Hawke's Bay Marine and Coastal Group has been formed. Chaired by HBRC staff, this includes representatives of Napier Port Fisherman's Association, Fisheries Inshore New Zealand, Te Ohu Kaimoana, Legasea Hawke's Bay, Pania Surfcasting Association, Ministry for Primary Industries, Department of Conservation, Ngati Kahungunu, Ngati Kere, Ngati Pahauwera, and Heretaunga tamatea.
4. This Group has been meeting quarterly since its inception in September 2016.
5. The Group engaged Dr Tim Haggitt from ECoast Ltd to develop a roadmap outlining the research required to inform management of the Hawke's Bay Coastal Marine Area.

**Hawke's Bay Marine and Coastal Group Research Roadmap**

6. The Hawke's Bay Marine and Coastal Group Research Roadmap was developed during 2017 and is currently in final draft form. The Roadmap revolves around three key themes prioritised by the members of the group:
  - 6.1. Terrestrial and coastal linkages
  - 6.2. Ecosystems and habitats
  - 6.3. Fisheries
7. Under each of these themes are sub-themes focused on specific areas of research agreed by the group.
8. The Roadmap takes an holistic view of the marine environment, including those areas where the marine area and coast are linked to freshwater and the land.

**Strategic fit**

9. The vision of the Roadmap is that it will inform the direction of marine and coastal research in Hawke's Bay for years to come.
10. In turn the knowledge gained from this research will lead to better informed management of this resource.

**Where to next**

11. Where necessary, the HBMAC group will develop an implementation plan for each of the research themes.
12. It is estimated that the investment required to complete this research is in the region of \$5 million over the next 5 years. This money will potentially be sourced from agencies with responsibilities in the marine space.
13. HBRC proposes in the draft Long Term Plan to increase spending in this domain, to meet its contribution to research requirements in the marine area.

14. HBRC is committed to partnering with MPI, commercial and recreational fishers, iwi and the Department of Conservation to meet the funding required for this research.

**Decision Making Process**

15. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

**Recommendation**

That the Environment and Services Committee receives and notes the ***“Marine Science Update”*** staff report.

**Authored by:**

**Oliver Wade  
SCIENTIST**

**Approved by:**

**Dr Stephen Swabey  
MANAGER SCIENCE**

**Iain Maxwell  
GROUP MANAGER RESOURCE  
MANAGEMENT**

**Attachment/s**

There are no attachments for this report.

**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: FEBRUARY 2018 HOT SPOT/FRESHWATER IMPROVEMENT  
 PROJECTS UPDATE**

**Item 10**

**Reason for Report**

1. To provide an update on progress on the Freshwater Improvement/Hotspots environmental projects.

**Background**

2. The environmental 'Hot Spot' funding of \$1m is to accelerate action on six hot spots during 2017/2018.

Ahuriri	Tukituki	Karamu	Marine	Tutira (FIF)	Whakaki (FIF)
\$200,000	\$100,000	\$150,000	\$150,000	\$200,000 4 years	\$200,000 5 years

**Freshwater Improvement Fund: Lake Tūtira (*Te Waiū oTūtira, The Milk of Tūtira*),  
 HBRC partnership with Maungaharuru-Tangitū Trust**

3. MfE is reviewing our final stage two application for the Freshwater Improvement Fund. All going well we expect to start this project before March 2018. We cannot start working on our project until the Deed is signed.
4. A strong partnership between HBRC and Maungaharuru-Tangitū Trust continues. We have been working closely throughout this process; drafting and finalising the work programme and this years' annual plan.
5. Everything is in place to start. Our first tasks will be; the development and implementation of our project health and safety plans. A Governance Group meeting within the first month, and our contractor will start work on the Integrated Catchment Management Plan.
6. Total project costs: \$3,345,264
  - 6.1. FIF contribution \$1,557,781
  - 6.2. HBRC contribution \$1,732,483
  - 6.3. Maungaharuru-Tangitū Trust contribution \$76,000
7. The table below outlines a brief description of the activities within the project including the deliverable timeframes and costs.

Deliverables	Overview	\$	Year(s)
Integrated Catchment Management Plan	Work with the community to understand their vision/aspirations for the catchment. Identify other agency initiatives and coordinate for better decisions made about land use, water resources and infrastructure within the Lake Tutira catchment with the overarching objective of improving the Mauri and water quality of Lake Tutira.	\$50k	2018
Farm Environmental Management Plans	Working with the community to establish farm environmental management plans. These will include some general farm information, identification of environmental risks, recorded good management practices and actions for improvement.	\$63k	2018-2019
Farmer Incentive / Subsidy Scheme	To assist and encourage the implementation of Farm Environmental Management Plans, a funding scheme for landowners will be established for land action improvements (planting, fencing etc.	\$500k	2018-2021

Deliverables	Overview	\$	Year(s)
Papakiri Stream Low Flow Connection	Re-connection of the Papakiri Stream, low flow only. The low flow connection will allow 50% of the flow of Papakiri into the lake, while restricting flows during heavy rain events, which transport sediment.	\$66k	2018
Diversion Strengthening (Papakiri Stream)	This work is proposed in conjunction with the Papakiri low flow connection work above, but can be considered a standalone initiative. Strengthening of the existing diversion embankment through reconstructing, raising and lengthening the 1,000m stop bank. This will reduce the over flow of water into the lake during heavy rain events which normally transports sediment adding to the legacy issue.	\$49.5k	2018
Lake Tutira Air Curtain	Aeration bubbler to be constructed and installed into Lake Tūtira. The aeration is to address legacy nutrient levels within the sediment in the bottom of the lake, and stabilise the water column reducing frequency of algae blooms.	\$300k	2018
Southern Outlet	Strong community desire to see an outlet connection between Waikopiro Lake and Lake Orakai at the southern end of the Lake complex. It has the potential to change the flow and direction of currents within the lakes creating a longitudinal flow. And viable fish passage into the lakes, which will improve mauri within the lakes.	\$687k	2021
Tūtira Regional Park Sediment Traps	Sediment traps constructed on Tutira Regional Park sub-catchments Kahikanui and Te Whatu Whewhe.	\$507k	2018-2019
Monitoring site equipment construct and upgrade Capex and regime	New telemetered flow site and WQ equipment installed on Papakiri Stream, plus upgrades for the new buoy in Tūtira and the installation of the old Tūtira buoy into Waikōpiro. A monitoring programme to measure effectiveness of works implemented and inform future action. When the buoys are in place real time monitoring for oxygen, temperature and chlorophyll a. With monthly monitoring for water samples.	\$409k	2018
MTT Cultural Health Index Monitoring	A cultural monitoring programme will be developed, to measure mauri and the effectiveness of the activities implemented, also building hapū capacity in monitoring.	\$64k	2018-2021
Riparian Enhancement of Lake Tūtira	On-going planting around Lake Tūtira	\$76k	2018
Project Management role	Across the life of the project (4 years).	\$468.5k	2018-2021
Land Services Advisor	Position to coordinate and draft ICPM and implement as well as coordination of FEMP drafting and implementation.	\$144k	2018-2021
Health and Safety, Communication + admin costs.	Communications, promotion, community engagement, Koha. Project Health and Safety plans.	\$21k	2018-2021
	<b>Total</b>	<b>\$3.35m</b>	

**Freshwater Improvement Fund: Whakaki Lake (*Sunshine, wetlands and bees will revitalise the taonga of Whakaki*), HBRC partnership with Whakaki Lake Trust**

8. MfE is reviewing our final stage two application for the Freshwater Improvement Fund. This included our work programme and a detailed annual plan for the first year, and supporting documentation for two new deliverables added into our application.
9. During this stage two process, the Whakaki Lake flooded surrounding farmland, as it does most years, causing an increase in nutrient leaching, reduced production and very high tensions among the community. Discussions with the community highlighted the priority need for a solution to manage the water levels of the lake.
10. These discussions re-shaped our FIF deliverables to include the construction of an adjustable weir in the Rahui Channel, and the alignment of the Waikatuku Stream. The weir is a key structure that will help bring certainty around water level management at critical times of the year. It will help make opening decisions faster and avoid flooding



while retaining enough water in the lake during spring openings. Detailed water level management plans, including weir levels, are to be developed with the stakeholders as part of this project when started.

11. The alignment of the Waikatuku Stream will help reduce fresh inputs of sediment from the catchment into the lake, as it will redirect the flow of the Waikatuku Stream towards the opening end of the Rahui Channel, rather than directly into the lake. The weir and stream alignment will work in partnership with the weir, as the lip of the weir will facilitate even more sedimentation, such that when the lake is opened to the sea via the Rahui channel, it will flush sediment that has accumulated there rather than in the lake.
12. These new deliverables added an estimate of \$500k to our project costs. This required us to analyse our budget and find savings without compromising on our objectives. It also made us look for other potential income sources.
13. Through MPI's Regional Growth fund, we have submitted an application for \$100k to cover planting and fencing for the Manuka establishment. MPI are supportive of our application and we expect to hear the outcome from our submission in the coming weeks. We have also secured \$50k as a contribution from Land Management to align the stream this financial year. While further research into specific project costs have provided savings and enabled us to meet all the costs for our deliverables.
14. Currently there are different agency work streams in either progress, or being proposed. This is a potential risk where the community could become overwhelmed by the amount of activity and disengage completely. To mitigate this we are working closely with the Whakaki Catchment Group, to establish inter-agency work stream alignment towards the community's aspirations. This also provides an opportunity share knowledge and build our relationships, while establishing a consistent approach for the community.
15. Dr. Simone Langhans, a scientist from Germany is revisiting us through the Marie-Sklodowska-Curie Fellow. Simone will be here to design a multi-criteria decision making tool, which combines individual and collective value judgements to be combined with scientific understanding to produce a transparent decision support tool. She will focus on 'water level management' for the weir. This will include what needs to go in the consent for how lake openings and weir configurations be managed.
16. Also, a visiting Agricultural Engineering student Cindy Asmat, from Peru, has experience with solar irrigation and will help us investigate and refine operating parameters of the recirculating wetland this financial year.
17. **Total project costs: \$3,273,310**
  - 17.1. FIF contribution \$1,605,404
  - 17.2. HBRC contribution \$1,548,905
  - 17.3. Fish and Game \$15,000
  - 17.4. MPI \$100,000
18. The table below outlines a brief description of the activities within the project including the deliverable timeframes and costs.

Deliverables	Overview	Total Cost	Year(s)
Weir	A weir will be built to better manage water levels and ease the decision making process of lake opening in the spring. This activity will have to get support from the Community via a Resource Consent including a Management plan for the structure.	\$400k	2018-2019
Recirculating wetland	A recirculating wetland will be able to artificially skim the fine layer of sediment and bacteria sitting on the lake floor and export it on the land. This filtering system should recirculate the entire lake water body in one year.	\$768k	2018-2022
Manuka plantation	80 Hectares of Manuka plantation established, including some fencing will be established. Establishing Manuka plantations will provide a source of income to help sustain the initiatives developed through this project. There will be some fencing	\$274,k	2018-2022

Deliverables	Overview	Total Cost	Year(s)
Rahui Fencing	Fencing for stock exclusion from the Rahui Channel and installing water troughs for cattle.	\$53k	2018-2019
Refurbish Whakaki Lake School	The refurbishment of the Whakaki School and reopened as a centre for cultural and ecological learning. Ecotourism and learning opportunities at Whakaki will expand.	\$200k	2018 & 2019
Waikatuku alignment	The Waikatuku alignment will redirect the flow of the Waikatuku Stream towards the opening end of the Rahui Channel. This will divert upstream sediment away from the Lake and towards the sea.	\$100k	2018
Soil conservation plantings	\$24k per year across the life of the project.	\$120k	2018-2022
Water monitoring	A robust monthly water quality-monitoring regime, testing nine varying points in and around the Lake and tributaries.	\$211.6k	2018-2022
Bird monitoring		\$15k	2018-2022
Tree maintenance		\$120k	2019-2022
Forced closure trial	Forced closure trials used until the weir has built, to make sure the lake is not empty after a spring opening.	\$40k	2018 & 2019
Public access to Lake	At least one entrance point to the lake will be developed and beautified, including new signage installed.	\$20k	2019-2020
Honey strain testing		\$5k	2018-2022
Community Engagement	Facilitated pakeke hui, facilitated Hui a Iwi, community day Development of a blog Whakaki Catchment Group – public presentations	\$68k	2018-2022
Project Management role & Facilitator role		\$557k	2018-2022
Admin Costs / legal fees/ IT costs/		\$136k	2018-2022
	<b>Total</b>	<b>\$3.27m</b>	

### Hot Spot: Tukituki River

Tukituki \$100k	Project Lead	6,167 plants (approx.)	1.57km fencing
<b>\$69k</b> Makirikiri restoration	Nicola McHaffie	2,200	530m
<b>\$29.5k</b> Hunt wetland	Joanne Hales	3,967	40m
<b>\$1.5k</b> Flood fencing demonstration	Brendan Powell		1km

19. The *Makirikiri restoration project*, just outside of Takapau, is a demonstration site for riparian management, for engaging the local community and aligning regional water quality objectives with wider manawhenua values.
20. We have completed the first round of weed control including the removal of over-mature willow trees and other weeds infestations. Contracts are underway for the fencing, further weed control, planting and installation of the path. A whakawaatea hosted by the local marae is scheduled for the 11 February with councillors from both HBRC and CHBDC attending. Next steps; Works Group to begin site preparation for the limestone path and our fencing contractor will start erecting the fence over the next few days. Also we are to liaise with the marae and the community to round up volunteers.
21. Hunt wetland project is to restore a hectare of wetland, situated alongside the Takapau Ormondville Road, back to native plants. Currently this area is in rank grass with minimal weed problems. The grass is long and dense so staged spot spraying is required to prepare for planting in the winter. Educational signage will be erected at the site to describe the plants and the water quality benefits of a wetland.

22. Flood fencing demonstration behind Craggy Range. This project will trial and demonstrate a flood fencing option for areas where permanent fencing are unsuitable and are repeatedly wiped out by floods. A fence has been installed at the site before and was wiped out during a flood. The new fence will use flexible fibreglass standards and biodegradable polywire.

#### Hot Spot: Te Whanganui-ā-Orotu (Ahuriri Estuary)

Ahuriri \$200k. Project Lead: Anna Madarasz-Smith	
\$40k	Ficopomatus removal
\$20k	Ahuriri Catchment Land Action Plan for
\$80k	Catchment works (plants 5,545, fencing 7.1km)
\$60k	Catchment Hydrology

23. Ficopomatus removal: To restore water flow between the upper and lower estuary, we (in partnership with Mana Ahuriri Trust) removed 219 tonnes of invasive marine tubeworm from the estuary.
24. The Ahuriri Catchment Land Action Plan for sediment and nutrient control identifies high erosion risk land within the catchment. (see summary attached).
25. Catchment works, identified through the Ahuriri Catchment Land Action Plan, focus on landslide erosion (the major long-term source of sediment) and streambank erosion (the regular and short-term source). We are implementing erosion control measures, establishing wetland and riparian filters and livestock exclusion from waterways.
26. Catchment Hydrology: Further research information is required to better define the water budget, movement and export in this complex and largely managed catchment. What are the contaminant pathways? How much healthy freshwater does the estuary need to function. This is being scoped.

#### Hot Spot: Te Karamū 2017-18

Karamū	10,725 plants	1.65 km fencing	Budget \$150k
<b>Project lead:</b> Antony Rewcastle	10,700 native / 25 exotic		
06-00 Opaka, Karamū-Clive River	1000	155m	<b>\$12.5k</b>
16-50 Brookvale wetland enhancement, Mangateretere Stream	8000	500m	<b>\$90k</b>
29-00 Paki Paki enhancement, Hinetemoa Springs and Awanui Stream	1000	300m	<b>\$12.5k</b>
35-00 Bridge Pa fencing, Karewarewa-Paritu Stream	25 Weeping willows	700m	<b>\$20k</b>
40-00 Kahurānaki (Te Hauke) Marae planting	700	-	<b>\$15k</b>

27. **Opaka, Old Ngaruroro (Karamu-Clive) River**, left bank above Whakatu Railway Bridge. Old man's beard control completed. Silver poplar control in progress. Fencing for stock exclusion and revegetation planting to be completed.
28. **Brookvale wetland – Mangateretere Stream**. Protection and enhancement of the stream to exclude stock, improve water quality, habitat and biodiversity, and demonstrate best practice land management. Arboriculture work completed. Weed control in progress. Fencing and revegetation planting to be completed.
29. **Paki Paki enhancement - Hinetemoa Spring, Awanui Stream**. Protection and enhancement of the waterway to exclude stock and improve water quality, habitat and biodiversity for this culturally significant site, which is visible as the southern entrance to Heretaunga Plains. Fencing and revegetation enhancement planting in progress.

30. **Paritua/Kārewarewa Stream enhancement, Bridge Pa.** Protection and enhancement of the waterway to exclude stock and improve water quality on the Karewarewa-Paritua Stream, above Mangaroa Marae. Tree work to create fence alignment. Enhancement planting to be completed.
31. **Kahurānaki (Te Hauke) Marae, Kahurānaki Stream.** We will be working with representatives from the marae to produce plans weed control, enhancement planting on the tributary to Lake Poukawa and connection to biodiversity priority areas.

### Hot Spot: Marine

32. Work with the Hawkes Bay Marine and Coastal Group (HBMAC) and other stakeholders to build understanding of our coastal environment by investigating subtidal habitats and improve our understanding of terrestrial impacts on the coastal environment by developing a hydrodynamic model of the bay.

Marine \$150k		Project Leads
\$40k	Hydrodynamic model of Hawke Bay	Oliver Wade
\$110k	Collaborative study: Wairoa Hard	Anna Madarasz-Smith

33. A Collaborative study with NIWA, MPI and hapu looking at current state Wairoa Hard. This study will use the NIWA vessel Ikatere to undertake multibeam echo sounder to define the extent of hard substrate and potential habitats within the area. NIWA have committed \$35k of vessel time to the study, Ministry for Primary Industries \$25k, with the remaining \$100k being funded by the HBRC Hotspot fund. This 14-day mapping study is scheduled for March/April 2018, with further work to be defined with PTSGs in the area.
34. HBRC are examining software options for building the hydrodynamic model. Consultants (Advisian) to the Port of Napier have used open source software (Delft3D), and they have offered to provide the input bathymetry files, which will save model, build time if we decide to use Delft3D software to create the model. HBRC currently have a test version of the Delft3D software, which we can examine the Advisian files with. Despite being open source software, there are still costs associated with using Delft3D, with the best support option incurs a yearly cost of around \$5,500.
35. The other option is to purchase an add-on module to our existing MikeZero software from Danish Hydraulic Institute (DHI). This has the advantage of continuity with other DHI models already in use at HBRC. There is a higher upfront cost with DHI software, however, as a regional council in New Zealand, DHI generally offer us a 50% discount in purchase price, which puts the software cost in the order of \$35,000 plus an ongoing cost of around \$7,000 per year for software upgrades and support. It is likely, but not tested yet, that the input files available from Advisian will be able to be converted to be used in the DHI models.
36. Hydrodynamic model: Once staff have decided on a model platform we need to establish:
- 36.1. Focus areas for the model
  - 36.2. Establish boundary conditions
  - 36.3. Develop a field sampling plan.
37. Focus areas: Cawthron Research Institute have been engaged to provide an initial assessment of water quality in Hawke's Bay. They have analysed 15 years of satellite imagery focussing on proxies for chl<sub>a</sub>, suspended sediment and sea surface temperature. This analysis is producing maps of mean concentrations and trends over time for these parameters, which will highlight problem areas within the Hawke's Bay CMA.
38. Boundary conditions are the external forces that influence a model domain (waves; wind; currents; nutrient loads; suspended sediment etc.). Once staff have examined existing model platforms and the boundary conditions that have been used for these

models we will have a better idea of what is available. There are also national level modelling initiatives being proposed that may be able to inform this.

39. Existing models use boundary conditions that are focussed on physical parameters (wind; waves etc.). Council staff have fostered a relationship with GNS and NIWA where they are collecting offshore water samples for us during scientific cruises to begin to inform understanding of the chemistry of the oceanic currents that influence Hawke's Bay waters.
40. Once staff have received the offshore water quality analysis; the Cawthron satellite imagery analysis and had a chance to evaluate existing hydrodynamic models of the bay. A workshop will be held to develop a focussed sampling plan moving forward to inform the development of a hydrodynamic model.

### Decision Making Process

41. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

### Recommendation

That the Environment and Services Committee receives and notes the "**February 2018 Hotspot/Freshwater Improvement Funding Projects Update**" staff report.

#### Authored by:

**Te Kaha Hawaikirangi  
ENVIRONMENTAL OFFICER**

**Dr Andy Hicks  
TEAM LEADER/PRINCIPAL SCIENTIST -  
WATER QUALITY AND ECOLOGY**

**Anna Madarasz-Smith  
SENIOR SCIENTIST - COASTAL QUALITY**

**Peter Manson  
SENIOR LAND MANAGEMENT ADVISOR**

**Antony Rewcastle  
SENIOR OPEN SPACE DEVELOPMENT  
OFFICER**

**Jolene Townshend  
PROJECT MANAGER, RESOURCE  
MANAGEMENT**

#### Approved by:

**Iain Maxwell  
GROUP MANAGER RESOURCE  
MANAGEMENT**

### Attachment/s

- [1](#) Summary for Ahuriri Catchment Action Plan
- [2](#) Hot Spot Karamu and Tukituki Planting Plans 2018



2017/18 HOT SPOT: AHURIRI, LAND ACTION PLAN

## Summary of the Ahuriri Catchment Land Action Plan for sediment and nutrient control

14 properties

5,545 plants

7.1km fencing

### Datasets:

To develop the action plan information was used from the following datasets:

- **SedNetNZ** modelled for the TANK catchments
- **HEL** Highly Erodible Land model
- **Soil Intactness Survey for the Ahuriri Catchment**, using the “point sample analysis” technique

This survey was to assess land stability and soil disturbance at a particular point of time. In this case, the survey using the latest aerial photography (2014/15) for the Ahuriri catchment.

The survey characterises soil disturbance in relation to land use, vegetation cover, landform and erosion type. The results provided information of potential sediment sources.

- It indicated that 94% of bare ground in the catchment resulted from land use activities and 6% from natural erosion processes.
- The majority of the land use activities were found on flat land. As the displacement of soil directly into waterways or on the edges of waterways where it can wash into waterways is likely, it cannot be discounted that sediment generation from activities on flat land will not enter waterways. There are activities, such as earthworks and tracking that are also found on downland and hill country where their potential to generate sediment is much higher.
- Natural erosion processes were low, with landslides occupying 9.8 hectares and sheet erosion occupying 16.4 hectares. Streambank erosion was negligible. Most of the sheet erosion is from small bare areas which have remained in the scarp of old landslides. They are exposed to the elements, and are likely to remain exposed due to livestock access. They do not provide a significant source of sediment because of their size and isolation from watercourses.
- Most of the natural erosion processes measured were old erosions showing signs of revegetation.
- Recent or active erosion covered only 3.5 hectares. Most being sheet erosion and only 0.5 hectares related to landslide erosion.

Information from these datasets highlighted that:

- The major sediment source is landslide erosion under pastoral hill country estimated to account for 91% of the load (this is a long-term source).
- Significant sediment generation comes from high and moderate erosion risk land.
- Land use activities account for the majority of the land possible of generating sediment on a short term basis. It is unlikely to provide a large quantity of sediment but will be a regular source hence have a significant localized and regular impact.

## 2017/18 HOT SPOT: AHURIRI, LAND ACTION PLAN

- Streambank erosion is not a large contributor to the sediment load in the catchment. But like sediment generated from land use activities, their inputs can be regular.

All these data sets provided us with an understanding of the sediment and nutrient issues for the Ahuriri catchment.

## Actions needed:

- Erosion control measures to reduce both sediment and nutrients.
- Land use control measures and education to reduce sedimentation from earthworks and other land use activities.
- Livestock exclusion from waterways to reduce nutrients
- Wetland and riparian filters to reduce nutrients.
- Land management strategies – best practise management and nutrient budgeting promoted for rural enterprises.

Of these, the Hot Spot funded programme for the Ahuriri has focussed on implementing erosion control measures, establishing wetland and riparian filters and livestock exclusion from waterways.

In particular, a programme of works has focussed on:

- Landslide erosion – the major long term source of sediment
- Streambank erosion – the regular and short term source.

The most erosion risk land was defined, leading to 14 properties being visited and assessed. Discussions were had with each landowner of which the aims of the Hot Spot programme and the results of the modelling and survey work were discussed, and why their property was prioritized. Also worked through were the options available for their property and how council could provide financial assistance and expert advice.

For each property a programme of works was then developed and presented to the landowner. Many of these have been accepted and the landowners have committed time and funds to the works. Others are still in the state of being refined before being finalized. None have rejected the programme.

Summary of works developed for these landowners:

<b>Land stability planting</b>	<b>Stream bank erosion and stock exclusion</b>	<b>Wetland filter planting</b>
Fencing 2,560 metres	Fencing 3,630 metres	Fencing 915 metres
Natives, space and mass planted 2,630 seedlings	Natives 810 seedlings	Natives 930 seedlings
Poplars, space planted 975 poles	Willow planting 200 poles	

**Financial contribution:**

Council share \$91,025  
Landowner share \$72,284



# HBRC PLANTING PLANS OVERVIEW & EXAMPLES

## PLANTING PLAN

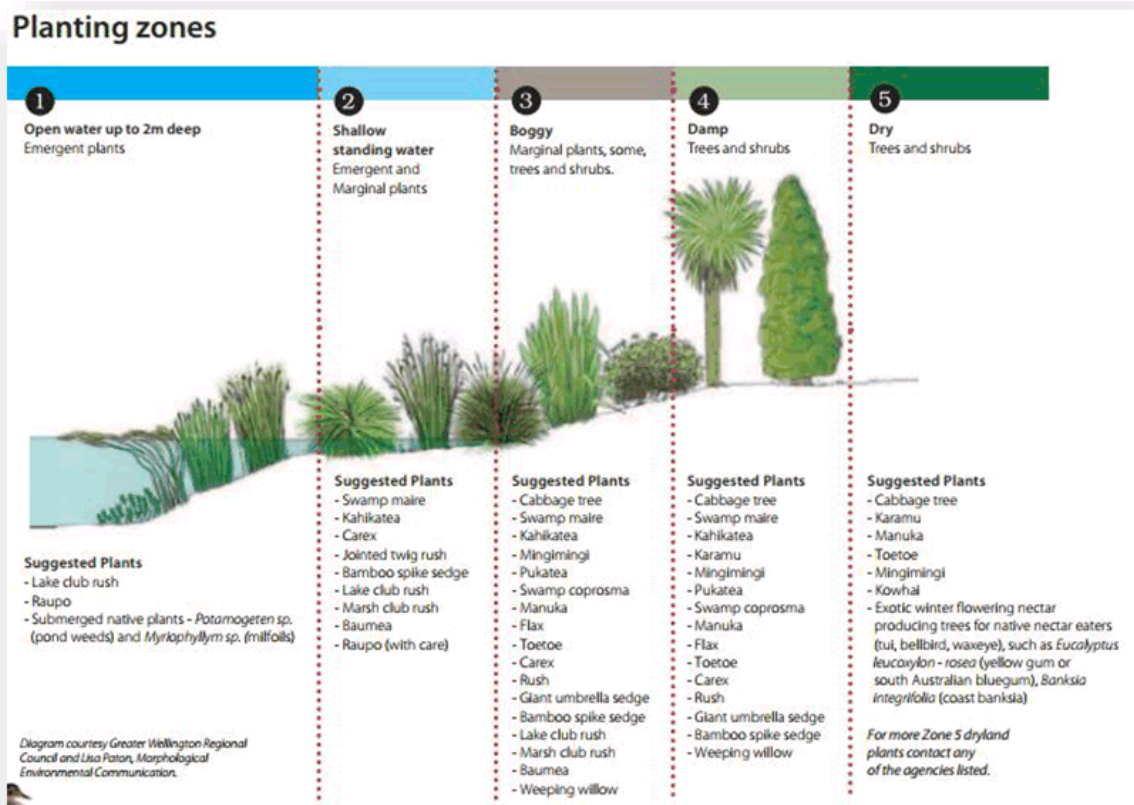
A planting plan is a construction document that shows the location, quantity, and other characteristics of vegetation to be planted in the landscape.

The purpose of a planting plan is as an aid to DESIGNING, SETTING OUT and as a record of what has been planted.

## PROCESS

To establish a suitable planting plan we:

1. Ensure we understand what the stakeholder(s) is trying to achieve by planting. For example, water quality, biodiversity, erosion control, aesthetics, education, etc.
2. Identify the type of zones within the proposed wetland/restoration area



3. Investigate the geology, climate and weeds to determine what plants will be suitable
4. Using an appropriate tool to map different zones/areas to calculate plant spacing and numbers, and check costs against budget

5. Sourcing availability of plants, review plans based on plant availability

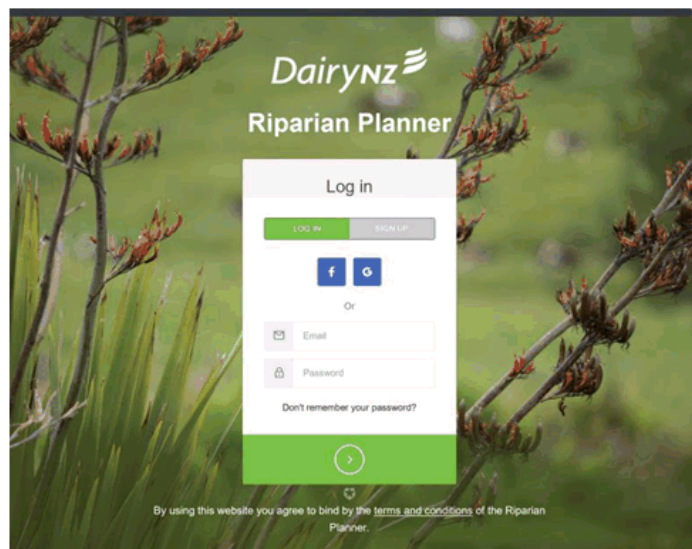
## TOOLS

There are different tools we use to assist with planting plans. Some tools have limitations so the most appropriate tool is selected for each project.

- Hawke's Bay Plant database – developed internally and regularly updated
- Dairy NZ Riparian Planner - planning and budgeting for riparian and wetland areas
- Coastal restoration trust tool
- Vectorworks for Plant profiling

## DIARY NZ RIPARIAN PLANNER

A great tool for planning and budgeting for riparian and wetland areas is the Dairy NZ's online Riparian Planner.



Below is an example of our Tukituki Hot Spot Hunt wetland being mapped to establish the total area for which a planting plan is required.



Then we would break this down into zones.

The following screen will allow you to adjust planting ratios to suit the budget or existing vegetation but does have limitations in that it uses standard spacings and planting costs so not suitable for all projects.

Edit planning costs		2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Action	Estimated total cost	Total: \$0 Plants: 0	Total: \$0 Plants: 0	Total: \$0 Plants: 0	Total: \$0 Plants: 0	Total: \$0 Plants: 0
<b>Boggy 1</b> • Planting here may not be necessary. Grass does an excellent job of filtering run off.						
Site preparation	\$0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Planting	\$4,130 area to plant: 1,160m2 0m2 ————— 1420m2 0% ————— 100% percentage to plant: 81.7% Number plants allocated from a total of 750 0	Plants: 0	Plants: 0	Plants: 0	Plants: 0	Plants: 0
		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Ongoing maintenance	\$0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Other costs	\$0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
		Note	Note	Note	Note	Note

COASTAL RESTORATION TRUST TOOL

This tool allows you set different spacing of plants within an area and calculates number of plants required

Area  m<sup>2</sup>    Project/Site

### PLANTING

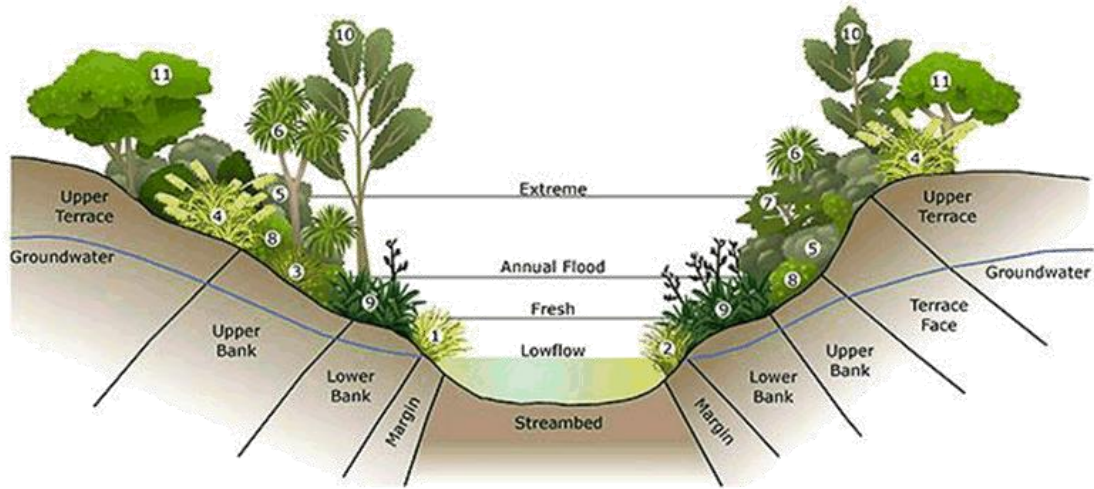
Species	Proportion	Spacing	No. of plants to use
<input type="text" value="Austroderia fulvida"/>	<input type="text" value="23"/> %	<input type="text" value="1"/> m	<input type="text" value="216"/>
<input type="text" value="Coprosma propinqua"/>	<input type="text" value="18"/> %	<input type="text" value="2"/> m	<input type="text" value="42"/>
<input type="text" value="Dodonaea viscosa"/>	<input type="text" value="32"/> %	<input type="text" value="2"/> m	<input type="text" value="75"/>
<input type="text" value="Leucopogon fasciculatus"/>	<input type="text" value="13"/> %	<input type="text" value="2"/> m	<input type="text" value="30"/>
<input type="text" value="Carex virgata"/>	<input type="text" value="14"/> %	<input type="text" value="1"/> m	<input type="text" value="131"/>
<b>Totals</b>	<b>100</b> %		<b>494</b>

VECTORWORKS FOR PLANT PROFILING

Most staff do not create professional planting profiles. This is due to the amount of time it takes to create these, and the skills and expertise required to use such tools.



EXAMPLE OF A CROSS SECTION:



HOT SPOT TUKITUKI PLANTING PLANS

PLANTING PLANS: MAKIRIKIRI RESTORATION, TAKAPAU (2,200 PLANTS)



PLANT SPECIES AND NUMBERS

**LOTS 75% (1650 PLANTS) PB3**

Hebes	
Kanuka	1.5m spacing
Pittosporum (variety)	
Mountain flax	1. 0.12 ha 300 plants
Coprosma (variety),	2. 0.13 ha 330 plants
Ngaio	3. 0.10 ha 250 plants
Ralph's karo	4. 0.27 ha 700 plants
Oleria	5. 0.25 ha 650 plants

**FEW 25% (550 PLANTS) PB3**

Matipo	Total- 0.87 ha -Path of 0.07ha
Mahoe	-2/3 from zone 4-5 and 1/3 from
Totara,	zone 1-3
Tauhino,	
Cabbage trees,	2200 plants with 10% buffer
Kowhai	
Manuka	
Ribbonwood	
Pohuehue	
Swamp flax	

**TUKITUKI: HUNT WETLAND PLANTING PLANS**

In this example, a comprehensive list of suitable plants was established. This is because of the high visibility from the road and is accessible for closer inspection. The DairyNZ Riparian Planting tool was utilised to establish the area of each zone the number of plants required.



**Area planned 10,830 m2**

Dry Zones	3,720
Kahikatea	1,220
Damp	3,520
Boggy	2,370

The appropriate spacings were then calculated using a tool found on Coastal Restoration Trust's website.

This information was collated into a plant order spreadsheet (see below). Which we sent out to preferred suppliers of native plants for pricing and sourcing.

Ref	Botanical name	Local name	Plant Structure	Spacing	Plants to be used in Specific Area				% of Area				Boggy	Damp	Dry	Kahik	TOTAL	ORDER
					Boggy	Damp	Dry	Kahik	% Boggy	% Damp	% Dry	Kahik						
7	<i>Austraderia fulvida</i>	toetoe	Grass	1		X	X			2	5			85	216		301	300
8	<i>Austraderia toetoe</i>	toetoe	Grass	1	X	X			3	3			81	121		202	200	
13	<i>Carex comans</i>		Grass	1	X	X			2	3			55	121		176	200	
14	<i>Carex geminata</i>	Rautahi	Grass	1	X				4				120			120	120	
16	<i>Carex secta</i>	Purei, makura, Pukio	Grass	1	X				5				139			139	150	
19	<i>Carex virgata</i>	Purei	Grass	1	X	X	X		2	2	3		55	79	131	265	275	
29	<i>Coprosma propinqua</i>	mingimingi	Shrub	2		X	X			3	4		31	42		73	75	
31	<i>Coprosma rhamnoides</i>	mingimingi	Shrub	1.5		X	X			2	7		35	132		167	175	
32	<i>Coprosma rigida</i>		Shrub	2		X	X			3	3		31	31		62	75	
33	<i>Coprosma robusta</i>	karamu	Tree	2		X	X			3	5		30	54		84	75	
34	<i>Coprosma tenuicaulis</i>	hukihuki	Shrub	2	X	X			7	2			48	21		69	75	
35	<i>Cordyline australis</i>	ti-kouka	Tree	2		X				8			81			81	100	
43	<i>Cyperus ustulatus</i>	coastal cutty grass	Grass	1	X				4				109			109	120	
44	<i>Dacrydium dacrydioides</i>	kahikatea	Tree	4				X				100			88	88	100	
46	<i>Dianella nigra</i>	Turutu	Grass	1		X				5			200			200	200	
48	<i>Dodonaea viscosa</i>	akeake (Green)	Shrub	2		X	X			2	7		21	75		96	100	
52	<i>Eleocharis sphacelata</i>	kutakuta	Grass	1	X				4				109			109	120	
64	<i>Hebe stricta</i>	North Island koromiko	Shrub	1			X				10			433		433	450	
65	<i>Hedycarya arborea</i>	Porokaiwhiri	Tree	3		X				7			31			31	35	
67	<i>Hoheria sextylosa</i>	houhere	Tree	3		X	X			4	6		18	29		47	50	
70	<i>Juncus kraussii</i> var. <i>australis</i>		Grass	1	X				5				136			136	150	
73	<i>Kunzea robusta</i>	kanuka	Tree	3	X	X	X		3	3	6		9	13	28	50	50	
74	<i>Laurelia novae-zelandiae</i>	Pukatea	Tree	4	X				12				20			20	25	
75	<i>Leptospermum scoparium</i>	manuka	Tree	3	X	X	X		3	3	9		10	13	43	66	75	
76	<i>Leucopogon fasciculatus</i>	Mingimingi	Shrub	2		X	X			2	3		17	30		47	50	
87	<i>Meliccytus ramiflorus</i>	mahoe	Tree	3	X	X	X		5	3	3		15	13	15	43	50	
95	<i>Myrsine australis</i>	Mapou	Tree	2		X	X			4	3		41	33		74	75	
104	<i>Phormium tenax</i>	harakeke	Herbs	2	X	X			35	25			236	254		490	550	
107	<i>Pittosporum eugenioloides</i>	Tarata	Tree	3			X				8			38		38	50	
109	<i>Pittosporum ralphii</i>	Ralph's karo	Shrub	3		X	X			2	3		9	14		23	25	
110	<i>Pittosporum tenuifolium</i>	Kohuhu	Tree	3		X	X			5	3		22	14		36	50	
118	<i>Pseudopanax arboreus</i>	whauwhaupaku	Tree	3			X				5			23		23	35	
127	<i>Sophora tetraptera</i>	large-leaved kowhai	Tree	3			X				7			33		33	50	
130	<i>Syzygium maire</i>	Swamp maire	Tree	3	X	X			6	4			18	18		36	35	
									100	100	100	100	1160	1305	1414	88	3967	4265

HOT SPOT KARAMU PLANTING PLANS

16-50 BROOKVALE WETLAND, MANGATERETERE STREAM

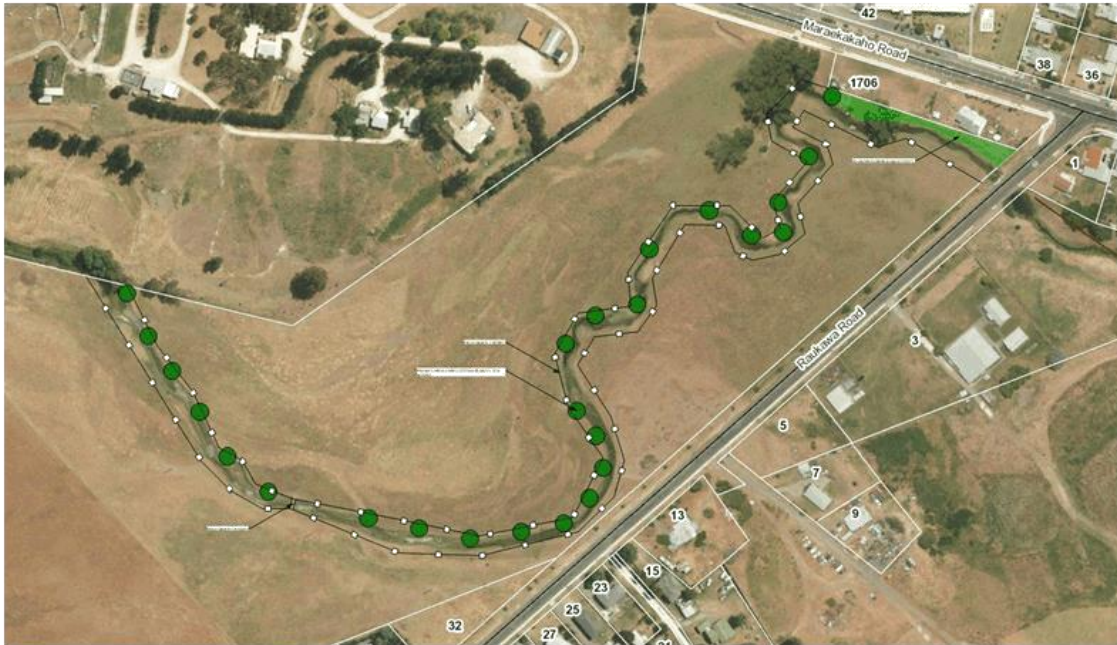


06-00 OPAKA, KARAMŪ-CLIVE RIVER





36-00 BRIDGE PA, KAREWAREWA-PARITUA STREAM



40-00 KAHURĀNAKI STREAM, TE HAUKE





**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: SIX MONTHLY PUBLIC TRANSPORT UPDATE**

**Item 11**

**Reason for Report**

1. This report provides the Committee with an update on Council's public transport operations.

**Napier-Hastings Bus Service General Information**

2. Napier Library has shifted to the MTG building. As many of our bus passengers use the library, we have worked with Napier City Council to establish a new bus stop near the library entrance and to publicise how to transfer from other routes for free, in order to access the library. The change seems to have run smoothly, with no complaints from passengers.
3. At the request of residents in Summerset Napier (in Greenmeadows), we are trialing the extension of Route 13 services to service the retirement village between 9am and 3pm. An informal bus stop has been established by Napier City Council, and patronage has been very encouraging. As the extension only operates off-peak, it adds little extra distance and is at minimal cost.
4. Bus services between Napier and Hastings continue to struggle with keeping to time due to roadworks and peak-time congestion in Hastings. This is an issue that may need a permanent solution, so we will investigate this through the review of the Regional Public Transport Plan. During February and March we place an extra bus into the fleet to run some overload services and help keep the scheduled services running to time.
5. As school children are a significant passenger group, we are running a campaign during February on how to get to school by GoBay bus service. Fliers are available on our website outlining the best services to take to each of the secondary schools from various parts of Hawke's Bay, and this has been accompanied by radio advertising and Facebook posts.

**District Health Board Travel Scheme**

6. Following the success of its trial staff bus discount scheme, the District Health Board (DHB) has now further discounted fares for its staff in order to encourage travel behaviour change and reduce parking pressure at the hospital. This change took place on 1 February 2018 and we are hopeful that there will be a further increase on the approximately 500 staff trips taken each month. The patient travel scheme continues to be very successful, with a 100% increase in bus use over the last year.

**New Bus Ticketing System**

7. We are entering the final stages of implementation of a new bus ticketing system, as part of a consortium of nine regional councils. The new system will replace an ageing system with ticketing machines that are past the end of their useful lives, frequently break down and provide limited information.
8. The new system will provide accurate information about origin and destination of passengers. Customers will be able to top up smartcards online and this will considerably reduce the amount of cash carried on the buses. Eligibility for concession fares will be determined when smartcards are issued, removing the need for the driver to check eligibility each time the concession passenger travels, thereby improving loading times.
9. The changes will require a significant lead-in time with plenty of public information, to ensure that passengers are able to transition easily to the new system. As our system

will not go live until 6 August and after six other councils, there will be time to learn from any unanticipated issues experienced by the other regions.

### Review of Regional Public Transport Plan

10. We have commenced reviewing the Regional Public Transport Plan with a review of requests received for new public transport services or improvements. Issues such as late running on the Route 12 services and some minor policy changes will also be considered, and a revised draft will be brought to Council for consideration.

### Bus Passenger Trips

11. Diagram 1 shows monthly bus passenger trips for the years 2012-13 to 2017-18. Bus numbers are down by 2% for the year to date. Decreases are noticeable on
- 11.1. Route 12 (Napier–Hastings-Napier via EIT and Pakowhai). These are the services which are struggling to keep to time.
  - 11.2. Route 14 ( Napier- Maraenui- Onekawa-Napier)
  - 11.3. Route 15 ( Napier –Westshore-Bayview-Napier )
  - 11.4. Route 20 ( Hastings-Flaxmere-Hastings)
  - 11.5. Route 21 ( Hastings-Havelock Nth –Hastings)
12. However, some services are growing well. There are significant increases in patronage on
- 12.1. Route 10 – Express service Napier-Hastings via Taradale (40% increase on last year)
  - 12.2. Route 11 - Express Havelock North—Napier via Hastings and Clive (22% increase).
  - 12.3. Route 16a (Hastings-Camberley-Raureka)
  - 12.4. Route 13 – Napier- Tamatea- Taradale
  - 12.5. Route 17 – Hastings-Parkvale-Akina

**Diagram 1 – Monthly Passenger Trips to December 2012-13 to 2017-18**

	Jul	Aug	Sep	Oct	Nov	Dec	Total
<b>2012-13</b>	59,275	74,493	61,847	60,530	64,913	46,029	<b>367,087</b>
<b>2013-14</b>	64,869	78,729	69,564	63,807	67,784	50,219	<b>394,972</b>
<b>2014-15</b>	64,349	73,204	68,927	62,049	64,088	48,558	<b>381,175</b>
<b>2015-16</b>	59,690	67,216	62,415	56,548	58,647	44,812	<b>349,328</b>
<b>2016-17</b>	52,069	67,946	58,772	53,911	60,933	43,168	<b>336,799</b>
<b>2017-18</b>	47,342	68,868	62,617	49,945	61,351	39,666	<b>329,789</b>

### Bus Service Costs

13. The following diagram shows the net cost (after fares and excluding GST) of operating the goBay bus service for the six months to December for 2012-13 to 2017-18.

**Diagram 3 – Six Month Net Cost (ex GST)**

Year	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
<b>2012-13</b>	\$224,406	\$224,406	\$224,406	\$224,406	\$224,406	\$224,406	<b>\$1,346,436</b>
<b>2013-14</b>	\$186,170	\$278,969	\$182,220	\$187,613	\$302,615	\$207,605	<b>\$1,345,192</b>
<b>2014-15</b>	\$168,720	\$157,262	\$264,227	\$174,153	\$141,819	\$255,647	<b>\$1,161,828</b>
<b>2015-16</b>	\$142,779	\$189,698	\$213,309	\$157,298	\$158,061	\$249,914	<b>\$1,111,059</b>
<b>2016-17</b>	\$154,602	\$138,772	\$157,040	\$176,475	\$163,647	\$197,234	<b>\$987,771</b>
<b>2017-18</b>	\$184,246	\$175,294	\$166,673	\$182,945	\$183,161	\$200,188	<b>\$1,092,508</b>

*51% of this cost is met by the New Zealand Transport Agency).*

14. We are now into the second year of operating the new contract with GoBus. Although still well within budget, indexation payments and lower fare revenue are responsible for

the increase in net cost for the year to date. We are now paying about 2.5% of the gross contract cost in indexation each quarter, mainly due to labour and fuel cost increases.

### Fare Recovery

15. Fare recovery is the portion of the total cost of the service that is covered by fares (including SuperGold payments from central government). The fare recovery rate is affected by the cost of the contract, including indexation, and the amount of revenue received from passengers and other sources.

**Diagram 4– Fare Recovery Rate – 2012-13 to 2017-18.**

<b>2012-13</b>	34.26%
<b>2013-14</b>	38.24%
<b>2014-15</b>	38.94%
<b>2015-16</b>	37.78%
<b>2016-17</b>	38.49%
<b>2017-18</b>	37.51% (YTD)

### Total Mobility

16. The following tables compare the number of Total Mobility(TM) trips made for the year to date over the last five years, and the corresponding costs (excl. GST).
17. The number of TM trips taken for the year to date is fairly consistent with last year and showing a longer-term trend for growth. This is to be expected, as our population is not only increasing but also ageing at a faster rate than previously predicted.

**Diagram 5 – Number of Total Mobility Trips to December for 2012-13 to 2017-18**

Year	Jul	Aug	Sep	Oct	Nov	Dec	Total YTD
<b>2012-13</b>	6,753	6,839	6,471	7,256	6,925	6,447	40,691
<b>2013-14</b>	7,401	6,804	6,611	7,658	7,365	7,185	43,024
<b>2014-15</b>	8,320	7,950	7,677	8,267	7,701	7,948	47,863
<b>2015-16</b>	7,949	7,219	8,186	7,708	7,876	7,974	46,912
<b>2016-17</b>	7,904	8,827	7,756	7,525	8,728	8,028	48,768
<b>2017-18</b>	8,250	8,607	8,090	7,732	8,397	7,122	48,198

**Diagram 6 – Total Mobility Cost (\$ excl GST) 2012-13 to 2017-18**

*(60% of this cost is met by the New Zealand Transport Agency)*

Year	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
<b>2012-13</b>	\$44,451	\$44,877	\$43,241	\$46,217	\$45,383	\$39,881	<b>\$264,050</b>
<b>2013-14</b>	\$49,274	\$46,153	\$43,965	\$50,189	\$47,744	\$46,968	<b>\$284,293</b>
<b>2014-15</b>	\$55,780	\$53,489	\$51,223	\$54,492	\$53,591	\$49,973	<b>\$318,548</b>
<b>2015-16</b>	\$50,877	\$46,255	\$52,340	\$48,692	\$51,546	\$50,992	<b>\$300,702</b>
<b>2016-17</b>	\$51,904	\$56,536	\$49,607	\$50,179	\$58,273	\$49,239	<b>\$315,738</b>
<b>2017-18</b>	\$58,041	\$58,047	\$55,477	\$52,546	\$59,020	\$51,360	<b>\$334,491</b>

### Recommendation

That the Environment and Services Committee receives and notes the **‘Six Monthly Public Transport Update’** staff report

**Item 11**

**Authored by:**

**Anne Redgrave  
TRANSPORT MANAGER**

**Approved by:**

**Liz Lambert  
GROUP MANAGER EXTERNAL  
RELATIONS**

**Attachment/s**

**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: FEBRUARY 2018 OPERATIONAL ACTIVITIES UPDATE**

**Item 14**

**Reason for Report**

1. To provide an update (attached) on the activities of Council's Regulation and Operations teams to the Environment and Services Committee.
2. There are two parts to the information provided on resource consent matters.
  - 2.1. The first shows the current significant consents that are at various processing stages.
  - 2.2. The second provides a list of water permits that have been issued/replaced across the Heretaunga Plains since 18 August 2017. This was the effective date of the interim management approach set at the 13 September 2017 E&S Committee meeting.
    - 2.2.1. Five new water permits have been issued, another two have been issued with changes increasing the amount of water allocated. In the case of the five new consents these were all considered to fall within the guidance provided by Council in 10 and 11 of the Council resolution. That is, they were received by Council prior to 18 August 2018 or were subject to discussions with Council prior to this date and which the applicant demonstrated has involved a reasonable capital or tangible investment.
    - 2.2.2. In the case of the two changes, these involved increases in the 28 day volumes and the fixing of annual volumes where these did not exist before.
    - 2.2.3. The remaining 39 water permits are changes or replacements which involve no increase in water.
    - 2.2.4. The total extra water allocated amounts to 517,986 m<sup>3</sup>/yr. We are aware of at least three more new resource consent applications in process or to be lodged in the future.

**Decision Making Process**

3. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

**Recommendation**

That the Environment & Services Committee receives the ***“Operational Activities Update”*** staff report.

**Authored by:**

**Gary Clode**  
**MANAGER REGIONAL ASSETS**

**Malcolm Miller**  
**MANAGER CONSENTS**

**Dr Stephen Swabey**  
**MANAGER SCIENCE**

**Wayne Wright**  
**MANAGER RESOURCE USE**

**Approved by:**

**Graeme Hansen**  
**GROUP MANAGER ASSET**

**Liz Lambert**  
**GROUP MANAGER EXTERNAL**

**MANAGEMENT**

**RELATIONS**

Iain Maxwell  
**GROUP MANAGER RESOURCE  
MANAGEMENT**

**Attachment/s**

- [↓1](#) February 2018 Operational Activities Update
- [↓2](#) February 2018 Farm Environmental Plans Update



## Cross Sectional Operational Projects of Significance

Project	Timeline	Narrative update	Status
Flood Control and Drainage Schemes Asset Management Review	To be completed end of Dec 2017.	HPFCS and Upper Tukituki AMP, Policy and 30 Year strategy review completed	Complete
Clive River Sediment	Initial analysis to be completed in July.	Completed. Dredging programmed for 2019-20	Complete
Coastal Monitoring	Completed	An underwater drone has been acquired by Environmental Science. Initial testing has identified its utility in examining the seafloor.	Ongoing
Waikopiro air curtain	Started September 2017	Trials of the air curtain system for mixing stratified lakes have proceeded well at Waikopiro, but some unpredicted complexity has caused oxygen depletion and a fish kill in January 2018. This will require careful ongoing monitoring.	Ongoing
Wetland monitoring	February 2018	A new state of the environment monitoring programme for wetlands has started	Ongoing
Suspended sediment monitoring in rivers	February 2018	A new programme monitoring suspended sediment in rivers, in part to help calibrate sediment erosion maps has commenced	Ongoing
Review of Environment Monitoring Networks	September 2017 – to February 2018	The review of environment monitoring networks has produced a draft report.	Due March 2018
TANK groundwater and surface water modelling	To be completed by May 2018	The models are now being used by the TANK Group to model scenarios for water allocation and mitigation of effects	Ongoing
Westshore Re-nourishment Contract	Start 24 October end 21 November	Project completed	Completed
Karamu Stream realignment and Hawea Park	Earthworks shaping to be substantially complete by June 2018	Karamu realignment complete. Ground shaping and old channel infilling underway.	Ongoing
Karamu Stream bank repair	August to November 2017	Completed	Completed
Tangoio Marae Flood protection	Sept/ Oct	Initial modelling etc completed. Further work requested	Ongoing
Gravel Consents	June 2018	Consents lodged, peer reviewed and more information request under section 92 RMA. Gathering this information at present.	Ongoing
Coastal Strategy Project	February 2018	Northern and Southern panel process now complete for stage 3. Final Joint Committee and Council meeting programmed for February and March 2018.	Stage 3 complete by end of March 2018
Whakaki Lake improvements		Weir to control lake levels designed awaiting landowner approval. Testing for silt removal to land programmed to start February	Awaiting agreement from hapu.
Regional Pest Management Plan Review	Align with LTP process	The proposed Regional Pest Management Plan is out for public consultation.	
Public Use of Rivers Review	Project brief developed late 2016. Aim to complete initial report by October 2017.	Initial report draft complete and awaiting review. Includes primary discussion document covering Heretaunga Plains Scheme River Corridors. Draft concept plan completed for Ngaruroro River Corridor.	Final review required by HBRC internal working group & HBRC Exec

Project	Timeline	Narrative update	Status
Tutira Regional Park Post Pine Forest Harvest Plan	Aim to complete by June 2018	Series of workshops with the working group completed. Composite planting plan agreed to. Business case to be developed for composite option	Awaiting business case development. Programmed for March – May 2018
Tutira Mai Nga Iwi project	2016-2018	Winter tree clearing and planting programme completed. Governance group meetings occurring regularly.	Next governance group meeting scheduled February 2018.
Waipatiki Beach Holiday Park	Ongoing	2017-18 work programme ongoing: Understanding owner / lessee responsibilities. Understanding local authority responsibilities and developing constructive working relationships between owners / LA's / Lessee / neighbours. Establishing and attending to priorities to meet health and safety requirements (water supply, sewerage, hot water heating, building maintenance requirements). Developing multi-year work programme to bring the campground complex up to a satisfactory standard that meets local authority and DHB building code and H&S requirements. Establishing funding requirements. Campground lease to be reviewed / re-drafted. Landscape plan to be drafted.	2017-18 budget spent. Focus on prioritising 2018-19 work programme.
Farm Plans		See separate attachments	ongoing
Cape to City	To be completed by December 2019	An application to Predator Free NZ 2050 has been submitted to fund a Predator free Hawkes Bay project completing around 200,000 ha of predator control over eight years.	

### Compliance/Resource Use Activities of Significance

Location and activity	Stage of processing	Narrative update
CHBDC – wastewater	CHBDC has had independent reports prepared	Independent Reports recommended that options be found that do not involve applying band aid solutions to the existing infrastructure. CHBDC is currently investigating options and funding and keeping HBRC abreast of all developments. A working party is being established by CHBDC to look at long-term solutions, and is scheduled to begin its work in April, on a timeframe faster than originally envisaged by the Court-ordered review.
Municipal Resource Consent Monitoring Audit by Crowe Horwath	Under way	Auditor will visit during the week of 19 February to conduct Audit. Auditor has been provided with documentation to assist.

## What's on the Books Update Report – Consent Appeals/ Notification/Large Processes

Updated – 9 February 2018

Consent IDs	Applicant	Location	Purpose	Lead Planner	Type	Status Update
DP160229A	The Te Mata Mushroom Company Limited	174 – 176 Brookvale Road, Havelock North	New Consent to discharge contaminants into the air from a composting and mushroom growing operation	PB	Publically Notified Air Discharge	25-01-18 Currently in discussion with HDC and looking at alternative sites for the operation. Phase 1 to move the composting. Possible relocation to CHB 19-Jun-2017 – On Hold pending lodgement of required HDC application 12-Jun-2017 – Currently 322 Submissions received, Submissions closed 13-May-2017 - Public notification in paper + Direct Notification to approx. 800 owner/occupiers in a 800m radius of the site 26-Jan-2017 – s92 on hold awaiting further information – expect end of March 20-Dec-2016 – Application Lodged
LU170121E CL170122E LU170123E CL170124E LU170125E CL170126E	Hawke's Bay Regional Council	Ngaruroro, Tukituki and Tutaekuri River	New Consent to remove gravel and undertake other earthworks within the Ngaruroro, Tukituki and Tutaekuri rivers	SE	Possibly Notified	Extended s 92 to end of May 2018 Nov -17 -Applications being reviewed 30-Mar-17 Independent Processing Planner – Consultant Sven Exeter - MottMac appointed 30-Mar-17 - 1st Application Lodged, 19-Oct-17 2 more lodged, one more expected
Various	Various	Ruataniwha basin	Applications to take and offset Tranche 2 Ruataniwha groundwater	PB	Possibly Notified	25-01-18 Meeting with applicants in February 8 applications received in the 'queue' for the Tranche two Ruataniwha groundwater. Each on hold for various reasons at applicants request/further information

Consent IDs	Applicant	Location	Purpose	Lead Planner	Type	Status Update
CL170267O CD170262W	Pan Pac Forest Products Limited	1161 State Highway 2, Whirinaki	Replacement of consent CD960330We and CD160286W to discharge into the Coastal Marine Area	RO	Direct referral requested	Jan/ Feb 2018 – Pre-mediation meetings arranged. Env. Court mediation proposed for March 2018 End Nov-17 – Officers report due 1-Sep-17 - Direct referral requested – Council agreed 22-Aug-17 - 13 submissions received 25-Jul-17 - Publically notified 30-Jun-17 -Replacement application lodged
CL170304C	Hastings District Council	Clifton	New Consent to construct a limestone boulder rock rip rap	GS	Publically Notified	Sole submitter currently in discussions with HDC. March – possible hearing date? 15-12-17 – Submissions Closed 18- Nov – 17 – Notified 30-Aug-17 – On Hold awaiting further information 8-Aug-17 – Application Lodged
LU170336V	Bayly Trust	226 Okare Road, Wairoa	New Consent to clear 433ha of vegetation	SE	Possibly Notified	30-01-18 - S.91 Information due 14-Sep-17 – On Hold Information requested due October 25-Aug-17 – Application Lodged, Consultant Sven Exeter MottMac appointed
CL180008C	Port of Napier Limited	818 Breakwater Road, Napier	Wharf extension	RO	Possibly notified	24/01/18 – Application Received. Currently being reviewed. 10-01-18 – Application lodged Pre/draft application expected early 2018 Application lodgement expected October 2017, Likely to be publically notified

Objections						
WP030710Tb	Mr Apple New Zealand Limited	1231 Tikokino Road, Tikokino	to take water to irrigate and frost protect horticulture.	PB	S357 Objection to conditions	On hold at applicants request- assessing their options 18-Nov-15 - Objection Received - Objects to annual volume limit (664,869m3)

### Water permits issued / replaced on the Heretaunga Plains since 18 August 2017

#### Key

new	
change	Some increase
change or replace	No increase

Decision DATE	Expire DATE	Consent ID	Max Rate (l/s)	Max Weekly (m3)	Max Monthly (m3)	Max 28day (m3)	Max Annual (m3)	Property Address	Purpose
20/09/17	31/05/2023	WP170338T	40	0	0	21140	81480	194 Rosser Road, Pakipaki, Hastings	to take and use water from well no. 15762 (150 mm diameter) to irrigate 14 hectares of pasture and process crops
12/10/17	31/05/2037	WP170342T	14.5	4900	0	0	241000	1 Apollo Express Way, Whakatu	to take water from well no. 16545 (100 mm diameter) and 16546 (300 mm diameter) to use in a food and beverage processing factory
21/11/17	31/05/2027	WP170433T	45	0	0	43440	157440	190 Waverley Road, Napier	to take and use water from well no. 16696 (150 mm diameter) to irrigate 23 hectares of orchard
22/11/17	31/05/2027	WP170371T	15	812	0	0	15428	143 and 145 Powdrell Road, Meeanee	to take and use water from well no. 3574 (100 mm diameter) to irrigate and to frost protect 3.2 hectares of orchard
19/12/17	1/05/2018	WP170574T	20	0	0	5040	22638	24 Ulyatt Road, Napier	to take water from well no. 846 (100 mm diameter) to irrigate 4.2 hectares of process crops
29/08/17	31/05/2023	WP030023Ta	77	0	0	24292	79365	Stock Road, Hastings	to take and use water from well no.'s 8265 and 15102 (100 mm diameter) to irrigate and to frost protect 16.5 ha of pip fruit, and for spray filling

Attachment 1

Item 14

Decision DATE	Expire DATE	Consent ID	Max Rate (l/s)	Max Weekly (m3)	Max Monthly (m3)	Max 28day (m3)	Max Annual (m3)	Property Address	Purpose
07/09/17	31/05/2023	WP010049Ta	23	0	0	18000	58860	112 Ruahapia Road, Hastings	to take and use water from well no. 646 (100 mm diameter) to irrigate 12 hectares of pipfruit and for spray filling
14/09/17	31/05/2023	WP010117Tb	25	3181	0	0	32374	23 Bennett Road, Waipatu, Hastings	to take and use water from well no. 37 (100 mm diameter) to irrigate 6.26 hectares of process crops, stone fruit and pip fruit and for spray fill and frost protection
26/09/17	31/05/2019	WP990053Ta	12.5	2475	0	0	38535	173a Henderson Road, Hastings	to take and use water from well no. 16690 (150 mm diameter) to irrigate and to frost protect 9.5 ha of pip fruit, stone fruit and process crops
27/09/17	31/05/2020	WP090087Ta	25	0	0	9700	35370	1590 Pakowhai Road, Hastings	to take and use water from well no. 724 (100 mm diameter) to irrigate 6 hectares of process crops
09/10/17	31/05/2025	WP040470Td	56	0	0	52000	235800	Farndon Road, Clive	to take water from well no. 2833 (100 mm diameter), well no. 15206 (150 mm diameter) and the Farndon Drain to irrigate 40 hectares of crops
09/10/17	31/05/2023	WP100298Tb	40	11641	0	0	196125	129 Rosser Road, Bridge Pa	to take and use water from well no. 15076, no. 15077 and well no. 15078 (100 mm diameter) and from well no. 16355 (150 mm diameter) to irrigate 42 hectares of orchard, crops and pasture and for sprayfill
10/10/17	31/05/2027	WP060594Ta	4.9	393	0	0	20436	Papakura Domain, Sandy Road, Meeanee	to take and use water from well no. 720 (100 mm diameter) to irrigate 1.2 hectares of nursery and gardens and to provide a potable supply to three clubrooms and Earth Garden buildings
10/10/17	31/05/2021	WP010392Ta	4.9	675	0	0	14464	33 St Andrews Road, Havelock North	to take water from well no. 2391 (100 mm diameter) to irrigate 2.5 hectares of horticulture
16/10/17	31/05/2019	WP980285Ta	20	0	0	40400	187000	78 Stock Road and 1389 Maraekakaho Road, Hastings	to take and use water from well no. 4044 (125 mm diameter) to irrigate 44 hectares of process crops
16/10/17	31/05/2021	WP000405Ta	30	0	0	20888	80138	Waipatu Settlement Road, Hastings	to take and use water from well no. 16694 (150 mm diameter) to irrigate 13.6 hectares of process crops, and for spray filling

Decision DATE	Expire DATE	Consent ID	Max Rate (l/s)	Max Weekly (m3)	Max Monthly (m3)	Max 28day (m3)	Max Annual (m3)	Property Address	Purpose
17/10/17	31/05/2027	WP070198Tc	50	0	0	25220	135107	70, 80, 90 Sandy Road and 403, 461, 525 Brookfields Road, Meeanee	to take and use water from well no's. 4986 (100 mm diameter) and 7780 (75 mm diameter) to irrigate 37 hectares of orchard and for spray filling purposes
31/10/17	31/05/2020	WP090064Ta	65.5	1950	0	0	28800	102 Morley Road, Tomoana, Hastings	to take and use water from well no. 4972 (200 mm diameter) to frost protect and irrigate 6.8 hectares of viticulture or pipfruit, and for spray filling
08/11/17	31/05/2019	WP980284Ta	15	0	0	10800	53800	344 Wilson Road, Hastings	to take and use water from well no. 4252 (150 mm diameter) to irrigate 10 hectares of orchard and for sprayfill and washdown
21/11/17	31/05/2023	WP120281Tb	18	1950	0	0	43200	76 School Road, Pukahu	to take and use water from well no. 1829 (100 mm diameter) to irrigate 8.3 hectares of pipfruit
21/11/17	31/05/2025	WP130336Tb	30	0	0	29316	131880	62b School Road and 41 Mill Road, Clive	to take and use water from well no. 1144 (150 mm diameter) and 1540 (150 mm diameter) to irrigate and to frost protect 29.6 ha of orchard, and for spray filling and building wash down use
22/11/17	31/05/2019	WP980316Ta	21.5	1870	0	0	25680	2561 State Highway 50, Hastings	to take and use water from well no. 1191 (150 mm diameter) to irrigate 8 hectares of viticulture and frost protect 0.8 hectares of viticulture
22/11/17	31/05/2019	WP990063Ta	10	1875	0	0	40178	2119 State Highway 50, Roy's Hill, Hastings	to take and use water from well no. 16698 (150 mm diameter) to irrigate 9.87 hectares of viticulture
22/11/17	31/05/2025	WP040451Tb	25	0	0	11520	50325	382 Farndon Road, Clive	to take and use water from well no. 16667 (150 mm diameter) to irrigate 5 hectares of process crops and 2.5 hectares of pasture and to supply potable water to a Temple
27/11/17	31/05/2019	WP070043Tb	120	0	0	36960	137280	Chatham Road, Hastings	to take and use water from well nos. 16245 (300 mm diameter) and 5600 (150 mm diameter) to irrigate, fertigate and frost protect 29.4 hectares of process crops and blueberries

Decision DATE	Expire DATE	Consent ID	Max Rate (l/s)	Max Weekly (m3)	Max Monthly (m3)	Max 28day (m3)	Max Annual (m3)	Property Address	Purpose
28/11/17	31/05/2023	WP030270Tb	26	0	0	7893	32175	Irongate Road, Hastings	to take and use water from well no. 9067 (100 mm diameter) to irrigate 5 hectares of process crops
06/12/17	31/05/2023	WP030062Tc	30	0	0	35745	147950	83 Mutiny Road, Pakipaki, Hastings	to take and use water from well no. 16674 (200 mm diameter) to irrigate 27.5 hectares of market garden and process crops and for sprayfill
14/12/17	31/05/2027	WP060597Ta	28	0	0	8604	33010	15 McLeod Road, Awatoto	to take water from well no. 2294 (100mm diameter) to irrigate 5.6 hectares of process crops
19/12/17	31/05/2023	WP170024Ta	50	0	0	30368	114144	57 and 122 Irongate Road, Twyford, Hastings	to take and use water from well no. 16633 (200 mm diameter) to irrigate 19.2 hectares of process crops and for sprayfill
10/01/18	31/05/2020	WP050056Ta	30	18144	0	0	946080	State Highway 2, Awatoto, Napier	to take water from well nos. 5076 (100 mm diameter) and 16720 (125 mm diameter) to supply an artificial wetland
15/01/18	31/05/2022	WP060358Ta	15	0	0	12788	63240	304 Te Mata Mangateretere Road, Havelock North	to take and use water from well no. 16688 (150 mm diameter) to irrigate 12 hectares of pipfruit and for sprayfill
15/01/18	31/05/2021	WP000479Tb	53.25	0	0	67521	230402	Corner of St Georges and Crosses Roads, Havelock North	to take and use water from well no's. 4060 and 1320 (150 mm diameters), 1747 (100 mm diameter) and 16347 (200 mm diameter) to irrigate 42 hectares of pipfruit, and for spray fill and washdown
25/01/18	31/05/2019	WP180003T	13	1325	0	0	23240	172 Ngatarawa Road, Bridge Pa, Hastings	to take and use water from well no. 1349 (150 mm diameter) to irrigate 4 hectares of pasture
25/01/18	31/05/2027	WP060696Tb	18	0	0	7680	28800	134 King Road, Meeanee, Napier	to take and use water from well no. 15376 (100 mm diameter) to irrigate 3 hectares of market garden and 3 hectares of apples and stonefruit
25/01/18	31/05/2019	WP980309Ta	13	1325	0	0	23530	172 Ngatarawa Road, Bridge Pa, Hastings	to take and use water from well no. 1349 (150 mm diameter) to irrigate 4.05 hectares of pasture

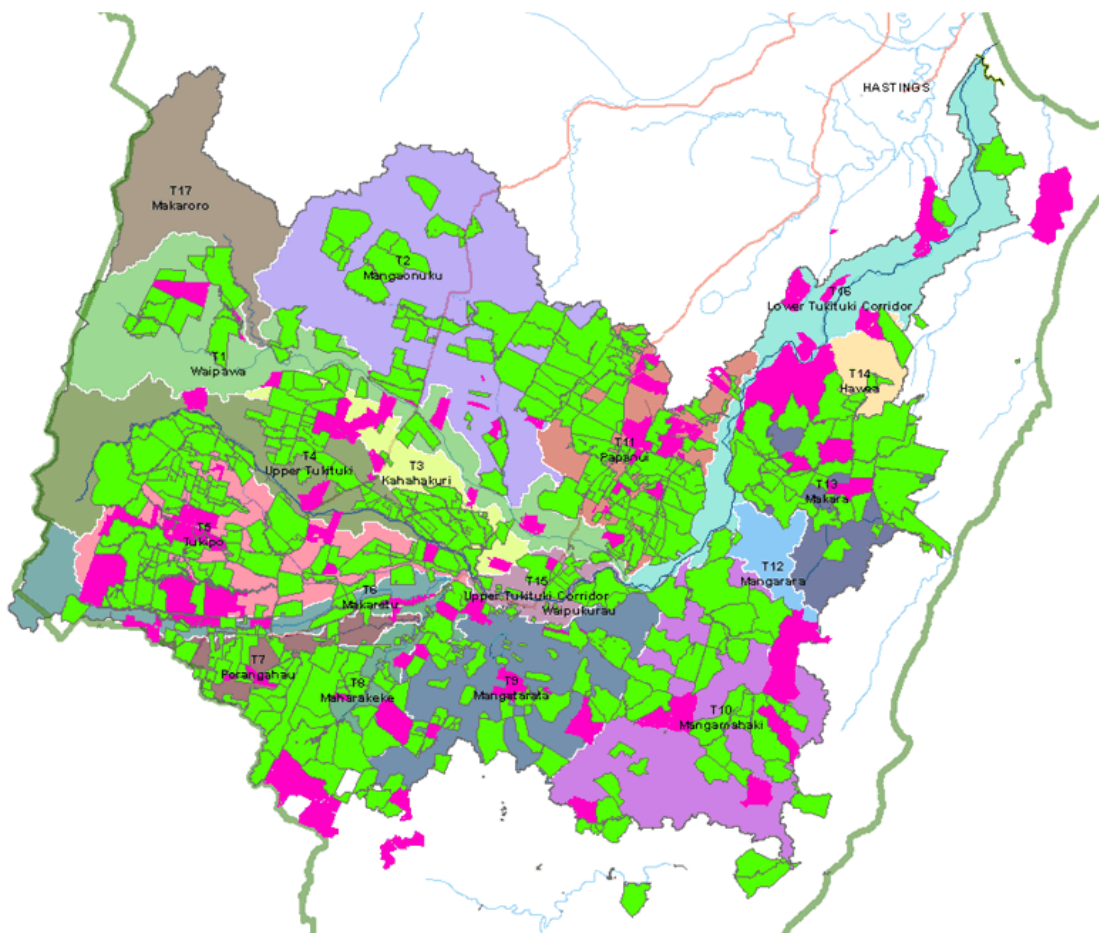


Decision DATE	Expire DATE	Consent ID	Max Rate (l/s)	Max Weekly (m3)	Max Monthly (m3)	Max 28day (m3)	Max Annual (m3)	Property Address	Purpose
29/01/18	31/05/2023	WP020389Tb	35	2721	0	0	41375	30 Tollemache Road East, Hastings	to take and use water from well no. 3056 (150 mm diameter) and well no. 15095 (150 mm diameter) to irrigate 9 hectares of orchard and to frost protect 6 hectares of orchard and for spray fill
29/01/18	31/05/2023	WP030013Ta	75	0	0	11036	59121	1342 Southland Road, Hastings	to take and use water from well no. 3302 (150 mm diameter), well no. 9060 (100 mm diameter) and well no. 4713 (100 mm diameter) to irrigate 15.3 hectares of pipfruit and for spray filling and washdown purposes
29/01/18	31/05/2023	WP020502Tb	7.5	0	0	1200	15600	Corner Irongate and Maraekakaho Roads, Hastings	to take and use water from well no. 16537 (100 mm diameter) to use for washing trucks, stock crates and horse floats
01/02/18	31/05/2023	WP020402Tb	121	0	0	17960	74497	175 Irongate Road, Hastings	To take and use water from well no. 1696 (150 mm diameter) and 1888 (250 diameter) to irrigate and frost protect 17.4 hectares of orchard and for sprayfill purposes
07/02/18	31/05/2019	WP990178Tb	32	17550	0	0	395340	State Highway 50 and Valley Road, Roy's Hill	to take water from well no. 15125 (250 mm diameter) to irrigate 107 hectares of viticulture and for potable supply, building supply, spray fill, wash down and use in a winery
07/02/18	31/05/2028	WP170540T	20	504	0	0	5376	343 Kereru Road, Maraekakaho	to take and use water from well no. 4189 (300mm diameter) to irrigate and to frost protect 2.4 hectares of viticulture
07/02/18	31/05/2026	WP050507Ta	28	0	0	11524	44212	204 Gilbertson Road, Pakowhai	to take and use water from well no. 2958 (150 mm diameter) to irrigate 7.5 hectares of crops
07/02/18	31/05/2028	WP170558T	17.5	5800	0	0	80600	302 Kereru Road, Mangatahi	to take and use water from well no. 2086 (300mm diameter) to irrigate 50 hectares of viticulture, and for spray fill and a supply of water to a building and potable supply
12/02/18	31/05/2019	WP100097Ta	16	1764	0	0	38950	Maraekakaho Road, Bridge Pa, Hastings	to take and use water from well no. 4175 (200 mm diameter) to irrigate 15 hectares of viticulture, and for spray fill and wash down

Decision DATE	Expire DATE	Consent ID	Max Rate (l/s)	Max Weekly (m3)	Max Monthly (m3)	Max 28day (m3)	Max Annual (m3)	Property Address	Purpose
12/02/18	31/05/2023	WP120214Ta	20	0	0	32040	99920	CWS - 1980 Maraekakaho Road, Bridge Pa	to take and use water from well no. 15461 (200 mm diameter) to irrigate 22 hectares of viticulture and to store in holding tanks for subsequent use in winery operations and a restaurant.
12/02/18	31/05/2024	WP080607Ta	8	2040	0	0	0	976 Matapiro Road, Matapiro	to take water from well no. 5880 to irrigate 15 hectares of viticulture

**Farm Environment Plan Update**

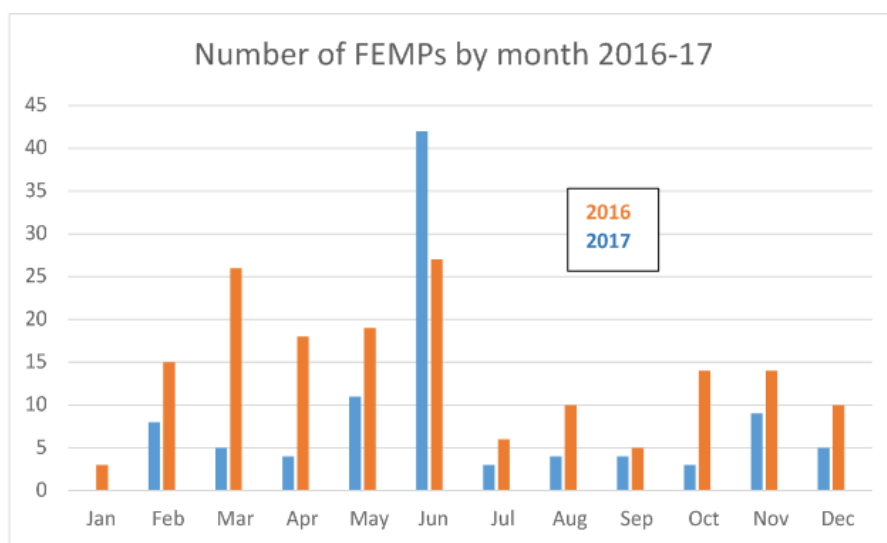
- As of 12 February 2018, 271 Farm Environmental Management Plans (FEMPs) have been completed and submitted to us. There are another 30 that are at various stages of completion as part of our FEMP Provider approval process. We now have 15 approved providers and another 7 at various stages in the approval process.
- The impetus of responsibility for obtaining FEMPs still outstanding is now largely a regulatory one and ownership of this process needs to shift to the regulatory team from now on.
- Land Management (LM) Staff have focussed their attention on the contact and incentivisation of landholders of larger properties in our priority sub-catchments (Papanui, Porangahau Stream, Maharakeke, Tukipo, Kahahakuri, Hawea, Makara and Mangamahaki). To date this equates to approximately a 51% (38-61% range) plan coverage of priority areas and a 23% (2.7-40.3% range) plan coverage of land area outside of priority areas. Currently with 24% of farm plans in we have 37% of the area of the Tukituki catchment under a FEMP. This is further shown below and highlights the fact we have had a degree of success to our activities for getting those plans completed. Properties labelled in green have completed their plan, pink is for plans in progress.



- The breakdown in land use of the FEMPs completed is –

Land-Use	Number of FEMPs
Cropping	5
Dairy	15
Deer	4
Sheep & Beef	241
Other (horticulture etc.)	6
	271

- The breakdown of FEMP's coming in by month for 2016 and 2017 does show the impact of the FEMP grant on plan numbers with those applying for grants having to complete their plans before the end of the financial year.



- LM Staff have also spent time examining options and opportunities for handling the large number of FEMP's required by small farmers in the Tukituki (see the table below). These farms are significant because they generally fall below the size considered as commercial units by the primary sector and are therefore not covered by their programs and schemes. They do however require a similar degree of effort and attention as landholders on large blocks. Following the completion of 50 FEMPs for small holders and an investigation of options by external consultants, options currently available for improving the efficiency and effectiveness of obtaining FEMPs from the small farmers is limited.

Farm size categories (ha)	Number of Farms (SHUID)
4 ha to 10 ha	208
10.01 – 20 ha	105
20.01 – 30 ha	71
30.01 – 40 ha	47
40.01 – 50 ha	42
50.01 – 60 ha	29
60.01 – 70 ha	20
70.01 – 80 ha	19
80.01 – 90 ha	30
90.01 – 100 ha	17
<b>Total farms</b>	<b>588</b>

- LM Staff are currently focussing on obtaining as many FEMPs from these small farmers as possible before the May 31 deadline. 8 small farmer information sessions, 5 small farmer FEMP workshops and 2 Waipawa office drop in days have been organised from late February through to early May. A significant advertising campaign is about to go out to get their attention on the need to have a plan.
- LM Staff in collaboration with the HBRC Comms team have put a significant effort into communicating to the catchments landholders on the need to have a farm plan. Below is the communication calendar for FEMPs for the last 3 years.

<b>2015</b>	Letter to all landowners in the Tukituki Catchment (about 1100 people) outlining the part they play in managing their land now and in the coming years. This included brochure on Nutrient Budget records & stock exclusion.		
	Presentation to farmers about PC6/stock exclusion/FEMPs etc. held from early May 2015 throughout the rest of the year at: Ashely Clinton, Elsthorpe, Takapau, OngaOnga, Te Awanga. Staff has also spent significant time liaising with farm intermediaries (accountants, banks, vets etc) and have attended in-store events with Barnes Mossman Turton's Farm Supply in Waipukurau.		
	Priority sub-catchment and FEMPs – Letter sent to all landowners in Tukipo, Kahahakuri, Porangahau, Maharakeke and Papanui over 100ha who had not completed a FEMP. 23 Dec 2015.		
<b>2016</b>	Priority sub-catchment science booklets (Tukipo, Porangahau/Maharakeke & Papanui Papanui Newsletter – approx. twice a year Here to Help Campaign one pager advertisement in CHB Mail – February x2, April, June, Aug, Nov Funding full cost FEMP (up to \$5000) – 11 grants NZ Farmer Kate Taylor – Environment plan identifies profit opportunities; 2 June 2016 Subsidy of FEMP (25% cost up to \$1000) – 17 subsidies Media Release – Tukituki Plan is gaining momentum 11 Aug 2016 Small block workshops (1x Takapau and 2x Waipawa); September 2016. 49 attendees. CHB Show October 2016 Priority sub-catchment issues and FEMPs – Letter sent to all landowners in Tukipo, Kahahakuri, Porangahau, Maharakeke and Papanui over 100ha who had not completed a FEMP. 7 Nov 2016.		
	<b>2017</b>	Last chance for subsidies letter sent to all landowners in priority sub-catchments above 100 ha. March 2017. Papanui newsletter- approx. twice a year Head off Your Farm Plan – 1 pager in CHB Mail 11 April 17 Central FM Radio Advertisement 3x billboards – Takapau Rd, Waipukurau, Brownriggs, north Drumpeel Rd and Otane Subsidy of FEMP (25% cost up to \$1000) – 86 subsidies Farm Plan Stories x4 –11 September 2017 Media release 5 <sup>th</sup> October – Farm Plan Focus in Central HB Small block letter to Lower Tukituki sub-catchment. 176 letters delivered resulting in 22 phone calls from these landowners. CHB Show October 2017 Advert run in CHB Mail – Act Today – Deadline May (week beginning 30 October). Letter to those who attended the small block workshops to get onto to the FEMP or submit a Low Intensity Checklist Confirmation form, November 2017.	
		<b>2018</b>	Article by Kate Taylor in the NZ Farmer <a href="https://www.stuff.co.nz/business/farming/100446292/fast-track-expansion-for-ashley-clinton-dairy-farmers-andy-and-robbie-hunt">https://www.stuff.co.nz/business/farming/100446292/fast-track-expansion-for-ashley-clinton-dairy-farmers-andy-and-robbie-hunt</a>



**HAWKE'S BAY REGIONAL COUNCIL**  
**ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: DISCUSSION OF ITEMS NOT ON THE AGENDA**

**Item 15**

**Reason for Report**

1. This document has been prepared to assist Committee Members to note the Items of Business Not on the Agenda to be discussed as determined earlier in Agenda Item 5.

1.1. **Urgent** items of Business (*supported by tabled CE or Chairman's report*)

	Item Name	Reason not on Agenda	Reason discussion cannot be delayed
1.			
2.			

1.2. **Minor** items (*for discussion only*)

Item	Topic	Councillor / Staff
1.		
2.		
3.		