Meeting of the Environment and Services Committee

Date: Wednesday 13 February 2019

Time: 9.00am

Venue: Council Chamber
Hawke's Bay Regional Council
159 Dalton Street
NAPIER

Agenda

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

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

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:

Annelie Roets
GOVERNANCE ADMINISTRATION ASSISTANT

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

⇩**1** Follow-ups from Previous Environment & Services Committee meetings

Follow-ups from Previous Environment & Services Committee Meetings

12 December 2018 Corporate & Strategic

	Follow-up item	Responsible	Status/Comment
1.	Re-present 14Nov18 item on TLA/HBRC & landowner obligations/ responsibilities maintenance and clean-up of waterways obligations with focus on preventative maintenance, particularly in relation to sedimentation	C Dolley	Re-focussed item on 13 February agenda.

14 November 2018

	Agenda item	Follow-up item	Responsible	Status/Comment
2.	Hotspots Environmental & Freshwater Improvement Funded Projects November 2018 Update	Work on collaborative approach with Napier City Council and Hastings District Council on mapping sediment characteristics	I Maxwell	Initial discussion held with NCC staff on greater collaboration in and around the Ahuriri Estuary. Staff workshop in mid-March to further develop this.

5 September 2018

	Agenda item	Follow-up item	Responsible	Status/Comment
3.	Forestry Slash Management	Staff to develop a proposal for HBRC to host a conference on forestry management and harvesting issues	E Lambert	This proposal has not been developed yet.
4.	September 2018 Operational Activities update	Distribute Point Analysis (soil stability) project final report summary to committee members	I Maxwell	The report is in the final review process and should be able to be provided to Councillors prior to the meeting via email.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

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

Reason for Report

1. Hawke's Bay Regional Council 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.*"

   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."

Recommendations

That the Environment and Services Committee accepts the following "Minor Items of Business Not on the Agenda" for discussion as Item 16:

Topic	Raised by

Leeanne Hooper
PRINCIPAL ADVISOR GOVERNANCE

James Palmer
CHIEF EXECUTIVE

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: CENTRAL HAWKE'S BAY WASTEWATER DISCHARGE UPDATE

Reason for Report

1. This is to inform the committee of the establishment of the Central Hawke's Bay Wastewater Treatment Plant Upgrade Community Reference Group and of the progress to date.

Background

2. Central Hawke's Bay District Council has established a reference group to enable a review of the Waipukurau and Waipawa treatment plants with the intention of improving the methods of treatment and discharge.
3. Non-compliance with existing discharge permits was the reason that HBRC sought and obtained an Enforcement Order from the Environment Court for the Waipawa treatment plant, and out of that process, the Court required that a review be undertaken of the Waipawa plant.
4. The Waipukurau treatment plant has also been experiencing non-compliance with the ammonia conditions. The Otane treatment plant has since been added to the review, as there may be opportunities to link this into solutions developed for the larger systems.
5. The group was initially made up of:
    5.1. community representatives Haana Wilcox, Clint Deckhard Michael Severinsen
    5.2. District councillors Ian Sharp and David Tennent
    5.3. CHB District Council staff Josh Lloyd, Karen Bothwell, Shane Kingston and Darren de Klerk
    5.4. and Regional Council staff Wayne Wright (Compliance Manager), Malcolm Miller (Consents Manager) and Tania Diack (Consents Planner).
    5.5. Hamish Lowe (LEI) and John Crawford (BECA) are providing technical support.
6. It was agreed at the fourth meeting that the representation on the group should be widened to include:
    6.1. trade waste/commercial business Rickie Carnie
    6.2. Youth Council, Grey Power, Fish and Game and farmers
    6.3. Otane Simon White
    6.4. Hapu – John Barry-Smith
    6.5. and a representative of each of Mataweka, Tapairu, Te Whatuiāpiti and Waipukurau marae.
7. The minutes of the November meeting, recorded that it has been difficult to get marae involvement, and so additional efforts have been made following the meeting to contact the marae and seek their representation on the working group.
8. The group has been appraised of the current state of the treatment plants and their performance. A preliminary review of the Waipawa plant was required by the Environment Court by December 2017 and has been provided to the group. This indicates that the Waipawa plant (without changes) will remain marginal at meeting flow and E. coli conditions and will fail to meet the ammonia conditions. Other conditions can be met, but this is qualified by the statement that this is providing "additional lamella, sand filter and UV capacity is installed to effectively treat the PWWF (peak wet weather

flow), or stormwater I&I is significantly reduced, so peak flows are within the hydraulic capacity of these tertiary treatment processes".

9. Some recommendations were made in this report, but the Reference Group is being asked to look afresh at all options for each of the communities and to and provide their view to the CHB Council on what they would like to see adopted. The group is still in the information gathering reporting phase.

10. At the previous meeting the group created a vision for the project. This is recorded as follows:

> *"Our effluent is treated in a sustainable way that creates a resource, protects our environment and continues to do so for generations to come"*

11. A fifth meeting was held on 5 February, where options were discussed and the technical staff will further assess and cost a reduced range of options and report on these to the next meeting.

Decision Making Process

12. 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 the ***"Central Hawke's Bay Wastewater Discharge Update"*** report.

Authored by:

Malcolm Miller
MANAGER CONSENTS

Wayne Wright
MANAGER COMPLIANCE

Approved by:

Liz Lambert
GROUP MANAGER REGULATION

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: MANAGEMENT OF PUBLIC USE OF RIVER BERM LANDS UPDATE

Reason for Report

1. This item provides the Committee with an update on progress with the management of public use of river berms within the Heretaunga Plains Flood Control and Drainage Scheme (Rivers).

Background

2. In December 2016, a paper "Review of use of Heretaunga Plains Scheme River Berm Land" was presented to the Environment and Services Committee advising of an investigation into Management of Public Use of River Berms within the Heretaunga Plains Flood Control and Drainage Scheme (Rivers), followed by an update to the 13 September 2017 meeting on investigations to understand and / or respond to:

   2.1. Perceived declining regional community tolerance over some aspects of river berm management, such as berm grazing.

   2.2. Increasing community level of service expectations as berm land has become both more accessible through higher public use such as cycle trails and more visible due to expressway developments.

   2.3. Pressures on Scheme land area to accommodate new activities and infrastructure such as horse trails, jet-ski ramps, carparks and sports grounds whilst not compromising flood protection services and the continued opportunity for existing public use and activity.

   2.4. Inappropriate public use and activity such as rubbish dumping, vehicle hooning, freedom camping and illegal activity.

   2.5. The need to consider the above in the context of multiple use opportunities such as flood control and drainage objectives, iwi aspirations, biodiversity and ecological enhancements.

   2.6. The need for a consistent and coordinated council approach to public use management within the Heretaunga Plains Flood Control and Drainage Scheme. A similar approach is being applied to high use sections of the Upper Tukituki rivers where public use conflict is occurring, as we experience increased user demand.

Progress Update

3. Following the last paper submitted to the Environment & Services Committee on 4 July 2018, the following documentation has been drafted and are under review;

   3.1. Ngaruroro development plan - has moved from "concept" to "detailed" draft document (issued on 6 November 2018). This is currently under review by the HBRC Open Spaces team.

   3.2. Public Use of Rivers Tutaekuri Concept Plan overview

   3.3. Public Use of Rivers Signage guidelines

   3.4. Public Use of Rivers Activity Overview

4. Widespread trials have been conducted on the Ngaruroro including hay bayling in areas above Chesterhope Bridge and increased planting (native) on the right bank above the SH2 bridge and Chesterhope Bridges. A portion of the right bank of the Ngaruroro has been retired between Fernhill Bridge and the river mouth and grazing has ceased here. Grazing continues in all other areas.

5. A wetland extension is in progress on the Lower Tūtaekuri Flood Plain (Waitangi Regional Park), and this land has been retired from grazing.
6. The section of the Lower Tukituki River below Black Bridge is also no longer grazed following consultation with the grazier.
7. A memorandum of understanding between HBRC, CHB Hawkes Bay Rotary River Pathways Trust and CHB Adult Riders Club has been drafted for the Tukituki River berms near Waipukurau. A proposed programme of works has been completed and the priorities contained within it will mark various gateways for the public use areas on this section of the Tukituki.
8. Presentations were given by specialist consultants Wayfinder to HBRC project team members on 21 November, 4 December and 11 December, outlining progress on the project and to discuss the way forward on Public Use of Rivers. Outcomes were the need to take into consideration community consultation, biodiversity, silt and gravel extraction, forestry and carbon credits opportunities.

What's next

9. Following this round of presentations design work is now on hold pending completion of the public consultation process. It is anticipated that the consultation process will take between 3-6 months to complete.
10. A key aspect of public consultation is Iwi Engagement. The HBRC project team's approach will be to meet individually with a number of Iwi Representatives, with support from a key representative.
11. A community hui is planned with various interest groups. This includes 4WD, NZ cycle trails, motorcross, horse riders, dog walkers, the local shooting club, Fish and Game, Forest and Bird, DOC amongst others.
12. An application has been made to include provision in the next Annual Plan for a permanent ranger staff position.

Decision Making Process

13. 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 "***Management of Public Use of River Berm Lands Update***" staff report.

Authored by:

David Carruth
MANAGER REGIONAL ASSETS

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: CLIVE RIVER DREDGING

Reason for Report

1. To outline the history of the dredging operations carried out in the lower Clive River and background as to why dredging is required.
2. Given dredging is not a permitted activity for flood control, a consent is required. This paper conveys the process underway to feed into acquisition of the consent.
3. To describe the need for early contractor involvement to ensure if works are consented, they are conducted at the most appropriate time of year, taking into account environmental, social and economic considerations.

Background

The image below shows the location and extent of the dredging area of the lower Clive River.

4. Following representations to Council by sporting and other Clive community organisations, Council included in its Annual Plan for 1992/93 a proposal to investigate the feasibility of dredging the silt from the bed of the lower 2,000 metres of the Clive River in order to increase water depth and reduce weed growth.
5. Originally the lower Clive River was part of the Ngaruroro River until 1969 when the Ngaruroro was diverted entirely down the overflow channel. This resulted in a drastic reduction in the flood flows and change of flow regime of the lower Clive River. A consequence of this was a build-up of silt over the river bed which had previously been gravel as fine sediment was no longer transported to the coast.

6. Gravel is no longer transported through the Clive River as the source has all but been eliminated and importantly the flow regime is not adequate to transport larger sediments.

7. Sediment in the lower reach is believed to be primarily from the Ngaruroro River water backing-up the Clive River during floods. Changing tides also influence the flows and sediment transport. Sediment from the Karamu catchment also contributes although the rate of sedimentation is much slower than for the lower Clive River.

8. The 1993 survey indicated that since the diversion of the Ngaruroro River, 66,000 cubic metres of silt was deposited over a length of 2,000 metres of the lower Clive River, reducing the depth by an average of 0.35 metres.

9. In addition, the high nutrient load contained in the silt helps enhance the growth of aquatic weeds which provide further restrictions on the use of the reach for water sports, particularly rowing.

10. The siltation is not significant in terms of flood capacity as flood levels in the reach are determined by conditions of the river mouth, tides and floods in the Ngaruroro River. The stop banks have been designed to cater for these conditions.

11. Dredging was first carried out in 1997 after obtaining resource consent. The following is a summary of the relevant details of the dredging.

1997 Dredging Summary:

Total Project cost	$472,647
Dredging costs	$391,069
Consent, survey, design, liaison costs	$81,578
1840m long by 70m wide tapering to 40m upstream of SH2 bridge	
Approximately 58,000m^3 dredged	
Consent dredge timing: 15 May to 8 Sept.	

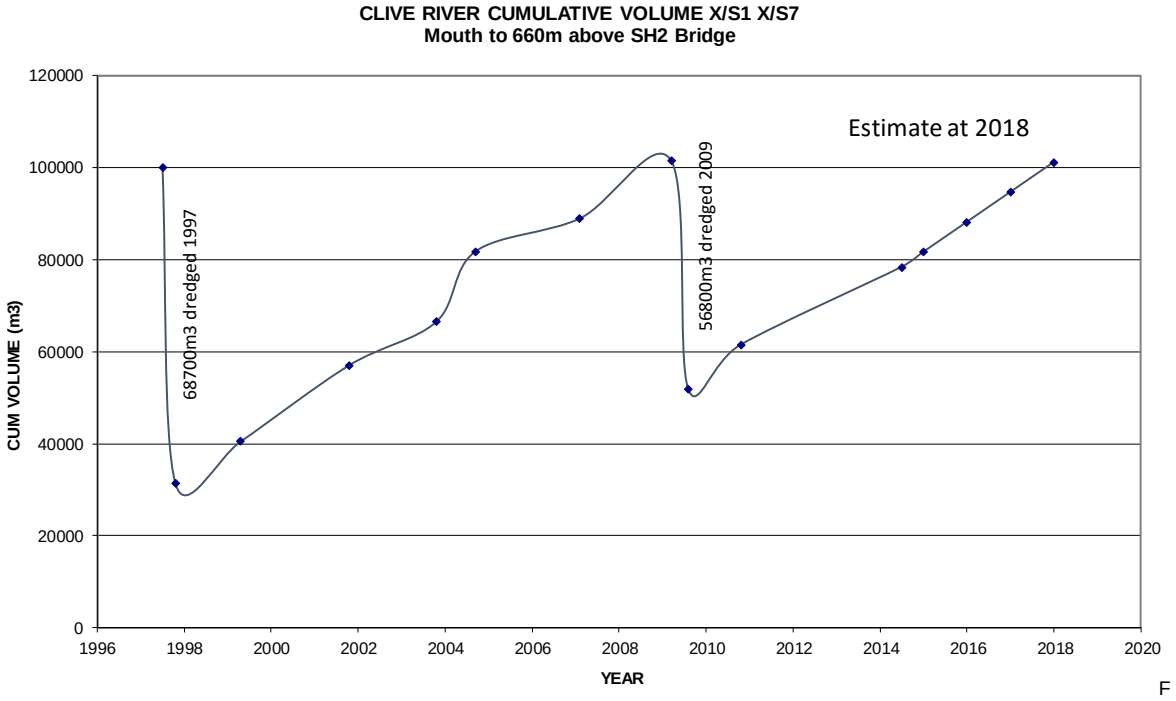
12. Dredging was again carried out in 2009, with another consent and renewed community liaison. The dredged volume in 2009 was less than the 1997 volume and did not extend as far upstream as the first operation as the siltation upstream was much less.

2009 Dredging Summary:

Total Project cost	$730,000
Dredging	$647,205
Consent, survey, design, liaison costs (estimate)	$80,000
1500m long upstream of SH2 bridge	
Approximately 46,470m^3 dredged	
Consent dredge timing: 4 May to 31 July.	

13. Disposal of the silt from the riverbed was via a pipeline and pumps to the sea. This is a far less expensive option than disposal to land. However, obtaining consent for future disposal to the sea may be more difficult than in the past.

14. The sedimentation rate is approximately 6,500 cubic metres per year. As of 2014 the increase in sediment from the 2009 dredging amounted to 23,000 cubic metres. Analysis conducted in 2017 (see below), estimated 43,000 cubic metres would be due for dredging sometime in 2019. An updated analysis will be conducted in 2019 to confirm the required volume.



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Discussion

15. The first step in the process of gaining a consent for the dredging works will be to collate appropriate supporting information. This will, in broad terms, include obtaining updated channel survey information, development of an appropriate dredged channel design and drafting tender documents. Volumes to be dredged are estimated from the difference between the surveyed channel and design channel.

16. Once the above information has been collated, HBRC will acquire the services of a consent planner (through a competitive procurement process), to work through the consent requirements.

17. Early contractor involvement (ECI) is vital to ensuring works are conducted at the optimum point in 2019-2020 taking into account various environmental, social and cultural sensitivities. An example being avoiding conducting work during the White-baiting season between August and November.

18. Historically dredging operations on the Clive have been timed to coincide with works the Napier Port performs, the result being significant cost savings to HBRC. Having ECI will ensure sequencing of works and associated costs are optimised.

19. Dredging is a niche contracting market, therefore contractors will be engaged early to ensure a competitive tender process with the aim of obtaining cost savings for HBRC.

20. Total project costs are expected to be close to $1 million and that will depend on a suitable location to dispose the silt, if sea disposal is no longer palatable. As part of the ECI process, HBRC Regional Assets team will explore various options for disposal.

21. Currently the Clive River dredging reserve is $920,027 (Project 286, HPFCS River Maintenance) with an annual contribution of ~$63,000. By 2019/2020 the reserve account will be up to $1,070,021.

22. HBRC has no statutory obligation to fund silt dredging for this river as there is no additional flood risk if the dredging is not carried out. There is however a valued public amenity, particularly valued by rowers that needs to be considered.

Decision Making Process

23. 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.

Item 8

Recommendation

That the Environment and Services Committee receives and notes the ***"Clive River Dredging"*** staff report.

Authored by:

David Carruth
MANAGER REGIONAL ASSETS

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: HBRC, TLA AND PRIVATE LANDOWNERS' OBLIGATIONS FOR MAINTAINING WATERWAYS

Reason for Report

1. To provide guidance on the obligations of Hawkes Bay Regional Council (HBRC), Territorial Authorities (TA) and private landowners with respect to maintaining waterways.
2. At the Council meeting on 19 December 2018 additional information was requested on the proactive measures in place, to prevent obstruction and sedimentation of watercourses.

Background

3. In November 2018, the Environment and Services Committee was provided with guidance on landowner, TA and HBRC responsibilities in relation to the clean-up or restitution of waterways where obstructions in waterways have resulted in damage to property and community concern over who is liable for 'putting things right'. In effect, the summary of who is 'legally' responsible is:
   - 3.1. HBRC
   - 3.2. TA
   - 3.3. Private landowners
4. ***Every local authority has the same powers as a Board in relation to the cleansing, repairing or otherwise maintaining of watercourses or drains.***
5. Where an owner or occupier does not comply with an order made by a local authority, the council may enter onto private property to remove the obstruction (though it should give notice before doing so). The cost of removing the obstruction is a charge on the land and is recoverable in the same manner as rates.
6. An owner or occupier served with ***a notice under section 62 of the Land Drainage Act*** may appeal against that order within 10 days of being served with it. The Judge will hear that appeal and determine whether, in all circumstances, the order should have effect. The order is suspended pending determination of the appeal.
7. A ratepayer can give written notice to the local authority requesting that it order a specified owner or occupier of land to remove all weeds or other growth from a specified watercourse. If the local authority does not comply with that notice within 28 days, the ratepayer can apply to the District Court for an order requiring the Council to comply with the notice. The Court will then hear the application and decide whether and to what extent the notice should be complied with by the local authority. The District Court's decision is final. However, the order which is then made by the local authority pursuant to that decision can still be appealed by the recipients of that order.
8. In answer to the question 'who is responsible for the maintenance of that vegetation?' it is ***the owners of the land adjoining the stream are responsible for maintaining the vegetation adjacent to the stream***.
9. In answer to the question 'does HBRC have powers which can or must be exercised in respect of that vegetation?' ***If HBRC believes that the state of vegetation within 3 meters of the stream edge impedes or may impede the free flow of water in the watercourse, it can order the owner or occupier of the land to cut or remove that vegetation***. A ratepayer can require HBRC to make such an order by making a written

request that it do so and then applying to the District Court if the Council does not comply with that written request within 28 days.

10. **Pre-conditions:** From case history councils need to be aware that there are matters to consider before making an order under section 62 of the Act:

    10.1. The watercourse must exist

    10.2. There needs to be an obstruction in that watercourse

    10.3. The obstruction must be likely to impede the free flow of water in the watercourse; and

    10.4. The local authority must have formed the opinion that the obstruction is likely to cause damage to property in the district at the time it makes the order.

11. The local authority's powers under section 62 are not restricted to cases of deliberate obstruction of watercourses or drains. Evidence of past damage can be offered by the Council as evidence that future, similar damage is likely. If, when hearing an appeal, the Judge considers that no damage is likely to be caused to any property, the appeal will almost certainly be allowed.

Summary of what HBRC can do under the Act

12. The Council has powers to make orders requiring the removal of vegetation within a distance of 3 meters of the margins of a watercourse. Before making that order, it must be satisfied that each of the pre-conditions listed in paragraph 10 have been met.

13. While the Council has the power to make such order, it is not obliged to do so unless it receives a written request to make such an order from a ratepayer. That notice must specify the properties which would be subject to the order.

14. The only reason that the Council might not comply with that written request is if it was not satisfied that the pre-conditions in paragraph 10 above had been met. Even in that situation, the better course might be to order the removal of the vegetation so that the Council is seen to be complying with the written request made by the downstream property owner (or owners). If it does not act, it is likely to be criticised for that failure, particularly if there are further flood events during which vegetation is swept downstream and causes damage to those properties.

HBRC assistance available

15. There are two limited funding sources (HBRC Projects) that can assist with clearing up vegetation and obstructions.

    15.1. Project 251, Subsidised Investigations and Minor Projects. This is for work where there is ***a clearly defined beneficiary and an element of public good***. Any work is 70% cost recovered. Council contributes 30% of the cost of the work up to a maximum of $5,000. The budget is currently set at $130,000. In recent past years the budget has not been fully spent.

    15.2. Project 277 and 278 (Northern and Southern Rivers and Streams Schemes). These schemes are for work where there is ***no clearly defined beneficiary and a public good benefit***. The Northern area has a budget of $160,000 and in the previous 3 years has been fully spent or over budget. The Southern area has a Budget of $230,000 and in the previous 3 years has fluctuated between over budget and under budget.

16. The above Schemes are not set up to provide for flood protection, other than where tree removal might help reduce financial loss. In areas such as Rissington where flood protection is sought, it should be provided where it is practicable, the community approve an appropriate Scheme, including ongoing maintenance, and there is a rating base on which to fund the Scheme.

Proactive or Planned Maintenance by HBRC to prevent obstructions and sedimentation

17. Preventative or planned maintenance is scheduled where there is a flood control or drainage scheme in place. A well-considered annual maintenance program is published each year and priced and executed by Hawkes Bay Regional Council Works Group. The annual maintenance plan is published in 12 parts:
    - 17.1. Heretaunga Plains Flood Control Scheme- Part 1: Rivers
    - 17.2. Heretaunga Plains Flood Control Scheme- Part 2: Waterways
    - 17.3. Upper Tukituki Flood Control Scheme
    - 17.4. Makara Catchment Control Scheme
    - 17.5. Porangahau Flood Control Scheme
    - 17.6. Poukawa Drainage Scheme
    - 17.7. Esk River & Whirinaki Control Scheme
    - 17.8. Te Awanaga Flood Control Scheme
    - 17.9. Te Ngarue Flood Control Scheme
    - 17.10. Wairoa Schemes
    - 17.11. Public Access
    - 17.12. Regional Park and Stream Enhancement
18. The planned maintenance program is derived from an assessment of the asset condition which is determined through:
    - 18.1. Annual inspection of recent work; (audit of execution of maintenance contract)
    - 18.2. Three yearly detailed condition assessment of each river in a scheme
    - 18.3. Post flood event inspections
    - 18.4. Survey information
    - 18.5. Reported performance or condition issues
19. Up to date Asset Management Plans describe:
    - 19.1. The assets and their present condition
    - 19.2. The design principles and goals adopted for the management of each scheme
    - 19.3. The levels of service required to be met by each scheme
    - 19.4. The performance criteria to be monitored in order to make assessments on the current level of service
20. For 2018/19 the estimated value of planned scheme maintenance is $3.8m. The majority of this ($2.2m) is spent on the large Heretaunga Plains Flood Control Scheme with the second highest level of investment $592k occurring on the Upper Tukituki Flood Control Scheme.
21. The removal of trees and planting of trees is a significant activity totalling $332k for 18/19. Of note during 18/19 is the $91k to be spent on Wairoa tree works, removing problematic trees and vegetation from the Wairoa River.
22. The types of planned maintenance works to maintain scheme capacity and minimize erosion include:
    - 22.1. Berms and Buffer Zone maintenance- maintaining a dense sward of grass cover over the complete stop bank. The berm and buffer zone is defined as the area of land between the active river channel and the stop bank and is designed to protect the stop bank from erosion from high velocity flood water. The buffer zone can typically be of 4 types depending on the situation:
        - 22.1.1 A zone of dense live edge protection consisting of deep rooted trees

22.1.2 A zone of open planting of deep rooted trees

22.1.3 A zone of shrub plantings

22.1.4 Hard engineering bank protection measures such as rock

22.2. Willow planting, used to create an open or dense living protection zone

22.3. Willow layering, used to create a dense living protection zone

22.4. Willow slotting and trenching, used to define fairway and prevent undercutting of edgeworks. This can also incorporate rope and rail or pinning or anchoring activities in high energy locations.

22.5. Channel maintenance, the channel is defined as the active bed of the river and is maintained to design grade and is undertaken through disturbing and redistributing the river beach and channel or by gravel extraction of the river. An example is the removal of large islands that form through movement of gravel, un managed this may lead to erosion of river banks.

22.6. Drainage channel maintenance, removal of excessive aquatic vegetation and accumulation of sediment and organic matter to retain drain invert level

22.7. Drainage structure maintained in sound condition, and free of impediments that could result in structures failing to operate as required.

22.8. Berm, stop bank and drain mowing - management of pest species, fire hazard and aesthetics.

22.9. Pump station maintenance - maintain availability and capacity of pump stations

22.10. Weed boat cutting - maintains capacity of the river, stream or drain by removing excessive aquatic vegetation

22.11. Rock and akmon protection works, protects from erosion in high energy locations. Rock Groynes are located at the three major confluences being the Tukituki/ Waipawa, Waipawa/ Mangaonuki and the Tukituki/Tukipo rivers

23. It should be noted that with regards to erosion and sedimentation this paper has focused on the activities undertaken in managing flood control and drainage scheme. It has not been extended to describe land management practices and regulations to manage erosion prone land.

Unplanned Maintenance

24. Reactive or unplanned maintenance also occurs and typically around $0.5m of this work occurs per year. The work typically consists of:

24.1. Blockages or other impediments to flow are removed

24.2. Bank slumping, erosion or damage is repaired

24.3. Temporary repairs either during or after flood events

Non Recurrent Maintenance/ Capital Upgrade

25. From time to time due to changing river conditions or variations in climate capital upgrades of existing scheme areas are required. Examples are:

25.1. Current planning for Waipawa river upstream of SH50 bridge, additional engineering structures to maintain existing river form and mitigate bank erosion.

25.2. Identification of bed lowering on the Makaretu River around SH50.

Decision Making Process

26. 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 ***"HBRC, TLA and Private Landowners' Obligations for Maintaining Waterways"*** staff report.

Authored by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: 2018 ESK FLOOD EVENT

Reason for Report

1. The purpose of this report is to provide an overview of the flood event which occurred on March 7-8, 2018 in the Esk, Mangaone, Pakuratahi and Te Ngarue catchments. Details about the CDEM response and recovery are also covered in the published flood report, however, the focus of this report and presentation is the technical analysis of the flood.

Background

2. The rainfall and subsequent flood event on March 7-8, 2018 caused considerable damage at a local level in the Esk, Mangaone, and Pakuratahi catchments. Less damage was evident in the Te Ngarue catchment.

3. Post event data was collected in order to provide a summary of the event and convey the information to interested parties. The information is useful to Hawkes Bay Regional Council (HBRC) in terms of emergency response and flood forecasting for future events, and in terms of updating the flood hazard layer for planning, subdivision and land use issues.

4. The return period for this event is distinctive (although not uncommon) in that the return period of the rainfall was different from the return period of the discharge in the river. The rainfall at Glengarry Station had a return period of well over 100 years for many durations (10 minutes to 48 hours). Because this rainfall only occurred in a small part of the catchment, the return period for the flood discharge has been estimate to 80 years for the Esk at Waipunga, and 50 years for the Mangaone at Rissington.

5. In the Esk catchment, this flood event was the highest recorded by the Waipunga water level recorder, which has been in operation since 1963. The level for the current flood exceeded Cyclone Bola, which occurred on March 8, 1988, coincidentally the same day 30 years earlier. The main difference between this current event and Cyclone Bola was the duration, with the current event being a flash flood, occurring over approximately 12 hours, and Cyclone Bola occurring over approximately 3 days.

6. As a result of the flooding and intense rain, there were road closures, washouts of the rail line, and evacuations from the Eskdale Holiday Park, Hukarere School, and residents from a variety of private locations.

7. Despite the intense severity of the event, there were no reported injuries, casualties or deaths as a result of this rainfall and subsequent flood event.

What's Next

8. As a result of the analysis, the following items are recommended to be carried out by the HBRC Asset Management Section with some items in conjunction with CDEM staff.

    8.1. Update the Esk flood model to incorporate new developments in modelling, as well as calibration to this event. Incorporate blocked mouth scenarios to enable better interpretation of the amount of rainfall that causes flooding with or without the mouth blocked.

    8.2. Develop updated flood hazard maps for Esk Valley.

    8.3. Review of the hydrologic data used to develop the stage-discharge curves which underlie flood frequency analysis for the Esk and Mangaone catchments.

8.4. Review the drainage assets in Esk Valley and determine if including additional drains into the Scheme is warranted. This will involve consultation with landowners and the Esk/Whirinaki Scheme Committee.

8.5. Investigate the benefit and cost of setting up a text warning system for residents in the Esk Valley.

8.6. Develop a hydrodynamic model of the Mangaone River near Rissington to enable flood hazard mapping, and investigate the rainfall runoff in the March 2018 event.

8.7. Develop flood hazard mapping for the Mangaone River near Rissington.

Decision Making Process

9. 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 ***"2018 Esk Flood Event"*** staff report.

Authored by:

Craig Goodier
TEAM LEADER ENGINEERING

Approved by:

Chris Dolley
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: SEAGRASS IN THE PORANGAHAU ESTUARY

Purpose of Report

1. This report updates Council on the issues and opportunities for the Pōrangahau Estuary.

Background

2. Pōrangahau Estuary (Figure 1 left) is a significant conservation area identified through the Regional Coastal Environment Plan (2014). The estuary and offshore area are a gazetted taiapure, and of great significance to Ngāti Kere. It is considered a nationally significant wildlife and fisheries habitat, and supports nationally significant dune vegetation.
3. The 85,000 ha. catchment consists of 83% in high producing grassland, 8% plantation forestry and 9% native vegetation. Much of the land adjacent to the estuary has been converted to pasture.
4. In March 2018 HBRC staff located patches of seagrass (*Zostera muelleri*) in the estuary (Figure 1 right). The last record of seagrass in estuaries within the Region is from the Ahuriri Estuary in 1978 and there are no prior records of seagrass in Pōrangahau Estuary.
5. Seagrass is an important habitat for many marine species, supporting primary productivity, stabilising the sediment, increasing biodiversity and providing food and habitat for many other marine species.
6. The loss of seagrass due to increased sedimentation and decreased light availability has been observed both locally and nationally, with an estimated 90% loss in Tauranga Harbour from 1959 to 1996. Protecting seagrass patches is important to maintaining biodiversity and ecosystem function, as seagrass provides variety in habitat type and form, and is an important habitat as a fish nursery.

Figure 1: (Left) Aerial view of Pōrangahau Estuary, showing location of seagrass (Zostera muelleri) recorded in March 2018; (Right) Seagrass in the estuary.

7. However, recreational water quality in Pōrangahau estuary has significantly decreased between 2001 to 2017, with increasing levels of bacteria associated with faeces, and is currently graded as Very Poor for contact recreation. The 2013-2018 State of the Environment report also showed significant increases in faecal indicator bacteria levels.

8. During the 2018-2019 recreational season the estuary has exceeded guideline values 12 times (Figure 2).

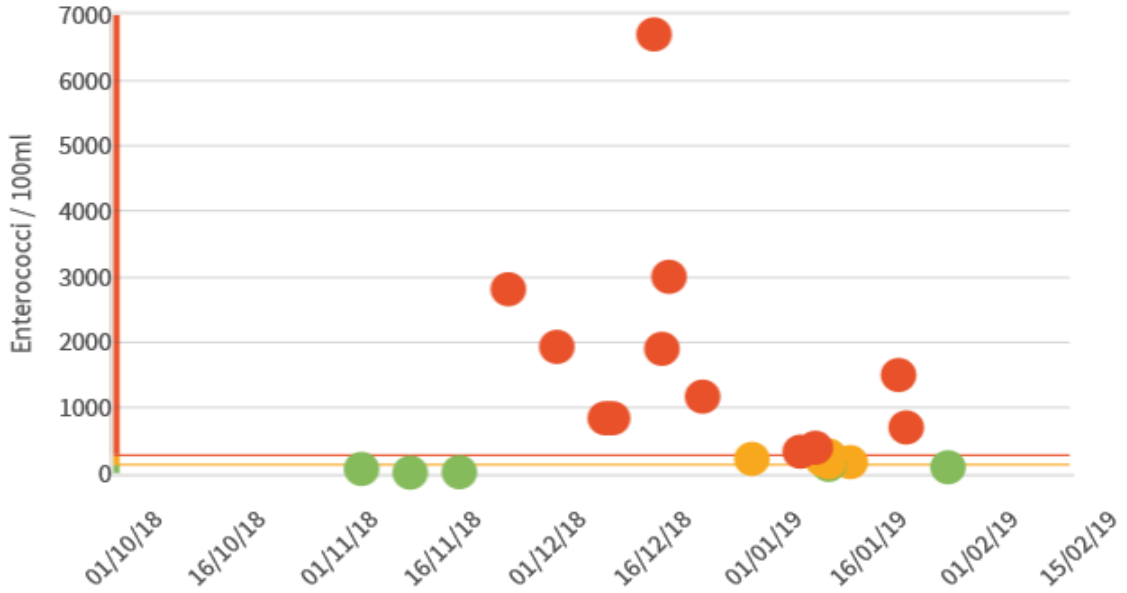


Figure 2: Enterococci levels in Pōrangahau Estuary from the 2018/2019 recreational season. Amber line and colour indicates samples exceed alert level guidelines, Red line and colour indicates samples exceed action level guidelines where the risk from contact recreation is considered unacceptable.

9. NIWA's report concluded that the conditions for longer-term persistence of seagrass in the Pōrangahau Estuary is likely to be marginal under current water quality conditions.

10. This means that the seagrass in Pōrangahau Estuary, while recently re-discovered, is at risk of loss because of the marginal water quality and sedimentation observed at the site.

11. The Southern Catchment's team have initiated several projects with the Porangahau catchment that will in time improve the water quality in the catchment. The existence of seagrass supports the imperative for this work.

Conclusions

12. To respond to the risk of seagrass loss, the NIWA report recommends:

    12.1. Annual monitoring of these populations

    12.2. Actions be taken to reduce nutrient and sediment inputs into the estuary

    12.3. Monitoring water quality and light availability at the site

13. Actions that might reduce sediment, bacteria and nutrient inputs in the estuary include restricting stock access, targeting land retirement and increasing riparian planting. This would assist seagrass to survive more readily in the Pōrangahau Estuary, and would also improve water quality in the estuary for recreation. As noted this work is beginning within the Southern Catchment's team's activities.

Decision Making Process

14. 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 ***"Seagrass in the Porangahau Estuary"*** staff report.

Authored by:

Anna Madarasz-Smith
TEAM LEADER/PRINCIPAL SCIENTIST
MARINE AND COAST

Dr Stephen Swabey
MANAGER SCIENCE

Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED
CATCHMENT MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: HOTSPOTS UPDATE

Reason for Report

1. To provide an update on the Freshwater Improvement Fund and Hotspots environmental projects.

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

2. Project vision: 'To work with Mana Ahuriri and associated hapū, Napier City Council, Hastings District Council , Department of Conservation, other landowners and businesses in this area - a national treasure - to clean up water entering the estuary, remove pests and restore the environment to good health.'

Project objectives

Objective one	To restore water flow between the upper and lower estuary by removing patches of Ficopomatus that have formed weirs bunding the estuary.
Objective two	Working with landowners to reduce sediment and nutrient input into the catchment waterways and ultimately, the estuary through subsidising fencing and planting.
Objective three	Undertake a significant 'whole of stream/estuary mouth' restoration to improve water and habitat quality and improve fish access.
Objective four	Water movement and contaminant transfer will be modelled; information to support understanding environmental flow requirements will be gathered.

3. Project Manager: Te Kaha Hawaikirangi.

Project budget update

Budget	Deliverables
$20k	Ficopomatus removal
$80k	Whararangi catchment restoration
$60k	Catchment works
$40k	Catchment Hydrology
$200k	

Ficopomatus removal

4. An aerial survey of the Ahuriri Estuary was undertaken in December. This will allow us to estimate the volume of invasive tubeworm in the estuary and inform ongoing removal efforts.

Whararangi Stream Ecological Restoration

5. HBRC engineers will start the Whararangi Stream stabilisation plan in February. The Whararangi stream is one of the largest tributaries to enter the Ahuriri estuary, the stream banks are highly erodible and a key source of sediment into the Ahuriri estuary. The purpose of this plan is to assess the entire stream and provide mitigation/actions to prevent further erosion of the stream banks and reduce sediment loss.

Catchment works

6. Over 6 key/large landowners within the catchment have committed to fencing, planting and/or wetlands enhancement this year. Over $40,000 of Hotspot funding allocated to

date (Landowner contribution equals 50% of total work costs) with more expected in the coming months.

Catchment Hydrology

7. The Ahuriri SOURCE model development to identify water pathways and contaminant transfer mechanisms to support management of nutrients and bacteria is complete.

Partnership with Hohepa/MfE

8. The Ministry for the Environment/Hohepa lower Taipo Stream wetland project has been successfully completed and the HBRC contribution for this from the funding has been approved.

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

Project vision

9. "To restore the mauri of Lakes Tūtira, Waikōpiro, and Orakai, making place that families can happily return to, and where children can swim". By empowering and aligning community, implementing well-researched actions now, the goal of restoring the mauri of Lakes Tūtira and Waikōpiro, making them swimmable by 2020, is achievable and realistic.

Project objectives

Objective one	Iwi/hapū, Māori landowners, farmers, community and local authorities are aligned in their vision for Tūtira through establishment of an Integrated Catchment Management Plan (ICMP) and Farm Environmental Management Plans.
Objective two	Maungaharuru-Tangitū Trust (MTT) will develop and establish a cultural monitoring programme (CMP) and will support the water quality education program in Tūtira.
Objective three	The Papakiri Stream will be reconnected to Lake Tūtira, and an outlet will be created by 2021 at the southern end of the lake complex, to provide longitudinal flow and fish passage, improving the mauri of the lake.
Objective four	Sediment mitigations will be established at critical source areas within the Kahikanui and Te Whatu-Whewhe sub-catchments, reducing sediment entering the lake system.
Objective five	An aeration curtain is installed in Lake Tūtira, improving the water quality to a swimmable level.

10. *Project Manager,* Te Kaha Hawaikirangi

Project progress update

11. Four of the largest land blocks in the catchment have completed their Farm Environment Management Plan.

12. Over $200,000 of works (fencing, planting, wetlands) scheduled for this year, $50,000 from the Te Waiū o Tūtira projects subsidy scheme (1/3 of this year's funding allocation), with additional funds still to be allocated as Farm Plans are completed.

13. Sediment Plan for Tūtira sub catchments to be completed in February, physical works to also begin in February.

14. Ongoing engagement with the chairperson of the Tūtira B7&B19 Land Blocks, at our last hui we discussed the budget and draft designs for the re-connect of the Papakiri stream. The Chairperson confirmed the Trust would call a meeting to determine whether they would support the proposed re-connection.

15. The draft Tūtira Integrated Catchment Management Plan (ICMP) has been produced and will be open for feedback at the next Governance Group meeting in February. Engagement in a dashboard concept is also underway, this plat form will assist the community in measuring the outcomes outlined in the ICMP.

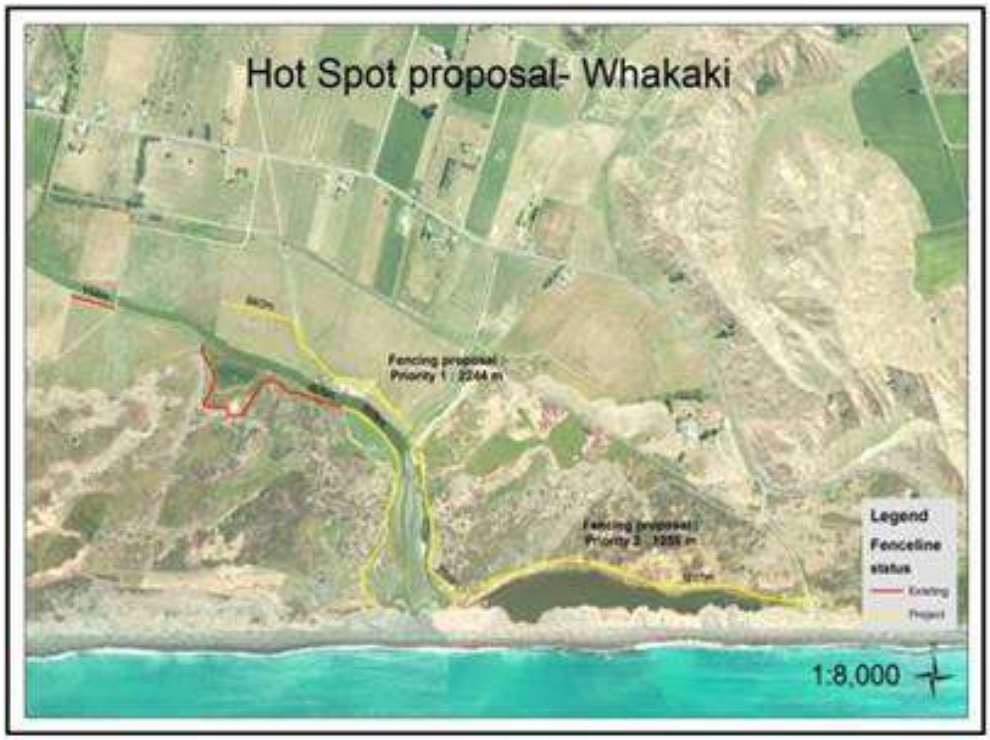
Project budget update

16. The total project cost is $3.35m. The total expenditure for Year 1 totalled $213,242.58. Year 2 budget estimated is $1,132,735.37.

Freshwater Improvement Fund (FIF): Whakakī Lake *(Sunshine, wetlands and bees will revitalize the taonga of Whakakī).*

Project update: Whakaki/Hereheretau Station – Riparian fencing and weed control

17. Hereheretau Station Farm Manager and the Whakakī Lake Trust have agreed to work together to build a 1km fence along the Paatangata wetland in March 2019. Hereheretau Station has agreed to spray the Pampas on the sand dunes, which will help our riparian planting programme.



Water monitoring platform – Blessing

18. To restore Whakakī Lake, we need better data on lake levels and water quality to help us make informed decisions, understand patterns, and predict changes. In the past our Napier-based HBRC technicians would drive to Whakakī to collect water samples and check lake levels. Early October HBRC's technicians successfully installed a monitoring platform on Lake Whakakī. Real-time data on water level and water quality is now collected automatically and is sent back to our base in Napier over the cellular network. In November, the platform was officially blessed and given the name "Kaitiaki.

Lake Te Paraoa (Iwitea-Whakaki 2N)

19. A 3.8km fence was built around *Lake Te Paraoa* last financial year (May & June 2018). Since then, the surroundings of the lake have changed with an army of wetland species including rushes, raupo and reeds thriving. Now we are planning for 10ha of blackberry and weeds will be sprayed off soon on the southern side of Lake Te Paraoa (Whakaki 2N). The southern side of the lake is located on higher ground and offers a great potential in terms of tree planting. This operation will allow the area to be planted next year.

Manuka trial establishment

20. On 19 September 700 Manuka plants were planted in the newly fenced off area around Lake Te Paraoa (Whakaki 2N). This Manuka trial is sponsored by Manuka Farming NZ who donated 4 out of the 5 variety of trees established. The aim of this trial is to see if young Manuka seedlings could grow in an area of fluctuating lake water levels. The

contours selected offer a wide range of moisture levels but overall the sites are in a flood prone area.

21. We know that Manuka can grow in wet soils, but ultimately the challenge was to see if they can flourish in wet environments. Close monitoring will be carried out to measure survival rates and evaluate the possible ranges in size growth for this trial. In addition, 450 flaxes and cabbage trees have been planted to complement the Manuka trial.

22. Harakeke have been positioned in a way that will provide shelter to the Manuka plantation in the future. This trial will provide us with a lot of important information that will help influence the way we make decisions about our future planting programme. We acknowledge the support of the Whakaki 2N Committee, Manuka Farming for their tree donation and James Powrie for providing their expertise.

23. In January 2019, a site assessment indicated that all Manuka seedling planted in wet ground (from very wet to moist) are all dead. The ones established on the higher contours around the lake are doing fine but this represents a smaller area than anticipated. It will be interesting to see if any of the survivors can handle the winter floods.

Hare control

24. Gary Bowcock from Rural Pest Services shot 57 hares during two nights in the early spring. Follow up control will be carried out in March 2019. For any revegetation project we want to take this approach of appropriate proactive pest control activities to occur prior to any planting.

Community Celebration

25. On Saturday 8 December, a community gathering was organised by Richard Brooking, Chairman Whakakī Lake Trust, and his team at the Whakakī Marae to celebrate the accomplishments of 2018. Pieri Munro chaired a positive meeting including koreros, video clips and testimonies about a range of local people who have done a lot of good for their community. This gathering marked the end of a very busy year for the Whakakī Community, including a lot of on-the-ground achievements.

FIF Project Governance Group Meeting

26. 24 January 2019 the Freshwater Improvement Fund (FIF) Project Governance Group organised its first meeting for 2019. A number of key stakeholders attended the meeting led by Richard Brooking. The meeting went very well and gave an update on where the project was at. Richard extended an invitation to the Governance team on Whakakī Marae, Hereheretau Station and to the Whakakī Catchment Group led by John Ross.

Community blog and newsletter

27. A community blog 'Freshwater Improvement Whakakī', created and maintained by Nicolas Caviale-Delzescaux, is generating a real momentum with an increasing number of visitors (from 695 in November to 1066 in January) mainly from NZ and Australia. Our viewing records are increasing from 3924 in November 2018, to 6219 in January 2019. Several video clips have been uploaded and explain various activities happening on the ground.

28. To extend our reach into the Whakakī community a newsletter was created and distributed amongst the community in September. This provided an update on local activities. These will be published every six months.

Update Hot Spot Whakakī FY17/18: Hereheretau Station water reticulation extension:

29. Three new tanks part funded by last year's Hot Spot project are now in place on a hill above the Whakakī woolshed which will supply water to an army of troughs positioned on the sand dunes. This extension is allowing us to fence off a large part of the Rahui channel. The system is not completely operational yet (as more troughs need to go on the sand dunes) but this is a great start.

Hot Spot: Lake Whatuma

30. Lake Whatuma is an important habitat for wildlife, but has poor water quality at times because of sediment and bird life. It can have low water levels in dry periods, and plant and animal pests' impact on habitat health.

31. This year our focus is on collaborating with tangata whenua, and other key stakeholders, to establish options for Lake Whatuma. We want to help create a foundation that will provide a platform for establishing a shared vision and collaborative decision making, to pursue potential actions for enhancing Lake Whatuma.

32. This collaborative approach was agreed with iwi and key stakeholders at a meeting held on 30 January 2019. During this meeting various options for Lake Whatuma were discussed and it was clear that there is mutual agreement to work collectively work on a long term management plan for the Lake.

33. The various stakeholders agreed they need more time to review their options, and what their roles would be in this going forward. Each will communicate back to the group to arrange another meeting within the next few months.

Hot Spot: Marine

Project vision

34. To increase our understanding of our marine environments and how they operate to promote a healthier more resilient Hawke's Bay Marine environment.

Project objectives

Objective one	To identify the extent, structure and qualitative assessment of biological composition of the Wairoa Hard; Springs Box, Clive Hard and Southern HB subtidal reef system (to be defined).
Objective two	To characterise current and historic Hawke Bay sediments and sediment sources, and assess levels of variability.
Objective three	To work with landowners in identified as sources of sediment, nutrients and physical disturbance to encourage riparian fencing and planting.

35. Project Managers: Anna Madarasz-Smith and Oliver Wade

Project budget update

Budget	Deliverables
$65k	Subtidal Habitat Investigations
$95k	Sediment Characteristics and Behaviour
$40k	Porangahau Estuary Catchment works for Protection and Enhancement
$200k	

Subtidal Habitat Investigations

36. The Wairoa Hard portfolios have been received from NIWA with interesting features that will continue to be investigated. Benthic habitat assessments will continue over the next 4 months for Wairoa Hard, while habitat mapping is currently being scoped for areas of the Clive Hard and Springs Box, and quotes being sought.

Sediment Characteristics and Behaviour

37. Work is continuing on mapping sediment characteristics in Hawke Bay, and measuring the levels of silt and clay that enter the Bay during storm events.

Catchment works

38. Work is underway with the Central Catchment Group on catchment works to reduce sediment and nutrient inputs into the Porangahau Estuary. 2km of fencing has been completed with another 3km of fencing to be completed before the end of this financial year and 500 plants to be planted this winter.

39. A report has been received from NIWA on recommendations for monitoring and land management to protect the isolated area of estuarine seagrass identified earlier this year.

Decision Making Process

40. 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 ***"Hotspots Update"*** staff report.

Authored by:

Nicolas Caviale-Delzescaux
LAND MANAGEMENT OFFICER - EXTENSIVE HILL COUNTRY

Dean Evans
CATCHMENT MANAGER TUKITUKI/SOUTHERN COASTS

Te Kaha Hawaikirangi
PROJECT MANAGER ENVIRONMENTAL HOTSPOTS

Anna Madarasz-Smith
TEAM LEADER/PRINCIPAL SCIENTIST MARINE AND COAST

Jolene Townshend
PROJECT MANAGER, RESOURCE MANAGEMENT

Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: ICM CATCHMENTS UPDATE

Reason for Report

1. The purpose of this report is to provide the Environment and Services Committee an initial update of activities and progress of Catchments staff within the ICM Group.

Background

2. This report is intended to provide a high level insight to the activities of the Catchment Management staff. Staff would welcome continued feedback on the content and style of this report so that we can refine and revise the layout and content so that it is a useful product to allow governance connection to this important work.

3. Approximately 252,000 hectares of Hawke's Bay hill country has been identified through modelling as being at high risk of erosion. It is estimated that this land produces on average 3,272,686 tonnes of sediment into the region's waterways every year. In addition to the economic impacts of soil loss to the landholder, this high level of sedimentation impacts upon water quality within the region and the biodiversity (both aquatic and terrestrial) that depends upon it.

4. The Hawke's Bay Afforestation Programme is an HBRC initiative that seeks to help address three of the four focus areas of the HBRC Strategic Plan 2017-2021, being; water quality /safety and certainty of supply, healthy and functioning biodiversity, and smart sustainable land use.

5. The overall programme of work incorporates both commercial and non-commercial activity designed to control soil erosion within the Hawke's Bay Region. The programme allows for the provision of grant funding through the Erosion Control Scheme (ECS) and is investigating the commercial viability through the Right Tree, Right Place Afforestation project (led by HBRIC).

6. HBRC has contracted Project Management support to assist HBRC with the design and implementation of components of the Hawke's Bay Afforestation Programme, including the ECS and Right Tree, Right Place Afforestation projects.

7. The ECS, led by ICM's Catchment Management teams, will enable targeted tree planting and other erosion control tools to be delivered on highly erodible land that is agreed in partnership with landowners. The ECS is a key tool for the ICM teams to engage with and support landholders with land at high risk of erosion.

8. An ECS Operating Manual, which will provide the standards and detailed operational/administrative processes required for scheme implementation, will complete the design phase. Interim procedures are being implemented now with the complete, Operating Model scheduled for completion by April 2019.

9. This programme of work is still at a fledging stage and we are working hard to establish the systems and processes to reliably base our work. This unfortunately takes time and is critical to the long term success and credibility of this work. The team are also actively working with landowners who have identified projects to 'keep them warm' until we are ready to move them into the project assessment, funding and project management process.

Summary of Hawke's Bay Afforestation Programme – Non Commercial

HBRC's Erosion Control Scheme		External Funding	
HBRC **Erosion Control** **Grant Scheme**	**HBRC** **Strategic Relationships Fund &** **Innovation Fund**	**Hill Country Erosion Fund** MPI's Provincial Growth Fund	**One Billion Trees Fund** MPI ** Not yet secured **
$30M 10 years (2018 – 2028)	$350k (maximum p.a.) 10 years (2018 – 2028)	$5.4M 4 years (2019 – 2023)	$200M funding proposal for all Regional Councils. 10 years (2019 – 2029)
The ECS Scheme helps Hawke's Bay landholders keep soil on their hills and out of the water. It provides significant financial support for erosion control work such as non-commercial tree planting, fencing and land retirement. The ECS, led by ICM's Catchment Management team, will enable targeted tree planting and other erosion control tools to be delivered on highly erodible land that is agreed in partnership with landowners through the creation of erosion control plans. HBRC will fund 75% of the works, as agreed with the landowner and outlined in an Erosion Control Plan (ECP).	These funds have been created to provide financial support for initiatives and partnerships/relationships that progress the aims of the scheme within the Hawke's Bay region. Unspent funds may be reallocated to on-ground work support. **Innovation Fund** This enables individuals and organisations (including HBRC) to apply for funds to support specific initiatives that directly support the objectives of the ECS. **Strategic Relationships fund** This enables HBRC to enter multi-year funding relationships with a small number of organisations operating at the regional level. It requires applicants to provide matched funding or in-kind support to ECS communication or implementation related activities. Applications must set out how the proposed relationship between itself and HBRC will accelerate uptake of the ECS.	The HCE Fund is a partnership between MPI, regional councils, unitary authorities, and landowners that aims to: • plan for and treat erosion-prone land • put sustainable land management practices in place. The HCE Fund uses a total catchment management approach to reduce erosion. This requires all landowners and community members to get involved in identifying issues and creating solutions in their catchments. Reducing erosion in the upper areas of a catchment costs less than the cost of flooding and flood-control structures in the lower areas. The Hill Country Erosion Fund has approved nearly $36 million to support erosion control programmes across the country between 2019 and 2023.	The Government has set a goal to plant one billion trees by 2028. Led by Te Uru Rākau (Forestry New Zealand) and funded by the Provincial Growth Fund. The $240 million fund was launched on 30 November 2018. It will be distributed through two types of grants: • **Direct landowner grants** - lowering any planting barriers currently faced by landowners • **Partnership grants** - improving incentives to support the right trees, in the right place, for the right purpose. *Councils can apply for this grant.* Iain Maxwell, on behalf of the sector as convener of the Resource Managers Group, is leading the proposal to secure funding for regional councils across NZ.

Erosion Control Scheme	Year 1 18/19	Year 2 19/20	Year 3 20/21	Year 4 21/22	Year 5 22/23	Year 6 23/24	Year 7 24/25	Year 8 25/26	Year 9 26/27	Year 10 27/28	Ten Year Total
Erosion Control Scheme Total	**$1,500,000**	**$2,000,000**	**$3,000,000**	**$3,300,000**	**$3,300,000**	**$3,300,000**	**$3,400,000**	**$3,400,000**	**$3,400,000**	**$3,400,000**	**$30,000,000**
Less: **HBRC's Innovation and Strategic Relationships Fund** (max of $350k p.a, unspent funds may be reallocated to on the ground works)	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 3,500,000
Total value of Erosion Control works funded by HBRC	**$1,150,000**	**$1,650,000**	**$2,650,000**	**$2,950,000**	**$2,950,000**	**$2,950,000**	**$3,050,000**	**$3,050,000**	**$3,050,000**	**$3,050,000**	**$26,500,000**

Establishment of the Erosion Control Scheme Programme Update

10. The Erosion Control Scheme (ECS) Project has developed the core operational procedures and supporting documentation/tools to establish the scheme. Catchment Management are managing live applications and are now in a position to manage landowners from eligibility through development of a multi-year erosion control plan, guide the application and contracting process, audit completed works are to specification and provide first level approval for payment of invoices. Client services are linked in through the contracting and financial management functions.

11. During the next quarter the project will continue to work with staff to define contract management services, refine prioritisation and monitoring and review procedures. The core procedures' developed will continue to be refined through live testing.

12. Alongside the new operating procedures for the scheme the project has developed change control procedures to support continuous improvement activities acknowledging that this is a dynamic environment and the scheme and its policy will need to be reviewed for ongoing relevance and effectiveness. This is currently being managed as part of the project but will be incorporated into Catchment Management and Client Services roles and responsibilities for the future.

Erosion Control External Advisory Group

13. A number of key industry representatives with a range of experience, views and interests was brought together in mid-2018 to assist ands 'stress test' council's policy. Their views have been incorporated into supporting how the policy is implemented and are being considered with respect to HBRC's position on carbon credits (i.e. the policy states that HBRC captures any potential carbon credits from ECS activity). This group meets on an as and when basis. The group is yet to meet again and discussion are occurring to combine the input of this group into the RTRP work James Powrie is leading.

Working with landowners - Engagement Strategy

14. A well-structured engagement and marketing strategy is critical for this programme if we are going to successfully connect with landowners across the region. Understanding attitudes towards environmental business practices, current behaviours, future intentions and motivators are key success factors. Using information from qualitative interviews with landowners across the region, a communications and engagement strategy has been developed and marketing material will be produced. HBRC has not traditionally invested in these types of strategies as part of large programmes like this, but have done so for this programme and we have found significant immediate value in the survey work done to date. This will be further enhanced through the broader strategy implementation. This activity is being funded in year one through the Innovations and Strategic relationships component of the ECS fund. Once designed and collateral created the ongoing support and delivery of the strategy will be via internal communications staff.

ECS data collector and mapping tool

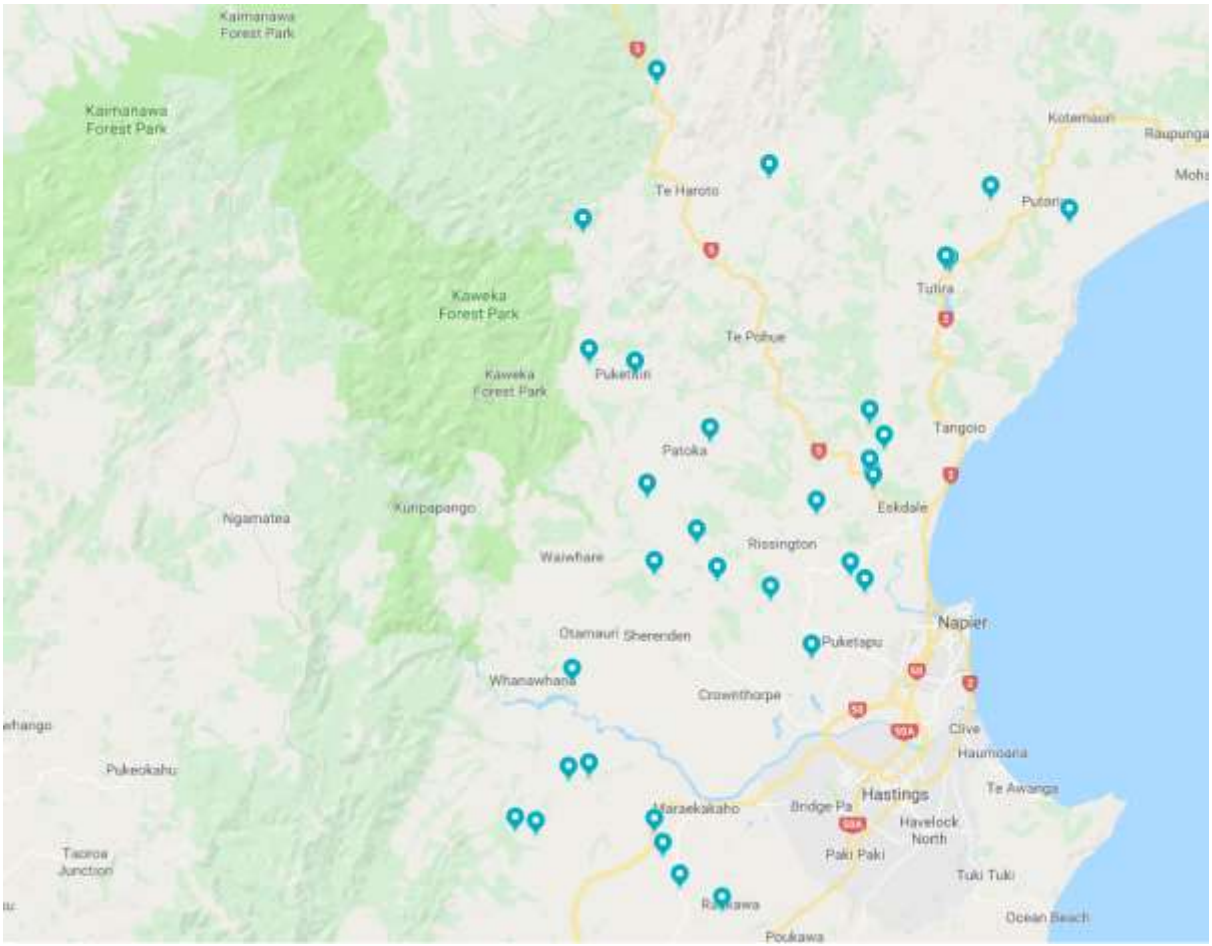
15. Over the past few months a field GIS mapping tool has been trialed alongside a Survey 1,2,3 data capture tool. Data from these software packages was trialed but the data stored was not being connected to our HBRC corporate database, therefore not accessible for staff to access. Work is now underway to adapt the field collector tools (GIS and Survey 1,2,3) to improve its suitability and make it accessible.

Erosion Control Plans Update

Direct Landowner Engagement

16. Catchment Management staff have identified highly erodible land within the region and had contact with numerous landowners within their sub-regions. Many of these landowners have land that is identified as being at high-risk of erosion. It is important to understand that many of these discussions will take time before becoming projects

16.1. Central Engagement Map



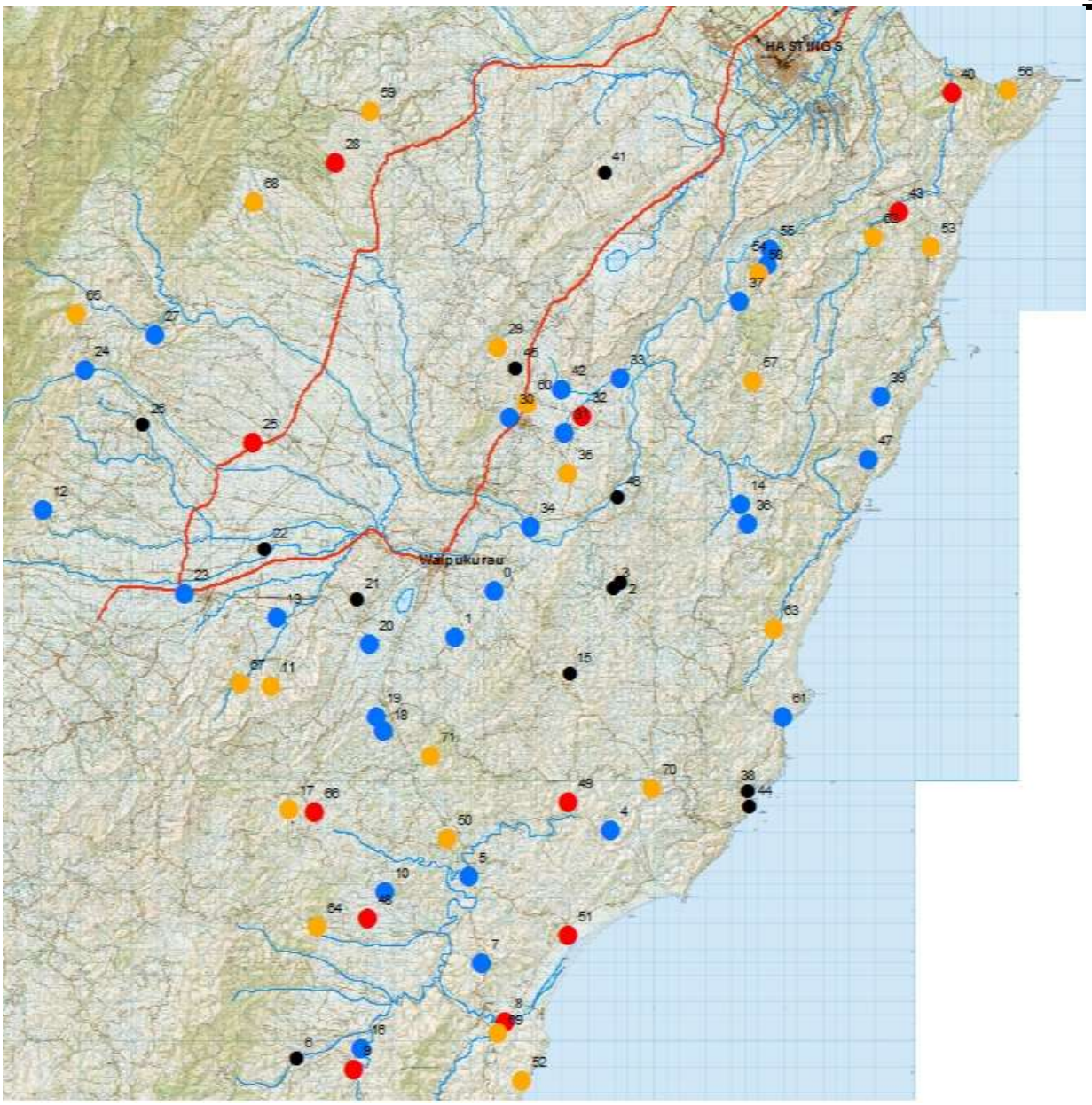
Southern Engagement Map

Red = ECP underway

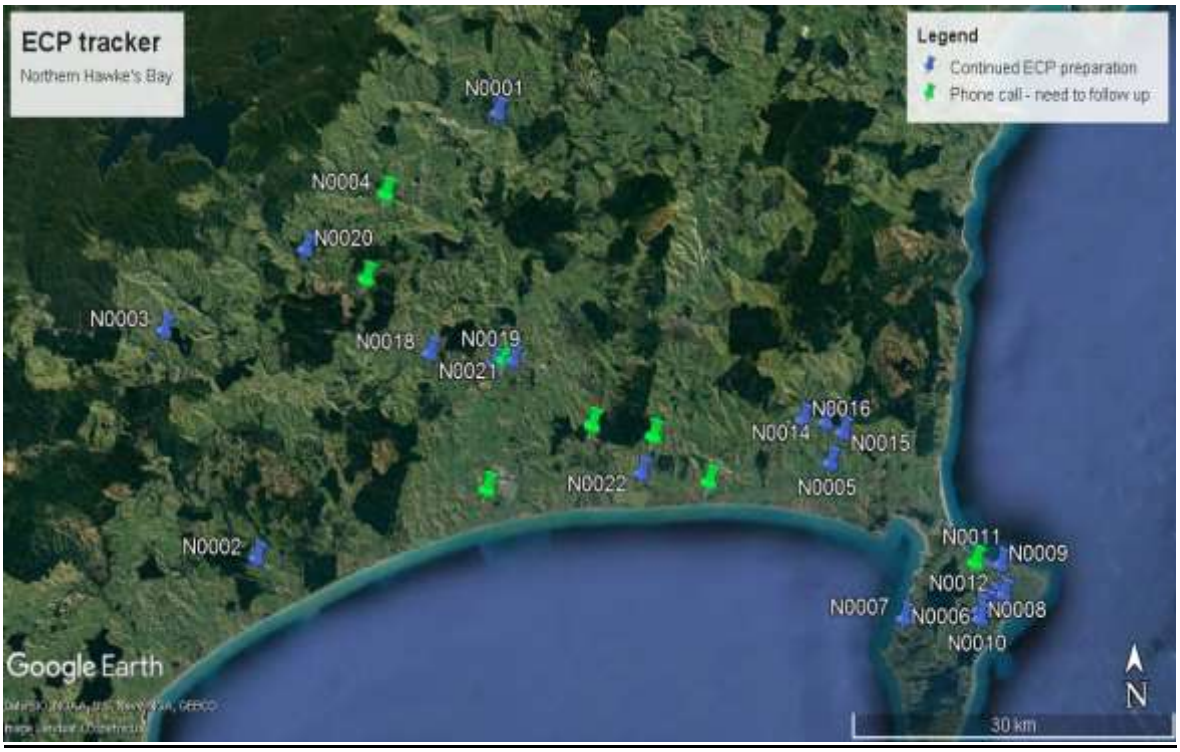
Amber = ECP In progress – not at application stage yet

Blue = An enquiry or conversation we still need to follow up

Black - Declined or diverted to another scheme.



16.2 Northern Engagement Map



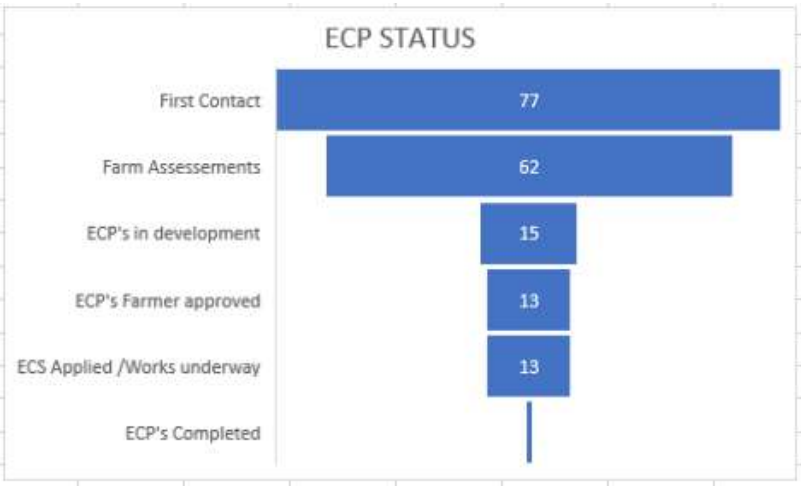
ECS Grants

17. The first of the grant applications are being processed and the systems tested. The Client Services team at HBRC will be advertising next month for a Grants Coordinator. This role is responsible for processing applications and contracts with suppliers, monitor project progress and provide regular quarterly reporting on the quantum and cost of projects.

18. Client services have 13 applications in process with a total value of $402,141. North $149,060, South $253,081.

ECP Status

19. The ECS workflow identifies the number of properties engaged and the position along the journey toward completed ECS works on the ground. We will also be collecting data on a range of other issues as we engage that will enable us to ascertain barriers to uptake and other influencing factors to enable us to adapt and evolve both our approach and the targeting of the grant into the future. At the time of writing we have 180 projects in the 'pipeline', either committed or in development.



ECS Year One Potential Projects

20. Below is an indication of the value of potential projects arising from landowner engagements. Please note, as per the policy 'Year One' is not necessarily within a council financial year but instead reflects the need to accommodate planting seasons.

	Year 1
Central	$ 194,475.75
North	$ 497,512.43
South	$ 108,798.00
Total	$ 800,786.18
Year 1 Total (potential & approved projects)	**$ 1,202,927.10**

Innovation and Strategic Relationships Fund ($350k p.a. maximum.)

21. The criteria and guidelines for reviewing and making a decision on proposals seeking funding through the Innovation and Strategic Relationships Fund have been developed and implemented. The Drylands Eucalypts Forest Initiative applied for funding ($10k per year for 10 years) and has been approved.

22. This fund is available to HBRC to support the objectives of the ECS. As noted earlier in this paper, this financial year we are using this fund to cover our scheme establishment's costs which include project management, our landowner engagement strategy and minimal legal advice to be an estimated cost of $200,000.

Decision Making Process

23. 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 ***"ICM Catchments Update"*** staff report.

Authored by:

Dean Evans
CATCHMENT MANAGER
TUKITUKI/SOUTHERN COASTS

Nathan Heath
CATCHMENT MANAGER
(WAIROA/MOHAKA)

Brendan Powell
CATCHMENT MANAGER (CENTRAL)

Jolene Townshend
PROJECT MANAGER, RESOURCE MANAGEMENT

Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED CATCHMENT MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: RIGHT TREE RIGHT PLACE UPDATE

Reason for Report

1. This item provides an update on progress developing the Right Tree Right Place initiative.

Background

2. The RTRP project aims to promote afforestation of erosion susceptible land which contributes to poor freshwater and coastal water quality, lost productive capacity and degraded biodiversity in Hawkes Bay. The project has complementary objectives of increasing regional climate change resilience and sequestering carbon to offset greenhouse gas emissions.

3. The project directly contributes to three of four focus areas of the current HBRC Strategic Plan, being; water quality, safety and certainty, healthy and functioning biodiversity, and smart, sustainable land use. RTRP is a key component of a broader package of initiatives contributing to the achievement of these objectives, as set out in paragraph 14 below.

4. RTRP project delivery is via HBRIC and reference to the Erosion Control Scheme Project Steering Group. While HBRIC is delivering the project it is essential that HBRC staff work closely with and counsel the direction of this project and so input is being provided from subject matter experts in HBRC teams, including science, biodiversity and catchment advisory teams, as required.

5. Given the breadth of relevant challenges facing rural Hawkes Bay, RTRP encompasses a wide range of afforestation options and systems. This is due to the recognition that woody biomass is essential in managing many of these challenges, and that each different system offers a range of financial and non-financial benefits relative to these.

6. RTRP will also recognise a range of relevant and often dynamic factors, especially; carbon pricing and investment, One Billion Trees (1BT) and other central government funding, and the interfaces between HBRC Erosion Control Scheme criteria and the commercial investment world as it applies to afforestation. Importantly Central Government has indicated that they would like each region to have a 'master plan' for tree planting in each region to inform funding decisions, and the RTRP project will put Hawke's Bay in a strong position to provide this in a strong evidenced and timely manner.

7. At implementation, landowner decisions around these options will call for strong technical support from ICM staff and then appropriate referral where expert depth is required. Appropriate curation of supporting material will be essential to success, and this is expected to align to parallel national initiatives, or those of other councils. RTRP stakeholders will need to stay abreast of opportunities for synergies such as these which may be offered.

8. The Project stages are shown in Figure 1 below:

9. Provincial Growth Fund (PGF) / 1BT funding has been sought to meet 50% of development phase (Stages 1-5) costs ($235K of $470K) and staff are awaiting confirmation of this from the Crown.

10. The Right Tree Right Place programme Stage 1 – Project Establishment has assembled a consortium of experts across a range of afforestation options to provide information and data to inform the potential of these to address soil erosion in Hawkes Bay.

    The expert group includes:

Project Team		
Name	**Organisation**	**Project Role**
James Palmer	HBRC	Project Sponsor
Blair O'Keeffe	HBRIC	Project Leader
James Powrie	RedAxe	Project Manager
HBRC Staff	HBRC	Technical support
Andrew Clarke	PF Olsen Ltd	Project development and execution
Mike Duckett	PF Olsen Ltd	Project development and execution
Dr Bruce Manley	Canterbury School of Forestry	Technical/Research expert
Paul Millen	Dryland Forests Initiative	Eucalyptus species expertise
Dr David Palmer	Scion	Spatial Modelling
Dr Tim Payne	Scion	Forestry expertise
Simon Rapley	NZ Redwood Co	Redwood expertise
Tim Martin	Wildlands	Indigenous expertise
Stephen Lee	Manuka Farming NZ	Manuka expertise

In conjunction with existing data sources, received data on species will ultimately inform toolkits for Integrated Catchment Team advice to landowners.

11. In Stage 2 – Financial Modeling, a model is being constructed to allow for objective consideration of the relative merits of the range of afforestation options Species and systems) in a single location and consistent format, subject to HB site productivity conditions. A matrix of afforestation options is also being constructed showing their applicability against sites of varying erosion risk and character. This will inform the spatial analysis in Stage 3.

12. The programme is concurrently moving into Stage 3 which entails spatial modeling of erosion and land use limitation as they constrain and dictate afforestation options in the Hawkes Bay landscape. Specification of this process will involve shared HBRC and consortium view on the specification of this stage, which will then be tested with local experts as it evolves

13. In the spatial stage - Stage 3, financial outcomes from modeling will be compared, along with qualitative and quantitative rating of impacts on biodiversity, soil erosion and other ecosystem services, to enable data-driven assessment of options.

Next steps

14. RTRP will operate alongside a range of relevant activities and ongoing integration with these is required.

    14.1 HBRC Integrated Catchment Management advisory staff are now underway with an intensive programme of landowner engagement. Progress on this programme is being reportedly separately to the Committee but is an important parallel work stream delivering its own learnings that inform Council's policy design and ensure momentum with driving demand for afforestation continues while the architecture of the Council's afforestation interventions is developed.

    14.2 HBRC staff have been intimately involved in the development of a national regional council's proposal for the administration of a significant proportion of the 1BT funds (~200 million trees over 10 years). The plan is for regional councils to work together with Crown officials to allocate funding for afforestation annually in response to demand and capacity, which is difficult to forecast over the medium to longer term. Funding from 1BT will complement that provided by Councils both in terms of grants and funding for advisory staff. This proposal is currently being finalised and it is planned for programme commencement in July 2019

    14.3 Hawke's Bay has been awarded approximately $5 million over 4 years from the Hill Country Erosion Fund (part of 1BT) for afforestation of erosion prone land in the region. Work is currently underway to plan the allocation of the funding within target catchments. Funding is also provided for additional HBRC staff and recruitment of these additions to the Council's Catchment Advisory teams will commence shortly.

    14.4 HBRC has initiated a project to capture Regional LiDAR data. Although this data is not available to this phase of work it will provide greater level of precision for decision making at property scale and this will be able to be integrated in tools developed for catchment advisory staff and landowners in the implementation phase.

    14.5 A Regional Natural Capital Assessment (NCA) is being considered by Council and co-funding has been applied for this from the PGF. RTRP has the potential to inform and reinforce the NCA with forestry-related valuation and technical data, while NCA provides the overall framework to measure progress towards the sustainable use of natural resources and the well-being of the region.

    14.6 Ngati Kahungunu Iwi Incorporated (NKII) is leading a complementary programme of work (Kahutia) to develop the required skilled workforce and nursery supply for scaled up regional afforestation. Alignment of with RTRP work streams may turn the natural resource management challenges into economic and social development opportunities. NKII have also established a commercial vehicle, Kahutia Ltd Partnership, to establish carbon forestry on private land, including Maori-owned land, which is the subject of separate and complementary support

from HBRC by way of a loan of ETS NZ Units. Liaison will continue with NKII to ensure alignment of activity.

14.7 The Maungaharuru Tangitu/HBRC summer forest internship programme provides a working template for developing; forests skills, labour, and values based leadership, which may be scaled up with labour requirements which will grow with implementation. The forest internship program should continue to be developed for potential replication.

15. Once the Spatial phase – Stage 3 is underway, and has confirmed Hawkes Bay hotspots for erosion, and feasible afforestation options, (subject to a thorough review of SedNet and other data), Stage 4 will commence. This is a catchment case study, location TBA (Wairoa is a potential Northern catchment, with possible addition of Mangakuri or a similar catchment in Central Hawke's Bay). The PGF application specifies a council governance decision point prior to Stage 4 being commissioned.

16. Any direction of RTRP will ideally be compatible and congruent with a broader council direction around: National Environmental Standard on Plantation Forestry, HBRC's own forest estate, and its consenting, compliance and regulatory activities. Development of an overarching HBRC strategy and vision around forestry will be useful in informing RTRP as the project develops and Council staff are presently scoping the timing and resource considerations for this.

Decision Making Process

17. 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 "***Right Tree Right Place Update***" staff report.

Authored by:

James Palmer
CHIEF EXECUTIVE

Approved by:

James Palmer
CHIEF EXECUTIVE

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: CALL FOR CERTIFICATE OF APPRECIATION NOMINATIONS

Reason for Report

1. To call for nominations by councilors, for HBRC environmental certificates of appreciation.

Background

2. At its meeting on 24 April 2018, the Council resolved:

   2.1. Creates three categories for nomination to recognise environmental stewardship, being:

      2.1.1. **Environmental Leadership in Business – Te Hautūtanga Taiao me te Pakihi:** Recognises business or local authorities that demonstrate kaitiakitanga, innovation or efficiency, or an ongoing commitment to environmental best practice.

      2.1.2. **Environmental Leadership in Land Management – Te Hautūtanga Taiao me te Whakahaere Whenua:** Recognises land users who are committed to environmental stewardship and sustainability in their meat, fibre, forestry or other land use operations.

      2.1.3. **Environmental Action in the Community – Te Oho Mauri Taiao ki te Hapori:** Recognises no-for-profit organisations or individuals that are taking action to protect or enhance the environment, or are increasing understanding of environmental issues.

   2.2. Calls for nominations to the above categories from Councillors at the Environment and Services Committee held in February and September each year, with the Award being presented to the recipient at the April and November Regional Council meetings with a morning or afternoon tea event.

Next Process Steps

3. The proposed process leading to the awarding of Certificates is:

   3.1. Councillors to email any nominations, including full details of the environmental initiative, location and person or group/organisation being nominated, to Joanne Lawrence (Group Manager Office of the CE & Chair) by 4pm on Friday 8 March 2019. Suggested format for nominations is:

   Nominee: _____

   Award category: _____

   Details of initiative(s) giving rise to the nomination: _____

   Supporting evidence (if any): _____

   Contact details – name (if organization nominated), phone number and email

   Nominated by: _____

   3.2. Nominees' details, including reasons for the nomination and how it meets the criteria for the award category, will be collated as an agenda item for councillors' consideration, discussion, and resolution of award winners in public excluded session at the Regional Council meeting on 27 March 2019.

   3.3. Successful award recipients will be invited to the 1 May 2019 Regional Council meeting for formal awarding of certificates.

Decision Making Process

4. 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 ***"Call for Certificate of Appreciation nominations"*** including the close of nominations date of Friday 8 March 2019.

Authored by:

Leeanne Hooper
PRINCIPAL ADVISOR GOVERNANCE

Approved by:

James Palmer
CHIEF EXECUTIVE

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 13 February 2019

Subject: DISCUSSION OF MINOR ITEMS NOT ON THE AGENDA

Reason for Report

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

Item	Topic	Raised by
1.		
2.		
3.		
4.		
5.		