Kaituna Catchment Control Scheme Advisory Group Meeting

Wednesday 4 September at 10am

The Bee Hive
Comvita NZ Ltd
23 Wilson Road South
Paengaroa

Kaituna Catchment Control Scheme Advisory Group Meeting

Wednesday 4 September 2019 at 10am

Agenda

1 **Welcome**

2 **Apologies**

3 **Notes of previous meeting held 13 March 2019**

4 **Matters arising from previous meeting**

5 **Review of the Floodway and Drainage Bylaw 2008**

6 **Operations update**

7 **April 2017 Flood Repair Project update**

8 **Engineering update**

9 **Finance report**

10 **Co-governance/community group updates**

11 **General business**

a. Ngongotahā flood event review update

b. Stopbank damage from grazing

c. Plan change 12 update

d. River Scheme rating classification review

e. Coastal Catchments update

Notes of the Kaituna Catchment Control Scheme Advisory Group meeting held at Comvita NZ Ltd, Paengaroa, on Wednesday, 13 March 2019, commencing at 10am

Chair: Councillor Bill Clark

Advisory Group: Barry Roderick, Dave Hurst, Graham Thompson, Nick Chater, Richard Weld, Roger Hintz, Peter Dine (Rotorua Lakes Council), Kevin Marsh (Western Bay of Plenty District Councillor)

BOPRC Councillors: Councillor Norm Bruning, Councillor Jane Nees

BOPRC Staff: Kirsty Brown (Acting Rivers and Drainage Asset Manager), Jo Heath (Asset Management Coordinator), Bruce Crabbe (Rivers and Drainage Operations Manager), Kerry Smith (Area Engineer), Tony Dunlop (Flood Repair Project Engineer), Andy Dixon (Accounting Team Leader), Pim De Monchy (Coastal Catchments Manager), Mark Townsend (Engineering Manager), Chris Ingle (General Manager Integrated Catchments).

Public: Neil Heather (Rotorua resident)

1 Welcome

Councillor Clark welcomed everyone to the meeting and acknowledged the member of the public in attendance.

Chris Ingle advised that Warren Webber has resigned as Upper Kaituna urban representative. He also outlined some key staff changes. Roger Waugh has resigned as Assets Manager and recruitment for the position is currently underway. Kirsty Brown is Acting Assets Manager in the interim.

2 Apologies

Nil

3 Notes of previous meeting held 5 September 2018

Resolved

That the Kaituna Catchment Control Scheme Advisory Group:

1 Confirm the notes of the meeting held 5 September 2018 as a true and correct record.

Clark/Hurst
CARRIED

4 Matters arising from previous meeting

Mark Townsend provided an update on the two actions from the previous meeting as follows:

- Geotechnical investigations have been carried out at Pamment's using hand augers and ground penetrating radar. The information is currently being analysed and recommendations will follow.
- Tauranga City Council Pond G pump. Stormwater runoff from Pāpāmoa subdivision is pumped into the Bell Road C catchment. Tauranga City Council has resource consent to do this. Regional Council is currently working with Tauranga City Council and the developer, to work within the consent conditions to lessen the effects on the scheme.

Discussion:

- A new proposal for intensive in-fill housing in the Pāpāmoa area and the potential impact on the Bell Road catchment was discussed. Resource consent has been applied for and the Engineering Team is providing technical review of the earthworks consent. Advisory group members expressed concern about the amount of development and potential issues with sewerage and stormwater discharges. Councillor Nees suggested Smart Growth might be the forum to address these concerns.

5 River Scheme Governance/Continuous Improvement

Chris Ingle spoke to the River Scheme Governance and Continuous Improvement item on the agenda. At the September 2018 meeting Nic Newman (Principal Advisor) sought feedback from members on how the Advisory Group was working. A report was presented to Council on 13 December 2018 with the findings and recommendations. This report was circulated to Advisory Group members on 12 February 2019 and feedback on the recommendations is now being sought.

Discussion:

- Members disagreed with the requirement for members to stand-down after six years. The importance of historical knowledge should not be underestimated. It was noted that this requirement was part of the groups Terms of Reference.
- Noted the lack of Rotorua Urban representation with membership including two Rotorua Urban representatives, with one position currently vacant as a result of Warren Webber's resignation.
- Members appreciated seeing photos of operational work included in the agenda and asked for more of this type of material.
- How different legislation and Treaty of Waitangi settlements fit together and how this impacts on river scheme management was discussed. Chris Ingle explained that the Resource Management Act (RMA) is the principal planning legislation and Treaty of Waitangi settlements can give iwi a different status under the RMA. In some instances, like with the Tapuika Settlement, this includes co-governance groups like Te Maru o Kaituna River Authority.
- Te Maru o Kaituna released its river document in June 2018 and they are developing an action plan. Important for scheme managers and the Advisory Group to have an understanding of the Kaituna River Document. The website link to the document has been circulated to members and agendas for the Te Maru meetings are also circulated. https://www.boprc.govt.nz/your-council/council-and-region/council-and-committees/te-maru-o-kaituna-river-authority/. Nick Chater is a Rotorua Lakes Council representative on Te Maru and it was suggested that a standing item for future meetings be an update from Nick.

- Members asked for the same from Barry Roderick on the Kaituna-Maketū Freshwater Community Group.

ACTION: Future meeting agendas to have a standing item of Co-governance and Community Group updates.

6 Ngongotahā Flood Event Review

Chris Ingle updated members on the independent review that was undertaken after the April 2018 floods in Ngongotahā Stream.

Key points included:

- Review was initiated by Rotorua Lakes Council and has 24 recommendations.
- Identifies that there is an issue with riparian plantings along the Ngongotahā (in many cases not planted with appropriate species) and also that pest plants are an issue. The system needs to be fully understood before proposing solutions as clearing riparian vegetation in one place could increase water flow and cause a new problem downstream.
- Chris Ingle is part of a joint Rotorua Lakes Council and Bay of Plenty Regional Council group responsible for implementing the recommendations. The organisations are working closely together with the shared objective of providing a safe and resilient community to live in. A community reference group has been created.
- Expecting to have a clear direction by July 2019 and updates will be provided at future Advisory Group meetings.
- There is an *Action for Ngongotahā* project page on the Council's website and members were encouraged to register https://www.boprc.govt.nz/our-projects/action-for-ngongotahā/

Discussion:

- In Holland no planting is allowed on river sides and this has been proven to reduce impacts of flooding and also reduce *E. coli* levels. Why are we encouraging riparian planting?
- Management is always challenging when mixed objectives are in conflict. Vegetation can reduce hydraulic capacity of a waterway on the one hand but improve water quality and native species habitat on the other. Council are moving towards planting on the northern or western side of waterways to enhance the environment while leaving the opposite side clear of vegetation to enable conveyance and drain cleaning.
- Dairy NZ has very good guidelines for riparian planting https://www.dairynz.co.nz/media/1569767/riparian-mgmt-bop.pdf
- Pine trees in the upper Ngongotahā catchment need managing. Community members have been pushing this for many years and have arranged meetings with Rotorua Lakes Council and Bay of Plenty Regional Council but nothing has happened and there is frustration with the slow progress. Chris Ingle responded that this issue is covered by the review recommendations.
- There is a need for some vegetation because the weak soils need to be stabilised. Ongoing and regular maintenance needs to be carried out and in a careful manner.

7 Operations report

7.1 Upper Kaituna Scheme Works update

Kerry Smith spoke to the report provided in the agenda pack and delivered a presentation.

Key points included:

- Since April 2018 have been in recovery mode in the upper Kaituna following the largest flood event since monitoring began in 1976.
- Main areas of work are repairing bank erosion and removing obstructions (vegetation) from the stream channel – 270 repair sites across Rotorua streams.
- Two year repair project with a $0.5m budget ($250k in 2018-2019 and $250k in 2019-2020). The repairs are a cost to the scheme.
- Working closely with Rotorua Lakes Council, Community Groups and Fish and Game.
- Work is on schedule and progressing well. About a third of the repair work has been completed.

7.2 Lower Kaituna Scheme Works update

Bruce Crabbe spoke to the maintenance work programme for the lower Kaituna provided in the agenda pack.

Key points included:

- Slightly behind schedule with lower Kaituna work but will be completed by winter.
- Issues with access for maintenance of Bell Road No.2 Drain. Currently working with landowner to remedy this.
- Progressing with actions from the Bell Road operational issues identified at ratepayer meeting last year:
    - Western Bay of Plenty District Council culvert installed under Bell Road and feedback from landowner is that it seems to be working.
    - Additional culvert installed (McLeod's) to move flood water.
    - Installing a pump discharge pipe at Bell Road to support the pump station. Allows mobile pumps to be connected when needed to increase pumping efficiency and increase capacity. This does not preclude doing something more robust in the future.

7.3 Lowland Drainage Scheme Water Quality and Ecology Report

Kirsty Brown spoke to the report provided in the agenda pack.

Key points included:

- National Policy Statement for Freshwater Management is a direction from Central Government to Regional Councils to set objectives for fresh water bodies in their region and to develop policy to meet these objectives.
- In the Bay of Plenty work is currently progressing in the Rangitāiki and Kaituna/Pongakawa/Waitahanui Water Management Areas to develop water quality and quantity objectives and limits. This work will result in Plan Change 12.
- To support this work, and to help fill knowledge gaps about the ecosystems in the Rangitāiki and Kaituna Plains drainage networks, the Bay of Plenty Regional Council's Science Team undertook a 17-month water quality, ecology and fish monitoring survey. The study showed that overall water quality in the drains is poor and water quality, ecology and drain discharge issues will need to be addressed by Bay of Plenty Regional Council. The report (Environmental Publication 2018/05 *Ecological and water*

quality conditions of drains and land drainage canals in the Rangitāiki and Kaituna Plains) has been circulated to members and is available on Council's website https://www.boprc.govt.nz/media/2920/2018-05-drains-report-13_final-word_version2.pdf

- There will be significant implications for management of the river schemes. Currently not funded to manage water quality and ecological values and there is also the potential for all scheme drainage discharges to water requiring resource consent.
- Regional Council is in a challenging situation where they are a provider of flood protection under legislation and as a regulator of these activities under the Resource Management Act 1991.
- Council working with local landowners on identified hot spots, progressively addressing fish passage issues at prioritised sites, and supporting innovative drain management trails.

Discussion:

- Discharge from pump stations was discussed. Questioned whether there is budget available to ascertain water quality in the drainage system above the pump stations. Consultant currently engaged to do water quality testing at all the lower Kaituna pump station sites which includes testing water quality in the drain above the pump station and in the receiving waterway.
- Staff emphasised that there are going to be some big changes and challenges ahead. The Land Management Team is currently working on identified focus catchments and working with landowners to improve land use practices e.g. better nutrient management, treatment wetlands, bio-reactive treatment, less exposure of cattle to pasture during low growth periods.
- Suggestion was made that Regional Council needs to be working with DairyNZ now so the industry can start moving in the right direction and then Plan Change 12 changes might not need to be so big or sudden. The industry should be in a support role, helping Regional Councils meet requirements of the National Policy Statement for Freshwater Management.

8 Flood Repair Project update

Tony Dunlop spoke to the report provided in the agenda pack and delivered a presentation showing progress with the April 2017 Flood Repair Project.

Key points included:

- Work in the Kaituna has been slow to start as were unable to locally source suitable graded rock. Have been carting rock from Matamata and stockpiling for the high priority jobs. Now have a secure rock supply from Kaitemako Quarry (Welcome Bay) and work in the area will increase.
- 45 repair sites in the Kaituna Catchment. As at 28 February 2019 seven sites completed, 12 sites planned for completion by 30 June 2019, leaving 26 sites to be completed before the project ends in June 2021.
- Unrepaired sites are being monitored closely. Some sites are getting worse, some are starting to 'self-heal', and in some situations changes to the initially intended repair method are needed.

9 Engineering update

Mark Townsend spoke to the report provided in the agenda pack and delivered a presentation covering the following topics:

9.1 Utuhina Stream upgrade

- Work continues on extending and calibrating the existing stream model. Scheduled to be ready to trial options by end of June 2019.
- Model will be used to prepare flood hazard maps and undertake a flood risk assessment.
- Will then work with Rotorua Lakes Council on possible solutions to achieve the 1% AEP (Annual Exceedance Probability) level of service.

9.2 Ford Road Pump Station upgrade

- Preferred option, determined following multi-criteria analysis, is to move Ford Road discharge to alongside the Diagonal Pump Station.
- During consultation with iwi a request was also made to move the discharge from the Maketū Pump Station from the estuary to Diagonal Drain. Preliminary investigations indicate this is not possible without double pumping and any action has been put on hold at this stage.
- The biggest challenge with this upgrade project is achieving water quality standards required to get resource consent. Not allowed to discharge water of lesser quality than the receiving environment. Will not get resource consent if unable to find a solution. The following treatment options are being investigated:
    - Treatment wetland at pump station (would need to be 100 hectares to achieve targets)
    - Catchment-wide solutions e.g. treatment at source (mitigate loses from individual properties), wood chip bioreactor systems in farm drains and scheme drains to catch nutrients, riparian planting, floating wetlands, improved farm management practices, retirement of land/change of land-use.
- Ford Road catchment has been designated one of the focus catchments for the Land Management Team.
- Project Options Study Report and Business Case will be presented to Council by June 2019. Consenting ($80,000) and design ($200,000) of the new pump station will occur in 2019-2020. Construction planned for 2020-2021 ($2.2m).

Discussion:

- Question raised as to why the existing wetland area could not be used as a treatment wetland. Explained that the wetland is administered by Department of Conservation and is designated a Wildlife Management Reserve and cannot be used as a treatment wetland.
- Suggestion made that a regular pumping cycle could be set up to synchronise with the tide cycle alleviating discharge to the estuary. Staff responded that this option is being investigated.
- Suggested that because it is such a process to get resource consent why not stick with existing pump station. Explained that both the Ford Road and Maketū pump stations discharge into the Coastal Marine Area and are currently not consented as is a permitted activity. As a permitted activity the pump station discharge cannot have any negative effects. Doing nothing is not an option.
- The issue of froth and discolouration was discussed. Cause by lignin breakdown and is a seasonal natural process and no fault of the scheme. Questioned how the scheme can be penalised for a natural process.

9.3 Kaituna River desilting

- Site visit on 6 November 2018 to observe the current state of drain outlets in to the Kaituna River, looking at any obstructing sedimentation and any changes from the previous visit in 2015.

- Decision made to focus on dredging the drain outlets, where the sediment drops, to achieve better flow.
- The outlets visited were prioritised for sediment removal as follows:
    1. Bell Road Drain
    2. Waiari Canal
    3. Kopuaroa Canal
    4. Raparapahoe Canal
- In process of engaging a suction dredge contractor to undertake the work. Budget of $150k in 2018-2019 and $150k in 2019-2020.
- Still looking at dredging the Kaituna River. Need to do an analysis of the sediment to see if it has a commercial value.

9.4 Bell Road Drain modelling

- Modelling has been a challenge. It is a complex catchment combining low lying land, intensive urban development and the Tauranga Eastern Link (TEL).
- Model is calibrated but not perfect. Accepted that it is the best we can do without spending a lot more time and money.
- Have not found a situation that shows the TEL culvert creates any impediment.
- Next steps are to match drone footage to the model to complete calibration, share this information with landowners and check that what the model shows is what they experienced, use the model to come up with options and then work with NZTA and Tauranga City Council on solutions.

Discussion:

- Comment made that this process is taking far too long and something needs to be achieved soon. Members asked that this be given high priority. Reassurance given that this work has been the highest priority. Model calibration is complex and takes time.
- Bruce Crabbe advised that a lot of work has been occurring at an operational level and reiterated that the work from the Bell Road landowners meeting will be completed by winter. Comment made that landowners were expecting follow-ups on the meeting actions and had not been receiving them.

ACTION: Bell Road landowners to be updated on progress against meeting actions.

9.5 PukePine Consent

Consent application has been made and publicly notified. Objections were received and hearing is scheduled for May 2019.

9.6 Te Puke Stormwater

- Significant technical discussions with Western Bay of Plenty District Council on stormwater and flood modelling requirements.
- Good modelling and analysis required to inform any upgrade recommendations.
- Expectation is that Western Bay of Plenty District Council will pay a portion of any upgrade costs.
- A lot of in-fill housing occurring in Te Puke and this can be done without any input from Regional Council.
- River scheme rating system is out of date and needs review. There has been a lot of development and new subdivisions, and people benefiting from flood protection are not necessarily paying targeted rates. Also need to be reviewing levels of service because of land use changes.

10 Finance report

Andy Dixon spoke to the finance report provided in the agenda pack giving an overview of the scheme's revenue and expenditure for the first seven months to 31 January 2019.

Key points included:

- The scheme has high reserve balances and is in a good financial position.
- Reserves are being used to limit rate increases.
- Interest rates continue to be low and indications from the Reserve Bank are that low rates will continue for at least another year. This is good news for the outstanding scheme loans of $3.8m.

12:30 pm - meeting adjourned for lunch

12:50 pm - meeting reconvened

11 General business

11.1 Bylaw and policy reviews

Chris Ingle spoke to the report provided in the agenda pack.

Key points included:

Floodway and Drainage Bylaw Review

- Floodway and Drainage Bylaw 2008 due to be reviewed (required to be reviewed every ten years).
- Most aspects of the review will be technical, ensuring that rules are up-to-date with best practice drain management and current engineering requirements.
- The revised Bylaw will be open for public consultation and the river scheme advisory groups will be a key component of this.
- Public consultation is intended to commence early in 2020 with the new Bylaw adopted in June 2020.

River Scheme Rates Review

- Kaituna Advisory Group members requested a rating review for the Kaituna catchment in their Long Term Plan submission in 2018.
- Council is looking at the fairness of the current rating system and is scoping and prioritising schemes for a rating review.
- First review to start next financial year.

11.2 Submission to Western Bay of Plenty District Council draft Catchment Management Plan

Kirsty Brown summarised Regional Council's submission on the Western Bay of Plenty District Council's draft management plan.

- Submission made in November 2018.
- Main submission point was that there has been no assessment of the effects on the Kaituna Catchment Control Scheme or how Western Bay of Plenty District Council intends to mitigate the effects.
- The Catchment Management Plan has now been submitted to Bay of Plenty Regional Council to support Western Bay of Plenty District Council's application for a comprehensive stormwater consent.

- Next step, and opportunity for further input, will be when the consent application is publically notified.

11.3 Other

Questions from members were discussed and responded to:

- Feedback provided that Marshall and Armer pumps have improved things a lot. Operation is still manual at the moment and working on getting telemetry set up.
- Culvert on Cruickshank's flowing into Diagonal Drain use to have a floodgate but it was removed during the last upgrade. Following the Christmas event it took four days for the water to drain which is longer than usual.
- Comment made that there has not been any landowner involvement in the Ford Road Pump Station upgrade. Group advised that consultation is not at that stage yet. Consulting with iwi first, then directly affected landowners and then other stakeholders.
- The effect of changing land use needs more of a focus in planning and management. Urban development is having a huge impact on the scheme and experiencing big impacts from not so extreme events. Council is very aware of land use changes and the last Asset Management Plan update included land use as a key issue for management of the river schemes.
- Update on Kaituna Re-diversion. Pim de Monchy responded that 60% through the project, ahead of schedule and on budget. Project completion expected June 2020.
- Observation made that floodgates are not opening at low tide because of the silt in the Kaituna River. Bruce Crabbe responded that it should flush every tide cycle and would only be an issue if silt was burying the gate.
- Progress update on installation of fish friendly flood gates. Process is that all new floodgates are fish-friendly and also slowly upgrading floodgates in catchment areas where sustainable fish populations are present.

ACTIONS:

- ***Investigate need for floodgate on culvert from Cruickshank's Drain into Diagonal Drain.***
- ***Investigate floodgates not opening at low tide.***

Meeting closed at 1:40 pm

Action Sheet

Kaituna Catchment Control Scheme Advisory Group Meeting

13 March 2019

Action	Person Responsible	Completed	Comment
1. Future meeting agendas to have a standing item of Co-governance and Community Group updates.	Jo Heath	✓	
2. Bell Road landowners to be updated on progress against meeting actions.	Bruce Crabbe	✓	Landowner meeting held on 25 July 2017
3. Investigate need for floodgate on culvert from Cruickshank's Drain into Diagonal Drain.	Bruce Crabbe	In progress	Update to be provided at September meeting
4. Investigate floodgates not opening at low tide.	Bruce Crabbe	In progress	Update to be provided at September meeting
5. Report back on geotechnical assessment of stopbank seepage on Doug Pamment's property (original action from Feb 2018 meeting).	Mark Townsend	In progress	Update to be provided at September meeting

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **River Scheme Advisory Group Members**

From: Kirsty Brown **Date:** 15 August 2019

Rivers and Drainage Assets Manager

File Ref: A3323946

Subject: **Review of the Floodway and Drainage Bylaw 2008**

Background

The Floodway and Drainage Bylaw was established for the protection of river and drainage scheme assets, such as pump stations, drains and stopbanks, from damage or misuse. It only applies to assets which are owned or under the control of Regional Council. The bylaw sets what can and cannot be done in the vicinity of scheme assets, the process for gaining 'bylaw authority' for works, and the remedies available to Council for non-authorised and non-compliant work.

The Local Government Act 2002 requires Council to undertake a comprehensive review of its bylaws ten years after the last review, and within a two year time frame from that review date. Review of the Floodway and Drainage Bylaw 2008 needs to be completed by June 2020.

Identified issues

An internal review of the effectiveness of the existing bylaw is currently underway. Overall staff consider the bylaw rules effective for the protection of the rivers and drainage scheme assets. However, some key issues have arisen since the previous review including:

- Poor public and territorial local authority awareness of the bylaw's existence and requirements.
- Changes in land use, in particular conversions from dairy to kiwifruit.
- Possible need to increase bylaw applicable areas to ensure specific geotechnical issues are managed appropriately.
- The need for stronger restrictions on activities like ploughing and fencing that can accelerate seepage pressure development.
- Review of enforcement powers and processes.
- Review of application fees.
- Clarification of some of the bylaw's definitions.

Consultation and community engagement

Early engagement is planned with River Scheme Advisory Groups and key stakeholders, including tangata whenua, territorial local authorities and landowners. Workshops will be arranged with advisory groups in October/November 2019 where the proposed changes and amendments to the bylaw will be presented and discussed in detail.

The input we will be seeking from advisory group members includes:

- Feedback and comments on the recommended changes and amendments.
- To discuss the bylaw review within your networks and provide feedback from the communities perspective.
- Support at community open days during the consultation process.

Timeframes

Anticipated timeframes for the bylaw review programme are:

Date	Stage required
September 2019 – March 2020	Early engagement with key stakeholders – river scheme advisory groups, tangata whenua, territorial local authorities and landowners
February 2020	Public launch of review
February – March 2020	Council workshop to discuss recommendations and comments from early engagement and data gathering
March 2020	Adoption by Council to begin the formal Special Consultative Procedures
March – April 2020	Consultation events
May 2020	Hearings panel convened
Early June 2020	Deliberations panel convened
Late June 2020	Council adopts the bylaw

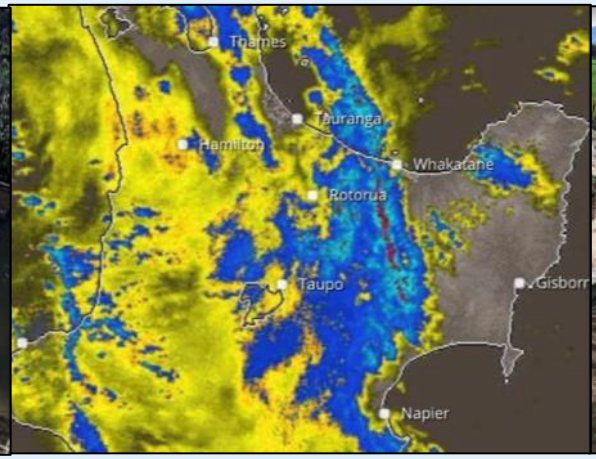
Kirsty Brown
Rivers and Drainage Assets Manager

Kaituna Operations Update

Scheme Works Update to Kaituna Advisory Group
4 September 2019 meeting

Kaituna Scheme works and maintenance, Capital Works, Upper Kaituna April 2018 Flood Repairs, and Lower Kaituna April 2017 Flood Repairs





Bell Road A Pumpstation

Capital Works

- Permanent temporary EuroFlow HD-PE 800mm pumping with Humes concrete 600-1050mm wing wall PE flapped outlet

McLeod's Outlet into Kopuaroa

600mm EuroFlow HD-PE piped gravity outlet with Humes concrete 600-1050mm wing wall and 800mm PE flap

Drain Maintenance

Raparapahoe Canal

Before

After

Bell Road No2 Drain

Before

After

Armer's and Marshall's Pumps

Marshall's Pump

Proposed Presto Shed installation for both sites. With a solar panel or small transformer for lighting etc.

Kaituna Depot

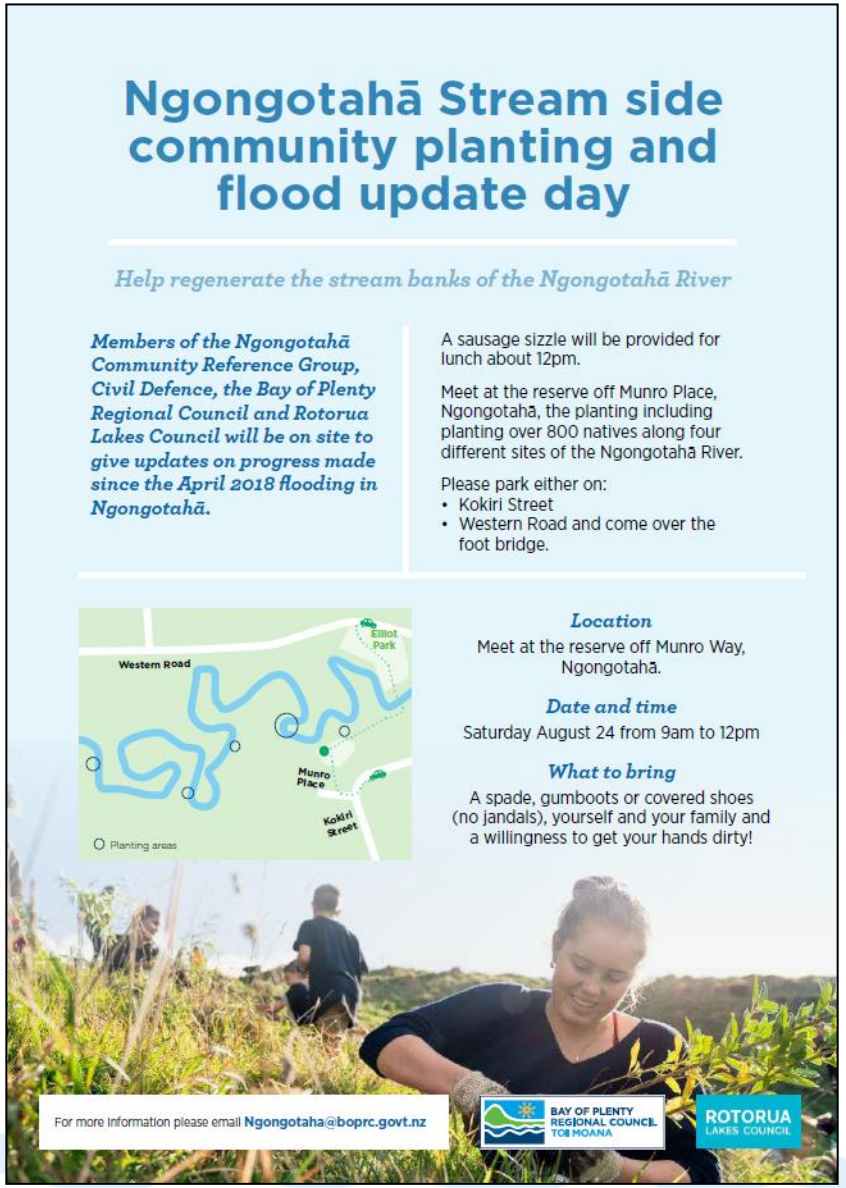
Ngongotaha

- Since the April 29 flood, 118 sites requiring action have been logged in Fulcrum from stream inspections.
- 75 of the highest risk/priority sites have been repaired, these include both erosion and vegetation removal sites.
- Since the March advisory group meeting further works in the lower reaches at Taui Street have been completed.
- Large rotten vegetation removed, undercut bank repaired and future access for maintenance works re-established.

Ngongotaha

- 150m of stopbank has been rebuilt at the Ngongotahā Stream mouth left and right banks and the left bank has been rock armoured.
- 3,000 plants have been planted to stabilise erosion repair sites within Ngongotahā, with another 3800 plants on order for the winter planting season.
- Smaller erosion sites are having the banks battered back and stabilised with native grasses.

FYI - Planting day Sat 24th August. FREE SAUSAGES



Ngongotaha

Erosion and vegetation blockages removed at 29-31 Western Road.

Arborist removed large trees, BOPRC undertook erosion works, then site was hay mulched.

To date 4800 tonne of graded rock spawls have been utilized in rock armouring erosion damage repairs on the Ngongotahā channel since the April 2017 flood.

Other Rotorua streams:
Mangakakahi, Otamatea, Puarenga, Waitetī, Waiowhiro and Utuhina

Vegetation removal
Puarenga Stream

There is a further 172 sites identified in the scheme area on other Rotorua streams.

46 are erosion sites and 22 of these have been completed. 900 tonne of rock spawls have been placed to repair these sites.

Row	Lower Kaituna River Scheme: 2018 - 2019 Maintenance Works Programme					
	16/08/2019				Objective ID: A2940522	
	Reach	**Work Type & Site**	**Annual Budget**	**Location**	**Proposed Estimate**	**Status**
1	**General**	Fly tipping and rubbish collection/disposal	**$8,000**			
2		Pest Control	**$8,000**			
3						
4	**Reach 1:**					
5	**Mouth to Te Matai (including**	**Riverbank Weed spraying**	**$6,200**			
6	**Maketū Est.)**	Gorse spraying		R/b 11.7-12.0 km	$1,000	Completed
7		Blackberry spraying		R/b 12.0-12.6 km	$1,000	Completed
8		Glyseria spraying various areas (boat)		Various L&R Banks	$3,000	
9						
10		**Willow Maintenance**	**$9,100**			
11		Mulching		L/b 12.0-12.6 km	$1,800	
12		Mulching BOPRC lease. In conjunction with insurance works		R/b 10.6km	$3,000	Completed
13		Tree removal		L&R/b 12.2km	$3,500	Completed
14		Tree removal - Pamment's In conjunction with rock work		R/b 5.2-5.4 km	$3,500	Completed
15						
16		**Planting**	**$4,700**			
17		Willow/active planting - Māori Trust. Needs battering prior to planting		R/b 17-17.1km	$2,000	Deferred
18						
19		**Rock replenishment**	**$46,400**			
20		Titchmarsh (ex) - BOPRC lease. KT149 2019-2020		various	$20,000	Deferred
21						
22		**Fencing Maintenance**	**$4,200**			
23		Fencing (tbc)		various	$2,000	Completed
24						
25		**River & Estuary maintenance general** (desilting)	**$29,800**			
26		McKenzie culvert outlet.			$2,000	Completed
27		Bell Rd Drain outlet			$3,000	Completed
28						
29	**Stopbanks**	Minor floodgates Inspection	**$700**		$700	Completed
30		Stopbank miscellaneous maintenance	**$4,900**		$4,900	Completed
31						
32	**Bell Road Floodgates**	Floodgate Maintenance & inspections	**$3,700**		$3,731	Completed
33						
34	**Managhs culvert**	Floodgate Maintenance & inspections	**$3,400**		$3,364	Completed
35						
36	**Browns Culvert**	Floodgate Maintenance & inspections	**$3,400**		$3,364	Completed
37						
38	**Wetland Culvert**	Floodgate Maintenance & inspections	**$3,400**		$3,427	Completed
39						
40	**Maketū &**	Floodgate Maintenance & inspections	**$3,000**			Completed
41	**Other Floodgates**	McKenzie culvert replacement (tbc). Investigating replacement options.			$25,000	Deferred
43						
44	**Reach 2:**					
45	**Te Matai to Mangorewa**	**Riverbank Weed spraying:** Malcolm/Scudder	**$4,100**	Various sites	$2,200	Completed
46		Gorse & pampas at existing rockworks		Various	$3,000	Completed
47						
48		**Willow Maintenance**	**$1,200**			
49		AFFCO mulch and remove		R/b13.75 - 14 km	$3,600	Deferred
50		Welds		L/b14.6 - 15 km	$3,600	Completed
51		Trust Block - McMeeking Road		L/b 16.8-16.9km	$3,200	Deferred
52		Tanners		L/b 18.6 - 18.8 km	$2,400	Deferred
53		Tanners		L/b 17.45 km	$2,500	Deferred
54						
55		**Planting:** Weld's	**$600**		$1,000	Deferred
56						
57		**Rock replenishment** (where required)	**$36,900**		$1,500	Deferred
58		Weld's. Consolidating, monitor.		L/b 15.1-15.2km	$10,000	Deferred
59						
60		**Fencing**	**$500**	Various	$500	Completed
61						
62	**Stopbanks**	**Stopbank miscellaneous maintenance**	**$2,000**		$2,000	Completed
63		**Floodgate Maintenance**	**$600**		$600	Completed
64						
65	**Reach 3:**					
66	**Canals & Drains**	**Canal Weed spraying**	**$11,200**			
67		Raparapahoe/ Kopuaroa various properties		R/b -L/b	$3,000	Completed
68		Channel / bank spray maintenance, pampas etc.			$2,000	
69						
70		**Canal and drain repairs**			$5,000	
71		Bell Road A P/s drain: Investigation underway			$5,000	Completed
72						
73		**Canal desilting**	**$98,800**			
74		Riddel's		R/b 0.0-1.0 km	$2,000	Deferred
75		Diagonal Drain		R/b 2.0-5.3 km	$5,500	Deferred
76		Internal Drain		R/b 1.1-2.2 km	$2,500	Deferred

77						
78		**Drain Desilting**	**$66,300**			
79		Bell Rd No 1 drain		L/b 3.2- 5.2 km	$5,500	Completed
80		Bell Rd No 2 drain: Remove trees, install 6 gates		R/b 0.0 - 1.2 km	$12,400	Completed
81		and install 6 culverts to allow excavator access				Deferred
82		Managh's Drain		R/b 0.0-0.9 km	$1,200	Deferred
83						
		Parawhenuamea				
		Desilt twice yearly				Completed
		Parrots Feather spraying x4 yearly				Completed
84		**Waiari Stream**				
85		Bank erosion repairs. Deferred to complete with desilt in 2020.		L/b 2.55 - 2.65 km	$28,000	Deferred
86						
87		**Kopuaroa Canal**				
88		Remove silt from canal edge and reshape		R/b-L/b 4.2- 4.9km	$3,600	Completed
89		Mulch gorse & blackberry - Dovastons		L/B 1.6-2.2 km	$1,200	Completed
90						
91		**Raparapahoe Canal**				
92		Willow maint various properties		R/b 3.9 - 5.7 km	$4,200	Deferred
93						
94		**Ohineangaanga Canal**				
95		Remove spoil off berm on right bank. Now to be toe loaded on landward side.		R/b 00.0-0.40km	$5,000	Deferred
96						
97		**Aquatic Weed Spraying**	**$30,100**		$30,000	Completed
98		**Weed Cutter Boat**	**$1,700**		$1,700	Completed
99		**Drain deweeding**	**$32,700**		$33,000	Completed
100						
101						
102		**Minor Clearing of obstructions in tributary streams** (generally				
103		upstream highway)(5k per stream). Various sites.	**$20,000**		$20,000	Completed
104						
105		**Rock maintenance**	**$5,900**			
106		Nuzums Drain: Rockworks		R/b 0.0- 0.050km	$7,000	Deferred
107		Borough Drain: rockworks		L/b 0.0 -0.05 km	$7,000	Deferred
108						
109		**Extraordinary works following Bell Road ratepayer meeting:**				
110		Bell Road culvert (WBOPDC) floodgate installation			$10,000	On hold
111		McLeod's new outlet culvert into Kopuaroa Canal			$40,000	Completed
		Bell Rd A pump station mobile pump outlet. Completed on Capital Works.			$35,000	Culvert completed
112						
113	**Stopbanks**	Stopbank Miscellaneous Maintenance	**$4,500**		$2,000	Completed
114		Minor Flood Gates	**$1,200**		$600	Completed
115						
116	**Pump Station Maintenance:**					
117	**Kopuaroa** (No. 3)	Pump Maintenance	**$19,600**		$2,000	Deferred
118		Replace chain No 2 pump and replace seals			$500	Deferred
119		Lift No 1 pump riser sand blast and paint			$3,000	Deferred
120						
121	**Bell Road A** (No.1)	Pump Maintenance	**$7,000**			Completed
		Yard fencing and access improvements			$2,000	Completed
122		No1 replace lifting chain			$500	Completed
123		No 2 Replace cable lifting chain and oil			$800	Completed
124		Shed requires maint			$1,000	Deferred
125		Lift No1 pump riser sand blast and paint and refit			$3,000	Completed
128						
129	**Bell Road B** (No.2)	Pump Inspection	**$7,000**		$2,000	Completed
130		Replace pump lifting chains			$500	Completed
131		Replace ultra sonics / transducer			$1,500	Completed
132						
133	**Bell Road C** (No.5)	Compound Maintenance	**$13,600**			Completed
134		Mow compound			$2,000	Completed
135		Diesel	**$5,500**		$6,000	Completed
136						
137	**Diagonal Drain**	Pump Maintenance	**$22,600**		$11,000	Completed
138		Reshape ground for lifting pad			$1,500	
139		install pad over gravity discharge pipe			$2,000	
140		Lift No 1 pump riser sand blast, paint and refit			$4,500	
141						
142	**Ford Road** (No.6)	Pump Maintenance	**$13,900**			Completed
143		Floodgate maintenance			$2,000	Deferred
144		Replace roof			$3,500	Deferred
145		Lift No 1 pump riser sand blast, paint and refit			$4,000	Deferred
146						
147	**Maketū** (No.7)	Pump Maintenance	**$13,600**		$9,500	Completed
148		Install false roof (Existing roof cracking)			$4,000	Deferred
149		Floodgate maintenance			$1,000	Deferred
150		Discharge headwall repairs			$1,000	Deferred

151		Replace flood light and install security light			$3,000	Deferred
152		Lift No 1 pump riser sand blast, paint and fit			$3,000	Deferred
153						
154	**Pump Electricity**		**$106,800**		$107,000	Completed
155						
156	**Storm water pumping**	(e.g. Marshall/Armer/Bell Rd A as required)	**$22,500**		$22,500	Completed
157						
158						
159		**Total Annual Maintenance Costs**	**$689,300**			
160		**Annual Flood Damage Repair Allowance**	**$170,000**			
161		**Overall Maintenance Total Expenditure**	**$859,300**			

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: Kaituna Catchment Control Scheme Advisory Group

For period 1 February to 31 July 2019

From: Paula Chapman **Date:** 15 August 2019

Project Manager - Flood Recovery

File Ref: A3325623

Subject: **Status Report - April 2017 Flood Repair Project**

April 2017 Flood Event

In early April 2017, the Eastern Bay of Plenty was hit by ex-Tropical Cyclone Debbie. The cyclone brought with it prolonged torrential rain, resulting in rising river levels across all the rivers and waterways in the region. The cyclone dropped considerable rainfall over the entire Bay of Plenty area which produced record high river levels and flows. In the Rangitāiki, flows reaching the Matahina Dam were 20% higher than ever recorded. Flows in the Whakatāne River were captured as 34% higher than previously recorded.

The event resulted in significant damage to river and drainage networks and assets across the region, from the Kaituna in the west through to the Waioeka-Otara catchment in the east.

1.0 Programme Update

1.1 Programme update summary

- The flood recovery project is two years into the estimated four year programme. Physical repair works have been steady across the programme as conditions and material availability have allowed.
- As at 31 July 2019, 258 site repair works are complete from the total programme of 520 sites. This work includes many of the highest priority works. In the case of the Kaituna Catchment Control Scheme nine sites from a total programme of 45 sites have been completed.
- The most visible repair associated with the total project is the College Road stopbank rebuild which is was completed in December last year.
- The process for claiming eligible costs from central government has been established. Current claims are for essential infrastructure repairs. Claim 7 was received early August and Claim 6 is currently with the Ministry of Civil Defence and Emergency Management (MCDEM) awaiting approval.
- Communication and stakeholder engagement has been a feature of the project as there is a high level of public and stakeholder interest in the recovery from the April 2017 floods and this will continue.

- A progress payment for Infrastructure Insurance has been received ($2,000,000) and a second payment has been requested.

1.2 Health and Safety

- Projects are managed and delivered in keeping with Council's standard Health and Safety policies, processes and contractor requirements. SHE (Safety, Health and Employment) certification is a requirement for the Rivers and Drainage Panel Contractors. On site Health and Safety site audits are standard practice for commissioned works. To date no health and safety concerns have been raised across the programme.

1.3 Environment and Heritage

- Priority assessment has occurred for known sites of cultural significance. Staff continue to liaise with Iwi and hapu stakeholders to inform site works.
- Works comply with the Regional Natural Resources Plan, BOPRC policies and bylaws for the Rivers and Drainage activities.
- The team is working with Coastal Catchments (Land Management) to identify opportunities to work together to increase inanga and tuna habitat.

1.4 Quality

- Sections of river are re-inspected prior to developing the detailed work scope for each site. Job specifications and design are included as part of a standard approval and procurement process. Due to the passage of time more often than not high priority sites are showing increased levels of damage compared to initial assessments and estimates.
- Job completion includes the capture of new or repaired assets into Council's Asset Management System.
- Dedicated administration resource is supported the planning, procurement and funding recovery process.

1.5 Communications and Community and Stakeholder Engagement

- An increase in BOPRC communications staff resource has supported the delivery of the project. Council continues to input into the regular established newsletters, such as the Edgecumbe Collective Newsletter and the Regional Council website to keep the community informed on work plans and progress. The project page is now included on Council's web site and interested people can follow the page to ensure they receive regular updates. https://www.boprc.govt.nz/our-projects/april-2017-flood-repair-project/

1.6 Procurement

- Work to date has centered mostly on high priority repair projects. The total programme is made up of multiple smaller projects and these have been delivered utilising established Rivers and Drainage Panel Supplier contract agreements. The panel approval process ensures contractors are capable of the work and hold the necessary accreditations and insurance cover. Existing contracts were renewed for a further three year in February 2019 and where resource gaps were evident new suppliers were invited to join the panel.
- The lack of suitable graded rock supply has constrained the programme of works in the eastern Bay of Plenty, specifically work on the Whakatane, Rangitaiki and Tarawera Rivers.

- Rakauroa Quarry (Matawai) has supplied all Ōpōtiki and Tauranga (Waimana) sites, and Alan Rust Quarry (Te Mahoe) the upper Rangitaiki work.
- Kaituna rock work is supported by Poplar Lane (Papamoa) and Kaitemako Quarry (Welcome Bay).

1.7 Programme Delivery

• A total of 520 sites have been identified in the repair programme across the region, 45 are associated with the Kaituna Catchment Control Scheme
• Across the programme 258 sites have been completed, nine of these are in the Kaituna Catchment Control Scheme
• The programme of desilting and drainage bank repairs is 92% complete across the Rangitaiki Drainage network
• 145 sites were originally programmed for completion in 2018/19 year, and due to the constrained rock supply only 130 of those were completed
• Total programme completion date remains at 30 June 2021
• 148 sites are programmed for completion in 2019/20 year, 19 of those are in the Kaituna Catchment Control Scheme

Key sites completed in 2018/19 include:

- KT107 Pamment 6.4 RB – this work involved repair of existing rock erosion protection and extension of that asset. Total finished length is now approximately 350 lineal metres.
- KT110 Lease 11.1 RB – this work involved rockwork of approximately 600 lineal metres. River edge planting was the only existing asset prior to the work being done.

Key sites planned in 2019/20 include:

- KT151 various sites 3.2-4.5 RB – this site is a total of 1.3 km and is located 700 m upstream of the Diagonal Pump Station outlet. The actual erosion at the site appears to more in the range of 500 metres. There are a lot of dead trees, debris and pest plants through this reach also.
- KT106 Hurst 5.9 LB - is underway and completion is expected end of August. The work involves strengthening existing rock erosion protection.

1.8 Financial

Forecast Costs total programme

Estimated total programme cost Kaituna	$3,387,155
Estimated betterment value	$2,123,843

2017/18 Actual Costs

Total expenditure (30 June 2018) – for infrastructure works	$135,335

2018/19 – Actual Costs

Expenditure budget	$1,249,600
Total expenditure (30 June 2019) – for infrastructure works	$1,245,475

2019/20 – Actual Costs

Expenditure budget	$1,645,000
YTD at 31 July 2019 – for infrastructure works	$0

2.0 Programme Risks and Issues

Risk/Issue	Description	Action/management	Owner
Ground conditions	Wet conditions restrict work programme	Undertake soft engineering works and rock stockpile work during winter months Undertake drain bank repairs in summer	BOPRC
Weather	Future weather events will exacerbate damaged sites	Complete site works in priority order as this factors in risk and consequence	BOPRC MCDEM Insurer
Weather	Severe weather event may cause new damage	Review works programme against new works (annual flood damage)	BOPRC MCDEM Insurer
Rock material availability	Suitably graded rock supply is restricted and the operating environment is variable	Working with rock sources to supply suitable material for works in Ōpōtiki (Rakauroa Quarry in Matawai) and Rangitaiki (Ywari Quarry in Manawahe), and Kaituna (Kaitemako) Encourage new rock sources to enter Council's prequalified panel supplier schedule Investigate opportunities to support new quarry's in the Eastern Bay of Plenty	BOPRC
Resource	Staff resource is limited for oversight of on-site works	Using in-house resources (Area Engineers) to supervise some sites. Additional contract resource for rock grading/audits and works completion asset capture	BOPRC
Programme length	Property owners want works associated with their property undertaken first	Implement communications and engagement plan Direct communication with property owners	BOPRC
Insurance	Claim limits for individual works are not known	Aon insurance specialist supporting claim process	BOPRC Aon
Cost	Cost exceeds budget	Work closely with MCDEM and Insurers, maximise contributions from other stakeholders	BOPRC Aon MCDEM Insurer

3.0 Recoveries

- Loss adjustors have been assigned for the infrastructure claim and the material damage claim. Staff are working with insurance specialists Aon to progress the insurance claims process to date which has been slow.
- The project team are working with the central government (MCDEM) representative and are comfortable with the process and speed of recoveries to date.

4.0 Expected Progress within the Next 6 Month Period

- Complete 40% of Kaituna works
- Lodge and receive MCDEM Claims 6 (Part 2 Edgecumbe) and Claim 8

- Complete Rangitaiki desilting and drain bank repair work
- Complete flood pump station repairs (Te Rahu)
- Submit request for a further infrastructure insurance progress payment

Paula Chapman
Project Manager – Flood Recovery

Flood Repair Project

Two extreme weather events in early April 2017 brought prolonged torrential rain to the Bay of Plenty. The resulting record high river levels and extensive flooding caused significant damage to river and drainage networks and assets across the region.

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

Repairing the damage

520
repair sites

Total budget in excess of **$45m**

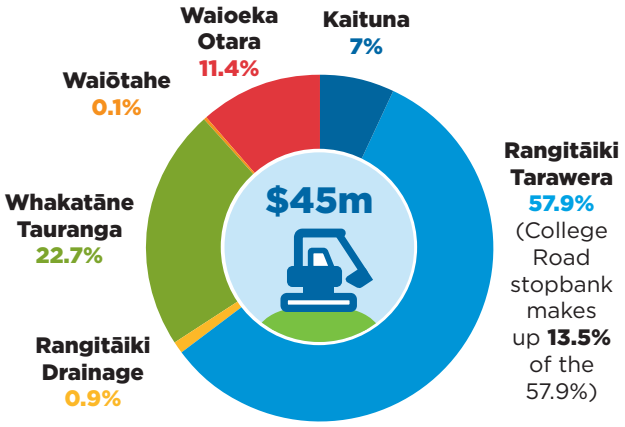
All repairs to be completed by **30 June 2021**

63% of **high priority** sites are complete

We're repairing the damage to protect our **people, property and livelihoods**

Repair costs by River Scheme

The **Rangitāiki-Tarawera Rivers Scheme** was the worst affected, accounting for **more than half** the repair budget.



Tracking our progress

Rangitāiki Tarawera	Whakatāne Tauranga	Waioeka Otara
224 sites	108 sites	59 sites
70 complete	40 complete	50 complete

Rangitāiki Drainage	Kaituna	Waiōtahe
53 sites	45 sites	31 sites
49 complete	9 complete	All sites complete

249 SITES 48%
completed as at **30 June 2019**

College Road **stopbank realignment**
COMPLETE

What's happening in 2019-2020

2019-2020 budget
11.1million

To complete:

Rangitāiki Drainage **pump station repairs**

100% of Rangitāiki Drainage sites

90% of high priority sites

Repairs to a further **148** sites across the region

For more information phone **0800 884 880** or visit **www.boprc.govt.nz/floodrepairs**

Bay of Plenty Regional Council Toi Moana
Statement of revenue and expense - Kaituna Catchment Control Scheme

For the 12 months ending 30 June 2019

Run: 06-Aug-2019

Variance Indicators					
Low		Medium		High	
<10%		10% to 30%		>30%	

Line		2018/19 Budget	2018/19 Actual	Variance $	Variance indicator		Variance comments	2019/20 Annual Plan $000
		$000						
	Operating revenue by class							
1	General rates	174	174	0	-			193
2	Targeted rates	1,823	1,823	0	-			1,927
3	External interest income	89	35	(55)	Lower		Use of flood damage reserve reduced the balance that interest could be earned on and interest rates are at a low point.	115
4	Operating grants and subsidies	68	0	(68)	Lower		No operational insurance recoveries received	0
5	Other revenue	28	43	15	Higher		Contributions from RLC for erosion repairs April 2018 event	28
6	Fees and charges	0	0	0	-			0
7	Revaluation and asset disposal gains	0	(0)	(0)	-			0
8	Investment income	264	264	0	-			290
9	**Total revenue**	**2,446**	**2,339**	**(107)**	Lower			**2,553**
	Operating expenditure by class							
10	Administration expenses	20	4	16	Lower			22
11	Other expenses	255	453	(198)	Higher		Infrastructual insurance was higher than budget due to increased asset base and global insurance industry increases	343
12	Consultancy fees	0	97	(97)	Higher		The scheme contributed 50% of the cost of the Ngongataha review	0
13	Contract work	529	391	138	Lower			541
14	Finance costs	187	167	20	Lower			321
15	Depreciation and asset disposal	568	343	225	Lower		Effect of 01 July 2018 asset revaluation	462
16	**Subtotal - expenditure**	**1,559**	**1,455**	104	Lower			**1,689**
17	**Net overhead charges and recoveries**	**569**	**769**	(200)	Higher		Higher due to additional staff time spent in this scheme than budgeted	**596**
18	**Total operating expenditure**	**2,128**	**2,224**	**(96)**	Higher			**2,285**
19	**Total operating surplus (deficit)**	**318**	**115**	**(203)**	Unfavourable			**268**

Bay of Plenty Regional Council Toi Moana
Statement of revenue and expense - Kaituna Catchment Control Scheme

For the 12 months ending 30 June 2019

Run: 06-Aug-2019

Variance Indicators					
Low <10%		Medium 10% to 30%		High >30%	

		2018/19		Variance			Variance comments	2019/20
		Budget	Actual	$	Variance indicator			Annual Plan $000
		$000						
	Capital revenue by class							
20	Capital funding	219	60	(159)	Lower		Central Government contributions in keeping with repairs being behind programme	313
21	**Total capital revenue**	**219**	**60**	**(159)**	Lower			**313**
22	**Total surplus (deficit)**	**537**	**175**	**(362)**	Unfavourable			**581**
	Capital expenditure by project							
23	Kaituna River Capital New	1,310	308	1,002	Lower		$575,000 was carried forward to 2019/20 for works on river desilting, Ford Road pump and the Kaituna mole. An additional request to carry forward remaining underspend will be made	3,127
24	Kaituna Flood Damage Repairs	1,250	1,766	(516)	Higher		Additional works were undertaken due to the availability of rock within the scheme	1,645
25	**Total capital expenditure**	**2,559**	**2,074**	**485**	Lower			**4,772**

		Opening Balance $000	Movement $000	Closing Balance $000	
26	**Reserves**				
27	Flood Damage Reserve	(2,592)	802	(1,790)	Funds available
28	Asset Replacement Reserve	(832)	(178)	(1,010)	Funds available
29	Works Reserve	(758)	(325)	(1,084)	Funds available
30	NZTA Reserve	(569)	0	(569)	Funds available
31	Re-diversion remediation	(463)	0	(463)	Funds available
32	**Internal Loans**	4,795	849	5,644	

		1/07/2017 $000	Movement $000	1/07/2018 $000
33	**Asset Valuation**	54,437	9,930	64,367

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Kaituna Catchment Control Scheme Advisory Group**

From: **Pim de Monchy** **Date:** 14 August 2019
Coastal Catchments Manager
A3335834

Subject: **Focus Catchments Programme Update**

1.0 Background

The Focus Catchments programme was developed in response to Council's new KPI to improve swimmability in the Long Term Plan 2018-28, and to better align land management work programmes with the emerging Essential Freshwater policy framework from the Ministry for the Environment. It is also likely to provide better value to the regional community in terms of water quality outcomes for each ratepayer dollar invested. The programme aims to provide a more refined approach to guide the Integrated Catchment Management group's work on water quality in key areas, and help prioritise Council's grant funding incentives to community. Following on from its presentation in May 2019, the Focus Catchments programme was approved by the Regional Direction and Delivery Committee at their 25 June 2019 meeting.

Over the past two decades, Land Management Officers have engaged with landowners anywhere in the region to offer advice and co-funding grants for activities such as riparian and biodiversity protection, pole planting, erosion control, stock races/crossing, pest management, grazing regimes, land use and nutrient management through Environmental Programme (EP) agreements. While many landowners have improved their property's environmental performance through the implementation of these EPs, the effectiveness at a catchment-scale is not known. Landowners implementing these agreements are often surrounded by others who may not necessarily be working towards water quality improvements, and monitoring improvement in water quality has generally not occurred. Much of this work has occurred during a period of gradual land-use intensification.

Council now understands that some of the region's streams, rivers, lakes and estuaries need specific reductions in contaminant levels in order to meet ecological, cultural or human health values. These range from swimming or shellfish gathering sites with too much bacterial risk, to estuaries with excessive nutrient inputs and algal growth, to streams with high sediment yields. Some catchments in the region are not under the same pressures as others. It seems logical to focus on the catchments that need our attention most.

2.0 **The Focus Catchments**

Twelve 'Focus Catchments' have been selected (Table 1, Map Appendix 1) based primarily on known water quality monitoring data and an understanding of how this affects ecological and human use values in these catchments. This focus catchments approach will also assist in meeting the Long Term Plan's KPI around improving swimmability, for example in the Kaiati Falls catchment (Waitao).

Table 1: List of the first 12 proposed Focus Catchments

Focus Catchment	**Primary water quality issue(s) as currently understood**
Rotorua Lakes Catchment Area	Various, including specific TLI targets for each lake and other targets where required
Uretara, Katikati	Reduce *E. coli* for swimmability
Te Mania, Katikati	Reduce sediment and *E. coli*
Kopurererua, Tauranga	Reduce sediment and *E. coli*
Waitao, Tauranga	Reduce *E. coli* and sediment for swimmability
Kopuaroa, Te Puke	Reduce N, P, sediment and *E. coli*
Ford Rd/ Waitepuia, Maketū	Reduce N, P, sediment and *E. coli*
Waihī Estuary, Pongakawa	Reduce N, P, sediment and *E. coli*
Awakaponga, Matatā	Reduce N, P, sediment and *E. coli*
Upper Rangitāiki, Taupō	Halt increasing nitrate trend
Ōhiwa Harbour, Ōhope / Ōhiwa	Reduce sediment (and nutrients in Nukuhou)
Waiōtahe, Waiōtahe	Reduce *E. coli* for shellfish gathering

The philosophy behind the approach is that Council's co-funding through grants and EPs is preferentially applied to the highest priority actions in each of these Focus Catchments for a defined period of time, to achieve both engagement and improvements in water quality or trend (as monitored in the attributes of concern), before moving on to the next tranches of priority sub-catchments in years to come (i.e. the preferential funding for the currently identified Focus Catchments will shift to others after a defined period to incentivise uptake of behaviours and practices to improve water quality ahead of a more regulatory approach which will inevitably follow). This will complement any regulatory approach arising from the NPS-FM and the impending Essential Freshwater programme, as these regulatory efforts would almost certainly be easier to implement if the community was already invested in achieving the required changes to water quality.

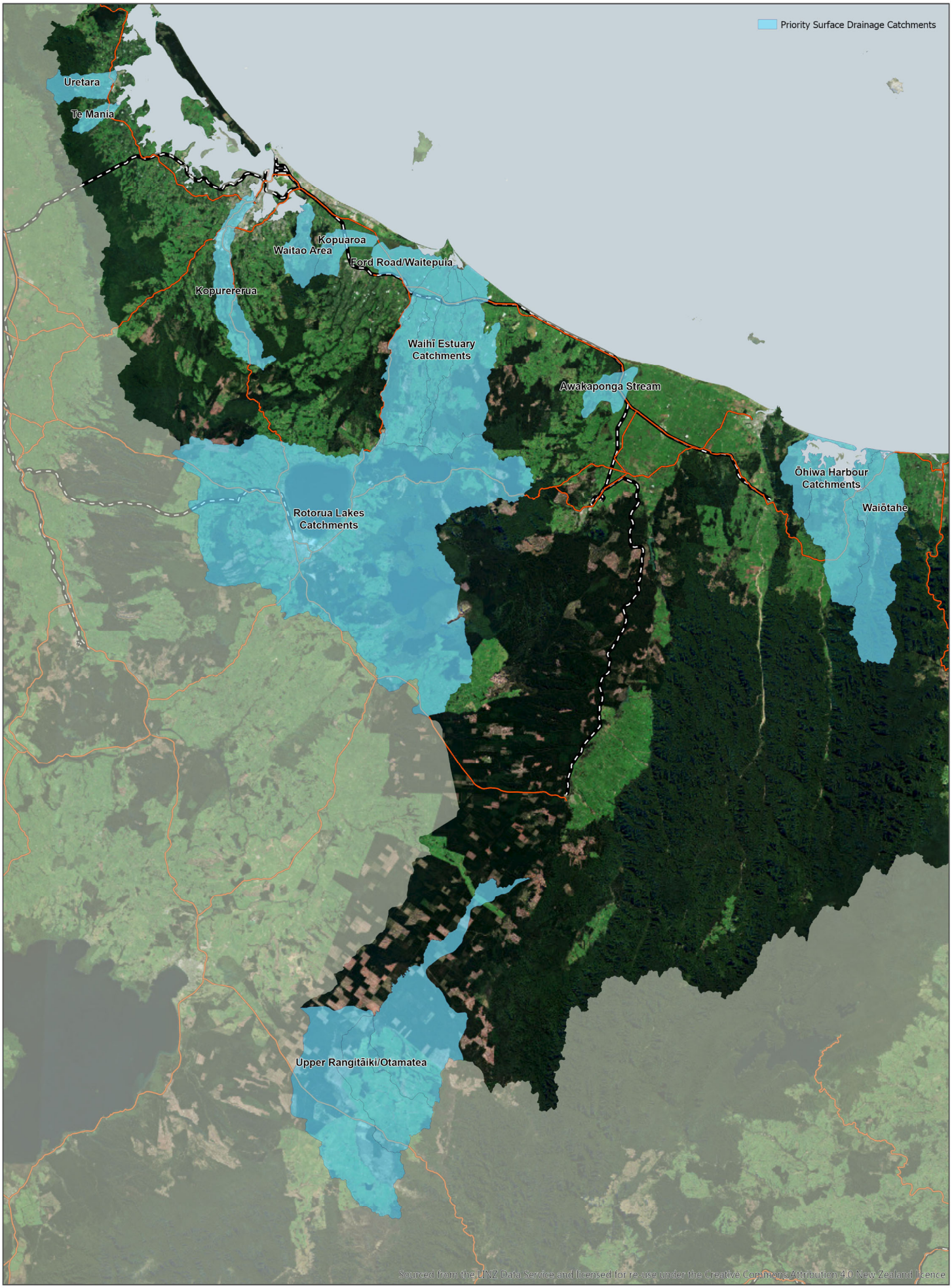
Land Management staff are in the process of developing monitoring plans for each of the 12 Focus Catchments. These will detail the monitoring required to measure changes in water quality - they also have the purpose of enabling better, more informed conversations with our communities. In most cases monitoring will include water quality samples taken throughout the catchment to create a spatial picture of water quality issues at a higher resolution than possible using only the NERMN data, as well as a time series to enable tracking of changes over time.

Depending on the catchment, ecological monitoring and monitoring of receiving environments may also be included. These monitoring plans will inform the catchment action plans which will be developed immediately afterwards. Some Focus Catchments already have good monitoring and a

catchment action plan in place. The current process will ensure that we are adopting a reasonably consistent approach across these catchments.

The Focus Catchments programme does not affect our support for Care Groups such as Coast Care, Estuary Care and Biodiversity programmes. The resourcing for these Focus Catchments will come from a reduction in the number and value of EPs outside of Focus Catchments, although existing EPs will be honoured and implemented through until their expiry.

Pim de Monchy
Coastal Catchments Manager



BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

HORIZONTAL DATUM:
New Zealand Geodetic Datum 2000
For practical purposes, NZGD2000 equates to WGS84
VERTICAL DATUM: Moturiki
PROJECTION: New Zealand Transverse Mercator 2000

BOP FOCUS CATCHMENTS

Scale1:501,424(A3)

10 0 10 20 30
Kilometres

577819_SubCatchmentAreaMaps_Coastal
Sheet 1 of 1
Printed 12/07/2019