



Rangitāiki-Tarawera Rivers Scheme Advisory Group Meeting

Wednesday 20 March 2019 at 10am

Mataatua Meeting Room (CMR1)
Bay of Plenty Regional Council
5 Quay Street
Whakatāne



Rangitāiki-Tarawera Rivers Scheme

Advisory Group Meeting

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Agenda

- 1 **Welcome**
- 2 **Apologies**
- 3 **Notes of previous meeting held 12 September 2018**
- 4 **Matters arising from previous meeting**
- 5 **River Scheme governance/continuous improvement**
- 6 **Operations update**
- 7 **Flood Repair Project update**
- 8 **Engineering update**
- 9 **Communications update**
- 10 **Finance report**
- 11 **General business**
 - a. Gravel management update
 - b. River scheme rating classification review
 - c. Floodway and Drainage Bylaw review

Notes of the Rangitāiki-Tarawera Rivers Scheme Advisory Group meeting held at EastBay REAP, Whakatāne, on Wednesday, 12 September 2018, commencing at 10am

Chair: Councillor Norm Bruning

Advisory Group: Alan Law, Jim Finlay, Peter Askey, Shona Pedersen, Councillor Alison Silcock (Whakatāne District Council)

BOPRC Councillors: Councillor Bill Clark, Councillor Tiipene Marr

BOPRC Staff: Roger Waugh (Rivers and Drainage Assets Manager), Jo Heath (Asset Management Coordinator), Bruce Crabbe (Rivers and Drainage Operations Manager), Tony Dunlop (Flood Restoration Project Engineer), Andy Dixon (Accounting Team Leader), Mark Townsend (Engineering Manager), Chris Ingle (General Manager, Integrated Catchments), Kay Boreham (Marketing and Communications Advisor), Nic Newman (Principal Advisor), Simon Stokes (Eastern Catchments Manager).

Apologies: Chairman Leeder, Maurice Warbrick, Linda Virbickas, Paula Chapman

1 **Welcome**

Councillor Bruning welcomed everyone to the meeting and Councillor Marr opened the meeting with a karakia. Roger Waugh introduced staff members Nic Newman and Kay Boreham.

2 **Apologies**

Apologies were received as recorded above.

3 **Notes of previous meeting held 13 February 2018**

Resolved

That the Rangitāiki-Tarawera Rivers Scheme Advisory Group:

- 1 Confirm the notes of the meeting held 13 February 2018 as a true and correct record.**

**Clark/Marr
CARRIED**

4 **Matters arising from previous meeting**

Roger Waugh ran through the actions from the previous meeting.

- The Long Term Plan has been adopted and the approach taken to manage flood repairs from the April 2017 floods is to carry out identified repairs as soon as possible, resulting in a higher rates increase in years one and two and then smaller increases from year three. A number of options to reduce the rates impact on affected ratepayers will be used.

- Legal opinion on Aniwhenua Hydro Power Station resource consent. This was discussed with Galatea community at a meeting held 31 August 2018. Council sought a legal opinion in 2003 and this opinion was also subsequently relooked at. The opinion is that Regional Council cannot request a review of consent conditions until the current consent expires in 2026. The consent is an old consent and has minimal conditions which are all being met.

Discussion

Observation made that the consent contains strike outs associated with sedimentation and drainage. Roger explained that approximately 15 years ago the consent holder applied for variations to conditions which were approved. He added that the effects of the consent were identified and considered during the original consenting process and the consent was issued so Regional Council has no redress. Modern consents have tighter conditions and contain review clauses that can be used if unforeseen environmental effects occur.

- Bruce Crabbe advised that a Rangitāiki Drainage Scheme meeting scheduled for 31 October 2018.

5 **Integrated Catchments update**

Simon Stokes provided a high level snapshot of the work being undertaken in the Rangitāiki catchment and gave an overview of the Rangitāiki River Forum purpose and objectives. The key points were:

- Kopuriki flooding issues will be raised at next Rangitāiki River Forum meeting.
- Discussed having a River Scheme Advisory Group member attending Rangitāiki River Forum meetings. Membership is legislated but no barriers to Advisory Group members attending as the meetings are open to the public.
- Investigating the feasibility of a multi-year project for a PhD student to study the geomorphology of the Whirinaki catchment and its relationship to flooding and flood management. Whirinaki River provides 40% of the flow into Matahina Dam.

6 **Operations report**

Bruce Crabbe spoke to the Works Programme report provided in the agenda pack highlighting the following:

- Planned maintenance programme is currently under budget because flood repair work ends up achieving some of the maintenance work.
- Catching-up on tree mulching along the Tarawera River. The maintenance area goes up to the Kawerau urban area and want to keep this section of river as natural as possible.
- Rangitāiki Drainage scheme pump stations are getting a telemetry upgrade.
- Three Awaiti floodgates scheduled to be replaced and fish passage provided.
- Stopbank realignment work planned south-west of Edgecumbe on the Smit property to provide additional protection to Edgecumbe urban area.

Discussion

The requirement to provide fish passage was discussed. Under fisheries regulations Regional Council has to provide for fish passage and as structures are being replaced or renewed fish passage is being incorporated. A number of different floodgates are currently being trialled and staff are gathering information on waterways where native fish species are present and identifying barriers to fish passage like floodgates and perched culverts. There is also an issue with pumps causing fish mortality and the national Rivers Managers Group is conducting a study, being led by Waikato Regional Council, trialling different pump station configurations.

7 Flood Repair Project report

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

- 224 repair sites in the Rangitāiki-Tarawera scheme (520 sites across the region)
- 85 of the Rangitāiki-Tarawera sites are high priority sites.
- 37 Rangitāiki-Tarawera sites completed as at 30 June 2018.
- For this scheme it will take the full four years of the project to complete repairs. Completion by June 2021.
- In 2018-2019, a further 55 Rangitāiki-Tarawera sites are scheduled for repair. All pump station repairs will be completed, College Road work will be completed, all Rangitāiki Drainage scheme works will be completed and geotechnical work on concrete flood walls and seepage sites will commence.
- Unrepaired sites are being monitored closely and will be reprioritised as required. Some sites are getting worse, some are starting to 'self-heal', and in some situations changes to the initially intended repair method are needed. Sites 'self-heal' when vegetation grows and they stabilise themselves. Often the river can change resulting in reduced pressure on a damaged site enabling it to stabilise.
- Repair work funded through insurance (40% of like for like repairs), central government assistance through the Ministry of Civil Defence and Emergency Management (60% of existing essential infrastructure repairs), minor funders like NZTA and First Gas where appropriate, targeted rates (80%) and general rates (20%).
- There are a lot of new assets being created and these are not covered by insurance and are not eligible for central government funding.
- Special claim being made to central government for works not covered by insurance that benefit communities and/or the environment.

Discussion

- The cost to Whakatāne District Council for the Edgecumbe cleanup was around \$4.5m and they are unable to claim through insurance because no material damage to an asset.
- Farmers are in the same situation.
- Concern expressed about funding for sites that get further damage from subsequent flood events. If unrepaired sites get worse they are still covered under the April 2017 Flood Repair Project. If the site has been repaired and then gets damaged again it will not be covered under the project. To date none of the repaired sites have failed.

8 Engineering report

Mark Townsend delivered a PowerPoint presentation covering the following key topics:

8.1 Rangitāiki River Scheme Review

- Council delegated the monitoring of review implementation of the 29 recommendations to the Audit and Risk Committee for a period of 12 months to December 2018.
- Implementation updates have been circulated to members.
- Evacuation Planning - flood evacuation protocols for Edgecumbe are now complete and an Evacuation Plan has been consulted on and is ready for adoption.
- Dam Management - communication protocol with TrustPower re Matahina Dam has been updated and their Flood Management Plan is being reviewed.

Attendance

Simon Stokes left the meeting at 11:40am

- Monitoring Network – monitoring network in the Rangitāiki catchment has been reviewed to ensure there is increased spatial coverage. A new rainfall site has been installed on the Whirinaki River at Te Whāiti and two additional sites are to be installed over summer.

8.2 River Scheme Sustainability (RSS)

Have \$100k per annum to look for river scheme management solutions that will be sustainable into the future. It is not an option to continue raising stopbanks so the project is investigating alternate solutions. How the river schemes will cope with climate change, with predicted sea level rise and more intense rainfall, is a key part of the thinking. Possible themes include – retention or detention, ponding areas, flow diversion, making room for the river, pasture to wetlands, land use controls and farm management practices, ecological corridors, sediment management.

8.3 College Road stopbank and catchment flood walls

- Realignment of the College Road stopbank is nearing completion. Design of the realignment was based on the following principals – make room for the river, allow for future work associated with climate change, minimise chance of failure, do not adversely affect other parts of the river.
- Having the ability to see what was happening below the ground surface during removable of the temporary stopbank confirmed what was already know about the original floodwall and foundations – appropriate material was used and construction was appropriate for the time of construction.
- Geotechnical assessment of West Bank Road concrete floodwall showed porosity and permeability issues and stopbank will need to be rebuilt.
- Geotechnical assessment of East Bank Road concrete floodwall showed localised issues that will need remedial work.

8.4 Rangitāiki Floodway

Stage 4 Floodway Widening

- Floodway widening on left bank of the floodway downstream of Thornton Road to the confluence with Rangitāiki River. Contract also includes construction of a new pump stations and replacement of two smaller pump stations.
- Timeline for the work was impacted by April 2017 weather events and work didn't start until the second half of the construction season and was approximately 90% complete before having to stop because of wet weather. Remainder of work will be completed in September/October 2018.

Floodway Bifurcation

- This work requires a change to the existing Resource Consent. An adjacent landowner has objected to the change and now needs to go to a hearing. The portion of the work that is affected has been deferred until 2018-2019 construction season.
- Able to do a lot of the preparation work under the existing consent.
- At the start of the Stage 4 works an archaeological site was located and archaeologists engaged to undertake a dig. A slight change to the bifurcation alignment has been made to reduce impacts on the site.

Spillway Options

- Two options being considered and consulted on – lower level fixed crest weir and a widened inflatable rubber dam. Consultation carried out since May 2018 in the form of information days, 1 on 1 meetings with affected landowners, and meetings with industry and community groups.
- Next information day will be mid-November focusing on which option should be recommended to Council on 13 December 2018.

Rangitāiki River Cross Sections

A series of cross section graphs, representing river bed levels, were shown for the lower Rangitāiki River covering the period 1986 to 2017. Main observation was that there has been very little change. There is a process of overall slight aggradation with scouring when there is a flood. The cross sections are surveyed every 3-5 years. The sites above and below the spillway are surveyed annually.

8.5 **Cardno Report**

Report investigates the effects of fluctuating flows on riverbank erosion below Matahina Dam. Overdue because the consultants (Cardno) are waiting on modelling that the BOPRC Engineering team are doing to support the report. Report needs to be completed before the review of TrustPower's resource consent.

9 **Finance report**

Andy Dixon spoke to the finance report provided in the agenda pack and gave an overview of the scheme's revenue and expenditure for the year ending 30 June 2018. The following points were noted:

- 2017-2018 was a very difficult year for the scheme and this has had an impact on the financials.
- Through the Long Term Plan process it was decided to take the rate increases upfront and this option allows the ability to even out the rate increases where possible.
- First Flood Repair Project insurance claim has been received and working to get future claims pre-funded to reduce the costs of loans.
- Reserve balances as at 30 June 2018 were as follows:
 - Flood Damage Reserve \$696,031 (this is a contingency fund held for flood damage works and is currently on term deposit earning interest for the Scheme). An annual amount is allocated to the fund for it to accumulate a balance in anticipation of a future flood event. A larger allocation is made every five years to allow for larger flood events. The funds can only be activated when a flood event reaches a set threshold.
 - Works Reserve \$128,776 (available to fund operating expenditure)
 - General Reserve \$32,194 (surplus general rates from previous year)
- Outstanding Loans \$31,925,837 – this amount has increased by \$11m in the last year and will create additional financial costs to the scheme.
- Rangitāiki-Tarawera Asset Valuation 1 July 2017 \$86,718,980 (currently being revalued)

12:40pm adjourned for lunch

1:00pm returned from lunch

Attendance

Jim Finlay left the meeting

10 **Communications update**

Kay Boreham spoke about her background, her involvement with the Whakatāne District Council Recovery Office following the April 2017 floods and outlined her new role with Regional Council focusing on the Eastern Bay of Plenty. She emphasised that Council staff want to hear what works best for our communities and to ensure that people are getting the information they want in the style they would like to receive it. Members were encouraged to get in touch if they had any concerns or suggestions.

Discussion

- Website, e-newsletters and facebook communication not always appropriate for the older generation – need to also provide hardcopy newsletters, information brochures.
- Information days have been well received and good to see Regional Council staff in action at the recent Edgecumbe information day – impressed with how information was provided and staff openness to questions and criticisms.
- Still seems to be Edgecumbe community members saying they don't know what's happening with the stopbank realignment. Information can be provided in a number of ways but community members still need to engage with the information – attend info days, read the newspaper/newsletters, look on the website.
- Suggested a regular column in the Beacon might be a good idea. Also quarterly double page spread.
- Upper Rangitāiki communities don't get the Beacon. There is a fortnightly school newsletter and a monthly Community Board newsletter (covers Waiohau to Rautahuna). Galatea community prefer community meetings to drop-in information sessions.

11 Advisory Group continuous improvement

Chief Executive tasked Nic Newman to look at the advisory groups and identify any opportunities for improvement. Members discussed and provided feedback to Nic and additional comments can be emailed to nic.newman@boprc.govt.nz. A report of findings will be fed back to members.

Attendance

Nic Newman and Andy Dixon left at the meeting

12 General business**12.1 Gravel management update**

Roger Waugh spoke to the gravel management update provided in the agenda pack. The key points were:

- Significant volumes of gravel have been deposited in catchments across the Galatea plains.
- A programme of bed lowering using commercial extractors and rivers and drainage operations has improved the situation in many instances.
- Nearly half of all commercial gravel extraction activities throughout the year have taken place across the Galatea Plains.
- Horomanga gravel not as good quality as other areas and does not have good market value. Together with Southern Generation looking for ways to make it more attractive and viable for contractors to extract. Also looking for developments that could utilise the resource e.g. Ōpōtiki Harbour development.

12.2 Galatea flooding issue

Flooding at Kopuriki discussed with the following key points:

- Water cannot get past Kopuriki Road and is flooding on to farms during rainfall events. Initially impacting two farms, now 6-7 farms affected as the issue moves up the catchment. Farmers have been asking for a solution and no one seems to be doing anything or taking responsibility.
- Concern that farmer's financial and emotional survival is at risk.
- Southern Generation might not be legally required to help but they should have a moral obligation.
- Rural Support involvement is just a sticking plaster, organisations involved need to forget about the legalities and come up with some practical solutions.

- Dredging would be an option but would need to be ongoing every few years. Because it is not required by the consent none of the parties are willing to take any action.
- Because Regional Council has had legal advice that they cannot request a review of consent conditions, until the current consent expires in 2026, it is very difficult for them to take any action. Councillors at the meeting encouraged community members to take the lead and seek help at governmental level – the Parliamentary Commission for the Environment may be an appropriate avenue.

Resolved

That the Rangitāiki-Tarawera Rivers Scheme Advisory Group:

- 1 **Recommend to Council that, because of the severity of regular, uncontrolled, flooding around Kopuriki, the Chair of the Regional Council approach the directors of Southern Generation to find a practical solution for affected Galatea farmers.**

Askey/Silcock
CARRIED

12.3 Other general business

- Rivers and Drainage Asset Management Plan 2018-2068 was adopted through the Long Term Plan process and copies of the updated Executive Summary were handed out to replace the previous version in the members' information folders.
- The Chair acknowledged Tony Dunlop's 40 years of service.
- Alan Law advised that communal pump scheme rates have recently been an issue with invoices being sent out without any detail or explanation of increased rates. He asked for the process to be outlined. Bruce Crabbe explained that inspections for the communal pump schemes are undertaken annually and from this work is forecast and a draft budget prepared. The draft budget goes out for consultation and at that time there is an opportunity to make a submission. The budget is adopted by Council, during the Annual Plan process, and invoices are sent out in July/August. This year inspections showed quite a number of pump stations were not up to electrical regulations and required new switch boards. This has significantly increased the pump scheme rates for approximately a quarter of the schemes.

Councillor Marr closed the meeting with a karakia.

Meeting ended: 2:10pm

Action Sheet

Rangitāiki-Tarawera Rivers Scheme

12 September 2018

Action	Person Responsible	Completed	Comment
1. Recommend to Council that, because of the severity of regular, uncontrolled, flooding around Kopuriki, the Chair of Regional Council approach the directors of Southern Generation to find a practical solution for affected Galatea farmers.	Chris Ingle	In progress	Update to be provided at 13 March 2019 meeting

MEMORANDUM



To: Rivers Scheme Advisory Group members

From: Kirsty Brown

Date: 13 February 2019

**Rivers and Drainage Asset Manager
(Acting)**

File Ref:

Subject: Evaluation of the River Scheme Advisory Groups

At our September 2018 round of advisory group meetings, Nic Newman (Principal Advisor) sought feedback from members on how the advisory groups were working; whether they were fit for purpose; and if so identifying any opportunities for improvements. A report was then presented to Council on 13 December 2018 with the findings and recommendations from Nic's evaluation of the groups.

The Council report was circulated to the advisory groups on 12 February 2019 requesting that members take the time to read the report and consider the suggested enhancements detailed in section 2.3 Ways of Working.

We are now seeking your feedback on those suggestions – section 2.3, points (a)-(k) on pages 5-6 for your group.



Kirsty Brown
Rivers and Drainage Asset Manager (Acting)



Report To: Regional Council

Meeting Date: 13 December 2018

Report From: Chris Ingle, General Manager, Integrated Catchments

River Scheme Governance

Executive Summary

The purpose of this paper is to report on work evaluating the operation of Council's River Scheme Advisory Groups, assessing whether they are fit for purpose and if so identifying any opportunities for improvement.

The Advisory Group model (form) is aligned with its function and is similar to processes used by other councils. The conclusion of the Opus 2014 review still stands that the model provides the best flexibility for the future and that other models do not provide significant benefits above the current. However, the central government Three Waters Review and potential new models of ownership and governance may have future 'spillover' implications for flood management. Moreover, considering the wider context, there are twin pressures on the affordability of the river schemes in conjunction with increasing 'demands'. These demands include climate change adaptation and provision of wider values. It is these pressures on which Council should focus.

The Advisory Groups largely work well, and are valued by members as a way of keeping in touch with scheme matters. There are opportunities and needs however to enhance the way the groups operate; including how members provide effective input, dissemination of information, and collaboration with other groups in the catchments.

Recommendations

That the Regional Council:

- 1 Receives the report, River Scheme Governance;**
- 2 Resolves to:**
 - a. retain the advisory group model;**
 - b. endorse the enhancements to advisory group operations detailed in section 2.3;**
 - c. pay attention to the wider context of river scheme affordability, increasing demands on schemes, and potential new models in water infrastructure governance.**

1 Background

The purpose of this paper is to report on work evaluating the operation of Council's River Scheme Advisory Groups, assessing whether they are fit for purpose and if so identifying any opportunities for improvement. It also responds to the issues in the letter received from Mr Colin Holmes (see Appendix), following a meeting in Edgecumbe in May 2018, on proposals to strengthen governance of the Rangitāiki-Tarawera River Scheme. This work has involved observing and receiving feedback from each Advisory Group, speaking with a range of staff involved, and consideration of the wider context.

BOPRC contracted Opus Consultants in 2014 to review the ownership and governance model for the four major river schemes as part of the River Scheme Sustainability Project. Following a global scan and analysis of different models, retention of the 'in-house' model was recommended due to the high level of uncertainty in coming years (for example, the impacts of climate change, the viability of the funding model, and treaty settlements). The current ownership and governance model was retained to provide for maximum flexibility in the future.

When this work was reported back to Council, it decided to retain the existing governance with modernisation of the ratepayer liaison groups into advisory groups. In December 2016, Council resolved to adopt the proposed Terms of Reference, noting the new name from 'River and Drainage Scheme Liaison Groups' to 'River and Drainage Advisory Groups'. Thorough consultation with the existing Liaison Group members was carried out prior to this change.

The purpose of the advisory groups is to enable effective communication and liaison between scheme ratepayers and BOPRC Councillors and staff. The advisory group members are to represent (to some extent at least) their scheme ratepayers and the ratepayer's views on scheme expenditure and priorities, but the Advisory Groups do not have any delegated nor statutory functions, nor any authority to make decisions on Council matters. Under the Terms of Reference the number and structure of the advisory groups' membership is intended to provide a broad representation of ratepayer interest groups, geographical extent of the Scheme, and rating categories.

2 Analysis and Discussion

The following analysis considers the wider context, the advisory group model, and the operation of the model.

2.1 Wider Context

In New Zealand regional authorities spend approximately \$200M each year on river scheme maintenance and capital improvements. This is funded from regional rates, normally this is predominantly through targeted rates paid by directly benefiting property owners. These schemes protect 100 towns and cities and 1.5m ha of productive land. The requirements on these schemes are changing. Climate change is causing more intense rainfall events, and raising the previously expected 1 in 50 and 1 in 100 year flood levels. We are experiencing more frequent and more intense floods, while more and larger communities and assets are now at risk from these floods.

Additionally the community is requiring that schemes contribute to wider values such as water quality, fish habitat and iwi values.

The central government Climate Change Adaptation technical working group recommended the inclusion of adaptation funding into the inquiry into local government funding. The Productivity Commission is now conducting the inquiry into local government funding and financing which makes specific reference to pressures with the costs of adapting communities and infrastructure to mitigate risks and hazards associated with climate change¹. At the time of writing an issues paper has been released which identifies the issue of adaptation to climate change and cost and funding implications, which Council will submit on. The final report is due on 30 November 2019.

In the Bay of Plenty, the River Scheme Sustainability Project is looking at the long-term risks of flooding and reviewing how we provide flood protection through our major river schemes and minor river and drainage schemes. A key focus is taking a sustainable approach that balances affordability and community acceptance, and includes the ongoing implications of climate change. In the Rangitāiki this work is already well underway, with senior staff and consultants working on an assessment of future options that take into account the projected impacts of climate change and the recommendations of the Rangitāiki River Scheme Review.

In the Rangitāiki and the Kaituna catchments the River Scheme Advisory Groups are joined by the Freshwater Futures Advisory Groups and Co-governance fora. The Freshwater Future Advisory Groups help council develop solutions for managing water in their catchment, particularly in terms of the National Policy Statement for Freshwater. They provide advice, share knowledge, and disseminate information. Group members are local people that have a close relationship with and understand the water bodies in their areas and provide a range of perspectives. Other catchments will enter the Freshwater Futures process subsequent to Kaituna and Rangitāiki. The Rangitāiki River Forum and Kaituna River Authority are established under treaty legislation and promote integrated management and enhance the environmental, cultural and spiritual health and well-being of the rivers. Membership includes representatives of the various iwi associated with the rivers and representatives of the relevant regional and district councils. Both have prepared river documents that are recognised in council resource management consenting and planning documents. Community desire for the management of wider values from the river schemes (e.g. habitat, water quality, fish passage, room for rivers) is becoming apparent.

Conclusion:

In taking the wider national and medium term perspective; there are pressures on the way river schemes operate, and are funded. These are the pressing issues facing the schemes. There are expectations of higher performance to account for climate change and to provide for other values, while many schemes protect catchments with declining populations and/or declining ability to pay.

Council should pay attention to the wider issues of river scheme affordability and wider demands on scheme performance. The River Scheme Sustainability Project (RSS) is the key tool for Council to resolve these issues and the sustainability of river schemes is a strategic issue for council. If there were any major funding model changes then this could impact on future Long Term Plan development and on governance arrangements.

¹ <https://www.productivity.govt.nz/inquiry-content/3819?stage=2>

2.2 Advisory Group Model

The role and scope of the Advisory Groups is to represent River Scheme ratepayer's views and to provide effective input into Scheme Operation (e.g. proposed annual work programmes). The Advisory Groups have become local contacts for river and drainage issues, including involvement with local groups and assisting with dissemination of Scheme information to ratepayers. The River Scheme Advisory Groups do not have any delegated authority and do not operate under the Local Government Act. Their purpose and operation is dictated by their terms of reference.

The number and structure of members is intended to provide a broad representation of ratepayer interest groups, geographical extent of the Scheme, and rating categories. Members are appointed for a period of three years with a maximum term of six years. People eligible for nomination must be targeted ratepayers in the Scheme. Urban and general scheme representatives are determined by BOPRC following a public nomination process. The River Scheme Chairperson is an elected member of BOPRC. There are generally two meetings held per year in March and September. Meetings are called by the Chairperson. Agendas for the meetings are compiled by the Rivers and Drainage Assets manager, and his staff service the meetings.

The alternate model described in the letter from Mr Holmes is along the lines of a Council Controlled Organisation (CCO) model, with a board of directors directing staff and operational spending. Opus investigated the CCO model and concluded that it did not provide benefits above and beyond the existing model. However, it is worth noting that the Department of Internal Affairs are carrying out a review of 'Three Waters' delivery in New Zealand, as part of the response to Havelock North. A number of models are being investigated for potential delivery of dedicated and aggregated 'Three Waters' supply, including CCOs. While this is not being investigated for the 'Fourth Water' (flood management), it is part of the useful wider context. Working examples of CCO's for water include Auckland Watercare, which is wholly owned by Auckland Council and delivers drinking and wastewater services for Auckland. It owns, operates and upgrades its assets and is funded by service charges and borrowing. It has its own board who appoint its Chief Executive. Many of the outcomes sought in the letter, such as: greater input from members, better connection to wider ratepayers, and closer links to the River Forum; can be achieved without changing the model.

Most councils operate liaison or advisory groups with a similar function as that at BOPRC - to provide ratepayer input into river scheme operation and provide a link to the ratepayers. Some meet annually, some more frequently. With regards a model, form should follow function. The function of the groups is to provide effective input into scheme operations, be a local conduit, and promote collaboration. The form of an Advisory Group aligns with the function, and it also provides flexibility should there be any changes in the wider context (Opus' conclusion remains true).

Conclusion:

Council should retain the Advisory Group model as it does provide a combination of connection to and input from ratepayers, along with flexibility given the large number of 'bigger wheels in motion'. However, there is need to enhance the way the Advisory Groups operate, particularly with provision of input into the scheme operation and moreover Council should pay attention to the 'Three Waters review' and implementation of potential new models water governance.

2.3 Ways of Working

The role of the Advisory groups is to provide effective input into scheme management and operation, be the local contact for river and drainage issues, including involvement with local groups and promoting opportunities for collaboration, and assist BOPRC with advice on the dissemination of Scheme information to ratepayers. Feedback obtained from the Advisory Groups was around these three themes.

Scheme members value the groups highly and members are actively providing input into scheme operation. Examples of this observed include on-the-ground records of events, pumps that need checking, and staff responding to questions e.g. change in riverbed dynamics. The use of an action plan to track agreed actions was valued by the members, however it is not always obvious when input is being taken on, nor how it will be used. Some members were clearly thinking to the long term and strategic issues such as climate change and making room for rivers. There is the opportunity and need to get more 'value' from this.

Some members felt overwhelmed by information and were not sure when they were supposed to provide input, or felt unable to. While members felt well connected themselves they found it difficult to disseminate information to the wider ratepayers and also difficult to keep in touch with the scheme happenings with only meeting twice a year. Currently relevant wider information is emailed to Advisory Group members throughout the year as it becomes available. Some groups felt disconnected from happenings in the wider catchment and their place within these, especially where co-governance exists. Co-Governance Forum minutes are currently circulated with the Advisory Group minutes, for member's information. There is an opportunity and need to strengthen this connection.

Members valued the wider membership of the groups and link to the urban community and there was evidence of other wider values coming to the table e.g. whitebait habitat. Each group had items that involved 'third parties' (outside regional council and ratepayers), none of these third parties attended.

Suggested ways to enhance the workings of the Advisory Groups are:

2.3.1 Effective Input

- a. Ensure meeting agendas are up on the website in the week before the meeting so that members of the public can see what is on the agenda and Advisory Group members can seek any feedback to bring to the table. Ensure the place of meeting is accessible and that the meeting time and place is visible on the website, separate from the agenda.
- b. To ensure members are able to contribute to the groups, provide for members to claim mileage for attending meetings (above a threshold of 30kms for example).
- c. To assist effective input, be clear on the purpose of each agenda item, the pathway for input to be used (e.g. annual work programme, Long Term Plan) and make it visible when input is being taken on and what will happen with the input provided.
- d. Agendas could be structured around themes to make it easier to understand and to provide input, for example: operational /financial, wider catchment, and

strategic issues. Time for discussion and feedback needs to be either 'built into' the agenda or provided by the chair.

- e. The current Integrated Catchment slot could be used to provide the wider catchment context e.g. freshwater planning, land management and biodiversity initiatives, and co-governance. Related items, such as forestry harvesting (risk to schemes) could be raised under general business by members, and addressed at subsequent meetings (dependent on staff availability).
- f. Time could be made for a strategic session each six months by making the River Scheme Sustainability project much more visible as the strategic instrument and providing time for discussion and input.

2.3.2 Dissemination of information

- g. To keep the Advisory Groups connected or to deal with particular issues or opportunities; an optional workshop or field trip could be used as required. This has already been implemented in Rangitāiki -Tarawera.
- h. To help with dissemination of information and connection across a catchment, a wider catchment (biannual or quarterly) newsletter could be developed that integrates: freshwater planning, integrated catchments, river schemes, and river fora. An email version could be sent to Advisory Group members to forward on or share with their networks and the newsletter content would help them make catchment connections. Members could also suggest scheme content for inclusion that would be of interest to wider ratepayers. Also see j.

2.3.3 Opportunities for collaboration

- i. To strengthen connections between the Advisory Groups and Co-governance Fora, at the next review of councillor responsibilities consider aligning councillors on both groups. Additionally, have a nominated member of the Advisory Group to attend the appropriate River Forum/Authority as an observer (note forum membership is dictated by legislation) and invite a member of the River Forum/Authority to attend the Advisory Group meetings. The purpose is to strengthen connections, which can be done without 'voting rights at the table'. Co-governance membership of the Advisory Groups could subsequently be enacted with an 'omnibus' update of the terms of reference.
- j. Consider holding an annual forum of catchment Advisory Group, River Authority, and Freshwater Futures members to share current work, issues, and discuss opportunities for synergy. This could involve a field visit or be attached to other events such as an existing meeting. By making this forum accessible to the wider ratepayers it could also fulfil a role of communication.
- k. When agenda items are dealing with issues that involve other agencies, these agencies could be invited to attend. Groups like these work best when they integrate the work of different agencies.

Conclusions:

The Advisory Groups are highly valued by members as a way of keeping in touch with scheme matters and by and large work well. However there are opportunities to enhance the way that members can provide effective input into the schemes, help disseminate information, and promote collaboration with other groups. Changes to the Terms of Reference are not needed to implement any of the suggested enhancements. However, before the next change of membership, the Terms of Reference could be amended to: include a member from upper Whakatāne in the Whakatāne-Tauranga Group, incorporate mileage allowance, and provide for membership of a co-governance representative.

3 Council's Accountability Framework

3.1 Community Outcomes

This proposal directly contributes to the 'Safe and Resilient Communities' Community Outcome in the council's Long Term Plan 2018-2028.

3.2 Long Term Plan Alignment

Current work is planned under the Flood Protection and Control in the Long Term Plan 2018-2028.

Future Budget Implications

Future work provided for in Council's Long Term Plan 2018-2028.

Nic Newman
Principal Advisor

for General Manager, Integrated Catchments

22 November 2018

Rangitāiki - Tarawera Rivers Scheme Routine Maintenance Works Programme: Financial Year 2018-2019

BOPRC ref: A3151125

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
1							
2		Annual Flood Damage allowance		\$200,000		-	
3		Fly tipping and rubbish collection/disposal		\$8,000		As Req	
4		Pest control		\$8,000		As Req	
5						-	
6						-	
7		Riverbank weed spraying (where required)		\$8,900		Partially completed	Sprayed at least once already
8	R1	Fonterra, Eastpack, BOPRC lease	L&R		\$3,500	Partially completed	Sprayed at least once already
9	R1	Various flood damage sites	L&R		\$4,500	Partially completed	Sprayed at least once already
10	R1	Stopbank gorse & blackberry	L&R		\$3,500	Partially completed	Sprayed at least once already
11	R1	Monks Mānuka Site	R/B		\$1,000	Partially completed	Sprayed at least once already
12	R2	Fraser gorse	L/B 12.9-17.6		\$2,000	Partially completed	Sprayed at least once already
13	R2	Various F/D sites, willow, gorse, & blackberry	L&R/B		\$4,000	Partially completed	Sprayed at least once already
14	R2	Stopbank gorse & blackberry	L&R/B		\$4,000	Partially completed	Sprayed at least once already

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
15	R2	Warbrick's gorse & blackberry	R/B 15.1-16.7		\$2,000	Partially completed	Sprayed at least once already
16	R2	Ngāti Awa Farms gorse & blackberry	R/B 17.7-19.3		\$3,000	Partially completed	Sprayed at least once already
17	R3	Various F/D Sites, willow, gorse	L&R/B		\$3,000	Partially completed	Sprayed at least once already
18						-	
19		Tree Clearing		\$16,900		-	
20	R1	Various sites (where required)			\$8,000	Partially completed	Leaming's property to do
21	R2	Martins	RB 19.3-20.2		\$10,000	-	
22						-	
23				\$26,000		-	
24	R1	Tree Mulching & layering Where required, various sites			\$20,000	Partially completed	Ongoing works, where required.
25	R1	Byford's	R/B 3.3-3.8		\$12,000	Completed	
26						-	
27		Planting		\$22,200		-	
28	R1,2,3	Various sites, release			\$7,500	As Req	Ongoing.
29						-	
30		Rock/Rubble		\$300,500		-	
31	R1	Several sites being done under flood repair project				-	
32	R1	Thornton Hall Rd causeway	RB 0.1 - 0.2 km		\$70,000	-	
33	R1	Thornton Beach Rd. rubble & top soil	LB1.5-1.9km		\$10,000	-	Monitoring as site is healing.

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
34							
35		Fencing		\$22,500		-	
36		Various sites			\$12,000	As Req	Ongoing.
37						-	
38		Concrete floodwall sealant replacement:				-	
39		Various walls - Replace/repair sealant during capital works			\$0	-	
40						-	
41		Minor floodgates inspection		\$1,300	\$1,300	Partially completed	Ongoing.
42		Stopbank Miscellaneous Maintenance		\$6,500	\$6,500	As Req	
43						-	
44		Pest Control	Various		\$5,000	As Req	Ongoing.
45						-	
46						-	
47		Channel/riverbank weed spraying		\$14,800		-	
48		Ohutu, Jones Wash, Hikurangi, Mangamate & Waikokopu	Various		\$15,000	Partially completed	Ongoing.
49						-	
50		Riverbank Weed spraying		\$12,200		-	
51		Horomanga & Whirinaki Rivers	Various		\$12,000	Completed	Horomanga needs redoing after another rain event
52						-	
53		Tree clearing/mulching/layering		\$101,700		-	

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
54	R5	Various			\$35,000	Partially completed	
55	R6	Various locations			\$23,000	Partially completed	
56	R7	Various locations			\$35,000	Partially completed	
57	R5	Clearing/mulching	Various		\$45,000	Partially completed	
58						-	
59		Channel maintenance, realignment & desilting		\$344,000		-	
60	R6	Horomanga River various sites			\$20,000	Partially completed	
61	R6	Ohutu Stream, wire rope groyne trial	Various		\$13,000	Partially completed	
62	R7	Whirinaki River	Various		\$30,000	Partially completed	Completed twice, programmed to be done again next month.
63		Clearing & realignment following floods	Various		\$30,000	Partially completed	Completed twice, programmed to be done again next month.
64						-	
65		Planting Poles		\$53,400		-	
66	R6	Various where required			\$5,000	Completed	
67	R6	Various where required			\$7,000	Completed	
68	R5	Various where required			\$12,000	Partially completed	Ongoing.
69	R7	Various Where Required			\$5,000	Completed	

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
70	R6	Various where required			\$7,000	Completed	
71	R6	Various where required			\$4,000	Completed	
72						-	
73		Rock/Rubble		\$37,800		-	
74		Geotech bags trial on Mangamate			\$15,000	Completed	
75						-	
76						-	
77		Riverbank Weed spraying		\$7,100	\$10,000	Completed	
78						-	
79		Tree mulching/clearing/layering		\$21,300		-	
80	R8	Herrings 800mts	L/B 7.5		\$18,000	-	These will all be completed with the flood repairs works.
81	R8	Virbikas 800mts	L/B 8.6		\$18,000	-	
82	R8	Virbikas 100mts	R/B 10.7		\$3,500	-	
83	R8	Ngati Awa 300mts	L/B 8.7		\$6,000	-	
84	R8	Virbikas 50mts	R/B 8.55		\$1,500	-	
85	R8	Ngatiawa 500mts	L/B 7.8		\$15,000	-	
86	R8	Herrings 30mts	L/B 7.0		\$1,000	-	
87	R8	Virbikas 30mts Pampas	R/B 6.7		\$1,000	-	
88	R8	Virbikas 50 mts Pampas	R/B 6.2		\$3,000	-	
89	R8	Whites 30mts large Pine Trees [SH30]	R/B 8.15		\$4,000	-	
90		Overall well over budget but careful catch-up needed				-	
91						-	
92		Planting		\$11,000		-	
93		Various			\$10,000	-	

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
94							
95		Rock/rubble (where required)		\$50,900		-	
96		Sax's right bank at 2.8km (50 lm)			\$25,000	-	
97		Virbikas right bank at 6.3km (40 lm)			\$20,000	Completed	
98						-	
99		Fencing		\$1,200	\$5,000	-	
100						-	
101		Pest Control				-	
102	R8	Various			\$3,000	Partially completed	Ongoing.
103						-	
104	R8	Minor floodgate inspections		\$700	\$700	Partially completed	Ongoing.
105		Stopbank Miscellaneous Maintenance		\$2,400	\$2,400	-	
106						-	
107		Stopbank Miscellaneous Maintenance			\$5,000	As Req	
108		Section 109 Access Track			\$8,000	Completed	
109		Pump Inspections		\$1,000	\$1,000	Partially completed	
110		Pump six month Inspection		\$700	\$700	Partially completed	
111		2.5 year maintenance		\$0		Partially completed	
112		5 year maintenance		\$2,600		Partially completed	
113		Ancillary maintenance		\$5,000		Partially completed	

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
114		Electricity		\$2,000	\$2,000	Partially completed	
115		Telemetry (Ricardo) upgrade			\$4,000	In Progress	On Order
116						-	
117		Floodgate inspections		\$4,100	\$4,000	-	
118	R10	Awaiti f/g pad maintenance			\$2,500	Completed	
119	R10	Awaiti Flood gates (x3) replacement and fish passage			\$45,000	Completed	
120	R1	Floodgate Annual Inspection		\$400	\$400	Completed	Ongoing.
121	R1	Floodgate Desilting		\$300	\$500	As Req	Ongoing.
122	R1	Floodgate Miscellaneous Maintenance		\$3,000	\$3,000	As Req	Ongoing.
123						-	
124	R1	Floodgate Ancillary Maintenance (Structure)		\$3,200	\$3,500	As Req	
125						-	
126	R10	Riverbank Weed spraying		\$1,800	\$2,000	Partially completed	Ongoing.
127						-	
128	R1	Minor floodgates Inspection		\$1,300	\$2,000	-	
129	R1	Stopbank Miscellaneous Maintenance		\$3,500	\$4,000	-	
130	R10	Omeheu left stopbank top-up: Tom Richardson			\$8,000	-	Completed before the end of April, Material on site.
	R10	Greg Malcolm				-	Completed before the end of April, Material on site.

Date:	Reach	Work Type	Location	Annual Cost	Job Estimate	Status	Comments
131	R10	Edgcumbe south-west stopbank realignment: Smit property			\$60,000	-	Programmed for March-April April
132		Total Annual Maintenance Budget		\$1,108,200			
133		Annual Flood Damage Repair Allowance		\$200,000			
134		Overall Maintenance Budget Expenditure		\$1,308,200			
135		Total Annual Maintenance Estimate/actual cost			\$808,500		
136							

Source Document BOPRC ID A2936395

Notes of the Rangitāiki Drainage Scheme Advisory Group meeting held at Bay of Plenty Regional Council Edgecumbe Office, on Wednesday, 20 February 2019, commencing at 9.40am

Chair: Bruce Crabbe (Rivers and Drainage Operations Manager)

Advisory Group: Alan Law, Linda Virbickas, Peter Askey, Brian Power

BOPRC Councillors: Councillor Bill Clark

BOPRC Staff: Kerry Smith (Area Engineer), Andrew Pawson (Works Coordinator), Arthur Rangihika (Works Coordinator), Stanley (La) August (Drainage Foreman), Anaru Freeman (Pump Foreman), Wendy Walker (Edgecumbe Administration Assistant)

Apologies: Scottie McLeod

1 Welcome

Bruce Crabbe welcomed the Advisory Group members and introduced staff to the group.

2 Notes of previous meeting held 31 October 2018

- Water bottling consent: discharge from processing plant area is going to the Western Drain and the volume isn't allowed to be greater than existed prior to the development. The consent was granted but subsequently appealed to the Environment Court.
- Community Pump Scheme maps: Copies were sent to Advisory Group members.
- McCutchan Road culvert replacement: Linda advised that WDC is planning to install the new culvert in March 2019.
- Culvert liners: Kerry provided an overview of a new culvert lining technology that has potential for repairing damaged culverts. Potentially will be used for the Te Rahu pump station discharge pipes.
- Te Rahu pump query email from Scottie McLeod: Kerry, Bruce and Anaru explained situation and read the reply email to Scottie.
- Insurance claim from April 2017 flood event: Bruce advised that only the Te Rahu and Longview-Richlands pump station works are still to be finalised, but all others as well as the flood pumping claim has been settled.
- Fly tipping issue at Glen's Drain (Okaahu Road): Discussion about how to address this ongoing issue. Getting local paper involved to highlight may assist.

3 Operations Report

Kerry gave an overview of operations report and works programme circulated with the agenda.

Discussion was held on the following topics:

- Planting on 109 Canal banks.
- Kopeopeo West floodgate.
- Spray boat replacement: Air boat being investigated as replacement.
- New pump for high volume and high head flood pumping purchased.
- Claas tractor (180hp) purchased to run the new flood pump, and multiple heavy duty tasks (eg. hauling rock and ripping gravel beaches).
- Tree shear: Purchased to clear large vegetation from drains and smaller waterway channels. Vegetation maintenance can be performed safely, without the use of person on chainsaw felling trees into the channel and stopping etc., and more quickly.
- Replaced 1.9 tonne Bobcat mini-digger in Kaituna with 2.7 tonne Cat: Improved weed clearing for flood events. Mulcher attachment for vegetation clearing and preparation for planting sites etc.

Linda questioned long term plans for the stopbank opposite Doug and Robyn Richardson's property at Lewis Road. Andrew advised that it is not a formal stopbank and has been developed over many years of desilting the drain and therefore susceptible to seepage issues. The intention is to fill in low areas with future drain cleanings but care is needed to avoid raising flood levels significantly within the stopbanks. He advised that several floodgates under Lewis Road have been fitted with floodgates to minimise backflows toward Richardson's property.

4 **Flood Repair Project update**

Bruce provided an overview of the circulated report.

Councillor Bill Clark asked if insurance costs have risen since 2017 flood event. Bruce explained the different types of insurance BOPRC holds for assets managed and the ability to claim from the Government for major flood events. Bruce confirmed that insurance costs had increased.

5 **Finance report**

Bruce provided an overview of the finance report provided with the Agenda.

6 **Communal pump schemes**

- a. Annual budgeting process
- b. Health and safety issues
- c. Electricity supply retendering

Discussion was held on the following topics

- Kerry advised that BOPRC was working through meetings with all 34 of the minor communal pumping schemes with 10 being held to date. Generally discussions had been positive and landowners appreciated having input to their scheme's management. Alan advised that he was pleased that meetings were progressing with positive outcomes.
- Electricity supply tender: Bruce explained the joint electricity supply tendering process BOPRC uses in conjunction with other eastern Bay Council's to attract

competitive electricity supply rates. The recent renewal process awarded the energy supply jointly to Genesis (for non 'time of use' sites (nTOU)) and Mercury (for 'time of use' sites). Typically all pump station sites used nTOU supply so there will be minimal change as Genesis was the previous supplier.

- Peter Askey noted the natural levee system (high bunds) where the Kuhanui and Reynolds pump stations are situated (near East Bank Road). When the Floodway water level is high during flood events there is risk that the levee will overtop back into the pumped area.
- Health and Safety: Kerry explained the various H&S audit requirements that are specific to pump stations which BOPRC is prioritising including:
 - 'Confined spaces' working requirements and practices
 - Replacement of asbestos materials in sheds
 - Devices for locating staff working alone
 - Limiting access into the pump sheds and electrical equipment to authorised persons. Combination locks being implemented.
- Discussion around schemes declining recommended works: Bruce noted that some schemes declining servicing of pumps, then expect urgent action when the pump breaks down during a flood event.
- Pump station replacements: Alan noted that there are many old pump stations on the Plains that will require replacement in the future and they have no replacement funds being accrued. He recommended looking at how to forward plan for pump scheme replacements in future.

7 Kopeopeo Canal Remediation Project update

Bruce provided a brief overview of progress with the Kopeopeo Canal dredging project. Overall progress has been slower than was expected but the Project Team is pushing very hard for the works to be completed before winter to minimise flooding risks as much as possible. An agreed new completion date of June 2019 has been set, with liquidated damages if the completion date is not met.

8 Water quality challenges

The Council report "Lowland Drainage Scheme Water Quality and Ecology – Implications and Actions" was circulated with the agenda. Bruce advised that the quality of water being discharged from pumping stations is a significant issue. He advised that the pumping activity is currently a permitted activity under the Regional Natural Resources Plan subject to complying with conditions including that there shall be no conspicuous scums or foams, no conspicuous change in colour or clarity, no objectionable odour, rendering the water unsuitable for consumption of farm animals, or adverse effects on aquatic life. However all new pump stations or replacement pump stations require a resource consent involving a public consultation process.

Discussion was held around monitoring of pump water discharges and the impacts on receiving waters being more significant when the receiving waterway is relatively small (ie. the discharge has a more significant affect). On the Rangitāiki Plains the waterway that was investigated was Government Drain East (adjacent to Langenberger Road and discharged via the Te Rahu pump station into Waioho Canal). Bruce advised that a retrospective resource consent would be required wherever a pump discharge was found to be non-compliant with the permitted activity conditions.

Councillor Bill Clark noted that yellow eyed mullet had been observed up Tarawera River to Kawerau and into the Onepū wetlands which he believed was a relatively new situation.

Linda recommended a long term programme to move forward to improve water quality and make a real difference. Dairy NZ have the environmental leaders group which are coming up with good ideas. Bruce noted that the BOPRC Land Management team are available to assist landowners and the usual significant improvements involve moving cow races away from drains, keeping fences back from the drain backs, and re-contouring of drain crossings so runoff is diverted away from the drain. Brian noted that the Dairying Tomorrow strategy has recommendations around improving water quality also.

The Group were shown photos of a floating wetland that is going to be installed in the Diagonal Drain pump drain (Maketū area) as a trial to provide nutrient filtration and shading of the waterway to reduce aquatic weed growth and reduce water temperatures.

9 General business

9.1 Flood response activities

Alan highlighted the importance of being prepared for flood events and learning from previous events to ensure future events are managed as effectively as possible. Bruce advised that BOPRC supported this approach and appreciated the interaction with the Federated Farmer teams who provided invaluable support and direction through the 2017 flood response and recovery activities.

Brian advised that Federated Farmers had been working with Civil Defence and Police liaison to improve security issues during flood events, particularly around farmers getting access to their stock and getting through security cordons to support flood response works.

9.2 Land ownership information delays

Wendy noted that land ownership changes are advised to BOPRC through QVNZ and these are sometimes delayed meaning that invoicing for communal pumping schemes can be incorrect.

Meeting ended: 11.55am

MEMORANDUM



To: Rangitāiki-Tarawera Rivers Scheme Advisory Group

From: Kirsty Brown

Date: 14 February 2019

**Rivers and Drainage Assets Manager
(Acting)**

File Ref:

Subject: Lowland Drainage Scheme Water Quality and Ecology Report

The purpose of this memo is to provide advisory group members:

- A brief overview of the Plan Change 12 (PC12) project and the recently published report 'Ecological and water quality conditions of drains and land drainage canals in the Rangitāiki and Kaituna Plains'.
- Outline possible implications from the above for rivers and drainage schemes and the current actions being undertaken by BOPRC

Background

The National Policy Statement for Freshwater Management (NPS-FSM) 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. Work is currently progressing on the Rangitāiki and Kaituna/Pongakawa/Waitahanui Water Management Areas to develop water quality and quantity objectives and limits. This is known as the Plan Change 12 (PC12) project.

To support the PC12 project and to help fill perceived knowledge gaps about the ecosystems in the Rangitāiki and Kaituna Plains drainage networks, BOPRC's Science Team undertook a 17-month water quality, ecology and fish monitoring survey. Twenty sites were surveyed in total with six being in the Tarawera, 2 in the Rangitāiki and 6 in the Whakatane drainage networks. The table in Appendix 1 shows the location of the survey sites and findings.

Survey findings

The findings of the survey has recently been released in the report 'Ecological and water quality conditions of drains and land drainage canals in the Rangitāiki and Kaituna Plains' and has also been presented to Council on 11 December 2019. The report was circulated to advisory group members 12 February 2019.

Overall, water quality in the drains and land drainage canals have been described as poor, with the results confirming some water quality, ecology and drain discharge issues will need to be addressed by BOPRC. PC12 is the primary avenue to address these.

Possible future implications for river and drainage schemes

There are potentially significant future implications for Council's Rivers and Drainage function and management, including:

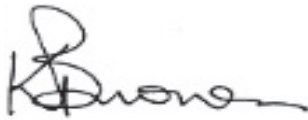
- Rivers and drainage schemes are not currently funded to manage for water quality and ecological values and future Long Term Plan funding may be required to provide for this.
- Depending on how effects of land use and drain discharges is managed under PC12, then resource consent maybe required for schemes to discharge to waterways.

Council is in a challenging situation of being both a service provider of drainage and flood protection under multiple acts including the Soils Conservation and Rivers Control Act 1941; and as the regulator of these activities under the Resource Management Act 1991, with a duty to set and implement appropriate policy.

In the meantime BOPRC is taking action now to:

- Address hot spots identified in the report by working with local farmers, providing advice and incentives.
- Progressively addressing fish passage at prioritised sites in Council's drainage network.
- Supporting innovative drain management trials on farms.

The Advisory Groups will be kept informed in more detail once PC12 and other actions have progressed.



Kirsty Brown
Rivers and Drainage Assets Manager (Acting)

Appendix 1

List of the 20 main drain sites in the Rangitāiki and Kaituna Plains sampled for this study, showing their location (in NZTM), water quality classification (DWQ = Drain Water Quality; MEV = Modified watercourse with Ecological Values), and whether habitat, water quality, invertebrates and fish were collected (Y). Fish surveys were unable to be conducted in all drains as a result of: 1 = flooding; 2 = being too small; 3 = having excess macrophyte growths which precluded deployment of the fyke nets.

Site identification	Water management area	Site name	Easting	Northing	WQ class	Habitat	Water quality	Invertebrates	Fish
BOP_DRAIN_02	Kaituna_Maketu	Bell Road Drain at Te Puke	1894698	5817897	DWQ	Y	Y	Y	1
BOP_DRAIN_03	Kaituna_Maketu	Kaituna Drain at Pah Road	1896735	5815673	DWQ	Y	Y	Y	1
BOP_DRAIN_04	Kaituna_Maketu	Kaituna Drain at Kaituna Road	1902169	5814595	DWQ	Y	Y	Y	1
BOP_DRAIN_05	Kaituna_Maketu	Wharere Drain at Pukehina	1906387	5812911	MEV	Y	Y	Y	1
BOP_DRAIN_07	Kaituna_Maketu	Pukehina Drain at Pukehina	1907565	5812877	MEV	Y	Y	Y	1
BOP_DRAIN_08	Kaituna_Maketu	Pongakawa Drain at Cutwater Road	1906928	5813003	MEV		Y	Y	1
BOP_DRAIN_14	Rangitaiki	Reids Central Canal	1938326	5792045	MEV		Y	Y	1
BOP_DRAIN_15	Rangitaiki	Western Drain	1938530	5788430	MEV	Y	Y	Y	2
BOP_DRAIN_09	Tarawera	Awakaponga Canal	1930945	5797125	MEV	Y	Y	Y	3
BOP_DRAIN_10	Tarawera	Section 109	1932924	5796827	DWQ	Y	Y	Y	3
BOP_DRAIN_11	Tarawera	Awaiti Canal	1933519	5794286	DWQ	Y	Y	Y	Y
BOP_DRAIN_12	Tarawera	Omehue Canal upstream WWTP	1934562	5789921	MEV	Y	Y	Y	3

Site identification	Water management area	Site name	Easting	Northing	WQ class	Habitat	Water quality	Invertebrates	Fish
BOP_DRAIN_13	Tarawera	Omehue Canal downstream WWTP	1935295	5791681	MEV	Y	Y	Y	Y
BOP_DRAIN_22	Tarawera	Secombes Canal at Greig Road	1934753	5797959	DWQ	Y	Y	Y	Y
BOP_DRAIN_16	Whakatane	Eastern Drain	1942045	5790393	DWQ	Y	Y	Y	Y
BOP_DRAIN_17a	Whakatane	Waioho Stream upstream of Drain_18	1948129	5788962	MEV	Y	Y	Y	1
BOP_DRAIN_17b	Whakatane	Waioho Stream downstream of Drain_18	1948129	5788962	MEV	Y	Y		1
BOP_DRAIN_18	Whakatane	Langenberger Road Drain	1947950	5788941	DWQ		Y	Y	Y
BOP_DRAIN_19	Whakatane	Te Rahu Canal	1947277	5790826	MEV	Y	Y	Y	Y
BOP_DRAIN_21	Whakatane	Orini Canal off Thornton Road	1944957	5794132	MEV	Y	Y	Y	3



Report To: Regional Direction and Delivery Committee

Meeting Date: 11 December 2018

Report From: Namouta Poutasi, General Manager, Strategy & Science

Lowland Drainage Scheme Water Quality and Ecology - Implications and Actions

Executive Summary

As part of our work to implement the National Policy Statement for Freshwater Management (Plan Change 12 process (PC12)), a new report will be published shortly that details findings of recent water quality, ecology and fish presence monitoring in several drains and canals within the Rangitāiki and Kaituna-Pongakawa-Waitahanui Water Management Areas (WMAs).

The results confirm some water quality, ecology and drain discharge issues that will need to be addressed by Bay of Plenty Regional Council (Council). There are potentially substantial implications for Council's Rivers and Drainage function and lowland land management. This will be of public interest, as these issues have been raised during engagement to date with Te Maru o Kaituna, iwi, and the Freshwater Futures Community Groups.

The PC12 process is Council's primary avenue to address cumulative effects of land use on receiving environment water quality and values in an integrated way. The process will need to consider managing contaminant generation and pathways into drains, as well as management of drainage discharges, which could be at a farm scale (e.g. good practice requirements) and at drainage scheme scale (e.g. amendments to discharge rules).

Council is also taking action now to:

- address hot spots by working with local farmers, providing advice and incentives;
- progressively address fish passage at prioritised sites in Council's drainage network;
- support innovative drain management trials on a farm.

Further monitoring of pumped drainage discharges is also being considered.

Approval is sought to discuss the matters detailed in this report during planned engagement for the PC12 process.

Recommendations

That the Regional Direction and Delivery Committee:

- 1 **Receives the report, Lowland Drainage Scheme Water Quality and Ecology - Implications and Actions.**
- 2 **Approves the way ahead expressed in this report, that is:**
 - a. **land management offices will work with landowners to address hot spots;**
 - b. **to address drain and canal water quality issues and integrated management solutions primarily through the Plan Change 12 process; and**
 - c. **to support immediate actions that are in progress, such as, enabling fish passage at some sites, supporting drain management trials, and progressing drain discharge monitoring.**
- 3 **Approves discussion of the matters covered in this report during planned engagement for the Plan Change 12 process (Rangitāiki and Kaituna-Pongakawa Waitahanui Water Management Areas).**

1 Introduction

The Science Manager will publish a new report shortly that details findings of recent water quality, ecology and fish presence monitoring in several drains and canals within the Rangitāiki and Kaituna-Pongakawa-Waitahanui Water Management Areas (WMAs). The work was carried out to address a data gap, to inform the process of setting freshwater objectives, limits and methods for these two WMAs as required by the National Policy Statement for Freshwater Management 2014 (amended 2017)(NPSFM), i.e, the Plan Change 12 process (PC12).

The results confirm some water quality, ecology and drain discharge issues that will need to be addressed by Bay of Plenty Regional Council (Council). There are potentially substantial implications for Council's Rivers and Drainage function and lowland land management. This will be of public interest as these issues have been raised during engagement to date with Te Maru o Kaituna, iwi, and the Freshwater Futures Community Groups.

This report summarises findings, highlights implications for Council, and presents a proposed way ahead. Approval is sought to discuss the findings, implications and way ahead with the public during planned engagement.

2 Background

Council has obligations to provide drainage under the Soil Conservations and Rivers Control Act 1941 and some local and national drainage acts. Drainage enables agricultural land use on the lowland Kaituna and Rangitāiki plains. Council manages the 'backbone' of some of the Region's drainage schemes (i.e. 'collector' drains and canals), while farmers manage 'feeder' drains on their properties. The Waihi Drainage Society manages the drainage network in the Waihi Estuary catchment.

Council also has obligations under the Resource Management Act 1991 including controlling discharges to land and water, and control of land use to maintain and enhance water quality and ecosystem health. Implementing the NPSFM is also a requirement.

The Region's drainage network includes *artificial watercourses* (i.e., drains) and *modified natural watercourses* (i.e. land drainage canals). This distinction is important as they are treated differently by the RMA, NPSFM and Regional Natural Resources Plan (RNRP). Discharges of water *in* to artificial watercourses, estuaries or natural watercourses are currently managed under a permitted activity rule in the Regional Natural Resources Plan. This rule requires, among other things, a no more than minor effect on aquatic life¹.

The water quality attributes, national bottom lines, and macroinvertebrate indicator in the NPSFM apply to *modified natural water courses*. Measurable objectives and indicators will be set for these during the PC12 process. PC12 also involves consideration of all contaminant sources and pressures on water bodies in the catchment the range of available methods to achieve objectives, including land use controls, discharge controls and/or works.

3 Summary of Water Quality and Ecology Results

Results expressed in the Lowland Drainage Scheme Water Quality and Ecology Report are summarised below:

- The selection of sampling sites included drains and canals defined in the Regional Natural Resources Plan (RNRP) as “artificial water courses” or “modified natural water courses”.
- The sites monitored were found to have poor quality habitat reflecting the artificial/heavily modified nature of the channels, lack of bank vegetation and riparian shade.
- Water quality was poor, with high nutrient levels (ammonia in particular), high turbidity and extreme levels of dissolved oxygen (both high and low). These conditions may have implications for receiving environments into which the drains and canals discharge, including rivers, streams and estuaries.
- The ecology at sampling sites is largely consistent with the habitat and water quality conditions. Low macroinvertebrate (MCI) scores indicate poor ecological conditions and this is thought to be primarily due to the high ammonia levels.
- In some instances, water quality in *modified natural watercourses* do not meet national bottom lines (e.g., maximum ammonia concentrations) or action levels (e.g. for Macroinvertebrates).
- Despite these conditions, 18 species of fish were identified across all sites, with inanga (whitebait) and shortfinned eels present at all sites. A number of the fish species found are classified nationally as “at risk – declining” (inanga, longfin eel, redfin bully, torrent fish and giant kokopu), while lamprey are classified as “threatened - nationally vulnerable”. All of these species require access to and from the sea to complete their life-cycles.

¹ Rule DW R3, page 12 RNRP

- Relatively large quantities of shortfinned eels were found at some sites, although most were of intermediate size range (250 to 450 mm in length) suggesting obstruction of fish passage for elvers (young eels).
- Monitoring at Landenberger drain discharge indicates that the operative permitted activity standards may not be met at some drain discharge locations.

4 Key Issues

The results bring the following issues to attention:

1. While *artificial water courses/drains* exist to drain water to enable agriculture, they drain contaminants sourced from land as well, and this has impacts on receiving environments that drain discharge in to (natural watercourses, estuaries and wetlands). They also inadvertently provide habitat for some indigenous species.
2. *Modified natural watercourses* were modified to drain land and manage flooding, and this has had impacts on habitat, ecological health, and indigenous species.
3. The quality of drainage scheme discharges and water quality in *modified natural watercourses* is primarily caused by land use and on-farm drain management. Council's Rivers and Drainage team collects water from farms via farm drains and discharges it in specific places (there are similarities with a Territorial Authority's stormwater discharge). While Rivers and Drainage can progress actions within their network (noting that in most instances Council does not own the land), actions to improve water quality and ecology will also need to include on farm contaminant and drain management actions.

5 The Way Ahead

Council will need to work towards:

1. improving habitat and water quality in modified natural watercourses of the network to comply with NPSFM bottom lines and thresholds, and improving fish passage;
2. addressing key source areas/hotspots; and
3. improving management of discharges from artificial watercourses into receiving environments to support objectives for these water bodies (e.g., estuaries and rivers).

The PC12 process is Council's primary avenue to address cumulative effects of land use on receiving environment water quality and values in an integrated way. This is a community issue as much as a technical issue, and is best resolved through this process. The process will need to consider managing contaminant generation and pathways in to drains, as well as management of drainage discharges, which could be at a farm scale (e.g. good practice requirements) and at drainage scheme scale (e.g. amendments to discharge rules).

While the PC12 process progresses, Council can and/or is taking immediate action as outlined in Table 1. Future implications and actions will be developed once the PC12 solution building phase is well advanced (late 2019, early 2020).

Table 1: Actions Council is undertaking now to address drain water quality, and water quality and ecology of lowland natural watercourses, and future implications

Focus	Actions now	Future implications	Who
Addressing Hot spots - high priority	Hot spots have been identified in Kaituna WMA through detailed survey work, and land management officers are focussing on working with land owners to promote change in 5 priority sub-catchments. This will include obvious 'low hanging fruit' such as moving, or managing runoff from races close to drains and stock crossings.	Identify hotspots in Rangitāiki and Whakatāne catchments and explore next steps.	Kaituna Catchment Management
Managing Cumulative Effects	Working with tangata whenua and the community through the PC12 process to consider cumulative sources and effects on water quality and identify solutions, including management of land use and drainage discharges. This will initially include the Freshwater Futures Groups and also River Scheme Advisory Groups including Waihi Drainage Society/WBOP, and the wider public.	Implementation of PC12 may include education, land use controls, requirements for on-farm drain management practices, and/or consent requirements for drainage schemes.	Water Policy/ Community Engagement/ Comms/ Reg. Services / Science / Kaituna Catchment Management / Rivers and Drainage / Māori Policy
Enabling Fish Passage	A GIS tool has been developed by the science team to help map likely areas for future intervention to enable fish passage. Replacement of the Awaiti flood gates, incorporating fish-friendly flood gates, has been completed and other sites are being investigated in Rangitāiki catchment this financial year.	Asset Management Plans may need to detail. LTP funding may need to provide for progressively implementing priority fish passage at sites identified	Science and Rivers and Drainage
Drain Management Techniques	A trial has been proposed on Te Arawa farm, to investigate best management techniques for drain management and impacts on aquatic ecology and habitat. This proposal is awaiting landowner approval.	Depending on results of the trial and PC12, Catchment Management/Rivers and Drainage may need additional resources for land, riparian and drain management activities.	Kaituna Catchment Management / Science / Rivers and Drainage
Operative Permitted Activity Rule	Further monitoring of identified drainage discharges is being considered to help to quantify the impact of current pumped drainage discharges, to confirm Permitted Activity conditions are being met, and if not what the options are.	Possible need to apply for resource consents.	Science / Regulatory Services/ Rivers and Drainage.

A risk for Council is that a number of point-source drain discharges operated by Council may not meet current permitted activity conditions, and therefore would constitute a discretionary activity and require a resource consent. In these instances, the resource consent process would be required to assess how the effects of the discharges will be avoided, remedied or mitigated. Council will review these cases and consider the most appropriate way forward to manage this risk from a regulatory point of view.

Given that long term, effective and enduring solutions will need to include land and drain management actions on privately owned land within the catchment, as well as discharge management, integrated solutions will be explored through the PC12 process. Action is also being taken to address hot spots now.

7 Implications for Māori

The issues noted in this report are of key interest to Te Maru o Kaituna, Rangitāiki River Forum and tangata whenua. By way of example, Tapuika has regularly raised concern about the quality of pumped drainage discharges, Rangitāiki River Forum has a strong focus on improving passage for tuna and other kai, and Ngāti Whakaue's new iwi management plan specifically identifies lowland freshwater quality and ecology issues.

Staff intend to discuss these issues and solutions with co-governance fora and iwi and hapū as part of the PC12 process.

8 Council's Accountability Framework

8.1 Community Outcomes

This project/proposal directly contributes to the following Community Outcomes in the council's Long Term Plan 2018-2028:

- "A healthy environment" and "freshwater for life" – working towards improving water quality and ecology of rivers and estuaries; and
- "Safe and resilient communities" and "a vibrant region" – continuing to deliver land drainage obligations that enable agricultural land use in the lowlands.

8.2 Long Term Plan Alignment

Current Budget Implications

The PC12 process is planned under the Regional Planning and Engagement activities in the Long Term Plan 2018-2028, and is required by national policy. Other actions in Table 1 are delivered under the Catchment Programme for Kaituna, and Rivers and Drainage (Flood Protection and Control) group of activities.

Monitoring of drainage network discharge water quality is not currently planned or budgeted in the Annual Plan 2018/19 or Year 1 of the Long Term Plan 2018-2028. Further monitoring of Landenberger Drain discharge can be delivered under 2019/2020 budget.

Future Budget Implications

Rivers and Drainage are not currently funded to manage for water quality and ecological values, or for potential solutions. Future LTP funding may be needed to provide for fish passage interventions (other than routine asset replacement which that incorporates fish passage), riparian management and other interventions for drains managed by Council (and resolving access/tenure issues). Depending on how cumulative effects of land use and drain discharges are managed under PC12, then consent could be required for schemes to discharge to waterways. Implications will be reported in more detail by March 2020 once PC12 and other actions in Table 1 have progressed.

Nicola Green
Senior Planner (Water Policy)

for General Manager, Strategy & Science

30 November 2018

MEMORANDUM



To: Rangitāiki Tarawera Rivers Scheme Advisory Group

For period 1 July 2018 to 31 January 2019

From: Paula Chapman

Date: 20 March 2019

Project Manager - Flood Recovery

File Ref: A3148034

Subject: **Status Report - Rivers and Drainage, 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 twenty months into the estimated four year programme. Physical repair works have been steady across the programme as conditions and material availability have allowed.
- As at 28 February 2019 185 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 Rangitāiki Tarawera Rivers Scheme 56 sites from a total programme of 224 sites have been completed. Progress in this scheme has been delayed due to the constrained rock supply in the eastern Bay of Plenty.
- The most visible repair associated with the total project is the College Road stopbank rebuild which was completed in December.
- The process for claiming eligible costs from central government has been established. The most recent claims are for essential infrastructure repairs. Claim Four has been lodged and the project team is working on Claim Five.

- Communication and stakeholder engagement has been a feature of the project due to the high level of public and stakeholder interest in the recovery from the April 2017 floods, and this will continue.
- A formal submission to support a progress payment for Infrastructure Insurance was accepted and \$2,000,000 has been received.
- A progress payment of \$115,000 has also been received to support the councils Material Damage insurance claim.

1.2 Health and Safety

- Projects are managed and delivered in keeping with Councils 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 Natural Hazards Plan, BOPRC policies and bylaws for the Rivers and Drainage activities.
- The project team is working with BOPRC consents to ensure any work in the Coastal Environment Zone is compliant with Council Plans.

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. Job completion includes the capture of new or repaired assets into Councils Asset Management System.
- Dedicated administration resource is supporting the planning, procurement and funding recovery process.

1.5 Communications / 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 Edgumbe Collective Newsletter and the Regional Council website to keep the community informed on work plans and progress. A project page is now included on Councils web site and interested people can follow the page to ensure they receive regular updates www.boprc.govt.nz/our-projects/april-2017-flood-repair-project/
- Information is regularly provided to the Rangitaiki Community Board through the BOPRC communications team.

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 have recently been extended for a further three year term and new suppliers will be invited to join the panel.
- Rakauoa Quarry (Matawai) is currently supplying 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), Kaitimako Quarry (Welcome Bay) and Taotaoroa Quarry (Matamata) dependent on price and availability.
- Suitable graded rock supply constrains the programme of works in the Eastern Bay with the Matahina Quarry currently unavailable for supply and the Blue Rock Quarry unable to produce the graded product required for the work. This has delayed the programme of work on the Whakatane, Rangitaiki and Tarawera Rivers. Staff are investigating options to procure rock supply from other locations. This will inevitably increase the material cost to site.

1.7 Programme Delivery

<ul style="list-style-type: none"> • A total of 520 sites have been identified in the repair programme across the region, 224 are associated with the Rangitaiki Tarawera Rivers Scheme
<ul style="list-style-type: none"> • Across the programme 185 sites have been completed, 56 of these are in the Rangitaiki Tarawera Rivers Scheme
<ul style="list-style-type: none"> • The programme of desilting and drainage bank repairs is approximately 80% complete across the Rangitaiki Drainage network
<ul style="list-style-type: none"> • 145 sites were originally programmed for completion in 2018/19, 55 of those are Rangitaiki Tarawera Rivers Scheme sites. Due to the constrained rock supply that target will not be met.
<ul style="list-style-type: none"> • Total programme completion date remains at 30 June 2021

Key sites completed include - RT310 – Pratt Webb, RT223 Ngati Manawa (high pumice bank), and RT213 – Ngati Manawa (87.5m)

1.8 Financial

Forecast Costs total programme

Estimated total programme cost Rangitaiki - Tarawera	\$27,945,800
Estimated betterment value	\$15,143,000

2017/18 Actual Costs

Total expenditure at (30 June 2018) – for infrastructure works	\$6,707,296
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2018/19 – Budget vs Actual

Expenditure Budget – for infrastructure works	\$5,497,800
YTD Expenditure 31 January 2019 – for infrastructure works	\$3,870,146

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 project in new locations	BOPRC MCDEM Insurer
Rock material availability	Suitably graded rock supply is restricted and the operating environment is variable	Working with new rock sources to supply suitable material for works in Ōpōtiki (Rakauaroa Quarry in Matawai) and Rangitaiki (Ywari Quarry in Manawahe), and Kaituna (Kaitimako) 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	Additional in-house resource seconded 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 our infrastructure claim and our material damage claim. Staff are working with insurance specialists Aon to progress the claims process. Progress payments have been received for Infrastructure Insurance (\$2,000,000) and Material Damage (\$115,000) claims.
- The project team is working with the central government (MCDEM) representative and is comfortable with the process adopted to date.

4.0 Expected Progress within the Next 6 Month Period

- Complete 35% of Rangitaiki Tarawera Rivers Scheme work
- Lodge and receive MCDEM Claim 4, and Claim 5 (Part 1 Edgecumbe)
- Complete Rangitaiki desilting and drain bank repair work
- 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.



Repairing the damage



520
repair sites



Total budget
in excess of
\$45m



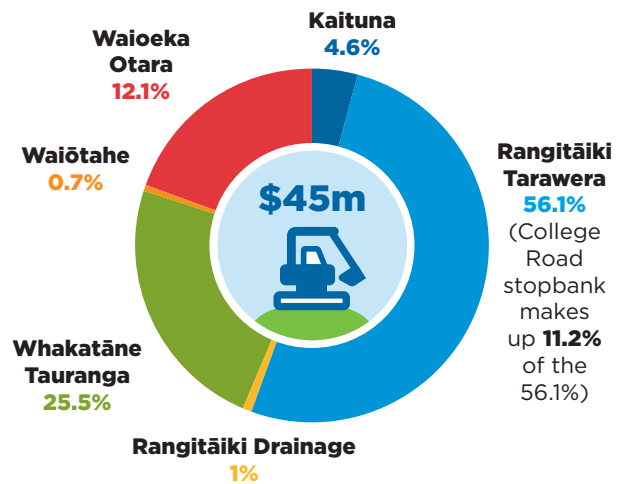
All repairs to
be completed by
30 June 2021

37% of repair sites are **high priority** and will be completed by **December 2019**

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 224 sites 52 complete ✓	Whakatāne Tauranga 108 sites 32 complete ✓	Waiōeka Otara 59 sites 27 complete ✓
Rangitāiki Drainage 53 sites 42 complete ✓	Kaituna 45 sites 6 complete ✓	Waiōtahe 31 sites 10 complete ✓

169 SITES 32.5%
completed as at **31 December 2018**

What's happening in 2018-2019



2018-2019 budget
11.47 million

To complete:

College Road
stopbank
realignment



Rangitāiki Drainage
pump station
repairs

100% of Rangitāiki
Drainage sites

90% of high
priority sites

Repairs
to a further
145
sites across
the region

MEMORANDUM



To: Rangitaiki Tarawera River Scheme Advisory Group

From: Mark Townsend
Engineering Manager

Date: 1 March 2019

File Ref:

Subject: Engineering Update

1. Rangitāiki Floodway

a. Proposed Consent Changes

A paper covering this item was presented to Council on 13th December 2018. This was circulated to Advisory Groups members. The recommendations that were adopted were:

That the Regional Council:

- 1 Receives the report, Rangitāiki Floodway Proposed Consent Changes;
- 2 Approves that a consent variation be lodged to allow the installation of a lower fixed crest weir with contingency gates, noting that additional funds may be required in year 3 of the LTP, with the details of this to be brought back to a future Council meeting.
- 3 Notes that further negotiations are proceeding on the possible purchase of 266 Hydro Road, Edgecumbe.
- 4 Notes that negotiations will commence with affected landowner(s) where the ponding areas are propose



Figure 1: Proposed Radial Gates and Lower Fixed Crest Weir

b. Rangitāiki Floodway Bifurcation Consent Hearing

A hearing was held on 30 November 2018 to discuss the proposed WDC consent change to enable the bifurcation cut to proceed. It was subsequently approved.



Figure 2: Rangitāiki Floodway Widening – Bifurcation Proposal

c. Rangitāiki Floodway Widening Stage 5

A contract has been let to Tracks Concrete Ltd for \$ 2,315,433 + GST to undertake the following:

- A new bifurcation cut of the canal to provide a second return outlet back into the lower Rangitāiki River.
- Overlays behind the Rangitāiki River stopbank in this vicinity to mitigate piping failure risk.
- Construction of a new bridge over the new bifurcation canal and adjusting the road alignment and level to accommodate the bifurcation and overlays.
- Road rehabilitation, seal widening, drainage improvements and bridge widening on behalf of the Whakatāne District Council

The value of the Whakatāne District Council components has initially been assessed as being approximately \$ 500,000.

d. Increase Required in Project Budget for 2018/19

This project has experienced increased costs over a number of categories, which has led to a need to bring forward funding from next year's allocated budget.

Additional costs experienced include landowner compensation (stages 3 and 4), Stage 4 phasing and operational costs, unexpected archaeological site management costs, additional consenting and hearing costs, additional costs due to additional new consent conditions agreed with the submitter, and bridge modification requirements arising from the December tender process.

The total required for the current financial year is \$ 1,065,000.

The funding for the 2019/20 and 2020/21 financial years for this project are currently under review as per the recommendations from the report presented to Council on 13 December 2018 titled "Rangitaiki Floodway Proposed Consent Changes".

For simplicity, it is proposed to bring forward the required funding from the 2019/20 financial year into the 2018/19 financial year and address any funding increases for subsequent years once the full costs to complete the project are known.

	LTP Floodway Budget				Proposed Revised Budget			
	2018/19	2019/20	2020/21	Total	2018/19	2019/20	2020/21	Total
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Floodway	1442	2427	2558	6427	2507	1362	2558	6427
Rangitāiki Overlays	500	400	0	900	500	400	0	900
Total	1942	2827	2558	7327	3007	1762	2558	7327

This was presented to Council on 14 February 2019. It was resolved that Council:

- 1** Receives the report, Rangitaiki Floodway Stage 5 – Contract Award;
- 2** Approves that \$ 1,065,000 for this project be brought forward from the 2019/20 financial year into the 2018/19 financial year.
- 3** Agrees that staff will bring to a future Council meeting updated cost estimates for the remaining two years of the project.
- 4** Approves the staff recommendation that Tracks Concrete Ltd be awarded the Stage 5 Rangitaiki Floodway Contract for \$ 2,315,433 + GST.
- 5** Confirms that the decision has a medium level of significance as determined by the Council's Significance and Engagement Policy. Council has identified and assessed different options and considered community views as part of making the decision, in proportion to the level of significance.

2. Rangitāiki River Scheme Review

A final report on progressing through the recommendations was delivered to the Audit and Risk Committee on 28th November 2018. The outcome that was approved was that:

Ongoing implementation and monitoring

The recommendations have either been fully completed or are programmed as part of Council work programmes (excluding the one recommendation detailed in 2.2 on target maximum lake levels). Key work programmes for the completion of the remaining recommendations are the River Scheme Sustainability Project, the Regional Flood Risk Project, the Flood Repair Project, and Asset Management.

It is recommended that Council focus on the long term and strategic initiatives to manage flood risk in the region. This overlaps with the Council priority of climate change adaptation. This is now a more useful lens to look through, than the Rangitāiki River Scheme Review implementation.

This was endorsed when a similar report was brought back to Council on 14 February 2019.

Bay of Plenty Regional Council - Toi Moana

Statement of revenue and expense: Rangitaiki-Tarawera Rivers Scheme

For the 7 months ending 31 January 2019

	Year to date		Variance		Annual		Variance Indicator	
	Budget	Actual	\$		Budget	Forecast		\$
	\$000				\$000			
Operating revenue by class								
1	1,748	1,748	0	-	3,382	3,382	0	-
2	0	0	0	-	0	0	0	-
3	338	306	(32)	Lower	1,173	1,153	(20)	Lower
4	180	180	0	-	308	308	0	-
	2,266	2,234	(32)	Lower	4,863	4,843	(20)	Lower
Operating expenditure by class								
5	0	2	2	Higher	3	5	2	Higher
6	17	140	123	Higher	252	277	25	Higher
7	121	195	74	Higher	708	738	30	Higher
8	772	784	12	Higher	1,323	1,412	89	Higher
9	124	357	233	Higher	212	597	385	Higher
	1,034	1,478	444	Higher	2,498	3,029	531	Higher
10	404	404	0	-	697	697	0	-
	1,438	1,882	444	Higher	3,195	3,726	531	Higher
11	828	352	(476)		1,668	1,117	(551)	
12	0	49	0		5,608	5,600	8	Lower

Capital insurance recoveries

10. Rangitaiki-Tarawera - January 2019 financial report.xlsx, RT 211

Bay of Plenty Regional Council - Toi Moana

Statement of revenue and expense: Rangitaiki-Tarawera Rivers Scheme

13 **Total surplus (deficit)** 828 352 (476) 7,276 6,717 (558)

Capital expenditure by project

Rivers and Drainage Schemes

Rangitaiki specific sites	0	5	5	0	5	5	Higher
Rangitaiki Floodway	486	1,179	693	1,442	2,459	1,017	Higher
Rangitaiki Floodgates	0	0	0	0	0	0	-
Rangitaiki Tarawera Capital Renewal	551	15	(536)	1,749	750	(999)	Lower
Rangitaiki Tarawera Flood Damage Repairs	3,024	3,844	820	5,498	4,850	(648)	Higher
Total capital expenditure	4,061	5,043	982	8,689	8,064	(625)	Higher

16

Bay of Plenty Regional Council - Toi Moana

Statement of revenue and expense: Rangitaiki-Tarawera Rivers Scheme

Reserve Balances: as at 31 January 2019

	\$000
17 Rangitaiki-Tarawera Flood Damage Reserve	3,147
18 Rangitaiki-Tarawera Asset Replacement Reserve	1,715
19 Rangitaiki-Tarawera Works Reserve	(386)
20 Outstanding Loans	35,548
21 Rangitāiki-Tarawera Asset Valuation 1 July 2018	98,527

Budget to Actual Variance explanations

Operating variances

6 Other Expenses	Infrastructural insurance for the current year is higher than budgeted.
7 Contract work	Contract works are expected to be slightly higher than budget as the works programme is conducted.
8 Finance Costs	Finance costs will be slightly higher than budget due to capital works being ahead of schedule.
9 Depreciation and Asset Disposal	1 July 2018 revaluation for Rivers and Drainage assets were processed and resulted in higher depreciation.
13 Total operating surplus (deficit)	Operating expenditure is funded by 80% targeted rates and 20% general funds. Any flood damage budget which was unspent was transferred to the flood damage reserve, then the remaining will be 80% transferred to the Works Reserve and 20% to Council's general reserve.

Capital variances

16 Rangitāiki Floodway	Year to date and forecast expenditure relates to Stage 4 widening which is nearing completion. Planning and scoping is underway for bifurcation, bridge and Thornton Hall Road works (Stage 5). A contract award for Stage 5 of \$2.3 million was approved in February by Council along with a request to bring forward capital budget from 2019/20.
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Bay of Plenty Regional Council - Toi Moana

Statement of revenue and expense: Rangitaiki-Tarawera Rivers Scheme

Flood Damage Repairs

Flood damage repairs are progressing in the Rangitāiki Tarawera scheme with the majority of expenditure being on the College Road stopbank realignment project which is completed. Rock supply issues are slowing the progress of works in this scheme.

Reserves

- 17 Rangitaiki-Tarawera Flood Damage Reserve
- 18 Rangitaiki-Tarawera Asset Replacement Reserve
- 19 Rangitaiki-Tarawera Works Reserve

Contingency cash held for flood damage works, currently held on term deposit.

Available to fund capital spend of renewal assets.

Available to fund operating expenditure.

MEMORANDUM



To: Rangitaiki Tarawera River Scheme Advisory Group

From: Mark Townsend
Engineering Manager

Date: 1 March 2019

File Ref:

Subject: Gravel Extraction in the Rangitaiki/Tarawera River Catchments

Gravel Management in the Rangitāiki-Tarawera Scheme presently only occurs in the Rangitāiki River upstream of Matahina Dam. No extraction is carried out in the reaches below Matahina or in the Tarawera River.

The principal extraction occurs in the Horomanga River. Extraction in this river has been suspended in the upper part of the river from the confluence with the Ohutu River. This is to enable bed level recovery. The Horomanga extraction is focussed on the reach in and around Galatea Road. Here the river is close to being perched in places. The estimated supply rate to the river is around 45,000 cubic metres per annum. It has been hard to attract interest in extraction of this reach. However, significant extraction there has occurred in comparatively recent times.

Estimates for the Whirinaki River indicate supply rates are in the range of 20,000-30,000 cubic metres per annum. However, only around 2,000 cubic metres per annum are extracted on average since 1996.

Small amounts of extraction occur in the Mangamate Stream (around 4,000 cubic metres per annum), Ruarepuae, the Jones Dry Wash and the Ohutu Streams. Little has been extracted from the Kopuriki Stream in recent times, though consents have been held for extraction from this stream in the past.

MEMORANDUM



To: Rangitāiki-Tarawera Advisory Group

From: Mark Le Come
Corporate Performance Programme Manager

Date: 21 February 2019

File Ref:

Subject: **Bylaw and Policy reviews**

The purpose of this memo is to inform the Rangitāiki-Tarawera Advisory Group of two upcoming reviews. There are a review of the Floodway and Drainage Bylaw and a review of River Scheme Rates.

Floodway and Drainage Bylaw Review

The Floodway and Drainage Bylaw was adopted in 2008 and is due to be reviewed. This Bylaw is designed to control and protect drains, pumping stations, defences against water, river edge protection works belonging to or under the control of the Bay of Plenty Regional Council. It sets what can and can't be done in the vicinity of these assets, the process for gaining authority for works, and remedies available to the Council for non-authorised work.

Most aspects of the review will be technical e.g. ensuring that the rules are up to date with current engineering requirements and good practice guidance. In addition, legal aspects of the Bylaw will be refreshed.

The revised Bylaw will be open for public consultation prior to adoption by Council, and the various river advisory groups will be a key component of this. Public consultation is intended to commence in early 2020, with the new Bylaw being adopted in June 2020.

River Scheme Rates Review

River Scheme Rates are designed so that the beneficiaries pay for the service they receive. River schemes are currently funded through General Rates (20%) and Targeted Rates (80%). The General Rate component reflects the region-wide benefit, and the Targeted Rates reflect the component of benefit to individual properties.

The benefit to individual properties depends on many factors including its size, location, and the assets that protect it. Over time the mix of assets used and their cost changes. This review is intended to update the categories and Targeted Rates assessed to individual properties based on the changing mix of assets and their costs. While the appropriate mix of General and Targeted Rates cannot be changed through this review, affordability impacts will be considered and used as an input towards the development of Long Term Plan 2021-2031 to ensure that the overall rating system is appropriate.

Scoping and prioritisation of areas for review is intended to be completed by June 2019.