



Kaituna Catchment Control Scheme Advisory Group Meeting

**Wednesday 3 March 2021
10am**

Waiariki Room
Bay of Plenty Regional Council
1118 Fenton Street
Rotorua

Kaituna Catchment Control Scheme Advisory Group Meeting

Wednesday 3 March 2021 at 10am

Agenda

- 1 **Welcome / karakia**
- 2 **Apologies**
- 3 **Notes of previous meeting held 2 September 2020**
- 4 **Matters arising from previous meeting**
- 5 **Engineering update**
- 6 **Operations update**
- 7 **April 2017 Flood Repair Project update**
- 8 **Finance report**
- 9 **River scheme planning (Asset Management Plan, Long Term Plan)**
- 10 **Co-governance / community group updates**
- 11 **General business**
 - a. Flood Protection and Drainage Bylaws 2020
 - b. Update on Kaituna rating review
 - c. Infrastructure insurance review
 - d. Asset encroachments
 - e. Bell Road property purchase
- 12 **Public forum**
- 13 **Meeting close / karakia**

Notes of the Kaituna Catchment Control Scheme Advisory Group meeting held at The Orchard, 20 MacLoughlin Drive, Te Puke, on Wednesday, 2 September 2020, commencing at 10am

Chair: Councillor Norm Bruning

Advisory Group: Barry Roderick, Dave Hurst, Graham Thompson, Peter Dine, Nick Chater, Richard Weld

BOPRC Councillors: Councillor Matemoana McDonald

BOPRC Staff: Kirsty Brown (Rivers and Drainage Assets Manager), Lynne Hind (Asset Management Coordinator), Bruce Crabbe (Rivers and Drainage Operations Manager), Kerry Smith (Area Engineer), Chris Ingle (General Manager Integrated Catchments), Mark Townsend (Engineering Manager), Hemi Barsdell (Asset Management Specialist), Paula Chapman (Project Manager)

Public: Noel McLeod

Apologies: John Scrimgeour (Western Bay of Plenty District Council), Roger Hintz, Heather Brake, Pim De Monchy

1 **Welcome**

Councillor Bruning welcomed everyone to the meeting and Hemi Barsdell opened the meeting with a karakia.

Chris Ingle acknowledged the newest member of the Kaituna Advisor Group – Heather Brake. Although Heather was unable to make this meeting, Chris noted the strengths she will bring to the group including her work as part of the Community Reference Group assisting with flood recovery for Ngongotahā. She will be a welcome addition to our team.

Kirsty Brown introduced Lynne Hind as the Acting Asset Management Coordinator who will be filling in for Jo Heath, whilst Jo is on secondment until the end of the year.

2 **Apologies**

Apologies received as recorded above.

3 **Notes of previous meeting held 4 March 2020**

Resolved

That the Kaituna Catchment Control Scheme Advisory Group:

- 1 Confirm the notes of the meeting held 4 March 2020 as a true and correct record.**

**Hurst/Thompson
CARRIED**

4 **Matters arising from previous meeting**

- Figure queried from April 2017 Flood Repair Project infographic, regarding \$7 million. It was noted this was just for Group member information.

General question about Covid-19 as to whether the group would be happy to use Zoom for ongoing meetings if needed, general preference was not to use it if possible.

5 **Central Government Funded Projects**

Chris Ingle presented an overview of the Central Government Funding provided to Bay of Plenty Regional Council.

Key points included:

- Funding categories – Provincial Development Unit funding, Crown Infrastructure Partners (CIP) bids, Jobs for Nature (co-ordinated by MfE), Department of Conservation jobs for nature, One Billion Trees programme (1BT), MPI funding for wallabies and wilding trees.
- Kia Kaha Whakatāne – Paula Chapman is the Project Manager, funds must be spent by 30 November 2020, \$2.1 million awarded via Whakatāne District Council for region-wide projects including track clearance, pest control, coast-care enhancement work and removing problem trees alongside waterways. Over 70 jobs created short-term, focus on those unemployed due to Covid-19. Monthly reporting requirement to the Ministry of Business and Innovation (MBIE).
- Crown Infrastructure Partners – The Kaituna Mole upgrade has received 75% funding (total project cost is \$2.5 million).
- MfE Jobs for Nature – First round granted to Bay Conservation Alliance for the Bay Conservation Cadet Programme. This is a 12-week programme that covers NZQA certifications such as Growsafe, Outdoor First Aid and Chainsaw licence. Combination of work experience and onsite training across a range of sites in the Bay of Plenty. Work will include pest and weed control, planting, fencing, tree management, understanding of nursery management, track cutting, species monitoring and conservation from a Māori world view. An additional four-week period will offer further support for cadets seeking long-term employment. Second round of \$55 million must provide job creation related to fresh water outcomes and include a local funding share – Bay of Plenty Regional Council is considering placing two or three project bids into this funding round.
- Focus Catchments work – Waihī Estuary Catchment has been awarded funding from MPI to assist in work primarily for engagement activities.
- One Billion Trees (1BT) - \$1.5 million partnership agreement through Te Uru Rakau's 1BT programme. Subsidises all Bay of Plenty Regional Council native plantings in coming years and helps with native planting for Kaiate Falls (Te Rerekawau) focus catchment (Waitao).
- Wallabies and Wilding Trees – four-year programme. \$1.45 million for wallaby control in current year with contributions from Waikato and Bay of Plenty Regional Councils. Funding increased in Year Two. Wilding pine control awarded \$817,000 in three management areas.

Discussion:

- Barry asked how much was spent on creating native species e.g. eel and whitebait stocks. Chris noted that Bay of Plenty Regional Council are on a journey towards enhancing habitats and Bruce Crabbe was currently working on this.

6 Engineering Update

Mark Townsend spoke to his report and presentation.

Key points included:

- Kaituna Mole Replacement - \$2.5 million budget, 75% funded by CIF. Construction of new sheet pile wall and concrete deck around existing structure. Kirsty Brown will be leading the landscaping work with Pim De Monchy.
- Ngongotahā Stream - \$2 million budget.
- Mark spoke to “Developments in the Kaituna Catchment” slide – areas covered were Rangiuru Business Park, Te Puke West, Pukehangi, Eastside Structure Plan – Rotorua and Ponds H and G in Pāpāmoa.
- Climate change overview – due to greenhouse gas emissions global average temperatures are rising, oceans are absorbing 93% of the extra energy, extreme events increasing in frequency.

ACTION:

NIWA Climate Change video link to be sent to the Advisory Group for their information.

- Mark spoke to slide that showed likely climate change impacts for the Bay of Plenty in 2040 and 2090 based on current greenhouse gas emission rates.
- Bell Road Sub-catchment – current level of service (LOS) discussed, based on five-year, three-day event with present LOS conditions. Lot of land not meeting the 72 hours level of service currently. Various scenarios modelled as per March 2020 meeting.

A number of options/questions were put to the Advisory Group in March 2020 to consider which included:

- Designated ponding areas that are temporarily flooded, with compensation provided to the landowners.
- Options for retention higher up in the catchment.
- Should the scheme spend money on increasing pump capacity that may not achieve the level of service into the future (e.g with climate change and the lowering of land, peat drying out and shrinking)? Or is it better to retire the affected land and change the land use?
- Some hard questions and decisions required - into the future is this the best place to be farming?

Discussion:

- Bell Road Pump Station – questions around scheme sustainability in light of modelling results to date. Concerns that many farms require new consents for ongoing effluent treatment at a cost of \$250,000-\$300,000 per farm. Hard to go forward on low land without knowing the economic viability of it. Need to look after the land for the next generation. Resolution presented by Dave Hurst on behalf of the Advisory Group.

RECOMMENDATION:

The Advisory Group recommend to Council that an independent consultant does an overview of options going forward before any more infrastructure money is spent by Council.

Hurst/Roderick
CARRIED

7 Operations Update

Bruce Crabbe took the report on the Kaituna scheme's maintenance works programme in the agenda pack as read.

Kerry Smith presented the Operations Update PowerPoint.

Key points included:

- Lower Kaituna, Kopuaroa Canal – approximately 2 kms of canal desilted, berms and bank reshaped. Surplus material loaded into landward toe.
- Lower Kaituna, Maketū Pump Station – upgrade to pump station's switchboard and telemetry. Updated to current electrical regulations and is now safer, more reliable and easier to operate.
- Lower Kaituna – rabbits continue to be an ongoing problem. Infestation of burrows living in the stream and stopbanks – the Advisory Group were shown photos of areas of concern at Kaituna River left bank and Waiari Canal right bank stopbanks.
- Ōkere Control Structure, maintenance – as at 13 August 2020, two of the three gates and lifting mechanisms have been refurbished and reinstalled. Final gate and lifting mechanism scheduled to be installed early September 2020.
- Rotorua, Waiowhiro Stream – obstacles were removed from Waiowhiro Stream and improvements made to the berm and flow to alleviate localised flooding.
- Windblown Tree Removals – from Waiowhiro Stream channel, Utuhina Stream erosion site and Waitetī Stream.

8 April 2017 Flood Repair Project Update

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

Key points included:

- Rock repair costs in this scheme are higher than the rest of the region and damage from recent flooding has exacerbated issues in some places. Some sites have self-healed while higher priority sites in many cases have become worse.
- The forecast is for a total \$5.2 million spend instead of a \$3 million spend due to material cost being more expensive (rock supply and cartage) and more extensive works required.
- Kaituna – to date expenditure is \$4 million with \$1.2 million in recoveries to date.
- 30 of the 45 Kaituna sites were completed as at September 2020.

- Expected progress in the next six months is to complete 75% of the Kaituna works, finalise material damage claim for pumps and temporary pumping claim and to lodge and receive NEMA Claim 13.

Discussion:

- Question over whether other projects in the programme were also 30-40% over budget. It was noted they were not and several things had caused this overspend. For example estimates were based on standard rates and in several cases once work had started, more damage had been identified and this has required more materials. In other catchments there were also more self-healed sites.

9 Finance Report

Kirsty Brown spoke to the financial report that was tabled at the meeting and provided an overview of the scheme's revenue and expenditure for the 12 months ending 30 June 2020.

Key points included:

- Total operating deficit of \$30,000 at year-end as a result of more work being carried out and less revenue.
- Higher capital funding from NERM (previously MCDEM) and insurance pay outs, resulting in a favourable surplus of \$594,000.
- Lower capital expenditure due to COVID-19 lockdown and lack of available rock.
- Total reserve funds available of \$6.6 million.
- Internal loan balance of \$8.7 million.
- Annual 2020 valuation is currently underway.

Discussion:

- Interest loan rate was queried and confirmed as 3%. Andy Dixon also confirmed there was no cap on the flood reserve.

10 River Scheme Planning (AMP and LTP)

Hemi Barsdell presented the River Scheme Planning update.

Key dates:

6 October 2020	Council review of draft Long Term Plan (LTP) 2021-2031 and AMP budgets
10-11 November 2020	Second Council review of draft Long Term Plan (LTP) 2021-2031 budgets and AMP documents
December 2020	AMPs and draft LTP 2021-2031 documents adopted by Council for review by Audit NZ
February – May 2021	LTP consultation, submissions, hearings
March 2021	Advisory Group meeting
June 2021	LTP approved

Key points included:

- Baseline maintenance and operations budgets will increase due mostly to an increase in the number of assets, e.g. 2017 Flood Repair Project and the Ngongotahā Stream Flood Mitigation Project. Forecasting a 10-20% increase at this stage.
- The capital budget shared during the Long Term Plan (LTP) workshop with the Kaituna Advisory Group on 19 August 2020, is the same.
- Confirmed draft scheme budgets will be shared at the March 2021 Kaituna Advisory Group meeting.

Discussion:

It was discussed whether there were any budget implications for some of the floodgates to function more often. Bruce Crabbe confirmed these will be looked at when it is time to replace the floodgates.

11 Co-governance / community group updates

Site visit to be done after this meeting to Kaituna Diversion Project, this will be hosted by Mark Townsend in the absence of Pim De Monchy. A report from Stephen Park on the Maketū Estuary benthic ecology monitoring 2020 was provided to the Advisory Group in advance of the site visit.

No updates for the Freshwater Futures group.

12 General business**12.1 River Scheme Rating Classification**

Kirsty Brown provided an update on the River Scheme Rating Classification project.

Key points included:

- Simon Harris from Land Water People has been engaged to do a review of the Kaituna Catchment Control Scheme rating system.
- Group members will be kept up to date as the project develops, with the first report due early October 2020.

ACTION:

Kirsty to send out Simon Harris report to Kaituna Catchment Control Scheme Advisory Group in October 2020.

12.2 Infrastructure insurance

Kirsty presented an overview of the infrastructure insurance. Central government pays up to 60% of the repair costs for essential infrastructure to local authorities, conditional on us showing we can meet the remaining 40% through other means.

On 30 July 2020 a workshop was held between Council staff and Aon representatives. Aon will now be carrying out a frequency loss assessment for us and in turn we have created a video to show how the Bay of Plenty river and drainage area has been hit with recent disasters and what systems we have in place to prepare for this. As part of the loss assessment, Aon will identify and analyse the loss exposures for rivers and drainage assets

and examine the feasibility of self-insurance as a cost-effective option. Other ways to manage risk will also be examined, e.g. capacity to borrow, to fund any loss or damage.

As our insurance is obtained in London it was noted that due to the impact of Covid-19 on this market, our insurance premiums may go up by 15 percent.

The Kaituna scheme's infrastructure premium for this year was \$139,000.

12.3 Review of the Floodway and Drainage Bylaw 2008

The Floodway and Drainage Bylaw 2008 sets out regulations that safeguard flood protection and land drainage assets from third party damage or misuse. The bylaw is reviewed to ensure it is still fit-for-purpose and informed by the latest science and flood information. Due to Covid-19, deliberation and adoption timeframes were postponed until the following dates:

- Hearings – 26 August 2020
- Deliberations – 30 September 2020
- Adoption – 29 October 2020

Submissions closed 28 April 2020 with a total of 43 submissions received. Fifteen organisations and individuals advised they would like to be heard at the hearing.

Further information on the proposed Flood Protection and Drainage Bylaws 2020 can be found on our website at <https://www.boprc.govt.nz/our-projects/flood-protection-and-drainage-bylaw-review>

12.4 Advisory group membership – September 2020 to September 2023

The first three-year term for Advisory Group membership was due to finish this month (September 2020). Members were approached by staff and everyone in the Kaituna Advisory Group noted they would like to continue. One vacancy for the Rotorua Urban position was still available since Warren Webber resigned in September 2018.

As per the Terms of Reference this vacancy was advertised via public notice in The Daily Post (Rotorua) and on our website.

Applications closed on Friday, 21 August 2020 and a selection panel of Councillor Bruning, Councillor McDonald, Chris Ingle and Kirsty Brown reviewed the applicants. Ngongotahā local, Heather Brake has been successful in her nomination and will be the new Rotorua Urban representative from September 2020.

12.5 Other general business

Richard Weld had asked if there was a chance to see more detail around what was being spent, in what areas and how much in regards to the Flood Recovery Project. Kirsty confirmed she could provide that information in another month (end of October).

ACTION:

Kirsty to send out more detailed information on spending to the Advisory Group, e.g. what areas and how much, by 31 October 2020.

Councillor McDonald mentioned we could have a Te Maru o Kaituna River Authority presentation at the next Kaituna Advisory Group meeting in March 2021.

ACTION:

Te Maru o Kaituna River presentation to be added to agenda for Kaituna Catchment Control Scheme Advisory Group meeting in March 2021.

Meeting closed at 12:38 pm.

Site visit to the Kaituna Re-diversion Project followed this meeting.

Action Sheet

Kaituna Catchment Control Scheme Advisory Group Meeting

2 September 2020

Action	Person Responsible	Completed	Comment
1. Climate Change video link from NIWA to be provided to the group for their information.	Mark Townsend		
2. Recommendation taken from Dave Hurst: <i>That the Advisory Group recommend to Council that an independent consultant does an overview of options going forward before any more infrastructure money is spent by Council.</i>	Councillor Clark/ Chris Ingle	✓	The Council were made aware of this recommendation shortly after the Advisory Group meeting in September. Please refer to pages 17 & 18 of this agenda for the Bell Rd update.
Update from the above resolution to be reported back to the Advisory Group at the March 2021 meeting.			
3. Rating Review Progress Report from Simon Harris provided to the group for their information.	Kirsty Brown	✓	Update to be provided in "General Business" section of Kaituna agenda pack prior to 3 March meeting.
4. More information on Flood Repair Project in regards to how much was spent, when and where - to be provided by November 2020.	Paula Chapman/ Kirsty Brown	✓	Paula Chapman provided Richard Weld with a breakdown of this information on 2 September 2020.
5. Co-governance presentation on Te Maru o Kaituna River to be added to agenda for next Advisory Group meeting (March 2021).	Councillor McDonald	✓	Added to the agenda for 3 March 2021 meeting.

MEMORANDUM



To: Kaituna Catchment Control Scheme
Advisory Group

From: Mark Townsend
Engineering Manager

Date: 17 February 2021

File Ref: A3728368

Subject: Engineering Update

1 2020/21 Capital Works Programme

1.1 Utuhina Stream Mitigation

Budget 2020/21: Design & Construction \$400,000

In 2019/20 council extended and updated the existing flood model to include upstream information. The result is a “two-way coupled” hydraulic model, which extends along the Utuhina Stream, Otamatea Stream, and Mangakakahi Stream as shown in the figure below.

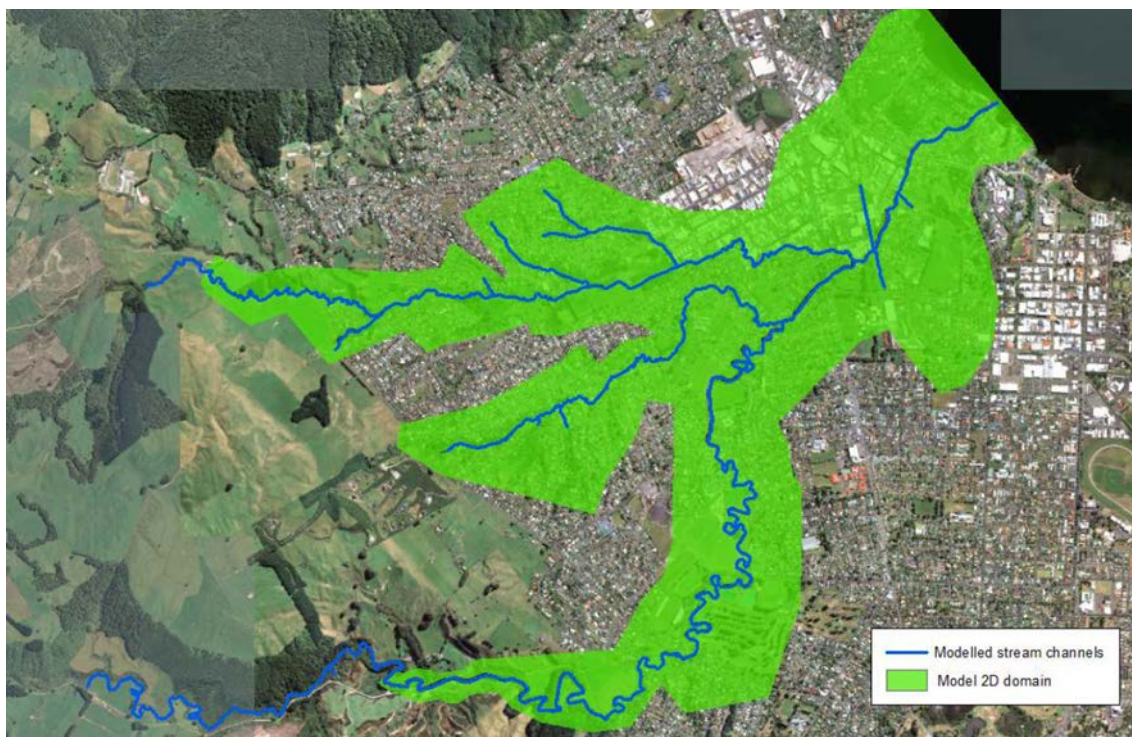


Figure 1: Greater Utuhina Catchment Model (GUCM) - Hydraulic Model layout

Also produced is a Non-Linear Reservoir (NLR) hydrological model that is being used to model a range of design storms (present day and future climate) and as a Flood Forecasting tool.

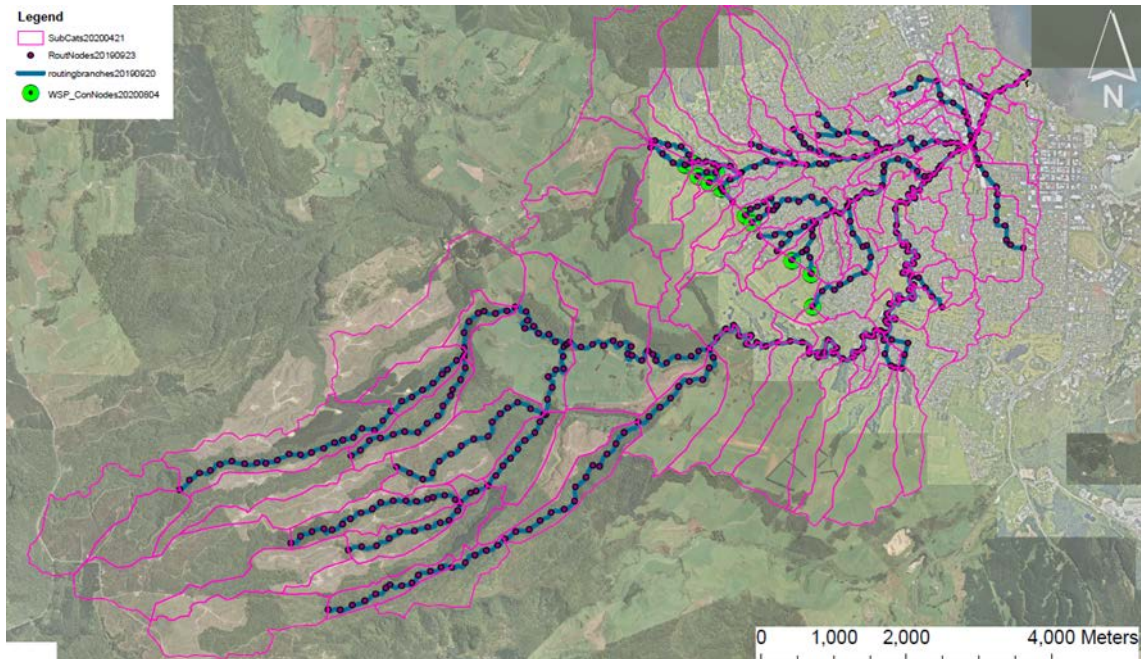


Figure 2: Greater Utopia Catchment Model NLR Hydrological Model Layout

The modelling report is nearing completion and DHI have been commissioned to undertake further modelling for the flood risk mitigation optioneering phase. We will be working with Rotorua Lakes Council (RLC) on possible solutions to achieve the 1% AEP level of service

Any mitigation works will be scheduled in 2021/22.

The GUCM will also inform RLC on boundary conditions for stormwater management. RLC have independently commissioned stormwater modelling to support their Comprehensive Stormwater Consent and Plan Change 2.

1.2 Ford Road Pump Station Upgrade Project

Budget 2020/21: Consenting and detailed design \$321,000

The purpose of the Ford Road pump station upgrade is to maintain levels of service for drainage and flood mitigation, improve operational issues, discharge quality and allow for climate change. A number of options were assessed using a multi-criteria analysis and Options 1 and 6b have been identified for more detailed concept design, modelling and consultation. Option 1 and 6b are described below.



Figure 3: Ford Road Pump Station - options overview

Option 1: Additional pump capacity at the existing diagonal drain site

- Installing of a new pump station at Diagonal Drain site adjacent to the existing pump station.
- Decommissioning of the existing gravity outlet and gates at Ford Road.
- Widening of 1600m of existing farm drains by 2m.
- Upgrading of 2 existing culvert crossings.

Option 6b: new pump station at existing Ford Road site, pumped discharge downstream of salinity block.

- Installing of a new pump station at Ford Road site adjacent to the existing pump station.
- Decommissioning of the existing Ford Road Pump Station.
- Installation of a new gravity outlet and gates at Ford Road or decommissioning of the existing gravity outlet and gates (TBC – gravity may no longer be feasible).
- Installation of 350m (2 x 1400mm) pumping mains beneath channel bed and pump outlet.

The concept designs are almost complete and the costing of the two options is underway.

Following the concept design and costing, there will be another round of Multi-Criteria Analysis and Community Engagement on the two pump station options. This is planned to commence in late February 2021.

1.3 Te Puke Stormwater – Modelling

Budget 2020/21: Modelling \$244,000

This work is a continuation from 2019/20. Modelling work is currently underway and being completed in 3 stages. The first stage (currently) includes undertaking a comparison

between development in 1990 and 2019, generating design storm data inputs and hydrological inputs, updating the Te Puke stormwater model and running design storm scenarios. DHI have been appointed to undertake the modelling required with an assistance from Blue Duck Ltd.

The model build and verification has been completed to original scope, results were presented in a Stage One draft report. In response to the comments received from the project team on the Stage One draft report, additional survey and topography data were required to carry out a sensitivity analysis. The results will be included in an updated report for Stage One, to be completed early March.

Western Bay of Plenty District Council (WBOPDC) are part of the project team with the Memorandum of Understanding (MOU) currently being reviewed by the WBOPDC legal team.

The modelling will quantify the extent that development in Te Puke is affecting the Kaituna Scheme.

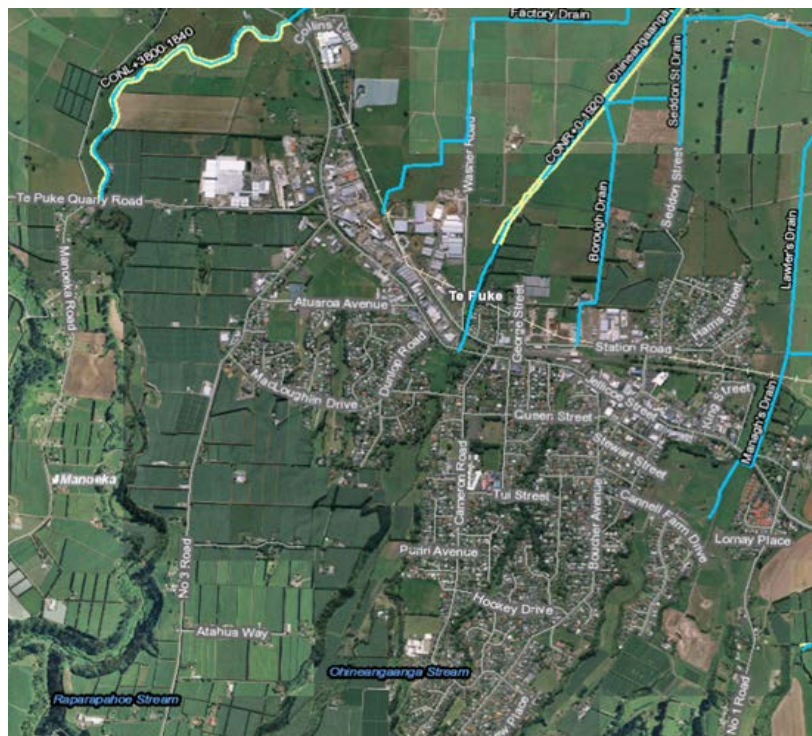


Fig 4: Te Puke Township and the drainage network

1.4 Kaituna Mole Renewal

Budget 2020/21: Construction \$1,900,000

The Kaituna Mole is a river mouth control structure located at the mouth of the Kaituna River. Various improvements have been made over the years to strengthen the structure and support its considerable use by the community as a popular fishing spot. The renewal involves a remedial design similar to the current mole design but with improved corrosion resistance and concrete capping and is needed to maintain the integrity of the existing structure.

The Kaituna Mole structure serves a vital role in restricting the ability of the river mouth to move eastwards. The structure is also a popular community space as a fishing spot and a viewing platform, even more so since the completion of the Kaituna Re-diversion Project.

Additional budget of \$600,000 has been approved by Council in 2021/22 for the second stage of the Kaituna Mole renewal and supporting community amenities

Crown Infrastructure Partnership (CIP) funding has been approved for this project and will contribute up to \$1.9 million.

The sheet pile material has been procured and arrived into Tauranga Port the first week of February and the painting/coating works is planned to start in late March. The physical works tender will be released in February and construction is to commence April 2021.

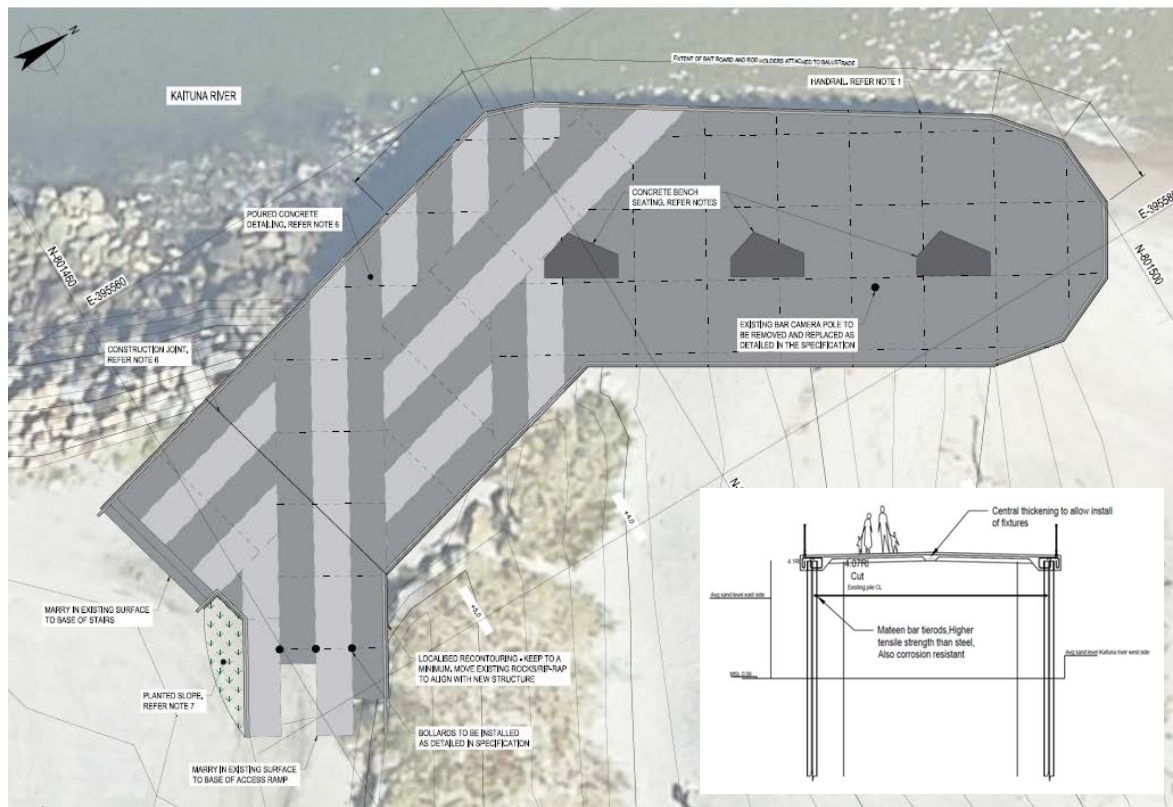


Fig 5: Kaituna Mole Renewal

1.5 Rotorua Streams Capacity Review

Budget 2020/21: Modelling \$50,000

The purpose of this project is to undertake hydrological and hydraulic modelling of minor Rotorua streams to understand stream capacities and set future design levels. The programme for this year is to undertake modelling for the Puarenga and Waiowhero streams.



Fig 6: Rotorua Lake Streams

1.6 Bell Road Sub-catchment Drainage

Budget 2020/21: None

At previous advisory group meetings the group were provided comprehensive presentations on the modelling results for the Bell Road Catchment and proposed mitigations with advantages and disadvantages. The work and analysis to date provides a good picture of the current and predicted ponding effects which do not meet the existing Levels of Service (of removing ponded waters within 72 hours). It is apparent that known conditions today (climate change and other changing conditions: e.g. peat shrinkage) have a significant influence on any viable mitigation options.

The various mitigation measures were proposed and the results of these are repeated for the group in the table below.

Table 1: Current 5 year ARI storm with high downstream river conditions

Mitigation Option	Area(ha) inundated > 72 hrs	Advantages	Disadvantages
Existing	294	N/A	Widespread ponding in excess of 72 hrs.
Bell Rd A +2 cumecs	184	Reduces ponding to south of Bell Rd	Large portion of one farm to south of Bell Rd still has ponding > 72 hrs. Minor effect on ponding to north of Bell Rd. Drainage effect susceptible to further peat shrinkage. Climate change effects will increase ponding issues.
Bell Rd C +2 cumecs	232	Minor reduction in ponding to north of Bell Rd	Majority of one farm to north of Bell Rd still has ponding > 72 hrs. Minor effect on ponding to south of Bell Rd. Drainage effect susceptible to further peat shrinkage.

			Climate change effects will increase ponding issues.
Bell Rd C +6 cumecs	149	Further reduces ponding to north of Bell Rd	Larger but still minor effect on ponding to south of Bell Rd. Majority of one farm to north of Bell Rd still has ponding > 72 hrs. Reservations as to whether this increased capacity can be achieved. Drainage effect susceptible to further peat shrinkage. Climate change effects will increase ponding issues.
Bell Rd A & C +2 cumecs	154	Reduces ponding to south of Bell Rd Reduces ponding to north of Bell Rd	Large portion of one farm to south of Bell Rd still has ponding > 72 hrs. Majority of one farm to north of Bell Rd still has ponding > 72 hrs. Drainage effect susceptible to further peat shrinkage. Climate change effects will increase ponding issues.
No Pond H outflow & No Tara Rd input	271	Very minor reduction in ponding to north of Bell Rd	No effect on farms that have major ponding issues. Drainage effect susceptible to further peat shrinkage. Climate change effects will increase ponding issues.
No Pāpāmoa Hills flow into Bell Rd Drain	270	Minor reduction in ponding to north of Bell Rd	<i>No effect on farms that have major ponding issues.</i> <i>Drainage effect susceptible to further peat shrinkage.</i> <i>Climate change effects will increase ponding issues.</i>
No Pāpāmoa Hills flow into Bell Rd Drain and Bell Rd A & C +2 cumecs	138	Reduces ponding to south of Bell Rd Reduces ponding to north of Bell Rd	<i>Large portion of one farm to south of Bell Rd still has ponding > 72 hrs.</i> <i>Majority of one farm to north of Bell Rd still has ponding > 72 hrs.</i> <i>Drainage effect susceptible to further peat shrinkage.</i> <i>Climate change effects will increase ponding issues.</i>

The Advisory Group requested that Council undertake an independent review of options to help inform land owners farming/business decisions and before any Council infrastructure work is planned.

A brief for the independent review is currently being developed and is expected to be awarded in March 2021.

1.7 Ngongotahā Stream Flood Mitigation

Budget 2020/21: (\$1,600,000)

This project involves implementing the recommendations of the independent Ngongotahā Stream Review. A suite of options were developed and presented to the Ngongotahā Flood Review - Community Reference Group, following the analysis of outcomes from initial flood modelling work.

The solutions involve civil works, upper catchment detention bunds and the removal of at-risk trees. Flood modelling of the recommended solutions is now complete and a peer review process is underway. The project team is currently engaging with landowners and key stakeholders affected by the proposed civil works. The community engagement will comprise direct contact with individual landowners and a couple of group site walkovers in the coming weeks.

Tree removal from streams and detention bund works began in late 2020 and these will continue through most of 2021.

The procurement process for the detailed design of the civil works is expected to begin in March.

Further budget of \$2.1 million was approved by Council for 2021/22. The project was included in the CIP funding application which was approved. This funding will contribute up to \$2.775million towards the total project cost.

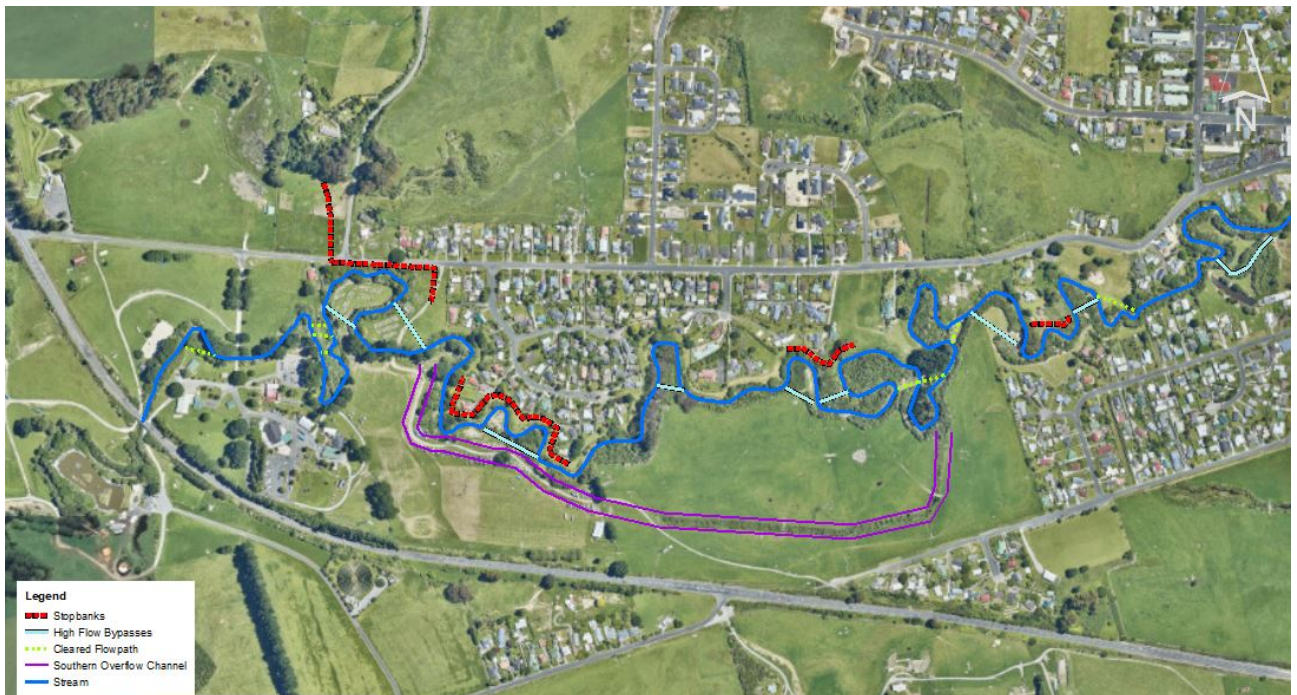


Fig 7: Ngongotahā Streams - Flood Mitigation Proposed Earthworks

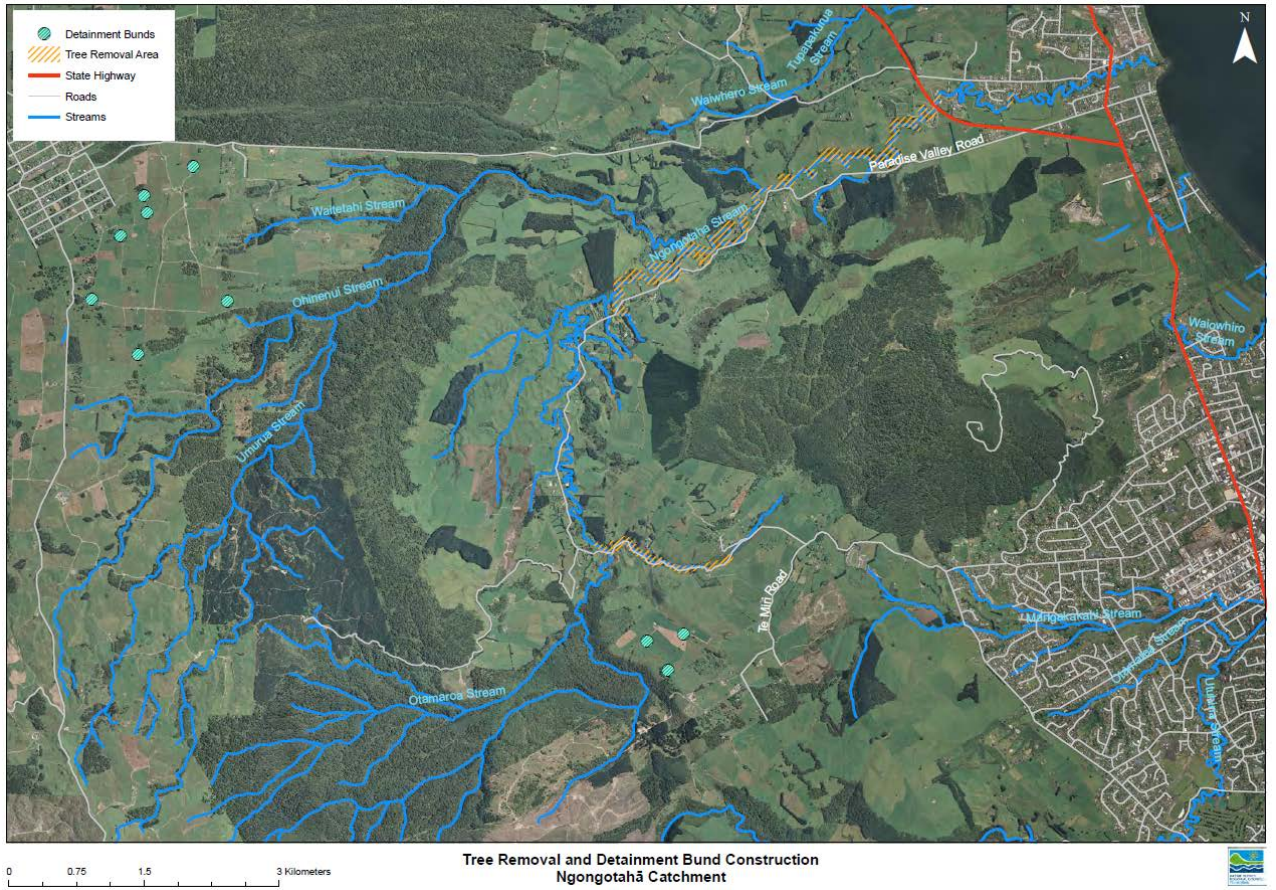


Fig 8: Ngongotahā Streams – Flood Mitigation, tree works and detainment bunds

Mark Townsend
Engineering Manager

Kaituna River Scheme: 2020-2021 Maintenance Works Programme

15/02/2020

Objective ID: A3598719

LOWER KAITUNA

Row	Reach	Work Type & Site	Annual Budget	Location	Proposed Estimate	Status
1	General	Fly tipping and rubbish collection/disposal	\$16,000			
2		Fly tipping and rubbish collection/disposal		Fly tipping	\$7,500	
3				Erect signage	\$500	Completed
4		Pest Control		Pindone Rabbit holes as required	\$8,000	Completed
5						
6	Reach 1:					
7	Mouth to Te Matai (including Maketū Estuary)	Riverbank Weed spraying	\$6,200			
8		Gorse spraying		R/b 11.7-12.0 km	\$1,500	Completed
9		Blackberry spraying		R/b 12.0-12.6 km	\$1,000	
10		Glyseria spraying various areas by boat.		Various L&R Banks.	\$1,500	
11		Mulch Gorse and spray Maketū Estuary		McKenzie's	\$1,500	Completed
12		Bamboo Spraying 3.4km			\$1,000	Completed
13						
14		Willow/Vegetation Maintenance	\$9,100			
15		Spray and regrowth		R/b 2.5 - 4.6 km	\$2,500	
16		Remove flax and replant		R/b 2.5 - 4.6 km	\$2,500	
17		Removing fallen and pest trees and vegetation		R/b 5.0- 6. km	\$5,000	
18		Mulching		L/b 12.0-12.6 km	\$2,500	
19		Willow/Vegetation Maintenance- WBDC reserve		R/b 12.0 - 12.5 km	\$5,000	
20		Willow/Vegetation Maintenance		L/b 12.4-12.6 km	\$2,500	
21						
22		Planting	\$4,700			
23		RB Berm 3.2-4.2km various			\$2,500	Completed
24		Wetland planting 3.3km			\$2,500	Completed
25						
26		Rock replenishment	\$46,400			
27		Maketū			\$15,000	Completed
28						
29		Fencing Maintenance	\$4,200			
30		Fencing (tbc)		various	\$1,700	
31				Kaituna 12.8-13.1km		Completed
32		Maketū Pump Station			\$2,500	Partially complete
33						
34		River & Estuary maintenance general	\$29,800			
35		McKenzie culvert outlet		Engineering reviewing options.	\$2,000	
36		Bell Rd Drain outlet		Engineering reviewing options.	\$3,000	
37		Tree maintenance		LB 12.1-12.2	\$5,000	
38		Glyseria spraying various areas by boat.		Various L&R Banks.	\$13,500	
39	Stop banks	Minor floodgates Inspection	\$700		\$1,000	Ongoing
40		Stop bank miscellaneous maintenance	\$4,900		\$5,000	Ongoing
41						
42	Bell Road Floodgates	Floodgate Maintenance & inspections	\$3,700		\$3,700	Ongoing
43						
44	Managh's culvert	Floodgate Maintenance & inspections	\$3,400		\$3,400	Ongoing
45						
46	Browns Culvert	Floodgate Maintenance & inspections	\$3,400		\$3,400	Ongoing
47						
48	Wetland Culvert	Floodgate Maintenance & inspections	\$3,400		\$3,400	Ongoing
49						
50	Maketū & Other Floodgates	Floodgate Maintenance & inspections	\$3,000			Ongoing
51		Gravity flood gate replace & redesign			\$5,000	
52		McKenzie culvert replacement (tbc)		Under review/possible removal Engineering	\$15,000	
53						
54	Reach 2:					
55	Te Matai to Mangorewa	Riverbank Weed spraying:	\$4,100			
56		Gorse & pampas at existing rockworks		Various	\$3,000	Ongoing
57		Pampas (Ex Harts) @existing rockwork		Landowner to complete	\$2,000	
58						
59		Willow/Vegetation Maintenance	\$1,200			
60		Willow Maintenance		R/b 12.7-12.9 km	\$2,500	
61		Willow Maintenance		R/b 16.5-17.09 km	\$2,500	
62		Trust Block - McMeeking Road		R/b 16.8-16.9km	\$2,500	
63		Willow and bank maintenance		L/B 17.0-17.1	\$2,500	Completed
64		Willow Maintenance/removal		L/b 17.45-17.9 km	\$2,500	Completed
65		Willow Maintenance/removal		L/b 21.0-21.2 km	\$5,000	
66		Mulch Stop bank Welds drain to KT 13.1 km		13.1km	\$2,500	
67		Lower berm (Mc Naughtons)		R/b 18.8-18.9 km	\$5,000	
68						
69		Planting:	\$600			
70		Māori Trust - Battering and Willow/native planting.		R/b 17-17.1km	\$8,000	Not Req
71						
72		Rock replenishment	\$36,900			
73		Provisional sum (where required)			\$19,000	
74		Weld's seems to be settling, monitor		L/b 15.1-15.2km	\$1,000	
75						
76		Fencing	\$500	Various	\$1,000	
77						
78	Stop banks	Stop bank miscellaneous maintenance	\$2,000		\$2,000	
79		Floodgate Maintenance	\$600		\$600	
80						
81	Reach 3:					
82	Canals & Drains	Canal weed spraying	\$11,200			
83		Provisional sum (where required)			\$2,500	Ongoing
84					\$2,500	Ongoing
85		Raparapahoe/ Kopuaroa various properties			\$3,000	Ongoing
86		Channel / bank spray maintenance, pampas etc.			\$2,000	Ongoing
87						
88		Canal and drain repairs				
89		Provisional sum (where required)			\$2,500	
90		Slaters Drain. Install culvert			\$2,500	
91		Singletons Drain Culvert			\$10,000	
92						
93		Canal desilting	\$98,800			
94		Provisional sum (where required)			\$35,000	Ongoing
95		Riddell's		R/b 0.0-1.0 km	\$2,500	
96		Factory Drain Desilting		Verway	\$17,500	
97						
98		Drain Desilting / Maintenance	\$66,300			

99		Provisional sum (where required)			\$2,500	
100		Kaituna Road		3.4-5.0km	\$7,500	
101						
102		Waiari Stream				
103		Complete minor berm cut-always		L/b 2.0-3.1km	\$1,500	
104		Desilt and complete minor erosion repairs, defer to 20-21. Estimated at \$32,000.		0.0 to 3.1km		
105						
106		Parawhenuamea				
107		Desilt twice yearly			\$5,000	Done once
108		Parrots Feather spraying x4 yearly			\$2,500	Done twice
109		Deweed		R/b 0.0-2.0 km	\$1,500	
110						
111		Kopuaroa Canal				
112		Boat spraying			\$2,500	
113		Stop bank fencing at Dovastons			\$2,500	
114		Tree removal off stop bank toe			\$5,000	
115		Mulch gorse & blackberry - Dovaston's		L/B 1.6-2.2 km	\$1,500	Completed
116		Stop bank survey possible upgrade		LB 3.4-3.6	\$1,500	
117		Rock work Washer Ave. (250 tonne)		L/b 2.8-2.85 km	\$8,000	
118						
119		Raparapahoe Canal				
120		Willow main various properties		R/b 3.9 - 5.7 km	\$2,000	
121		Reshape LB and toe load to Landward toe.		0.0-3.4km	\$50,000	Underway
122		Wooley night shade		L/b 2.6.2.9 km	\$1,000	Underway
123		Drop structure maintenance		3.5km	\$10,000	
124						
125		Ohineangaanga Canal				
126		Remove spoil off berm on right bank		R/b 00.0-0.80km	\$7,500	Underway
127		Desilt		L/b 0.0-0.5km	\$10,000	
128						
129		Aquatic Weed Spraying	\$30,100		\$15,000	Ongoing
130		Weed Cutter Boat	\$1,700		\$2,000	Ongoing
131		Drain dewatering	\$32,700		\$30,000	Ongoing
132						
133		Minor Clearing of obstructions in tributary streams				
134		Generally upstream highway. Provisional sum 5k per stream	\$20,000	Waiari and Above Raymond Ave, Quarry Rd	\$20,000	Ongoing
135						
136		Rock maintenance	\$5,900			
137		Nuzum's Drain: rockworks		R/b 0.0- 0.050km	\$7,500	
138		Borough Drain: rockworks		L/b 0.0 -0.05 km	\$7,500	
139		Provisional sum (where required)			\$5,000	
140						
141	Stop banks	Stop bank Miscellaneous Maintenance	\$2,000			
142		Minor Flood Gates	\$1,200			
143		Slaters Drain realign stop bank fence to boundary			\$5,000	Completed
144						
145		Pump Station Maintenance:				
146	Kopuaroa (No. 3)	Pump Maintenance	\$19,600			
147		General Maintenance			\$5,000	
148		Lift No 1 pump riser sand blast and paint			\$3,000	
149						
150	Bell Road A (No.1)	Pump maintenance	\$7,000			
151		General Maintenance			\$7,000	
152						
153	Bell Road B (No.2)	Pump maintenance	\$7,000			
154		General Maintenance			\$5,000	
155		Lift for Inspection			\$2,000	
156						
157	Bell Road C (No.5)	Pump Maintenance	\$13,600			
158		General Maintenance			\$2,000	
159		Mow compound			\$2,500	
160		Diesel			\$5,000	
161		Lift pumps for inspection			\$2,500	Completed
162		Signage and fencing			\$1,500	
163						
164	Diagonal Drain	Pump Maintenance	\$22,600			
165		General Maintenance			\$10,000	
166		Reshape ground for lifting pad			\$4,000	
167		install pad over gravity discharge pipe			\$2,500	
168		Lift No 1 pump riser sand blast, paint and refit			\$5,000	Completed
169		Lift and inspect No4 pump				Completed
170						
171	Ford Road (No.6)	Pump Maintenance	\$13,900			
172		General Maintenance			\$5,000	
173		Floodgate maintenance			\$2,500	
174		Lift No 1 pump riser sand blast, paint and refit			\$5,000	
175		Lift pumps for inspection			\$2,500	Completed
176						
177	Maketū (No.7)	Pump Maintenance	\$13,600			
178		General Maintenance			\$2,000	
179		Install false roof (Existing roof cracking)			\$2,000	
180		Floodgate maintenance			\$1,000	
181		Discharge headwall repair			\$12,500	
182						
183	Pump Electricity		\$106,800		\$106,800	Ongoing
184						
185			\$5,500	Diesel for Bell Rd C, Armers and Marshall	\$5,500	Ongoing
186						
187	Storm water pumping		\$25,000			
188		Marshall/Armers pump; Start and stop probes		\$30,000 Funded by Capex		
189		Total Annual Maintenance Costs	\$689,300		\$687,500	

191	UPPER KAITUNA					
192	Reach	Work Type & Site	Annual Budget	Location	Proposed Estimate	Status
193		Rotorua Scheme Area				
194	General		\$16,000			
195				Fly tipping	\$8,000	
196				Pest Control	\$8,000	
197						
198	Reach 4:					
199		Waiteti Stream	\$7,500			
200		Provisional sum: vegetation removal from channel.		Some minor removals completed	\$2,500	Ongoing
201		Replenish Rock 0.9 and 0.7km			\$2,500	
202						
203		Ngongotahā Stream	\$25,400			
204		Provisional sum: vegetation removal from channel.			\$5,000	Ongoing
205		Vegetation Maintenance		spillways/peninsulars	\$10,000	Ongoing
206		Planting/planting maintenance			\$2,500	
207		Pest plant spraying		2 spray rounds completed	\$2,500	Ongoing
208		Fencing			\$2,500	
209						
210		Waiowhiro Stream	\$5,000			
211		Provisional sum: vegetation removal from channel.		Reshaped/vegetation removal/planting near barnard F	\$5,000	Completed
212						
213		Utuhina Stream	\$10,000			
214		Provisional sum: vegetation removal from channel.		/Rayboard pest plant removal	\$2,500	Completed
215		Vegetation removal		Smallbone park	\$2,500	Completed
216		Obstruction removals			\$2,500	
217						
218		Mangakakahi Stream	\$12,500			
219		Provisional sum: vegetation removal from channel.			\$2,500	
220		Vegetation removal: 0.2km arborist		Squash club	\$5,000	Completed
221		Vegetation Management: cost share with RLC to increase berm flow/reduce localised flooding.			\$5,000	Completed
222						
223		Otamatea Stream	\$5,000			
224		Provisional sum: vegetation removal from channel.			\$5,000	Ongoing
225						
226		Puarenga Stream	\$15,000			
227		Provisional sum: vegetation removal from channel.		Minor removals completed	\$2,500	Ongoing
228		Replace two culverts at 1.0km			\$12,500	
229						
230		Waingaehe Floodway	\$6,500			
		Remove willow stumps and vegetation				Completed
		Install headwalls and culvert, stopbank repairs at mouth				Completed
		Desilt				Completed
		Remove trees from Charles Rd Bdy			\$5,000	Completed
231						
232						
233	Reach 5:					
234	Rotorua Scheme Area	Ōhau Channel	\$18,400			
235		Remove large fallen gum tree			\$2,500	
236		Stop log structure repairs			\$12,500	Underway
237		Erosion repairs ; repair / replenish gabion protection at stop log structure.			\$7,500	
238		Rock armouring below SH33 bridge			\$2,500	
239						
240		Total Annual Maintenance Costs (UK)	\$105,300		\$102,500	
241						
242	ANNUAL FLOOD DAMAGE ALLOWANCE UPPER AND LOWER KAITUNA					
243		Provisional sum (where required)			\$100,000	
244		Raparapahoe Canal Batter bank and hydroseed			\$15,000	
245		Ohineangaanga Rock work: Flood damage Marshalls, 800 tonne.		L/b 2.4-2.5 km	\$20,000	
246						
247		Batter bank and plant (KT122 Tanners: River bank erosion. Rock toe and rotten rock batter)		L/b18.2-18.9 km	\$2,500	
248		Ngongotahā flood repairs/replenishment to LB 3.6km. Rock stockpiled already			\$20,000	Completed
249		Ngongotahā Rock replenishment to existing spillways. Rock stockpiled already			\$25,000	Underway
250		Mangakakahi Erosion: rock armouring. Rock stockpiled already			\$15,000	
251		Annual Flood Damage Repair Allowance	\$204,000		\$197,500	
252						
253						
254						
255	SUMMARY ; Kaituna River Scheme: 2020-2021 Maintenance Works Programme					
256	LOWER KAITUNA					
257		GENERAL	\$16,000		\$16,000	
258		REACH 1	\$122,900		\$114,100	
259		REACH 2	\$45,900		\$61,600	
260		REACH 3	\$269,900		\$294,000	
261		PUMPSTATION MAINTENANCE	\$234,600		\$201,800	
262		TOTAL LOWER KAITUNA	\$689,300		\$687,500	
263	UPPER KAITUNA					
264		REACH 4	\$86,900		\$77,500	
265		REACH 5	\$18,400		\$25,000	
266		TOTAL UPPER KAITUNA	\$105,300		\$102,500	
267	ANNUAL FLOOD DAMAGE					
268			\$204,000		\$197,500	
269		KAITUNA TOTALS	\$998,600		\$987,500	

MEMORANDUM



To: Kaituna Catchment Control Scheme
Advisory Group

From: Paula Chapman
Project Manager - Flood Recovery

Date: 17 February 2021

File Ref: A3727758

Subject: Status Report - April 2017 Flood Repair Project (period 1 August 2020 to 31 January 2021)

April 2017 flood event - background

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 Programme update

1.1 Programme update summary

- The flood recovery project is now in its last year of the estimated four year programme. Physical repair works have been steady across the programme as conditions and material availability have allowed.
- As at 31 January 2021, 445 site repair works are complete (or have been assessed as no longer required) from the total programme of 520 sites. In the case of the Kaituna Catchment Control Scheme, 39 sites from a total programme of 45 sites have been completed.
- Given the few remaining rock repair works the availability of suitable rock material across the programme is no longer a major concern.
- The process for claiming eligible costs from central government is ongoing. Current claims are for essential infrastructure repairs. Claim 13 was received in December and Claim 14 is currently being drafted. The total amount received from central government to date is over \$9.2 million.
- Three progress payments for Infrastructure Insurance have been approved totalling \$3.6 million.

1.2 Procurement

- Work to date has centred on the completion of sites in priority order. 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.
- Kaituna rock supply and rock work is supported by the Kaitemako Quarry at Welcome Bay and J Swaps, and to a lesser extent Fulton Hogan Ltd.

1.3 Programme delivery

<ul style="list-style-type: none"> • A total of 520 sites have been identified in the repair programme across the region, 45 are associated with the Kaituna Catchment Control Scheme
<ul style="list-style-type: none"> • Across the programme 445 sites have been completed (or have been assessed as work no longer required), 39 of these are in the Kaituna Catchment Control Scheme which means only 6 Kaituna sites remain
<ul style="list-style-type: none"> • The completion date for all Kaituna Catchment Control Scheme repairs is 30 June 2021

1.4 Kaituna Repair Sites Remaining

REACH	SITE	LOCATION	APPROX. LENGTH	DAMAGE DESCRIPTION	REPAIRS	ESTIMATE	PRIORITY	COMMENT
1	Pamment KT105	5.1 - 5.4 RB	300	Bank Erosion	Batter Bank and Planting	\$280,000	4 = Low	Underway
2	AFFCO KT115	14.6 RB	100	Riverbank Erosion	Toe Rock & Rotten Rock Batter	\$140,000	2 = High	Underway
2	AFFCO KT116	14.8 RB	100	Riverbank Erosion	Toe Rock & Rotten Rock Batter	\$140,000	2 = High	Underway
2	McNaughton KT119	16.1 RB	200	Riverbank Erosion	Batter Bank and Planting	\$190,000	4 = Low	Scheduled for May start (maize)
2	Russell (Maungarangi Road) KT132	22.1 RB	100	Erosion	Toe Rock & Rotten Rock Batter	\$140,000	4 = Low	Scheduled for late February start
3	Raparapahoe - Trust/Dores KT146	5.6 LB & RB	300	Bank Erosion	Toe Rock & Rotten Rock Batter	\$220,000	2 = High	Scheduled for May start (maize)

2 Financials

Forecast Costs Kaituna Flood Repair Programme

Estimated Total Programme cost Kaituna	\$5,285,000
Estimated Betterment Value	\$3,624,000

The total cost of repairs in the Kaituna Catchment Control Scheme will exceed that originally estimated. The remaining work has been re-estimated based on actual costs to date and recent inspections. The total cost of the programme is forecast at \$5,292,000 compared to the original programme estimate of \$2,956,200. The budget was adjusted as the project progressed to better align with programme.

The cost of materials (rock supply and cartage) has been more expensive than was provided for in the original estimates and some repair works are more extensive than first identified. Where there are existing erosion control assets the costs will be mostly offset by insurance and central government recoveries.

Year	Expenditure budget	Actual Costs for infrastructure works
2017/18	0	\$135,335
2018/19	\$1,249,600	\$1,245,475
2019/20	\$1,645,000	\$2,621,440
2020/21	\$1,600,000	ytd 31 Jan \$412,658
Total	\$4,494,600	Ytd \$4,414,908

3 Recoveries

- Staff continue to working with insurance specialists Aon to progress the insurance claims process.
- The project team are working with the central government National Emergency Management Agency (NEMA previously MCDEM) representatives and are comfortable with the process and speed of recoveries to date.
- Recoveries to date specifically related to Kaituna Control Scheme flood repair works amount to \$1,250,081.

Kaituna Catchment Control Scheme – Flood Repair Recoveries to Date	
2018/19	\$263,383
2019/20	\$937,293
2020/21	\$49,405
Total	\$1,250,081

4 Expected progress within the next six month period

- Complete all Kaituna works
- Lodge and receive NEMA Claim 14
- Finalise material damage claim for pumps and temporary pumping claim

Paula Chapman
Project Manager – Flood Recovery

Bay of Plenty Regional Council - Toi Moana - River Schemes Advisory Group

Statement of Revenue and Expense: Kaituna Catchment Control Scheme

For the 6 months ending 31 December 2020

Kaituna Catchment Control Scheme

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

2020/21		Variance		Variance comments	2020/21 Budget Total \$000
Budget	Actual	\$	Variance indicator		

Line	Operating revenue by class						
1	General rates	94	94	0	-		188
2	Targeted rates	987	987	0	-		1,844
3	External interest income	64	1	(63)	Lower		129
							DOC payment for Kaituna Wetland (grant in lieu of rates) due year end
4	Other revenue	14	1	(13)	Lower		29
7	Investment income	133	133	0	-		267
8	Total revenue	1,293	1,216	(77)	Lower		2,455
	Operating expenditure by class						
9	Administration expenses	13	28	(15)	Higher		25
10	Other expenses	171	174	(3)	Higher		354
11	Consultancy fees	0	3	(3)	Higher		0
12	Contract work	239	154	85	Lower		553
13	Finance costs	122	132	(9)	Higher		245
14	Depreciation and asset disposal	255	255	0	-		509
15	Subtotal - expenditure	800	745	55	Lower		1,686
16	Net overhead charges and recoveries	315	371	(56)	Higher		631
							Additional staff time
17	Total operating expenditure	1,115	1,116	(1)	Higher		2,317
18	Total operating surplus (deficit)	177	99	(78)	Unfavourable		139

Bay of Plenty Regional Council - Toi Moana - River Schemes Advisory Group

Statement of Revenue and Expense: Kaituna Catchment Control Scheme

For the 6 months ending 31 December 2020

Kaituna Catchment Control Scheme

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

2020/21		Variance		Variance comments	2020/21 Budget Total \$000
Budget	Actual	\$	Variance indicator		
\$000					

Capital revenue by class

19	Capital funding	2,100	421	(1,679)	Lower		Includes insurance recoveries and CIP funding for Ngongotahā and Kaituna Mole	4,150
20	Total capital revenue	2,100	421	(1,679)	Lower			4,150
21	Total surplus (deficit)	2,277	520	(1,757)	Unfavourable			4,289

Capital expenditure by project

23	Okere Control Gates (gate maintenance)	147	129	18	Lower		Completed (carried forward from 2019/20)	147
24	Kaituna Flood Damage Repairs	290	241	49	Lower			1,600
25	Kaituna pump station electronic upgrades	10,650	0	10,650	Lower			21
26	Ford Road Pump Station	160,500	9	160,491	Lower		Review of cost estimates underway	321
27	Te Puke Stormwater project	107	83	23	Lower			244
28	Utuhina stream stopbanks	116	63	52	Lower		Possible construction delays	467
29	Kaituna Mole	426	372	54	Lower		Construction due to commence April/May 2021	1,920
30	Ngongotaha Stream Civil Works	50	5	45	Lower		CIP funded project	400
31	Total capital expenditure	172,285	902	171,383	Lower			5,120

Bay of Plenty Regional Council - Toi Moana - River Schemes Advisory Group

Statement of Revenue and Expense: Kaituna Catchment Control Scheme

For the 6 months ending 31 December 2020

Kaituna Catchment Control Scheme

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

	2020/21		Variance		Variance comments	2020/21 Budget Total \$000
	Budget	Actual	\$	Variance indicator		
	\$000					
32 Reserves	Opening Balance \$000	Movement \$000		Closing Balance \$000		
33 Flood Damage Reserve	1,992	(189)		1,804	Funds available	
34 Asset Replacement Reserve	1,544	235		1,779	Funds available	
35 Works Reserve	935	50		985	Funds available	
36 NZTA Reserve	604	0		604	Funds available	
37 Re-diversion remediation	491	0		491	Funds available	
38 Total Reserves	5,567	96		5,663	Funds available	

	Opening Balance \$000	Movement \$000	Closing Balance \$000
Internal Loans			
39 Loans	8,743	53	8,795

	1/07/2019 \$000	Movement \$000	1/07/2020 \$000
40 Asset Valuation	68,002	2,688	70,690

MEMORANDUM



To: Kaituna Catchment Control Scheme
Advisory Group Members

From: Kirsty Brown
Rivers and Drainage Assets Manager

Date: 9 February 2021

File Ref:

Subject: General Business Update

Following items are to be discussed under the General Business section:

1 **Kaituna Rating Review**

Simon Harris from Land Water People Limited has been engaged to do a review on the Kaituna Catchment Control Scheme rating system, focusing on the following areas:

- Look into the rating scheme differentials in the Upper Kaituna where new residential development has occurred and adjustments to the scheme rating system are needed to catch up with these rural-urban changes (e.g. Pioneer Subdivision, Western Road, Ngongotaha). Also whether the maintenance area should be extended further upstream.
- Investigate the level of rating contribution required from Pukepine and upstream landowners to contribute a fair share of funding to future drain maintenance costs.
- Investigate the Bell Road flooding and what the rating contribution could be from Papamoa urban areas and from the Te Puke urban and peri-urban areas, towards meeting the existing levels of service in the Lower Kaituna.

The purpose of this work is to provide Council information on the appropriateness of the current rating scheme and to support small scales changes. It is not a comprehensive review of the whole rating system.

Review progress:

- Further engineering investigation has been commissioned to provide information on increased runoff from land parcels converted from rural to urban.
- Assessment of scheme costs associated with indirect and direct regional beneficiaries.

The completion date for this work has been extended to April 2021. Group members will be kept up-to-date as this project develops.

2 **Infrastructure Insurance Review**

Council obtains its insurance through the Bay of Plenty Shared Services Ltd (BOPLASS) joint insurance procurement forum. This includes covering the 40% local authority share of infrastructure restoration costs resulting from a natural disaster.

Due to the steady increase in infrastructure insurance premiums over the years and the likelihood this pattern will continue, a review of how we insure our flood protection and drainage assets is currently underway. This review is being led by our insurance broker's Aon.

The main objectives of the review include:

- Quantifying the frequency and financial consequences of flood damage to flood protection assets and clean-up costs.
- Identifying flood protection assets most at risk of damage from flood to inform asset management, resilience strategies and risk financing.
- Ensuring cost-effective and sustainable flood risk financing by reviewing financial risk tolerance, flood risk retention and disaster reserving strategies.

In the meantime, staff have secured savings for the 2020/21 premiums by:

- Initiating a successful review of the BOPLASS allocation formula.
- Reducing the contingency sum built in for all assets.

Group members will be kept up-to-date as this project develops.

3 **Flood Protection and Drainage Bylaws 2020**

The Flood Protection and Drainage Bylaws are regulations that safeguards Council's flood protection and land drainage assets from damage and misuse. The bylaws only apply to assets managed by Council as part of the region's flood protection and land drainage schemes.

Following a comprehensive review of the 2008 Bylaws, the 2020 Bylaws were formally adopted by Council on 17 December 2020 and became operative on 1 February 2021.

In summary, the key changes include:

- Strengthening clauses relating to stock access to drains.
- Extending the bylaw applicable areas (where a bylaw authority may be required) for earthworks in relation to defences against water (see appendix 1 attached).
- Additional clauses related to fencing, ploughing and land use intensification in areas with pumiceous soils e.g. lower reaches of the Kaituna, Tarawera and Rangitāiki.

- Identification of additional floodways.
- Additional clauses relating to written authority management plans for multiple bylaw authority applications e.g. routine maintenance, seasonal activities and cultural practices.

More information on the Bylaws 2020 can be found on our website at <https://www.boprc.govt.nz/our-projects/flood-protection-and-drainage-bylaws>, including the online form to find out whether a property is within the bylaw applicable area.

4 **Stopbank Integrity Investigations**

The Rivers and Drainage Asset Team has completed some major pieces of work to help support the integrity of community flood protections assets. This has included the development and adoption of the Flood Protection and Drainage Bylaws 2020, a performance review of Rivers and Drainage critical assets identified in the Rivers and Drainage Asset Management Plan and condition assessments of non-critical assets across the River Schemes.

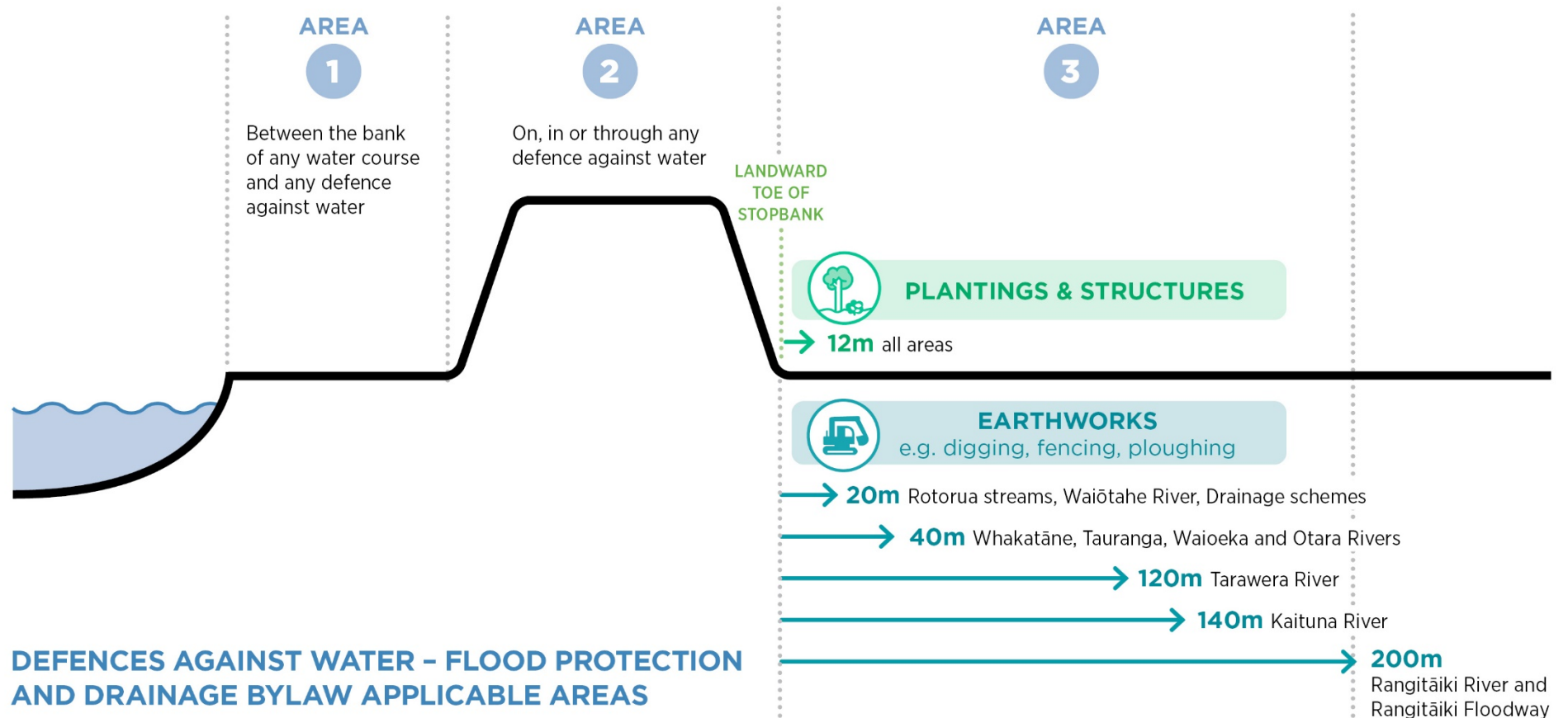
This combined work has highlighted a number of areas where adjacent land owner development (planting or structures) may impact Council flood protection assets. Examples of this might include large trees or structures very close or into the stopbank batter. With the foundation of 2020 Bylaw adoption and the supporting communications plan the Assets Team will be embarking on a project this year to inform and work with land owners where there may be encroachment concerns. The project will require a collaborative approach with the local authorities to ensure consistency of information and acknowledgment of community safety.

The first stage of the project is planned for the lower section of the Utuhina Stream in mid-2021.



Kirsty Brown
Rivers and Drainage Assets Manager

Appendix 1 - Bylaw applicable areas for defences against water (stopbanks, floodgates, pump station) and drains without stopbanks



Floodway and Drainage Bylaw applicable areas - drainage scheme drains without stopbanks

