



# **Kaituna Catchment Control Scheme Advisory Group Meeting**

**Wednesday 4 March at 10am**

Bay of Plenty Regional Council  
1125 Arawa Street  
Rotorua



# **Kaituna Catchment Control Scheme Advisory Group Meeting**

**Wednesday 4 March 2020 at 10am**

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## **Agenda**

- 1 **Welcome**
- 2 **Apologies**
- 3 **Notes of previous meeting held 4 September 2019**
- 4 **Matters arising from previous meeting**
- 5 **Performance assessment of critical assets**
- 6 **River scheme planning (Asset Management Plan, Long Term Plan)**
- 7 **Operations update**
- 8 **April 2017 Flood Repair Project update**
- 9 **Engineering update**
- 10 **Finance report**
- 11 **Co-governance/community group updates**
- 12 **General business**
  - a. Review of the Floodway and Drainage Bylaw 2008
  - b. River Scheme rating classification review
  - c. Infrastructure insurance
  - d. Advisory group membership September 2020 to September 2023

# Notes of the Kaituna Catchment Control Scheme Advisory Group meeting held at Comvita NZ Ltd, Paengaroa, on Wednesday, 4 September 2019, commencing at 10am

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**Chair:** Councillor Bill Clark

**Advisory Group:** Graham Thompson, Richard Weld, Barry Roderick, Dave Hurst, Nick Chater, Roger Hintz, Peter Dine (Rotorua Lakes Council), Warren Webber

**BOPRC Councillors:** Councillor Norm Bruning, Councillor Jane Nees

**BOPRC Staff:** Bruce Crabbe (Rivers and Drainage Operations Manager), Cleo Hanlon (Rivers and Drainage Coordinator), Kerry Smith (Area Engineer), Pim De Monchy (Eastern Catchments Manager), Mark Townsend (Engineering Manager), Chris Ingle (General Manager Integrated Catchments), Paula Chapman (Flood Repair Project Manager)

**Public:** Noel McLeod

**Apologies:** Kirsty Brown (Rivers and Drainage Asset Manager), Jo Heath (Rivers and Drainage Asset Management Coordinator)

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**Tabled Item 1: Kaituna River Scheme: 2019-2020 Maintenance Works Programme**  
**Tabled Item 2: Bell Road and Te Puke Area Flooding Issues**

## 1 **Welcome**

Councillor Clark welcomed everyone to the meeting.

Bruce Crabbe updated the group on the recent staff changes within the organisation:

- Kirsty Brown appointed as Rivers and Drainage Assets Manager
- Daniel Batten promoted to Works Foreman for Upper Kaituna works.
- Matt Eru appointed as Machine Operator for Kaituna.
- Cleo Hanlon appointed as Rivers and Drainage Coordinator.

## 2 **Apologies**

Apologies were received for Kirsty Brown and Jo Heath.

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

The minutes of the 13 March 2019 meeting were accepted as a true and correct record with the following amendment:

Item 9.2 – The Ford Road and Maketū pump stations discharge into the Coastal Marine Area is not a permitted activity.

#### **Resolved**

**That the Kaituna Catchment Control Scheme Advisory Group:**

- 1 Confirm the notes of the meeting held 13 March 2019, with the amendment noted above, as a true and correct record.**

**Chater/Hintz  
CARRIED**

### 4 **Matters arising from previous meeting**

Bruce Crabbe provided an update on the five actions from the previous meeting as follows:

- Co-governance and Community Group update has been included in this agenda (Item 10) as a standing item.
- The Bell Road landowners meeting actions document (Bell Road and Te Puke Area Flooding Issues) was tabled, and circulated amongst members.
- Cruickshank's Drain floodgate: Cruickshank's culvert was replaced with a larger diameter culvert in 2014. Consultation with affected landowners and the Liaison Group at the time agreed to not replace the floodgate. Bruce Crabbe advised the cost to install a new wooden gate would be approximately \$5,000, however it would be ineffective as there is a path for water to backflow around from Pah Road. It has been left to the Advisory Group to make a decision on whether the floodgate should be replaced.
- Floodgates not opening: Kerry Smith to present an option for sluicing flood-gated outlets during his Operations report.
- Geotechnical investigation: Mark Townsend will present the geotechnical assessment of stopbank seepage in the Engineering update.

#### **Discussion:**

- Councillor Bruning enquired about progress with the Pukepine resource consent hearing. Bruce Crabbe responded that a hearing was held last week, and Roger Waugh presented on behalf of the scheme. Barry Roderick advised that he attended the hearing, and noted that Roger made a good submission on behalf of the scheme. A decision from the Commissioner is awaited.

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

Bruce Crabbe spoke to the report provided in the agenda pack.

Information on the review and the upcoming workshops will be circulated to the Advisory Group in October 2019, and the revised Bylaw will be adopted mid-2020.

**Discussion:**

- It was asked if ploughing or fencing next to stopbanks will be restricted. Bruce responded that these activities are an issue and control mechanisms are being investigated mainly for areas with underlying pumice soils. Modelling is currently underway to inform these decisions.
- There was discussion about public access along stopbanks, and if this would be included in the bylaw. Bruce advised that in most situations stopbanks are on private property and public access is decided by the landowner. In lease areas pedestrian access is permitted on public land, and there are no restrictions during calving times.

**6 Operations report****Tabled Item 1: Kaituna River Scheme: 2019-2020 Maintenance Works Programme****6.1 Kaituna Scheme Works update**

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

**Key points included:**

- Photos and videos of current works at the Bell Road pump station A were presented. Designed to enable three additional pumps to operate during periods of flooding.
- Additional new culvert installed at McLeod's discharging into Kopuaroa Canal.
- Desilting works completed at Bell Road No.2 drain.
- The new Kaituna depot is now located at Bill Webb Contracting on Wilson Road. Two bays have been rented and a building has been transported from the Whakatāne office.
- Erosion works have been carried out in Ngongotahā Stream and other Rotorua streams. There have been some rock integrity failures. Another supply of rock that stacks well has been used.
- Native grass species are predominantly used in the Ngongotahā area to get dense vegetation cover without compromising access.
- There have been some rock integrity failures. Another supply of rock that stacks well has been used.
- Rivers and Drainage Operations team visited Waikato Regional Council, Hauraki depot. It was a beneficial visit with a lot of learnings and takeaways, particularly with safety and security measures around pump stations.
- A photo of the Hauraki outlet desilting vessel (African Queen) was shown, and the Operations team are considering whether it may be beneficial for clearing some Kaituna floodgates.

**6.2 Works Programme**

Kerry Smith presented the Tabled Item 1, Kaituna River Scheme: 2019-2020 Maintenance Works Programme.

**Key points included:**

- Flax that is being removed will be replaced with smaller native grass species or hydroseeding.
- The spray boat is due for replacement and research has found that an air boat is likely to be a suitable replacement that is also versatile for other tasks.
- Pest willows (e.g crack willows) are being removed. The new willows selected for planting are hybrid species that don't seed.

**ACTION:**

***Kaituna Catchment Control Scheme 2019-2020 Maintenance Works Programme to be circulated to Advisory Group members.***

## 7 April 2017 Flood Repair Project update

Paula Chapman provided a verbal update on the April 2017 Flood Repair Project to date.

**Key points included:**

- Two years through the four year project and 50% of sites have been completed.
- 60% of the cost of repair has been recovered through claims.
- 11 of the 45 sites associated with the Kaituna River have been completed.
- In the coming financial year it is expected that 19 sites in the Kaituna Catchment Control Scheme area will be completed.
- \$1.5m has been spent on Kaituna flood repairs to date.
- Due to constrained rock supply, some major rivers repairs have fallen behind schedule.

## 8 Engineering update

Mark Townsend spoke to the agenda report and delivered a presentation.

**Key points included:**

- The Ford Road pump station upgrade at location 6a does not make the shortlist due to cost.
- Resource Consent is required before Engineering can move to the detailed design phase.
- Outlet desilting of Bell Road Drain, Waiari Canal, Kopuaroa Canal and Raparapahoe Canal planned. Silt will be remobilised and sent back down the river. A separate investigation involves testing the sediment for potential use as fill material for housing developments.
- A section of stopbank in the Lower Kaituna needs upgrading to meet the scheme's level of service. Recommendation to Council to undertake this work in conjunction with the Rediversion Project contract and to complete this construction season.
- Plans for the new boat ramp design were presented. Most of this has been paid for through general rates. There is an area currently being used as a construction depot, which will be used as overflow car parking.
- Geotechnical investigations into seepage issues have identified a course sand layer at Vercoe's near the Waiari/Kaituna confluence. Further investigations are to be undertaken at the Pamment property.
- Bell Road catchment modelling is now complete. Shows that the Bell Road catchment is not currently meeting its level of service (removal of water within three days in a 5 year return period event). A number of options are being investigated to meet the existing level of service or to increase the level of service (remove water within 36 hours, in summer months, during a 5 year return period event). It can't be demonstrated that the mowing culvert is causing the issue as flow in the main drain is reduced when the floodgate is closed (i.e. when the river is elevated). Mark reassured the group that this is high priority, however it will take some time to investigate remedial options.

**ACTION:**

**Mark to present Bell Road catchment design options and costs at March 2020 meeting.**

## 9 Finance report

Bruce Crabbe presented the finance report.

**Key points included:**

- Reminded members that it is a draft annual report, which is still to be audited and adopted by Council.
- Revenue has been lower than expected, due to lower interest rates and lower insurance recoveries due to delays with flood repair works. However there have been contributions from Rotorua Lakes Council for erosion repairs after the April 2018 event.
- Infrastructure insurance costs have increased, as have asset values, as a result of completed flood repair works.
- Contract work on routine maintenance has been lower than expected, mainly as works have been performed in conjunction with flood repairs.

**ACTION:**

**Finance team to investigate, and report back on, the NZTA and Re-diversion remediation reserve balances, which have not shown any interest revenue since the 31 January 2019 report.**

## 10 Co-governance/community group updates

Nick Chater reported that the Te Maru o Kaituna River Authority action plan is currently out for consultation, with the eight key areas identified.

Barry Roderick reported that the Freshwater Futures group is frustrated with the amount of time the Maketū estuary is taking. Pim de Monchy provided an update on the estuary and explained that the net effect of the diversion will be positive for the estuary.

**Key points included:**

- Bay of Plenty Regional Council has identified that contaminant loads into the Maketū Estuary will need to reduce by between 35% and 65% to return the estuary to a healthy state. Further investigations and modelling required.
- Ministry for the Environment is to release the Essential Freshwater discussion document on 5 September for consultation. This is likely to include proposals to strengthen the National Policy Statement on Freshwater Management and a new set of National Environmental Standards for freshwater management.
- The pump stations and gravity outlets discharging into the Coastal Marine Area will need resource consents to operate under Rule CD-8 in the Regional Coastal Environment Plan.
- Ford Road and Waitepuia catchments have been chosen as priority catchments for Council grants and advice to improve water quality. Chris McKay is the Land Management Officer responsible for these catchments.

## 11 **General business**

### 11.1 **Ngongotahā flood event review update**

Mark Townsend provided an update on the Ngongotahā Flood Review.

There was a suggestion that there should be a scheme for the entire length of the Ngongotahā and this will be considered.

#### **Key points included:**

- The Project Steering Group and representation has been decided.
- Stream repairs and maintenance are a focus.
- 12 options were initially proposed and these have been reduced to six:
  1. Raise Western Road
  2. Construct an overflow channel to the south
  3. Upper catchment detention
  4. Create ecological corridors
  5. Land use change
  6. Stream straightening/high flow overland flow paths.

### 11.2 **Stopbank damage from grazing**

Bruce Crabbe and Kerry Smith presented some photos of stopbank damage caused by over-grazing and vehicle access over the different scheme areas.

#### **Key points included:**

- Damage is difficult to repair during the winter, and there is risk that more damage can be caused.
- Farmers are required to pay for any repairs. Damage to stopbanks is covered by the Floodway and Drainage Bylaw 2008.
- The example of damaged caused by public/vehicle access provides justification for restricting vehicular access to stopbanks.

**Meeting closed at 12:15 pm**



## Action Sheet

### Kaituna Catchment Control Scheme Advisory Group Meeting

4 September 2019

Action	Person Responsible	Completed	Comment
1. Kaituna Catchment Control Scheme 2019-2020 Maintenance Works Programme to be circulated to Advisory Group members.	Jo Heath	✓	Circulated following the meeting
2. Mark to present Bell Road catchment design options and costs at March 2020 meeting.	Mark Townsend	In progress	Update to be provided at March 2020 meeting
3. Finance team to investigate, and report back on, the NZTA and Re-diversion remediation reserve balances, which have not shown any interest revenue since the 31 January 2019 report.	Jo Heath	✓	Response sent to members 28/1/20 (BOPRC ID: A3471334) Interest accrual had not been put through for investments held. This has been fixed and when the appropriate investments mature the interest will be compounded on to the reserve balance and re-invested.

# MEMORANDUM



**To:** River Scheme Advisory Groups

**From:** Hemi Barsdell  
**Asset Management Specialist**

**Date:** 11 February 2020

**File Ref:** A3474745

**Subject:** Long Term Plan 2021-2031, Infrastructure Strategy 2021-2051, and Rivers and Drainage Asset Management Plan 2021-2071

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## **Purpose**

To inform Advisory Group members of the coming planning processes and to seek feedback.

## **Feedback Sought**

Advisory Group members to inform Council staff around how they would like to contribute to the planning processes.

## **PLANNING PROCESSES**

### **Long Term Plan (LTP) 2021-2031**

The Long Term Plan (LTP) is Council's key strategic document. It sets out Council's priorities for the next ten years, including what will be done, how much it will cost and how it will be funded. It is reviewed every three years to make sure it is still relevant and accurate.

Planning will be undertaken throughout the current calendar year to determine the draft LTP 2021-2031. The process, including timelines is yet to be confirmed, but it is anticipated that the draft vision, outcome statements, objectives and budget figures will be confirmed by November 2020.

Public consultation will occur leading up to November 2020, with formal notification of the draft LTP 2021-2031 expected in February 2021. Council will ratify the LTP 2021-2031 in their June 2021 meeting.

The LTP 2021-2031 is important for rivers and drainage schemes because:

- It approves annual budgets for the coming ten years.
- It is a key planning document that provides mandate and direction for Council work programmes.

Council is aiming to have draft LTP 2021-2031 budget figures by August 2020.

## **Infrastructure Strategy**

The Infrastructure Strategy is a requirement of the Local Government Act 2002 under section 101B. It is developed and adopted as part of the LTP and must cover a period of at least 30 consecutive financial years.

The purpose of the Infrastructure Strategy is to;

- Identify significant infrastructure issues.
- Identify the principal options for managing those issues and the implications of those issues.

Council's Engineering team leads the development of the Infrastructure Strategy.

## **Rivers and Drainage Asset Management Plan (AMP) 2021-2071**

The AMP is a 50-year plan that expands on the Infrastructure Strategy, providing more information about the assets and the management thereof. The AMP is reviewed and updated every three years alongside the LTP process. Review and updating of the AMP is led by Council's Rivers and Drainage Assets team.

### **NEXT STEPS**

- Presentation and discussion at the March 2020 advisory group meetings.
  - o Council staff receive feedback from advisory group members.
- March – August 2020: Workshop(s) and dialogue as appropriate between Council staff and advisory group members.
- September 2020: Advisory group meetings – opportunity for planning discussion follow-up.
- February 2021: LTP 2021-2031 (including Infrastructure Strategy and AMP) publicly notified.
- June 2021: LTP (including Infrastructure Strategy and AMP) adopted by Council.

Hemi Barsdell  
**Asset Management Specialist**

## Kaituna River Scheme: 2019-2020 Maintenance Works Programme

Updated 13/02/2020

Any changes in Red

Source Document - BOPRC ID: A3330910

### LOWER KAITUNA

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Reach	Work Type & Site	Annual Budget	Location	Proposed Estimate	Status
<b>General</b>					
	Fly tipping and rubbish collection/disposal	<b>\$8,000</b>		\$6,500	
			Rubbish cleared from Bell Rd C and A. Shopping trollies in Rotorua Streams.	\$1,500	Ongoing
	Pest Control	<b>\$8,000</b>	Pindone Rabbit holes on Kaituna LB Stop-bank 8.9-9.9km. First poisoning completed in Dec, Second underway in Feb.	\$1,000	Under Action
<b>Reach 1:</b>					
<b>Mouth to Te Matai (including Maketū Estuary)</b>	<b>Riverbank Weed spraying</b>	<b>\$7,000</b>			
	Gorse spraying		R/b 11.7-12.0 km	\$1,000	Completed
	Blackberry spraying		R/b 12.0-12.6 km	\$1,000	
	Glyseria spraying various areas by boat, estimated 15-20,000m <sup>2</sup>		Various L&R Banks. Waiting on boat to complete survey to undertake work.	\$15,000	
	Mulch Gorse and spray Maketū Estuary		McKenzie's	\$2,000	Completed
	<b>Willow/Vegetation Maintenance</b>	<b>\$10,000</b>			
	Removing fallen and pest trees and vegetation		R/b 2.5 - 4.6 km	\$2,500	Completed
	Remove flax and replant		R/b 2.5 - 4.6 km	\$2,500	Partially completed
	Removing fallen and pest trees and vegetation		R/b 5 .0- 6. km	\$3,000	
	Mulching		L/b 12.0-12.6 km	\$1,800	
	Willow/Vegetation Maintenance- WBDC reserve		R/b 12.3 - 12.5 km	\$2,500	
	Willow/Vegetation Maintenance		L/b 12.4-12.6 km	\$2,500	
	<b>Planting</b>	<b>\$5,000</b>		\$2,500	
	<b>Rock replenishment</b>	<b>\$46,000</b>			
	Titchmarsh (ex) - BOPRC lease (KT149)		1.45-1.70 km ( Completed under Flood Repair Project)	\$0	Completed
	<b>Fencing Maintenance</b>	<b>\$4,000</b>			
	Fencing (tbc)		various	\$4,000	
	<b>River &amp; Estuary maintenance general (desilting)</b>	<b>\$30,000</b>			
	McKenzie culvert outlet		Engineering reviewing options.	\$2,000	
	Bell Rd Drain outlet		Completed in part by Engineering	\$3,000	Under Action
<b>Stopbanks</b>	Minor floodgates Inspection	<b>\$1,000</b>		\$1,000	
	Stopbank miscellaneous maintenance	<b>\$5,000</b>	Planned for Vercoes (rabbit holes) Poisoning underway	\$5,000	
<b>Bell Road Floodgates</b>	Floodgate Maintenance & inspections	<b>\$4,000</b>		\$4,000	
<b>Managh's culvert</b>	Floodgate Maintenance & inspections	<b>\$3,000</b>		\$3,000	
<b>Browns Culvert</b>	Floodgate Maintenance & inspections	<b>\$3,000</b>		\$3,000	
<b>Wetland Culvert</b>	Floodgate Maintenance & inspections	<b>\$3,500</b>		\$2,000	
	Due for replacement. Lift inspect replace or repair as required			\$5,000	
<b>Maketū &amp; Other Floodgates</b>	Floodgate Maintenance & inspections	<b>\$3,000</b>			
	Gravity flood gate replace & redesign			\$6,000	
	McKenzie culvert replacement (tbc)		Under review Engineering	\$25,000	

Row	Reach	Work Type & Site	Annual Budget	Location	Proposed Estimate	Status
47	<b>Reach 2:</b>					
48	<b>Te Matai to Mangorewa</b>	<b>Riverbank Weed spraying:</b>	<b>\$4,000</b>	Various sites		
49		Gorse & pampas at existing rockworks		Various	\$3,000	Partially completed
50		Pampas (Ex Harts) @existing rockwork		lb	\$2,000	
51						
52		<b>Willow/Vegetation Maintenance</b>	<b>\$1,500</b>			
53		Willow Maintenance		R/b 12.7-12.9 km	\$2,000	
54		Willow Maintenance		L/b 13.3-13.6 km	\$2,000	Completed
55		AFFCO mulch and remove willow		R/b 13.75 - 14 km	\$3,500	Completed
56		Welds remove overhanging willow		L/b14.5 - 14.7 km	\$2,000	
57		Trust Block - McMeeking Road		R/b 16.8-16.9km	\$3,000	Completed
58		remove fallen Gum tree		RB 16.9	\$2,000	Completed
59		Willow Maintenance/removal		L/b 17.45-17.9 km	\$2,000	Completed
60		Willow Maintenance/removal		R/b 18.2 - 18.9 km	\$2,500	To be completed with Flood repair works
61		Willow Maintenance/removal		L/b 18.4 - 18.9 km	\$2,500	
62		Willow Maintenance/removal		L/b 19.1 - 19.8 km	\$2,500	
63		Willow Maintenance/removal		R/b 20.4 - 21.2 km	\$2,500	
64		Willow Maintenance/removal		L/b 21.0-21.2 km	\$4,000	
65		Mulch Stopbank Welds drain to KT 13.1 km			\$2,500	
66		Lower berm (Mc Naughtons)		R/b 18.8-18.9 km	\$4,700	
67						
68		<b>Planting:</b>	<b>\$1,000</b>			
69		Māori Trust - Battering and Willow/native planting.		R/b 17-17.1km	\$8,000	
70						
71		<b>Rock replenishment (where required)</b>	<b>\$40,000</b>			
72		Weld's seems to be settling, monitor		L/b 15.1-15.2km	\$1,000	
73						
74		<b>Fencing</b>	<b>\$1,000</b>	Various	\$500	
75	<b>Stopbanks</b>	<b>Stopbank miscellaneous maintenance</b>	<b>\$2,000</b>	<b>Tomo in stopbank Affco</b>	<b>\$4,000</b>	<b>Completed</b>
76		<b>Floodgate Maintenance</b>	<b>\$1,000</b>		\$1,000	
77						
78	<b>Reach 3:</b>					
79	<b>Canals &amp; Drains</b>	<b>Canal weed spraying</b>	<b>\$10,000</b>			
80		Raparapahoe/ Kopuaroa various properties		R/b -L/b	\$3,000	Ongoing
81		Channel / bank spray maintenance, pampas etc.			\$2,000	
82						
83		<b>Canal and drain repairs</b>	<b>\$5,000</b>			
84		Slaters Drain. Replace 900mm headwall			\$5,000	
85		Replace 900 culvert (Armer's)			\$3,500	
86						
87		<b>Canal desilting</b>	<b>\$100,000</b>			
88		Riddell's		R/b 0.0-1.0 km	\$2,000	Underway
89		Diagonal Drain and reshape berm		R/b 2.0-5.3 km	\$7,500	Completed
90		Internal Drain		R/b 1.1-2.2 km (de weed only)	\$2,500	Completed
91		Factory Drain Desilting		Contractor portion \$16k	\$20,000	Completed
92						
93		<b>Drain Desilting / Maintenance</b>	<b>\$65,000</b>			
94		Bell Rd No1 install 6 culverts for excavator access			\$15,000	Completed
95		Managh's Drain (defer to 20/21)		R/b 0.0-0.9 km (de weed only)		Completed
96						
97		<b>Waiari Stream</b>				
98		Complete minor berm cut-always		L/b 2.0-3.1km	\$1,500	
99		Desilt and complete minor erosion repairs, defer to 20-21. Estimated at \$32,000.		0.0 to 3.1km		
100						

Row	Reach	Work Type & Site	Annual Budget	Location	Proposed Estimate	Status
101		<b>Parawhenuamea</b>				
102		Desilt twice yearly		Completed once	\$5,000	Partially
103		Parrots Feather spraying x4 yearly			\$2,000	Completed
104		Deweed		R/b 0.0-2.0 km	\$1,500	
105						
106		<b>Kopuaroa Canal</b>				
107		Desilt and reshape canal edge		R/b-L/b 2.2- 4.2km	\$20,000	Underway
108		Mulch gorse & blackberry - Dovaston's		L/B 1.6-2.2 km	\$1,500	Underway
109		Rock work Washer Ave. (250 tonne)		L/b 2.8-2.85 km	\$8,000	
110						
111		<b>Raparapahoe Canal</b>				
112		Willow main various properties		R/b 3.9 - 5.7 km	\$4,200	Partially completed
113		Complete minor berm cut-always		R/b-L/b 0.0-3.4 km	\$2,000	
114		Wooley night shade		L/b 2.6.2.9 km	\$1,000	
115		Japanese Walnut main various properties		R/b 3.9 - 5.7 km	\$4,200	Partially completed
116						
117		<b>Ohineangaanga Canal</b>				
118		Remove spoil off berm on right bank		R/b 00.0-0.80km	\$8,500	
119		Remove spoil off berm on left bank		L/b 00.0-0.80km	\$9,500	Completed
120						
121		<b>Aquatic Weed Spraying</b>	\$15,000		\$15,000	
122		<b>Weed Cutter Boat</b>	\$2,000	One round completed another underway in March	\$2,000	Partially completed
123		<b>Drain dewatering</b>	\$30,000	One round completed another underway in March	\$30,000	Partially completed
124						
126		<b>Minor clearing of obstructions in tributary streams (generally upstream highway)(5k per stream)</b>	\$20,000	Raparapahoe Blockage removed	\$20,000	Completed
127						
128		<b>Rock maintenance</b>	\$6,000			
129		Nuzum's Drain: rockworks		R/b 0.0- 0.050km	\$7,000	
130		Borough Drain: rockworks		L/b 0.0 -0.05 km	\$7,000	
131		Diagonal drain		R/B 3.8	\$2,500	Completed
132		<b>Extra ordinary works following Bell Road ratepayer meeting:</b>				
133		Bell Road culvert (WBOPDC) floodgate installation (Monitor success of new McLeod's culvert)			\$10,000	On hold
134		Finish installation of Bell Rd A surge chamber			\$15,000	Completed
135						
136	<b>Stopbanks</b>	Stopbank Miscellaneous Maintenance	\$2,000		\$2,000	
137		Minor Flood Gates	\$1,000		\$1,000	
138						
139		<b>Pump Station Maintenance:</b>				
140	<b>Kopuaroa (No. 3)</b>	Pump Maintenance	\$20,000		\$2,000	
141		No 2 pump; Lift, service, replace chain and replace seals.			\$5,000	
142		Lift No 1 pump riser sand blast and paint			\$3,000	
143		Lift pumps for inspection			\$1,500	
144						
145	<b>Bell Road A (No.1)</b>	Pump maintenance	\$7,000	Remove submersible pump service and reinstall.	\$7,000	Completed
146		Shed requires main			\$1,000	
147						
148	<b>Bell Road B (No.2)</b>	Lift for Inspection	\$7,000	Remove submersible pump service and reinstall.	\$7,000	Completed
149						
150	<b>Bell Road C (No.5)</b>	Compound maintenance	\$14,000		\$2,000	
151		Mow compound			\$2,000	
152		Diesel	\$6,000		\$6,000	
153		Lift pumps for inspection			\$2,500	

Row	Reach	Work Type & Site	Annual Budget	Location	Proposed Estimate	Status
154						
155	<b>Diagonal Drain</b>	Pump Maintenance	\$22,000		\$11,000	
156		Reshape ground for lifting pad			\$1,500	
157		install pad over gravity discharge pipe			\$2,000	
158		Lift No 1 pump riser sand blast, paint and refit			\$4,500	
159		Lift pumps for inspection			\$3,000	
160						
161	<b>Ford Road (No.6)</b>	Pump Maintenance	\$14,000		\$2,000	
162		Floodgate maintenance			\$2,000	
163		Paint and replace Barge Boards			\$2,000	Partially completed
164		Lift No 1 pump riser sand blast, paint and refit			\$4,000	
165		Lift pumps for inspection			\$1,500	
166						
167	<b>Maketū (No.7)</b>	Pump Maintenance	\$15,000		\$2,000	
168		Install false roof (Existing roof cracking)				
169		Floodgate maintenance			\$1,000	
170		Discharge headwall repair		Included in below quote.		
171		Replace flood light and install security light		Quotation approved from Control Tech for the rebuild of pump station automation, telemetry and electrical. Work to be completed in March 2020.	\$62,900	Under Action
172		Lift No 1 pump riser sand blast, paint and fit				
173		Replace Multismart electronics				
174		Lift pumps for inspection			\$1,500	
175						
176		Miscellaneous Electrical inspections			\$4,000	
177						
178	<b>Pump Electricity</b>		\$110,000		\$107,000	
179						
180	<b>Stormwater pumping</b>	(e.g. Marshall/Armer/Bell Rd A as required)	\$25,000		\$20,000	
181		Marshall Pump; building and power supply.		Quote U/A	\$20,000	
182		Armer pump; building and power supply		Quote U/A	\$20,000	
183						
184		<b>Total Annual Maintenance Costs</b>	<b>\$687,000</b>		<b>\$717,300</b>	
185						
186		Rock work 2017 (KT149 - Flood damage Marshalls ,800 tonne) Ohineangaanga		L/b 2.4-2.5 km	\$20,500	
187		Wootten (KT154 Vegetation/tree removal)		Being partially funded by flood damage insurance	\$0	
188		Wootten (KT121 River bank erosion. Rock toe and rotten rock batter)		Being partially funded by flood damage insurance	\$0	
189		Batter bank and plant (KT122 Tanners: River bank erosion. Rock toe and rotten rock batter)		L/b18.2-18.9 km	\$2,500	
190		<b>Annual Flood Damage Repair Allowance</b>	<b>\$170,000</b>		<b>\$23,000</b>	
191		<b>Overall Maintenance Total Expenditure</b>	<b>\$857,000</b>		<b>\$740,300</b>	

### Kaituna River Scheme: 2019-2020 Maintenance Works Programme

Updated 13/02/2020

Any changes in Red

Source Document - BOPRC ID: A3330910

#### UPPER KAITUNA

Reach	Work Type & Site	Annual Budget	Location	Proposed Estimate	Status
<b>Reach 4:</b>					
<b>Rotorua Scheme Area</b>	<b>Waitetī Stream</b>	<b>\$10,000</b>		\$7,500	
	Vegetation removal and planting		Pre Christmas fall tree removal	\$2,500	Completed
	<b>Ngongotahā Stream</b>	<b>\$25,000</b>			
	Vegetation Maintenance		\$13,000 Spent on mature Poplar removal through Agrodome	\$15,000	Completed
	Planting/planting maintenance			\$4,000	
	Pest plant spraying		U/A Stu	\$4,000	Completed
	Fencing		U/A Stu	\$2,000	Completed
	<b>Waiowhiro Stream</b>	<b>\$7,500</b>			
	Vegetation removal, shrub willow erosion planting, bank battering for native planting		Vegetation removal, batter banks, reinstate.	\$4,000	Completed
			Large gum tree	\$2,500	Completed
	<b>Utuhina Stream</b>	<b>\$15,000</b>			
	Vegetation removal		Various fallen tree removals	\$3,000	Completed
	Obstruction removals			\$2,500	
	Removing prone trees/improving access			\$8,000	Completed
	<b>Mangakakahi Stream</b>	<b>\$7,500</b>			
	Stabilisation planting			\$1,500	
	Pest plant management/removals		Work priority and scale increase after a relatively minor flood event in December.	\$6,000	Underway works started
	<b>Otamatea Stream</b>	<b>\$5,000</b>			
	Vegetation Maintenance/removals			\$5,000	
	<b>Puarenga Stream</b>	<b>\$20,000</b>			
	Removing prone trees/improving access			\$15,000	
	<b>Waingaehe Floodway</b>	<b>\$10,000</b>			
	Vegetation maintenance		Vegetation/willow removal, desilt and de-weed.	\$10,000	Completed
	Remove trees from Charles Rd Bdy			\$7,500	
	<b>Total Annual Maintenance Costs (Upper Kaituna)</b>	<b>\$100,000</b>		<b>\$100,000</b>	
	Waitetī Stream: Slumping and erosion sites, vegetation removal		Rock armouring upstream of holiday park.	\$50,000	
	Ngongotahā Stream; Spillway maintenance, right bank erosion, Batter and plant erosion			\$100,000	
	Utuhina Stream: Small erosion sites, vegetation removal			\$50,000	
	Puarenga Stream: 2 culvert replacements, 2 erosion sites various vegetation, Cost Share job RLC Water Treatment Plant		Cost Share job RLC Water Treatment Plant completed. Investigating materials to cope with corrosive geothermal location.	\$55,000	Partially completed
	Mangakakahi Stream: Small erosion sites, vegetation removal		Work priority and scale increase after a relatively minor flood event in December.	\$15,000	Underway works started
	Otamatea Stream: Small erosion sites, vegetation removal			\$15,000	
	<b>Capital Works: April 2018 Flood Repairs (Upper Kaituna - Overall Maintenance/Capital Total)</b>	<b>\$285,000</b>		<b>\$285,000</b>	
	<b>Upper Kaituna - Overall Maintenance/Capital Total</b>	<b>\$385,000</b>		<b>\$385,000</b>	



# 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**



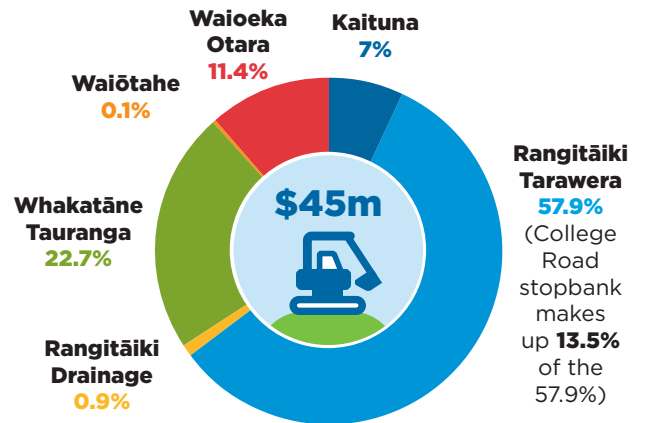
**All repairs** to  
be completed by  
**30 June 2021**

**67%** of **high priority** sites  
are complete

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

## Repair costs by River Scheme

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



## Tracking our progress

<b>Rangitāiki Tarawera</b> 224 sites <b>89 complete</b> ✓	<b>Whakatāne Tauranga</b> 108 sites <b>59 complete</b> ✓	<b>Waiōka Otara</b> 59 sites <b>55 complete</b> ✓
<b>Rangitāiki Drainage</b> 53 sites <b>52 complete</b> ✓	<b>Kaituna</b> 45 sites <b>12 complete</b> ✓	<b>Waiōtahe</b> 31 sites <b>All sites complete</b> ✓
<b>298 SITES 57%</b> completed as at <b>31 December 2019</b>		College Road <b>stopbank realignment</b> <b>COMPLETE</b> ✓

## What's happening in 2019-2020



2019-2020 budget  
**11.4million**

### To complete:

Rangitāiki Drainage **pump station repairs**

**100%** of Rangitāiki  
Drainage sites

**90%** of high  
priority sites

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

# MEMORANDUM



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

For period 1 August to 31 January 2020

**From:** Paula Chapman  
Project Manager - Flood Recovery

**Date:** 12 February 2020

**File Ref:** A3478424

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

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## **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 two and a half years into the estimated four year programme. Physical repair works have been steady across the programme as conditions and material availability have allowed.
- As at 31 January 2020, 303 site repair works are complete (or have been assessed as no longer required) from the total programme of 520 sites. This work includes many of the highest priority works. In the case of the Kaituna Catchment Control Scheme, 12 sites from a total programme of 45 sites have been completed.
- The most visible repair associated with the total project is the College Road stopbank rebuild which was completed in December 2018.
- The availability of suitable rock material remains a concern and may impact the programme period particularly in the Eastern Bay of Plenty.
- The process for claiming eligible costs from central government has been established. Current claims are for essential infrastructure repairs. Claim 10 was received in December and Claim 11 is currently being drafted. The total amount received from central government to date is close to \$7 million.

- Communication and stakeholder engagement has been a feature of the project as there is a high level of public and stakeholder interest in the recovery from the April 2017 floods and this will continue.
- Two progress payments for Infrastructure Insurance have been received totaling \$3,000,000.

## 1.2 Quality

- Sections of river are re-inspected prior to developing the detailed work scope for each site. Job specifications and design are included as part of a standard approval and procurement process. Due to the passage of time more often than not high priority sites are showing increased levels of damage compared to initial assessments and estimates.
- Job completion includes the capture of new or repaired assets into Council's Asset Management System.
- Dedicated administration resource has supported the planning, procurement and funding recovery process.
- The team is working with Coastal Catchments (Land Management) to identify opportunities to work together to increase inanga and tuna habitat, particularly in the Kaituna Catchment.

## 1.3 Communications, community and stakeholder engagement

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

## 1.4 Procurement

- Work to date has centred mostly on high priority repair projects. The total programme is made up of multiple smaller projects and these have been delivered utilising established Rivers and Drainage Panel Supplier contract agreements. The panel approval process ensures contractors are capable of the work and hold the necessary accreditations and insurance cover. Existing contracts were renewed for a further three year in February 2019 and where resource gaps were evident new suppliers joined the panel.
- The lack of suitable graded rock supply has constrained the programme of works in the Eastern Bay of Plenty, specifically work on the Whakatāne, Rangitāiki and Tarawera Rivers.
- Rakauroa Quarry (Matawai) has supplied all Ōpōtiki and Tauranga River sites, and Alan Rust Quarry (Te Mahoe) the upper Rangitāiki work.
- Kaituna rock work is supported by Poplar Lane (Papamoa) and Kaitemako Quarry (Welcome Bay).

## 1.5 Programme delivery

<ul style="list-style-type: none"> <li>• A total of 520 sites have been identified in the repair programme across the region, 45 are associated with the Kaituna Catchment Control Scheme</li> </ul>
<ul style="list-style-type: none"> <li>• Across the programme 303 sites have been completed (or have been assessed as work no longer required), 12 of these are in the Kaituna Catchment Control Scheme</li> </ul>
<ul style="list-style-type: none"> <li>• The programme of desilting and drainage bank repairs is 98% complete across the Rangitāiki Drainage network</li> </ul>
<ul style="list-style-type: none"> <li>• 148 sites are programmed for completion in 2019/20 year, 19 of those are in the Kaituna Catchment Control Scheme</li> </ul>
<ul style="list-style-type: none"> <li>• Will the total programme completion date currently remains at 30 June 2021 this will be review after the 2019/20 summer construction period</li> </ul>

Key sites completed to date in 2019/20 include:

- KT106 Hurst, river distance 5.9 km LB - this work involved strengthening existing rock erosion protection.
- KT149 ex Titshmarsh, river distance 1.45 km RB - this work involved reestablishment of an estimated 200 lineal metres of rock erosion protection damage and slumping along with an extension of protection along the exposed river edge of a further 50 lineal metres.
- KT130 Reese, river distance 20.5 km RB - the damaged was assessed at 300 lineal metres however after starting the works it was identified that an additional 100 lineal metres of erosion repair work is required.

Key sites underway include:

- KT151 various sites, river distance 3.2-4.5 km RB – this site is a total of 1.3 km and is located 700 m upstream of the Diagonal Pump Station outlet. The actual erosion at the site appears to be in the range of 500 m. There is also a lot of dead trees, debris and pest plants through this reach.
- KT121 Wootten's, river distance 17.3 km RB - the work involves 300 lineal metres of repair/replacement of an existing rock lining asset and extension of the erosion protection. Fifty per cent of the rock required is being stockpiled at PGG Wrightson sale yards.

Key sites planned:

- KT129 Scown, close to KT130 - this site was started prior to winter and will be completed once maize has been harvested
- AFFCO Sites KT115, KT116 and KT144
- KT124, KT126, KT128 and KT154 on Tanner/Lanes properties.

## 1.6 Financials

### Forecast costs Kaituna flood repair programme at January 2020

Estimated Total Programme cost Kaituna	\$4,670,000
Estimated Betterment Value	\$2,619,435

The total cost of repairs in the Kaituna Control Scheme will exceed that originally estimated. The remaining work has been re-estimated based on actual costs to date and recent inspections. The revised total cost is estimated at \$4,670,000 compared to the original programme estimate of \$2,956,200.

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.

### 2017/18 - Actual Costs

<b>Total expenditure (30 June 2018) – for infrastructure works</b>	<b>\$135,335</b>
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### 2018/19 – Actual Costs

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

### 2019/20 – Actual Costs

Expenditure budget	\$1,645,000
<b>YTD at 31 January 2020 – for infrastructure works</b>	<b>\$665,531</b>

## 2 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	BOPRC
Weather	Future weather events will exacerbate damaged sites	Complete site works in priority order as this factors in risk and consequence	BOPRC MCDEM Insurer
Weather	Severe weather event may cause new damage	Review works programme against new works (annual flood damage)	BOPRC MCDEM Insurer
Rock material availability	Suitably graded rock supply is restricted and the operating environment is variable	Working with rock sources to supply suitable material for works in Ōpōtiki (Rakauroa Quarry in Matawai) and Rangitāiki (Ywari Quarry in Manawahe), and Kaituna (Kaitemako) Encourage new rock sources to enter Council's prequalified panel supplier schedule Investigate opportunities to support new quarry's in the Eastern Bay of Plenty	BOPRC
Resource	Staff resource is limited for oversight of on-site works	Using in-house resources (Area Engineers) to supervise site works. Additional contract resource for rock grading/audits and new 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 Recoveries

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

### 4 Expected progress within the next six month period

- Complete 50% of Kaituna works
- Lodge and receive MCDEM Claim 11
- Complete flood pump station repairs (Te Rahu) and finalise material damage claim

Paula Chapman  
**Project Manager – Flood Recovery**



# MEMORANDUM



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

**From:** Mark Townsend  
Engineering Manager

**Date:** 13 February 2020

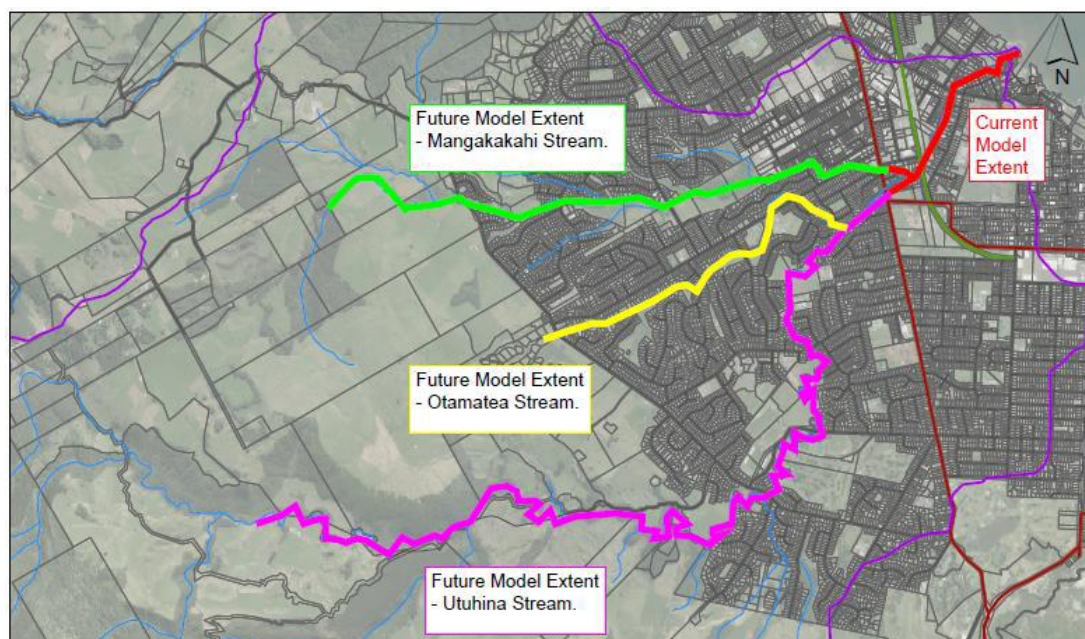
**File Ref:** A3478476

**Subject:** Engineering update report

## 1.0 Utuhina Stream Upgrade

*Budget 2019/20: Modelling \$141,000*

This project is to extend and update the existing flood model upstream. The model will be used to prepare flood hazard maps and undertake a flood risk assessment in accordance with the Regional Policy Statement. This will provide a stocktake of the current flood situation and the flood situation once climate change is applied.



**Fig 1: Survey extent on Utuhina/Mangakakahi/Otamatea Streams**

Both, the hydrological and hydraulic models have now been built and are currently undergoing calibration. Once this component is complete both present day and future climate change prediction design scenarios will be run to determine the flood risk.

Following the flood risk assessment, staff will be working with Rotorua Lakes Council (RLC) on possible solutions to achieve the 1% AEP level of service. NIWA has been engaged by RLC to undertake the flood hazard mapping.

## 2.0 Ford Road Pump Station Upgrade Project

*Budget 2019/20: Consenting and detail design \$471,000*

As previously reported a preferred option, Option 1, has been determined using a multi-criteria analysis.



**Fig 2: Possible New Pump Station Locations**

That option, as shown above, is to move the Ford Road discharge to alongside the Diagonal Drain pump station.

Community engagement is currently underway with Iwi and key stakeholders to discuss the pump station option assessment and land management options plan.

## 3.0 Kaituna River Desilting

*Budget 2019/20: Consenting and dredging \$312,000*

Following site inspection the following priorities were determined for sediment removal:

1. Bell Road outlet into river
2. Waiari, including Parawhenuamea drain outlet
3. Kopuaroa
4. Raparapahoe

Dredging works are currently under way over a six-week contract period. It is expected that all work will be complete early March.

### Bell Road

Weed has been dredged and removed from site. The sediment build-up has been removed, re-establishing the natural bed.



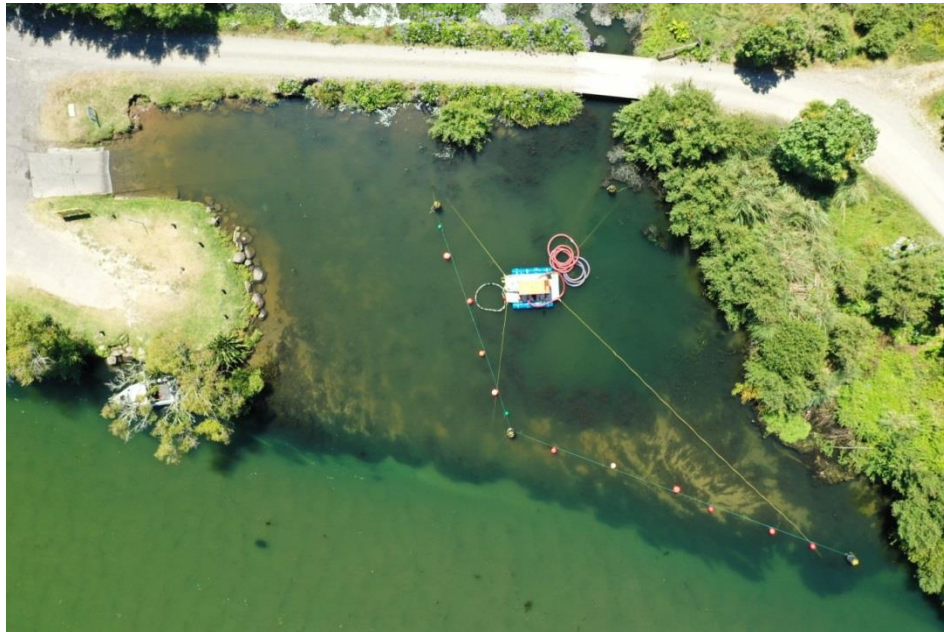


Fig 3: Sandbar prior to dredging works – Bell Road



Fig 4: Depth contours (approx.) of Bell Road site prior to dredging works



Fig 5: Depth contours (approx.) of Bell Road site after dredging works

### Waiari

The canal mouth has been dredged to the existing bed level. It is noted that material is constantly shifting into the dredged area from the upstream build-up, filling in the dredged area but lowering the upstream sediment build-up.

### Kopuaroa

Work here will commence mid-February.

### Raparapahoe

Work here will be reassessed based on remaining operational days within the contract period.

### Parawhenuamea

The dredging of the channel at this outlet has proven to be impractical and the construction of a groyne to allow excavator access for maintenance is not financially feasible. A contractor has been engaged with specialised equipment (amphibious excavator) that can operate in the floating weed to clear a channel. This work is scheduled for late February 2020.

## 4.0 Lower Kaituna River Stopbank Upgrade

*Budget 2019/20: Construction \$1,500,000*



**Fig 6: Location of stopbank upgrade**

A section of stopbank near the Kaituna River Rediversion Project needed upgrading to meet the scheme's required level of service.

Rather than undertake the procurement via an open market tender, the work was included as a variation to the Kaituna Rediversion Project. This approach reduced timeframes to procure a contractor, reduced time for staff involved and was more cost effective. The stopbank upgrade work is now complete.

## 5.0 Te Puke Stormwater

*Budget 2019/20: Modelling \$156,000*

Robbin Britton from Britton Consultants was commissioned to act as Project Manager for this study. DHI have been appointed to undertake the modelling required. Western Bay of Plenty District Council (WBOPDC) have been briefed on the project and are part of the project team.

Initial work has been about gathering data, assessing whether existing models can be utilised for this project, undertaking site visits and confirming project deliverables with WBOPDC.

Once this has been worked through the assessment can begin. The programme for this year may include:

- Undertake a comparison between development in 1990 (start of the Kaituna Scheme) and 2019.
- Generate design storm data inputs and hydrological inputs
- Update Te Puke Stormwater model and run design storm scenarios

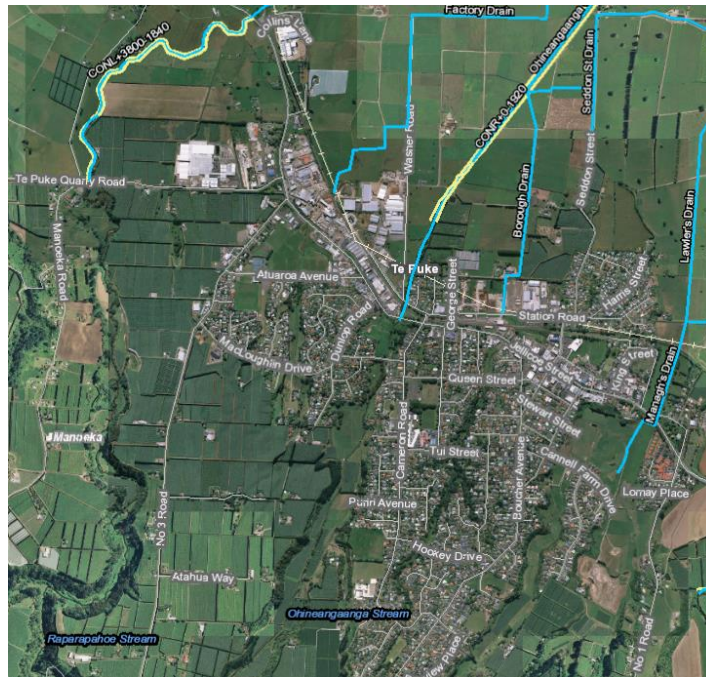


Fig 7: Te Puke township and the drainage network

## 6.0 Kaituna Mole Renewal

*Budget 2019/20: Construction \$180,000*

An independent review was undertaken of the proposed remedial design (similar to the current mole design but with improved corrosion resistance and concrete capping) and as a result there were no changes.

However the tender price has come back well in excess of the existing budget and therefore other options are currently being explored.

Reconstruction has been deferred until next financial year accordingly.

## 7.0 Geotech Investigations into Stopbank Seepage

*Budget 2019/20: Undertaken within BAU (business as usual) budget*

Three sites have been investigated using intrusive (hand-tools) and non-intrusive (Ground Penetrating Radar) testing. Site observations focussed on areas where sands have surfaced, particularly near to stopbanks, however analysis and treatment is yet to be undertaken. The sites involved are Vercoe's near Kaituna, Waiari confluence (right bank), Pamment's, north of relic oxbow, end of Pah Road (right bank) and Pamment's, downstream of the TEL (right bank).

The analysis is scheduled for the 2020/21 financial year.



## 8.0 Bell Road Drain Modelling

*Budget 2019/20: None*

At the last advisory group meeting in September 2019 we reported on modelling work planned to inform:

- Options to return the Bell Road sub-catchment to its agreed level of service, or
- Options to increase the level of service to remove water within 36 hours, in summer months, during a five-year return period storm.

This work is being finalised and a report is to be tabled, along with a presentation, at the advisory group meeting.

## 9.0 Ngongotahā Stream Flood Mitigation

*Budget 2019/20: None*

Following the independent review of the flooding, various workstreams were set up to undertake the recommendations. Below is a table showing the workstreams, progress and work planned over the coming months:

Workstream Topic area	Work completed over the last 2 months	Work planned for the coming months
Streambank Maintenance and Repairs	<p>Preparations / planning completed for summer season of maintenance works.</p> <p>30 large streamside trees removed (upper catchment area)</p> <p>Stream maintenance plan in development.</p>	<p>Streambank maintenance prioritised near A&amp;P showgrounds. This includes large tree removal, vegetation management, fencing, tree planting and fish habitat restoration.</p> <p>Also enhancement of existing spillways. This includes vegetation management, contouring as well as rock armouring at inlets and outlets.</p> <p>More streamside planting to occur next winter</p> <p>Completion of stream maintenance plan</p>
Engineering, Modelling and Options	<p>Landowner engagement carried out regarding shortlisted flood mitigation options.</p> <p>Flood model calibrated which means that it can recreate the impacts of the April 2018 flood.</p> <p>Preliminary modelling of three individual flood mitigation options completed.</p>	<ul style="list-style-type: none"> <li>• Modelling of combined options – results to CRG members in March 2020.</li> <li>• Goal of selecting and refining the preferred solution between March and June 2020.</li> </ul> <p>Landowner engagement will be ongoing.</p>
RMA Planning and Consents	<p>BOPRC / RLC Planners meeting held in early May regarding plan review.</p> <p>Ongoing engagement with consultant community about Council's revised Engineering Code of Practice.</p>	<p>RLC and BOPRC are working together to develop and review current urban flood hazard catchment models with a view to using this to develop flood risk assessments for these catchments to, in turn, inform the plan review.</p>

Workstream Topic area	Work completed over the last 2 months	Work planned for the coming months
	In terms of District Plan review, scoping still underway. Additional risk assessment required by BOPRC to satisfy Regional Policy Statement requirements.	
Civil Defence and Readiness	<p>Completion of Emergency Evacuation Plan.</p> <p>Working group established for Paradise Valley Community Response Plan.</p> <p>Potential members identified for working group to develop the Ngongotahā Community Response Plan.</p>	<p>Workshop to be held regarding Ngongotahā Community Response Plan.</p> <p>Goal is to complete the Community Response Plans for the Ngongotahā and Paradise Valley communities in 2020.</p>
Upper Catchment Workstream	<p>Tree removal complete (30 large trees) followed by community planting day.</p> <p>Initial feasibility for detainment bunds in the upper Umurua stream (Mamaku Plateau) completed. 19 sites identified (5 of which are on one property). Sites of varying size, depending on the lie of the land. Mainly ephemeral flowpaths.</p>	<p>More tree removal to come. Assessment needed to identify priority sites/areas.</p> <p>Engagement with landowners of the 19 potential detainment bund sites.</p>

**Table 1 : Ngongotahā Stream Mitigation Workstreams Update Feb 2020**




Mark Townsend  
**Engineering Manager**

















# Bay of Plenty Regional Council Toi Moana

## Statement of revenue and expense - Kaituna Catchment Control Scheme

For the 6 months ending 31 December 2019

Run: 28-Jan-2020

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

Line	2019/20		Variance			Variance comments	2020/21
	Budget	Actual	\$	Variance indicator	Draft Annual Plan \$000		
	\$000						
<b>Operating revenue by class</b>							
1	General rates	96	96	(0)	Lower		217
2	Targeted rates	962	962	0	-		2,099
3	External interest income	57	74	17	Higher		129
4	Other revenue	27	3	(24)	Lower		29
5	Investment income	145	145	0	-		307
6	<b>Total revenue</b>	<b>1,288</b>	<b>1,281</b>	<b>(7)</b>	Lower		<b>2,781</b>
<b>Operating expenditure by class</b>							
7	Administration expenses	0	9	(9)	Higher		25
8	Other expenses	83	106	(23)	Higher		356
9	Consultancy fees	0	52	(52)	Higher		0
10	Contract work	110	287	(177)	Higher		553
11	Finance costs	160	117	43	Lower		438
12	Depreciation and asset disposal	231	174	57	Lower		473
	<b>Subtotal - expenditure</b>	<b>585</b>	<b>746</b>	<b>(161)</b>	Higher		<b>1,845</b>
13	<b>Net overhead charges and recoveries</b>	<b>297</b>	<b>370</b>	<b>(73)</b>	Higher		<b>637</b>
14	<b>Total operating expenditure</b>	<b>882</b>	<b>1,116</b>	<b>(234)</b>	Higher		<b>2,482</b>
15	<b>Total operating surplus (deficit)</b>	<b>407</b>	<b>165</b>	<b>(242)</b>	Unfavourable		<b>299</b>

# Bay of Plenty Regional Council Toi Moana

## Statement of revenue and expense - Kaituna Catchment Control Scheme

For the 6 months ending 31 December 2019

Run: 28-Jan-2020

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

Line	2019/20		Variance		Variance comments	2020/21
	Budget	Actual	\$	Variance indicator		Draft Annual Plan \$000
	\$000					

### Capital revenue by class

16	Capital funding	156	202	45	Higher	▶	Central Government contributions for works completed	320
	<b>Total capital revenue</b>	<b>156</b>	<b>202</b>	<b>45</b>	Higher			<b>320</b>

17	<b>Total surplus (deficit)</b>	<b>563</b>	<b>367</b>	<b>(196)</b>	Unfavourable	▶		<b>619</b>
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### Capital expenditure by project

18	Kaituna River Capital New	1,564	871	693	Lower	▶	Work has commenced on the stopbank raising project and also the Kaituna mole	250
19	Kaituna Flood Damage Repairs	494	618	(125)	Higher	▶	Works are ahead of programmed but still expected to be on budget at year end	3,195
20	<b>Total capital expenditure</b>	<b>2,057</b>	<b>1,489</b>	<b>568</b>	Lower	▶		<b>3,445</b>

### Reserves

	Opening Balance \$000	Net Movement \$000	Closing Balance \$000	
21	Flood Damage Reserve	(1,790)	597	(1,193) Funds available
22	Asset Replacement Reserve	(1,214)	607	(606) Funds available
23	Works Reserve	(1,084)	(85)	(1,169) Funds available
24	Kaituna NZTA	(569)	(29)	(598) Funds available
25	Kaituna Remediation	(463)	(23)	(486) Funds available
26	<b>Total Reserves Balance</b>	<b>(5,119)</b>	<b>1,066</b>	<b>(4,053)</b> Funds available

27	<b>Internal Loans</b>	5,644	835	6,479
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	1/07/2018 \$000	Movement \$000	1/07/2019 \$000	
28	<b>Asset Valuation</b>	64,367	3,635	68,002

# MEMORANDUM



**To:** River Scheme Advisory Group members

**From:** Kirsty Brown  
**Rivers and Drainage Assets Manager**

**Date:** 5 February 2020

**File Ref:**

**Subject: River Scheme Advisory Group Membership**

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Under the advisory groups' Terms of Reference, members are appointed for a period of three years with a maximum term of six years. The first triennium is due to end in September 2020.

Staff are very pleased with how the advisory groups are working and are keen for members to continue in their positions for a further three year term.

We are recommending that:

- Members advise whether they wish to continue for the additional three year term (to September 2023).
- We advertise for nominations to fill current vacancies (Rotorua urban representative) and any vacancies created by current members not wanting to continue for a further three years.



Kirsty Brown  
**Rivers and Drainage Assets Manager**