



Whakatāne-Tauranga Rivers Scheme Advisory Group Meeting

Wednesday 16 September at 10am

CMR1 (Mātaatua)
Bay of Plenty Regional Council
5 Quay Street
Whakatane



Whakatāne-Tauranga Rivers Scheme Advisory Group Meeting

Wednesday 16 September 2020 at 10am

Agenda

- 1 **Welcome**
- 2 **Apologies**
- 3 **Notes of previous meeting held 18 March 2020**
- 4 **Matters arising from previous meeting**
- 5 **Central government funded projects**
- 6 **Engineering update**
- 7 **Gravel management**
- 8 **Operations update**
- 9 **April 2017 Flood Repair Project update**
- 10 **Finance report**
- 11 **River scheme planning (Asset Management Plan, Long Term Plan)**
- 12 **Co-governance/community group updates**
- 13 **General business**
 - a. Infrastructure insurance
 - b. Review of the Floodway and Drainage Bylaws 2008
 - c. Advisory group membership - September 2020 to September 2023

Notes of the Whakatāne-Tauranga Rivers Scheme Advisory Group meeting held at Bay of Plenty Regional Council's Whakatane office, on Wednesday 18 March 2020, commencing at 10 am

Chair: Councillor Bill Clark

Advisory Group: Geoff Mercer, Boots McNaught, Bernie Clark, Brian Power, Fraser McGougan, Scottie McLeod

BOPRC Councillors: Councillor Toi Kai Rakau Iti

BOPRC Staff: Kirsty Brown (Rivers and Drainage Assets Manager), Bruce Crabbe (Rivers and Drainage Operations Manager), Chris Ingle (General Manager Integrated Catchments), Geoff Stone (Area Engineer), Cleo Hanlon (Rivers and Drainage Operations Coordinator), Paula Chapman (Project Manager Flood Recovery), Tony Dunlop (Flood Restoration Project Engineer), Hemi Barsdell (Asset Management Specialist), Mark Townsend (Engineering Manager), Charles Harley (Team Leader Eastern Catchments)

Public: Glen Cooper (Whakatāne District Council)

Apologies: Tom Pyatt, Jim Finlay, Jo Heath (Rivers and Drainage Asset Management Coordinator)

1 **Welcome**

Councillor Iti opened the meeting with a karakia.

Councillor Clark introduced Councillor Iti who is the new councillor for the Kōhī Constituency replacing Tiipene Marr. Kirsty Brown introduced Hemi Barsdell and explained his role as Asset Management Specialist with the Rivers and Drainage Assets team.

2 **Apologies**

Apologies received as recorded above.

3 **Notes of previous meeting held 18 September 2019**

Resolved

That the Whakatāne-Tauranga Rivers Scheme Advisory Group:

- 1 **Confirm the notes of the meeting held 18 September 2019 as a true and correct record.**

Clark/McLeod
CARRIED

4 **Matters arising from previous meeting**

Kirsty Brown confirmed that Gary William's PowerPoint presentation and report from the September 2019 meeting had been circulated to advisory group members.

5 **Performance assessment of critical assets**

Kirsty Brown advised that Roger Waugh (RiverSpace Ltd) had been contracted to undertake a performance assessment of Regional Council's critical flood protection assets.

Key points included:

- The asset performance framework only applies to the scheme's critical assets which are typically within urban areas.
- The performance assessment process has three stages – risk identification, risk management and risk communication. The risk identification stage is complete and now staff are working through the risk management and risk communication stages.
- A full outline of the risk profile will be presented to advisory groups at the September meetings.

Discussion:

- Question raised whether the proposed Whakatāne River marina development has been in consultation with Regional Council and whether Council is satisfied with the proposal. Mark Townsend advised there has been some initial discussions however the project is in the concept phase and there is still a lot of planning and design work to be undertaken and there will be input from Regional Council. The marina is a joint Whakatāne District Council/Ngāti Awa project and maintenance of the channel from the proposed marina to the river will be the responsibility of Whakatāne District Council and at no cost to the scheme.
- Members questioned the need for the freeboard differential between rural and urban stopbanks, some felt it was excessive. It was explained that freeboard allowances vary by location - in urban areas the freeboard is between 500 and 800 mm and in rural areas it ranges between zero and 450 mm. Where the river flows between an urban and rural area a differential freeboard is applied, with lower freeboard on the rural side. This ensures that during an 'overdesign' flood event the less densely populated rural areas are flooded before urban areas.
- Landowner encroachment onto stopbanks (fencing, gardens, trees), and how this will be covered under the new bylaw, was discussed. Kirsty Brown advised that this issue was identified during the performance assessment inspections and that a number of plantings and structures have been identified for further investigation and possible removal.

6 **River scheme planning (Asset Management Plan, Long Term Plan)**

Hemi Barsdell delivered a presentation on river scheme planning, and spoke to the report provided in the agenda pack.

Feedback from the group members was sought on the preferred level of engagement for river scheme planning. The group agreed a workshop with input from all members is preferred.

Discussion:

- Rock supply is an ongoing issue, and Council have initiated a rock procurement strategy project looking at different supply options. Investigations have also taken place identifying the quality of rock throughout the region. A recent Request for Information process has resulted in interviews with local quarry operators and a number of options have been suggested for consideration.
- Queried whether the Kopeopeo West extension remediation is part of the Long Term Plan. Members were advised that an upcoming ministerial visit will help progress this conversation. Members were reminded that the Kopeopeo Canal Remediation Project was funded jointly from Ministry for the Environment and general rates. It was not funded from scheme targeted rates.

7 Operations update

The operations update provided in the agenda pack was taken as read.

Key points included:

- The annual meeting of the Rangitāiki Drainage Scheme representatives was held in early March. This group is made up of representatives from both the Rangitāiki-Tarawera Advisory Group and the Whakatāne-Tauranga Advisory Group and provides advice on Rangitāiki Drainage Scheme operations and maintenance.
- The operational work programme is on track, despite rock shortages leading to delays in work and under expenditure. Pump re-conditioning is underway and routine operational works (spraying/tree maintenance) is on track.
- Council has approved \$679,000 for the high priority flood damaged sites resulting from the July 2019 rainfall event. Some medium and low priority sites will need to be completed under the existing budget. Quarried rock material shortage is impacting these works.

8 April 2017 Flood Repair Project update

Paula Chapman and Tony Dunlop delivered a presentation on the April 2017 Flood Repair programme, and spoke to the report provided in the agenda pack.

Key points included:

- The April 2017 Flood Repair Project is now two and a half years into the estimated four year programme and 64% of repairs have been completed across the region. It is now considered likely that the physical work programme will exceed the four years.
- Sixty percent of the Whakatāne-Tauranga Scheme repairs have been completed to date.
- Across the region 148 sites were targeted to be completed in 2019/20, however lack of access to rock material has resulted in the programme falling behind schedule and it is likely only 115 sites will be finished this financial year.

- The budget for the year is \$11.5m, and \$4m has been spent as at the end of February. Forecast expenditure to June 2020 is \$8.5m.
- Initial site assessments identified high, medium and low priority sites. The low priority sites are being re-evaluated to determine if they are self-healed, still require repairs, or can be monitored to the end of the programme.
- Central Government has funded \$1.3m of the Whakatāne-Tauranga flood repairs to date. There has also been insurance progress payments across the entire project of \$3m.
- Landowners were acknowledged and thanked for their cooperation and collaboration while the works have been undertaken.

9 Engineering update

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

Key points included:

- An agreement with NIWA on the Whakatāne River capacity review has been reached, and modelling is scheduled by the end of 2020.
- The estimated costs for Te Rahu Pump Station pipe replacement have increased from \$260,000 to \$430,000. A request for additional funding will be presented to Council.
- Whakatāne District Council are planning to relocate the Barry Avenue pump station and are working closely with Regional Council on options. The existing pump station is damaged and there are a number of other issues, the extent of which became obvious after the 2017 flood event. Seepage can be heard at high tide and pipe integrity is a concern.
- Seepage, in the form of upwelling of discoloured water, has been observed in Awatapu Lagoon off Cleary Avenue. Geotechnical investigations have been undertaken and a ground model is being produced. The issues are possibly a result of the stopbank cutting across the old river channel. Solution options are being worked on in conjunction with Whakatāne District Council.
- The Eastern Bay of Plenty has received a large amount of funding from the Provincial Growth Fund, however no flood protection projects received funding. Members suggested that Regional Council need to ask central government why the community isn't getting adequate funding for flood protection.

10 Finance report

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

Key points included:

- Report is for the six months ending 31 December 2019.
- There is a total deficit of \$8,000 at this stage.
- Flood damage repairs for this scheme are expected to be \$3m at year end.

- \$1.2m is available in the reserves.
- Internal loans are \$6.6m.
- Asset valuation has increased to \$78.6m due to higher construction costs, new assets being created under the April 2017 Flood Repair project, and the inclusion of missing assets onto the asset register.

Action:

Provide Advisory Groups with information on how recent interest rate decreases will affect internal loans, and whether there will be any significant benefits.

11 General business

11.1 Gravel management update

The gravel management update provided in the agenda pack was taken as read.

Mark Townsend explained how gravel surveys were undertaken, and acknowledged that material between each cross-section is not defined and there could be build-ups. Observations from staff are relied on in these situations. Drone technology, with the potential to provide more accurate data, is being considered nationally through the River Managers Group.

11.2 Review of the Floodway and Drainage Bylaws 2008

Kirsty Brown updated members on the Floodway and Drainage Bylaw Review.

Key points included:

- Currently seeking approval from Council to commence the formal consultation phase of the review.
- Consultation and submission process will be an online due to Covid-19. All affected landowners will receive a letter providing website links, supporting information, and details on how to make a submission.
- The review has proposed an increase in Bylaw Applicable Area 3 which applies to a set distance from the landward toe of a stopbank, or any other defence against water (e.g. floodwall, pump station, floodgate). The proposed increase for the Whakatāne and Tauranga rivers is from 20 metres to 40 metres.

11.3 Infrastructure insurance

In 2009 Council moved into the BOPLASS Insurance Programme and a steady increase in premiums has been observed over the ensuing years. It is predicted that this pattern of increasing premiums will raise affordability issues.

The Whakatāne-Tauranga schemes infrastructure premium for this year was \$125,000.

A review is proposed to look at alternative insurance options and determine the best way forward. Results from the review will be presented to Advisory Groups at the September meetings.

11.4 **Advisory group membership September 2020 to September 2023**

The advisory group membership report provided in the agenda pack was taken as read. Group members were advised that an email will be circulated seeking whether members wish to continue for another term or not. Members suggested that diversity among membership should be considered.

Meeting ended: 11:44am

Meeting Action Sheet

Whakatāne-Tauranga Rivers Scheme

18 March 2020

Action	Person Responsible	Completed	Comment
1. A planning workshop to be scheduled with Advisory Group members in April/May 2020.	Hemi Barsdell	✓	LTP workshop was rescheduled to August due to Covid. The workshop took place on 19 August 2020 via Zoom.
2. Provide Advisory Groups with information on how recent interest rate decreases will affect internal loans, and whether there will be any significant benefits.	Jo Heath	✓	Email sent 17/7/20 - A3583444

MEMORANDUM



To: Whakatāne-Tauranga Rivers Scheme
Advisory Group

From: Mark Townsend
Engineering Manager

Date: 26 August 2020

File Ref: A3611138

Subject: Engineering update

1 Projects – Whakatāne-Tauranga Rivers Scheme

1.1 Whakatāne River Capacity Review

Budget 2020/21 Modelling \$25,000

The purpose of the Whakatāne River capacity review is to complete a review for the existing Whakatāne River stopbanks from the Whakatāne River/Tauranga River confluence to the Whakatāne River mouth. The objective is to determine the required stopbank crest levels to meet the Whakatāne-Tauranga Rivers Scheme level of service.

This work continues from last financial year. Work to date has generated the data needed to undertake urban stop bank raising. NIWA (National Institute of Water and Atmospheric Research) have finalised the appropriate river rating which now references the April 2017 flood. River rating is used to benchmark the river flow and AEP (annual exceedance probability). The hydraulic modelling component of the Capacity Review has been restarted and the complex calibration process can proceed.

1.2 Whakatāne Town Centre Flood Defence Upgrade

Budget 2020/21 Investigation design and construction \$1,010,000 (Stage 1)

This project brings together a number of work streams with the objective of providing agreed levels of service to protect the people, property and livelihoods of the Whakatāne urban community. The work streams include stopbank raising, seepage repairs and floodwall assessments. This project comprises three stages from Kakahoroa Drive through to the Whakatāne Boat Ramp. The work streams are planned to align with Whakatāne District Councils town revitalisation project.

This project has attracted Crown Infrastructure Partners funding of up to \$3,000,000 which will provide for Stages 2 and 3 in future years. The project demands significant consultation with partners, stakeholders and the wider community.



No	Zone	Objective	Progress
1	Kakahoroa Drive	Seepage Control, Flood levels	Stage 1
2	Quay Street 1 & 2	Seepage Control, Flood levels	Stage 1
3	Wairere Stream	Flood levels, slope stability	Stage 2
4	Army Hall	Flood levels	Stage 2
5	Townwharf & Fishing Club	Flood levels	Stage 2
6	Mataatua Reserve	Flood levels	Stage 3
7	Boat Ramp	Seepage Control, Flood levels	Stage 3

Figure 1: Proposed stopbank raising extent and stages

1.3 Te Rahu Pump Station pipeline replacement

Budget 2020/21 Construction \$250,000 (pipe replacement)

During the April 2017 flood event, the Te Rahu pump station suffered damage to its surge chamber. While scoping the repair work it was discovered that the associated discharge pipeline to the river outlet was in poor condition and affecting the integrity of the canal stopbank. While the surge chamber (insurance) portion of the work was completed in 2019/20 the pipeline work had to be deferred as COVID-19 restrictions impacted the timing of work. The remainder of construction work has been deferred to summer.

1.4 Awatapu Lagoon

Budget 2020/21 None

Awatapu Lagoon has a history of observed seepage in the form of discoloured water. This occurred again towards the end of 2019, and priority was given to further geotechnical investigations. These site investigations have now been completed.

A ground model has also been produced to help facilitate the design of remedial work. GHD have been engaged to undertake further assessment and remediation design.

1.5 Barry Avenue geotechnical issues

Budget 2020/21 *None*

The Barry Avenue situation arises from the Whakatāne District Council (WDC) storm water pump station and storm water basin. WDC has an Annual Plan project to upgrade the Barry Avenue pump station (\$1,600,000) and have developed draft plans. The work will require a bylaw authority and Bay of Plenty Regional Council will work closely with WDC to safeguard the integrity of the stopbank during the design and upgrade process. It is noted that WDC have engaged GHD consultants who are familiar with Bay of Plenty Regional Council stopbank requirements in this location.

Mark Townsend
Engineering Manager

MEMORANDUM



To: Whakatāne-Tauranga Rivers Scheme
Advisory Group

From: Mark Townsend
Engineering Manager

Date: 27 August 2020

File Ref: A3611252

Subject: Gravel management update

1 General

In April 2018 Council made a decision that due to bed levels having declined in the top section of the reach above Ohotū Bridge that gravel extraction in this section would only be undertaken for river management purposes until recovery has taken place and desired bed levels achieved. More recent technical analysis confirms this approach due to bed level degradation between Ohotū Bridge and the Limeworks (cross-sections 47 to 57).

When bed levels are too low, banks are high and have to take the full force of the flow during a flood. Banks can erode, protection works are undermined, more gravel is transported downstream to build up elsewhere, and bank protection repair works are more costly.

The recommendation in the last published NERMN report (Natural Environmental Regional Monitoring Network – river and stream channel monitoring) was to also suspend any extraction within the active channel over the reach from about 1 kilometre upstream of the Tauranga confluence (cross-section 33) to the Ohotū Bridge (cross-section 47), until adequate recovery of the river bed is achieved.

From the most recent assessment of mean bed levels, using Waterscape's (Gary Williams) active channel definition, it can be seen that bed levels appear to have recovered over the reach with the mean bed level now within or above the guideline envelope (with the exception of cross-section 40). Extractions should now be limited to locations where mean bed levels exceed the guideline envelope, particularly in the lower reach around Peketahi Bridge up to cross-section 35.



Photo 1: Cross section locations

2 Consent Applications

Central Freight Lines Ltd (CFL) owned by Paki Nikora has applied for consent to extract up to 20,000m³ pa from the Whakatāne River in two areas as per below aerials. Submissions closed Friday, 28 August.



Photo 2: Resource Consent Application RM19-0257 – proposed extraction locations

**Whakatāne-Tauranga Rivers Scheme - Gravel extraction summary
1 July 2018 – 30 June 2019**

River	Site	Confirmed Quantity (m ³)
Tauranga River	Browns Pit	23,890
Whakatāne River	Te Whetu Road	Nil
Total		23,890

**Whakatāne-Tauranga Rivers Scheme - Gravel extraction summary
1 July 2019 – 30 June 2020**

River	Site	Allocation Quantity (m ³)	Confirmed Quantity (m ³)
Tauranga River	Chase Takao	15,838	6,260
Total		15,838	6,260

**Whakatāne-Tauranga Rivers Scheme - Gravel extraction summary
YTD 1 July 2020 – 30 June 2021**

River	Site	Allocation Quantity (m ³)	Confirmed Quantity (m ³)
Tauranga River	Wardlaw's Reach 6 LB	2,500	0
Total		2,500	0

Mark Townsend
Engineering Manager

Whakatāne-Tauranga Rivers Scheme Maintenance Programme 2020 - 2021

25/08/2020

Objective ID: A3585318

	Work Type	Reach Number	Site	Location (LB=left bank, RB=right bank)	Annual Budget	Job Estimate	Notes
1	General						
2	Annual Flood Damage (See separate 2017 Flood Damage priority list also)				\$193,500		
3	Tauranga River						
4	Erosion between trench willow needs planting	R5	K Clarke	LB 15.1		\$1,000	TBC
5	Bank erosion slumping repair	R5	B Osbourne	RB 18.4km		\$13,000	
6	Barsdell erosion layering trench willow planting	R5	H Barsdell	RB 28.9km		\$13,000	
7	Raroa Stream near confluence below bridge Kirkbride Rd erosion pole planting gravel management	R5	Maandonks	RB 0.2km		\$4,000	
8	Bank erosion slumping overflow cut and gravel management	R5	B Osbourne	LB 20.4km		\$6,000	
9	Whakatāne River						
10	Upstream Te Rahu Outlet - Rock lining	R1	Schleper Lease	LB 6.4km		\$116,000	Rock stockpiled 2019-2020
11	Erosion with large poplars pulling bank in	R4	Rutledge	RB 2.9		\$35,000	
12	Erosion with large trees pulling bank in	R4	Rutledge	RB 21.4		\$20,000	layering option
13	Erosion with large poplars pulling bank in	R4	Rutledge	RB 21.7		\$20,000	
14	Erosion - layer and trench willow	R4	Black	LB 31.8km		\$40,000	
15			Subtotal			\$268,000	
16	Fly tipping and rubbish collection/disposal		all sites		\$8,000	\$4,000	ongoing
17	Pest Control		all sites		\$8,000	\$4,000	ongoing rabbit control Te Rahu Canal
18	Whakatāne River						
19	Mouth to Lime works						
20	Drain/Canal/Tributary Maintenance					\$37,300	
21	including Tributaries						
22	Deweeding	R7	Downards Rd Drain/Catchwater drain			\$4,000	
23	Pole planting and native planting	R7	Waioho Stream various			\$8,000	
24	Desilting (tributaries)					\$58,460	
25	Outlet desilting	R1 & 2	Various Sites	RB and LB		\$12,000	
26	Desilting & berm management	R7	Waioho Canal	1.1 km-4.3 km		\$16,000	
27	River Channel Weed Spraying		Various (all reaches)			\$11,816	
28	Rūātoki Area	R4	33.2- 37.2 km			\$0	On hold till Tūhoe Exec confirms
29	Waioho Stream spray pampas	R7	White Pine to Downards Rd			\$2,000	
30	Waiherowhero Stream	R7	Reid Road to Cross Road			\$2,000	
31	Spray pampas on beaches	R3 to R6	Various			\$15,000	

32		Tree Clearing, Mulching & Layering				\$61,989	
33		Tree layering mulching	R4	Mitchell	23.2 km RB		\$6,000
34		Remove trees and repair stopbank	R1	Board Mill she oaks	LB 4.5km - 4.7km		\$30,000
35		Remove trees and repair stopbank	R7	Waioho Canal above Titoki Rd	RB & LB		\$20,000
36		Remove trees and repair stopbank	R1	Henderson St Norfolk pine	RB 4.8km		\$40,000
37		Remove trees Riverside Drive	R1	various sites	RB 5.5km - 6.9km		\$30,000
38		Remove trees and repair stopbank	R1	Keepa Road	LB 2.1km - 2.9km		\$10,000
39		Remove trees and repair stopbank	R1	Trident High	RB 8.6km -9.2km		
40							Under investigation
41		Planting				\$32,036	
42		Infill planting	R1 to R6	Various sites all reaches			\$10,000
43		Release spraying of native plants	R5, 6 & 7	Various, Waikirikiri, McGougan & Sisam's			\$2,000
44		Release spraying of native plants	R1 & 2	Simpsons x 2 , Martin's lease & Ferry Road whitebait ponds,			\$2,000
45		Shrub willow poles - Waioho/Ōwhakatoro	R7	Johnson, Norris, Sisam			\$6,000
46		Planting restoration sites Awatapu & Ferry Road	R1	various			\$15,000
47							
48		Rock/Rubble				\$125,100	
49		Rock replenishment	R1	below Rowing Club	various RB		\$30,000
50		Rock replenishment	R1	Keepa Road	LB 2.6km - 2.1km		\$10,000
51							
52		Fencing	R1	Fretwell & Martin's lease	RB&LB 3.4km-9.9km		\$10,000
53		Stock water troughs new lease options	R1	Martins Lease	RB 9.9km to 7km		\$10,000
54		Waioho Stream - edge fencing	R7	Gavin Johnson, Bedford, etc	RB 2.1km - 3.7km		\$10,000
55		Awatapu wetland	R1	Martin's lease	RB 7.9km		\$10,000
56		Drain outlets urban lease	R1	Martin's lease	RB 9.9km -5.1km		\$6,000
57							
58		Beach Shaping/Ripping				\$20,080	
59		Beach ripping	R3 & 4	Various	RB and LB		\$10,000
60		Over flow channel cuts	R3	Various sites	RB and LB		\$12,000
61		Overflow channel cuts - Ngāti Rango	R4	Various sites	RB and LB	\$30,000	\$20,000
62		Remove Rail Iron from River Bed	R4, 5 & 6	Waikirikiri to Pekatahi and Valley road			\$10,000
63							Upstream Rūātoki irons exposed in flood event
64	Stopbanks	Stopbank Miscellaneous Maintenance				\$23,062	
65		Stopbank mowing (Rowing Club to Awatapu)	R1	Urban area (various)	RB		\$7,000

66		Stopbank repairs	R1	Keepa Road	LB		\$12,000	
67		Waioho Canal spraying pampas	R7	Various	RB & LB		\$5,000	
68		Stopbank mowing Board Mill	R1		LB		\$1,000	
69		Houston's culvert replacement	R3		13.9 km RB			Under investigation
70		All floodgate outlets - misc. repairs	all	Sykes, Houston's, Ingle's, Rewatu Rd and others	Various		\$10,000	
71		Stopbank repairs Waioho Canal	R7	Ernest's	3km		\$5,000	
72		Repairs, access & gravel extraction/desilt	R2	Red Devon outlet			\$3,000	
73		Berm /floodwall and stoplog management, Waioho	R7	Poroporo to Titoki Rd	Various		\$20,000	
74								
75	Floodgates	Floodgate Inspections	R1 & R2	Various sites			\$4,326	\$4,100 ongoing
76	(Kope-Orini)	Floodgate replacements	R1	Various outlets	RB		\$15,000	
77		Floodgate desilting	R1	Various sites			\$53	
78		Floodgate miscellaneous maintenance	R1	Various sites			\$3,150	\$3,150
79		Floodgate ancillary maintenance	R1	Various sites			\$1,700	\$1,700
80		Knifegate valve for culvert at 48 Henderson Street	R1		RB 4.8km		\$10,000	Under investigation
81		Te Rahu Floodgate wire and I bolt attachment x2	R1		RB 6.4km		\$3,000	1 gate remaining
82		Floodgate headwall and culvert replacement	R1	Trident High & Awatapu	RB 4.9km-9.3km		\$20,000	
83		Red Devon floodgate replacement headwall install	R1 & R2		RB 16.2km		\$10,000	
84		Kope-Orini floodgate structure concrete repairs	R1		LB 2.1km			Under investigation - Capex
85								
86	Pump Stations	Pump Inspections					\$3,049	\$5,300
87	(Kope-Orini,	Pump six month Inspection					\$7,235	\$1,900 Anaru TC
88	Fortunes &	5 year maintenance					\$7,390	
89	Te Rahu stations)	10 year maintenance		Fortunes Rd p/s - both pumps			\$9,450	\$24,000 Fortunes #2 August 2020
90		Ancillary maintenance					\$7,494	\$2,000
91		Electricity					\$48,000	\$50,000
92		Te Rahu pump station: Discharge pipe replacement					\$0	Capital work budget
93		Fortunes pump station floodgate replacement		Fortunes Rd p/s			\$6,000	
94								
95	Floodwalls	Misc. maintenance, incl sealant replacement	R1	u/s Rowing Club	RB 4.3 - 4.7km		\$20,000	
96								
97	Tauranga River							
98	Confluence to	Channel & river bank weed spraying	R5 & 6	All reaches various sites			\$14,406	\$25,000
99	Barsdell's (30km)							
100		Tree clearing/mulching/layering					\$38,862	

101	Tree burning	R5 & 6	Wallace, Clarke & Fleming's			\$1,000	
102	Mulching pampas	R6	M Falkner	24 to 26km		\$6,000	
103							
104	Planting					\$20,084	
105	Release spraying native plants	R5	K. Flemming	RB 16.1-17.7 km		\$2,000	
106	Release spraying native plants	R6	Osborne	LB 20.5-20.7 km		\$3,000	
107	Release spraying native plants	R6	J Brown	RB 23.6		\$2,000	
108	Release spraying native plants	R6	Wallace	LB & RB 17.5km		\$2,000	
109	infill plants	R6	Osborne	LB 20.5-20.7 km		\$5,000	
110	Rock replenishment					\$38,100	
111							
112	Fencing	R5	Various Sites			\$0	\$5,000
113							
114	Beach shaping/ripping					\$45,682	
115	Ripping	R5	Beach Ripping-Various	RB and LB		\$0	Spray instead
116	Ripping	R6	Beach Ripping-Various	RB and LB		\$0	Spray instead
117	Overflow Channel Cuts	R6	Various	RB and LB		\$30,000	\$12,000
118							
119	Maintenance Works Only					\$694,824	\$678,150
120	Annual Flood Repairs					\$193,500	\$268,000
121	Overall Totals					\$888,324	\$946,150

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



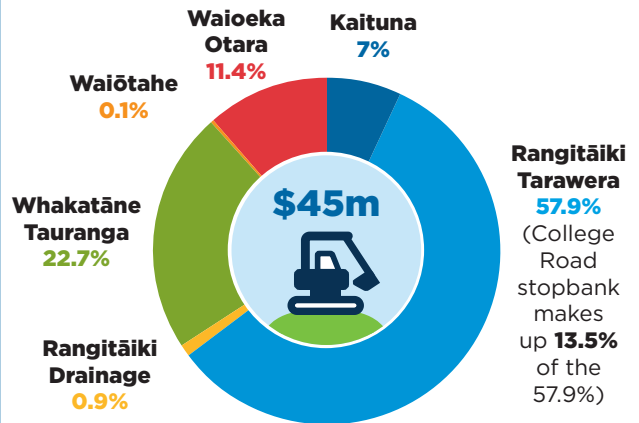
All repairs to
be completed by
30 June 2022

84% of **high priority** sites
are complete

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

Repair costs by River Scheme

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



Tracking our progress

Rangitāiki Tarawera 224 sites 127 complete ✓	Whakatāne Tauranga 108 sites 73 complete ✓	Waiōeka Otara 59 sites 58 complete ✓	Rangitāiki Drainage 53 sites All sites complete ✓
Kaituna 45 sites 29 complete ✓	Waiōtahe 31 sites All sites complete ✓	College Road stopbank realignment Complete ✓	Rangitāiki Drainage pump station repairs Complete ✓

373 SITES 72%
completed as at **30 June 2020**

What's happening in 2020-2021



2020-2021 budget

11.3million

To complete:

93% of all sites

100% of high priority sites

110 Repairs to further sites across the region

MEMORANDUM



To: Whakatāne-Tauranga Rivers Scheme
Advisory Group

For period 1 February to 31 July 2020

From: Paula Chapman
Project Manager - Flood Recovery

Date: 25 August 2020

File Ref: A3609952

Subject: Status Report - April 2017 Flood Repair Project

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 region 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 fourth year of the estimated four year programme. Physical repair works have been steady across the programme as conditions and materials availability have allowed. Favourable weather, good ground conditions along with unconstrained material supply will see the entire programme completed by 30 June 2021, however it is more likely that there will be a small number of sites that will be carried over for completion in the 2021/22 year.
- As at 31 July 2020, 399 site repair works are complete from the total programme of 520 sites. This work includes many of the highest priority works. In the case of the Whakatāne-Tauranga Rivers Scheme, 73 sites from a total programme of 108 sites have either been completed (or identified as no longer required). While the overall programme has been hampered due to the constrained rock supply in the Eastern Bay of Plenty, progress remains steady.
- The process for claiming eligible costs from central government is well established. Current claims are for essential infrastructure repairs. Claim 12 was received in June and Claim 13 is currently being drafted. The total amount received from central government to date is over \$8.5 million.
- Two progress payments for Infrastructure Insurance have been received totalling \$3,000,000.

- Repairs have been completed at the Te Rahu Pump Station which means the Material Damage insurance claim for all pump damage can be finalised.

1.2 Environment and heritage

- Priority assessment has occurred for known sites of cultural significance. Staff continue to liaise with iwi and hapu stakeholders to inform site works.
- Works comply with the Regional Natural Resources Plan, Bay of Plenty Regional Council policies and bylaws for the Rivers and Drainage activities.
- The project team is working with Coastal Catchments (Land Management) to identify opportunities to work together to increase inanga and tuna habitat.
- Repair works in the Whakatāne River upstream of the Ohotū Bridge are on hold pending information and direction from Ngāi Tūhoe about engagement with hapū and iwi. This portion of work will need to be reviewed after the summer construction season to determine if it remains part of the overall repair project.

1.3 Quality

- Sections of river are re-inspected prior to developing the detailed work scope for each site. 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.
- The project team is currently reviewing lower priority sites to determine which are no longer required and can be removed from the programme. In the case of Whakatāne-Tauranga Rivers Scheme to date eight sites have been identified where work is not required and those sites will be monitored until the end of the programme.

1.4 Communications, community and stakeholder engagement

- An increase in Regional Council communications staff 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>.

1.5 Procurement

- 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.
- The lack of suitable graded rock supply has constrained the programme of works in the Eastern Bay of Plenty, particularly work on the Whakatāne River and the lower Rangitāiki River. A draft procurement plan for the long term supply of rock material will be considered by Council in September.
- Alan Rust Quarry (Te Mahoe) and Ywarri Quarry continue to supply the lower Rangitāiki River and Whakatāne River sites. New suppliers may come on stream later in 2020 to support the summer construction period.

1.6 Programme Delivery

A total of 520 sites have been identified in the repair programme across the region, 108 are associated with the Whakatāne-Tauranga Rivers Scheme.

Across the programme 399 sites have been completed, 73 of these are in the Whakatāne-Tauranga Rivers Scheme.

110 sites are targeted for completion in the 2020/21 year, 26 of those are in the Whakatāne-Tauranga Rivers Scheme.

Total programme completion date remains at 30 June 2021, however there may be a small number of sites carried over to the following year.

Key sites completed during the last period include:

Site reference	Comment
WH105 Fretwell	Extensive area of rock slumping and asset damage
WH166 Schatler, river distance 11.7km, left bank	Eroded river bank, no existing insured assets, repair is trench willow
WH167 B Clark, river distance 11.7km, right bank	Eroded river bank, no existing insured assets, repair is trench willow
WH123 Thompson	Destroyed trench willow and eroded bank repair close to stopbank, repair is rock material
WH116 Deegan, river distance 11.5km	Rock slumping and asset damage along with eroded river bank, repair is rock lining
WH117 Deegan, river distance 10.5km	Eroded river bank, no existing insured assets, repair is rock lining

Key sites currently underway:

Site reference	Comment
WH 102 Eivers Road, Warren Cole Walkway	Extensive area of rock slumping and asset damage



Photo 1: Eivers Road site – Warren Cole Walkway

Key sites planned for the next six month period include:

Site reference	Comment
WH124 Dunstan	Extensive area of eroded bank with trench willow damage
WH125 Fowell/Studer	Area of eroded bank with trench willow damage
WH192 Falkner	Eroded river bank



Photo 2: Dunstan and Studer sites

There are a number of sites where damage resulting from the April 2017 event has been exacerbated by moderate high rainfall events. For these sites the cost to repair may be significantly more than original estimates.

1.7 Financial

Forecast costs - total programme

Estimate total programme cost Whakatāne-Tauranga Rivers Scheme	\$9,950,000
Estimated betterment value	\$3,850,000

2017/18 - budget vs actual

Expenditure budget – for infrastructure works	\$2,850,000
Total expenditure at 30 June 2018 – for infrastructure works	\$1,683,969

2018/19 - budget vs actual

Expenditure Budget – for infrastructure works	\$3,366,000
Total expenditure at 30 June 2019 – for infrastructure works	\$1,668,824

2019/20 - budget vs actual

Expenditure Budget – for infrastructure works	\$3,127,200
Total expenditure at 30 June 2020 – for infrastructure works	\$2,730,647

2020/21 - budget vs actual

Expenditure Budget – for infrastructure works	\$2,400,000
Total expenditure YTD 31 July 2020 – for infrastructure works	\$75,889

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 NEMA Insurer
Weather	Severe weather event may cause new damage	Review works programme against new works (annual flood damage)	BOPRC NEMA Insurer
Rock material availability	Suitably graded rock supply is restricted and the operating environment is variable	Working with new rock sources to supply suitable material for outstanding works Encourage new rock sources to enter Council's prequalified panel supplier schedule Investigate opportunities to support new quarries in the Eastern Bay of Plenty Rock supply strategy	BOPRC
Resource	Staff resource is limited for oversight of onsite works	Use inhouse 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 NEMA and insurers, maximise contributions from other stakeholders	BOPRC Aon NEMA Insurer

3 Recoveries

- Staff are working with insurance specialists Aon to progress the insurance claims process to date. Staff met with our insurance specialists recently to consider the remainder of the programme and early settlement possibilities.
- 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 Whakatāne-Tauranga Rivers Scheme flood repair works amount to \$2,825,608.

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

- Complete 90% of the total Whakatāne-Tauranga Rivers Scheme sites.
- Review of remaining Whakatāne-Tauranga Rivers Scheme sites to determine sites that can be removed from the programme.
- Draft and receive NEMA/MCDEM Claim 13.
- Lodge Material Damage pump station repairs claim.

Paula Chapman
Project Manager Flood Recovery

Bay of Plenty Regional Council - Toi Moana - Rivers Advisory Group

Statement of revenue and expense: Whakatane-Tauranga Rivers Scheme - Draft

For the 12 months ending 30 June 2020

Whakatane-Tauranga Rivers Scheme

Run: 02-Sep-2020

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

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

Operating revenue by class

1	General rates	229	229	0	-			176
2	Targeted rates	2,293	2,293	0	-			1,820
3	External interest income	6	0	(6)	Lower			11
4	Other revenue	58	53	(6)	Lower			60
5	Investment income	345	345	0	-			251
6	Total revenue	2,932	2,920	(12)	Lower			2,318

Operating expenditure by class

7	Administration expenses	8	11	(3)	Higher			9
8	Other expenses	268	551	(283)	Higher		Additional materials were required at numerous sites in the scheme	279
9	Consultancy fees	0	18	(18)	Higher			488
10								
11	Contract work	1,667	836	830	Lower		Additional budget of \$678,000 was approved by Council on the 12 December 2019 to complete repair works caused by the July 2019 event however not all work was able to be undertaken due to a rock availability issue in the scheme area	219
11	Finance costs	471	260	211	Lower		Lower capital spend resulting in lower borrowing costs.	349
12	Depreciation and asset disposal	309	272	37	Lower		Lower capital spend resulting in lower depreciation	0
13	Subtotal - expenditure	2,722	1,947	775	Lower			1,344
14	Net overhead charges and recoveries	489	516	(27)	Higher			513
15	Total operating expenditure	3,211	2,464	748	Lower			1,857
16	Total operating surplus (deficit)	(279)	457	736	Favourable			461

Bay of Plenty Regional Council - Toi Moana - Rivers Advisory Group

Statement of revenue and expense: Whakatane-Tauranga Rivers Scheme - Draft

For the 12 months ending 30 June 2020

Whakatane-Tauranga Rivers Scheme

Run: 02-Sep-2020

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

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

Capital revenue by class

	Capital funding	1,230	1,895	665	Higher	▶	Additional recoveries for 2017 flood damage repairs due to the overall work programme being ahead of schedule.	1,100
17	Total capital revenue	1,230	1,895	665	Higher			1,100
18	Total surplus (deficit)	951	2,352	1,401	Favourable	▶		1,561

Capital expenditure by project

	Revised Budget	Actual	Variance					
	Whakatāne River (modelling)	94	9	84	Lower	▶		0
	Quay Street stormwater	21	117	(96)	Higher	▶		0
	Whakatāne River stopbanks (Stage 2)	720	0	720	Lower	▶	Carried forward to 2020/21	0
	Te Rahu Pumpstation	250	157	93	Lower	▶		0
	Whakatane Tauranga Flood Damage Repairs	3,127	2,727	400	Lower	▶	Works were delayed due to the rock availability	2,400
				-		▶	Whakatane Tauranga culvert renewals	137
				-		▶	Whakatane River (modelling)	25
				-		▶	Whakatane River stopbanks (Stage 2)	510
				-		▶	Whakatane Floodwalls	500
19	Total capital expenditure	4,211	3,010	1,201	Lower	▶		3,572

Reserves

	Opening Balance	Movement	Closing Balance		
20	Flood Damage Reserve	-	193	193	Funds available
21	Asset Replacement Reserve	944	1,468	2,412	Funds available
22	Works Reserve	678	157	835	Funds available
		1,622	1,818	3,440	Total reserves




Bay of Plenty Regional Council - Toi Moana - Rivers Advisory Group

Statement of revenue and expense: Whakatane-Tauranga Rivers Scheme - Draft

For the 12 months ending 30 June 2020

Whakatane-Tauranga Rivers Scheme

Run: 02-Sep-2020

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

2019/20		Variance		Variance comments	2020/21
Budget	Actual	\$	Variance indicator		
\$000		%			

Internal Loans

Opening Balance	Movement	Closing Balance
6,593	777	7,370

1/07/2019	Movement	1/07/2020
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24 **Asset Revaluation**

78,685

Asset Revaluation in currently underway for 2020

MEMORANDUM



To: Whakatāne-Tauranga Rivers Scheme
Advisory Group members

From: Kirsty Brown
Rivers and Drainage Assets Manager

Date: 26 August 2020

File Ref:

Subject: General Business Report

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

1 **Infrastructure Insurance Review**

Local authorities have a unique arrangement with central government where in the event of a natural disaster, central government will pay up to 60% of repair costs for essential infrastructure. This arrangement is conditional on the local authority being able to show that the damaged assets had been properly maintained and that the local authority can meet the remaining 40% through other means e.g. by setting aside reserves or insurance.

In 2009, Council moved away from the Local Authority Protection Programme (LAPP) scheme to the Bay of Plenty Shared Services Ltd (BOPLASS) joint insurance procurement forum to cover the 40% local authority share of infrastructure restoration costs resulting from a natural disaster.

This insurance cover is obtained on the London market by the BOPLASS insurance broker's Aon via their inter-LASS initiative which includes 24 councils. It covers Council's flood protection and drainage assets for damage caused by earthquake, natural landslip, flood, tsunami, tornado, volcanic eruption, hydrothermal and geothermal activity, subterranean fire and business interruption.

At the March 2020 round of advisory group meetings, we advised that due to the steady increase in infrastructure insurance premiums over the years and the likelihood this pattern will continue, we would be doing a review of how we insure our flood protection and drainage assets.

These increases are mainly due to market conditions and the significant increase in asset value. Changes to asset value are due to:

- Increased construction costs.
- Creation of new assets and betterment to existing assets through the April 2017 Flood Repair Project.

- Significant Long Term Plan/Annual Plan capital works programme.
- Improved asset data.

Based on learnings from the April 2017 Flood event, our 2019/2020 insurance cover was increased to allow for repair costs over and above individual asset values, e.g. site preparation works, demolition, debris removal, access tracks and land reinstatement.

The table below shows the increase in Rivers and Drainage asset value and insurance premiums over the past four years for our five major rivers and drainage schemes:

	2016/2017	2017/2018	2018/2019	2019/2020
Infrastructure annual premiums	\$185,000	\$390,000	\$468,000	\$725,000
Insurance asset replacement value (rounded)	\$120,800,000	\$227,760,000	\$313,100,000	\$460,000,000

A workshop between Council staff and Aon representatives was held on 30 July 2020. As a result, Aon will be carrying out a frequency loss assessment which involves identifying and analysing the loss exposures for the rivers and drainage assets, as well as examining the feasibility of management techniques such as whether self-insurance is an appropriate and cost-effective option. Other ways to manage risk, e.g. capacity to borrow to fund any loss or damage, will also be examined.

It should be noted that Council have been advised that the impact of COVID-19 on the London market may result in a premium increase of up to 15%.

2 **Proposed Flood Protection and Drainage Bylaws 2020 update**

The Flood Protection and Drainage Bylaws are regulations that safeguard flood protection and land drainage assets from third party damage or misuse. As required by the Local Government Act 2002, the Bylaws have been under review since 2019 (last review was in 2008). This is to ensure they are still fit-for-purpose and informed by latest science and recent flood information.

Formal consultation for the proposed Flood Protection and Drainage Bylaws 2020 opened on 27 March 2020, just days prior to New Zealand entering COVID-19 Alert Level 4. At that stage, Council had no legal ability to extend the 30 June 2020 deadline where the 2008 Bylaws would automatically be revoked. This would have meant that by 30 June 2020, Council would have had no legal protection for its flood protection and drainage assets. Council had no other option but to continue the formal consultation process during lockdown.

During Alert Level 4, central government enacted the COVID-19 Response (Further Management Measures) Legislation Act 2020. This provided temporary legislation that suspended the automatic revocation date of 30 June 2020, allowing the 2008 Bylaws to remain in force until the adoption of the Flood Protection and Drainage Bylaws 2020. The hearings, deliberations and adoption were postponed until the following dates:

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

This extension also provided Council the opportunity to address some matters raised during the consultation period regarding the effects of the Bylaws on traditional cultural practices and waahi tapu sites. An investigation is currently underway with targeted iwi, and a report to Council will be presented during Deliberations on 30 September 2020.

Submissions closed 28 April 2020 with a total of 43 submissions received. Fifteen organisations and individuals have advised they wish to be heard at the upcoming 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>

3 **Advisory Group membership update**

As per the Terms of Reference for the advisory groups, the first three-year membership period is due to end in September 2020. Members were approached by staff to see who was interested in continuing. Tom Pyatt was the only member to resign from the group. As only two urban representatives are required under the Terms of Reference (Tom was our third urban representative), this meant no replacement was required for Tom's position.



Kirsty Brown
Rivers and Drainage Assets Manager