Whakatāne-Tauranga Rivers Scheme Advisory Group Meeting

Wednesday 18 March at 10am

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

Whakatāne-Tauranga Rivers Scheme Advisory Group Meeting

Wednesday 18 March 2020 at 10am

Agenda

1 **Welcome/karakia**

2 **Apologies**

3 **Notes of previous meeting held 18 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 **General business**

a. Gravel management update

b. Review of the Floodway and Drainage Bylaw 2008

c. Infrastructure insurance

d. 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, Whakatāne, on Wednesday 18 September 2019, commencing at 10am

---

Chair: Councillor Norm Bruning

Advisory Group: Bernie Clark, Boots McNaught, Fraser McGougan, Geoff Mercer, Scottie McLeod, Tom Pyatt, Jim Finlay (Whakatāne District Council)

BOPRC Councillors:

BOPRC Staff: Kirsty Brown (Rivers and Drainage Assets Manager), Jo Heath (Asset Management Coordinator), Bruce Crabbe (Rivers and Drainage Operations Manager), Geoff Stone (Area Engineer), Tony Dunlop (Flood Repair Project Engineer), Paula Chapman (Project Manager Flood Repair Project), Chris Ingle (General Manager, Integrated Catchments), Mark Townsend (Engineering Manager) Charles Harley (Eastern Catchments Team Leader), Loris Hastie (Management Accountant)

Public: Gary Williams (G & E Williams Consultants), Richard Holmes

Apologies: Councillor Clark, Councillor Marr, Brain Power, WDC Councillor Andrew Iles

---

1 Welcome

Councillor Bruning welcomed everyone to the meeting.

Chris Ingle introduced Charles Harley (Team Leader Eastern Catchments) and Gary Williams (G & E Williams Consultants). Council contracted Gary to undertake an assessment of river management methods and he will be presenting his findings to the group.

2 Apologies

Apologies received as recorded above.

3 Notes of previous meeting held 16 April 2018

Resolved

That the Whakatāne-Tauranga Rivers Scheme Advisory Group:

1 Confirm the notes of the meeting held 16 April 2018 as a true and correct record.

McLeod/McGougan
CARRIED

4 Matters arising from previous meeting

Kirsty Brown ran through the actions from the previous meeting:

- Field trip proposed for 30 August unfortunately had to be postponed – looking at rescheduling.
- Floodwall geotechnical information will be covered in the Engineering update agenda item 8.

There were no other matters arising.

5 Review of the Floodway and Drainage Bylaw 2008

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

Key points included:

- The Floodway and Drainage Bylaw is the key tool Council has to protect its flood protection and drainage assets from damage and misuse.
- Staff are currently reviewing the bylaw rules and assessing what changes will need to be made to ensure the rules, and supporting science and technical information, are still relevant and fit-for-purpose.
- Workshops with advisory group members will be organised for October/November, and proposed variations to the bylaw will be presented in detail.
- Two potential controversial changes will be: the possible extension of the bylaw applicable areas to ensure specific geotechnical issues are managed appropriately; and restrictions on ploughing, cropping and fencing in close proximity to stopbanks.

6 Operations update

Geoff Stone delivered a presentation on scheme maintenance work – showing a range of operational and maintenance work.

Discussion:

- Fish-friendly floodgates are designed to not quite close properly – a spring holds them open enough to let elvers and young fish through.
- Area around Waikirikiri needs to be fenced to prevent horses accessing and damaging plantings. Suggestion made to spray new plantings with animal repellent which deters rabbits, hares and horses.
- Trees along the stopbank by Landing Road Bridge are being removed because they were identified as a risk to the stopbank during the annual condition assessment inspection. Trees like these need to be removed because: the roots can grow into the stopbank and cause problems; they can die and rot providing seepage paths along the rotted root systems; they can topple and take a chunk out of the side of the stopbank.

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

Key points included:

- There has been a couple of decent annual flood events this year with the last one in July. Estimated budget to repair the damage is $380,000 which is well over the annual flood damage budget of $193,500. Even with trimming back on the maintenance budget and focusing on the high priority repairs there will be over expenditure at year end.

Discussion:

- Bruce Crabbe explained that the Asset Management Plan sets a generic budget and from that the Rivers and Drainage Operations team plans the annual maintenance programme. Flood damage is very difficult to budget for as it is not known when there will be a rain event, or how much damage may result. Following a rain event any damage is assessed, prioritised, a site specific repair method proposed, and a repair cost estimated. These estimates are 'point in time' and often change once planning for individual sites commences.
- Repairs to the Rūātoki water supply site are holding up well with no further damage in the recent events. The new trenched willows are growing well. This site is very important as the community is dependent on that water supply.
- The need to get rid of nut trees (Japanese Walnut) was discussed. The trees are cut down and stumps painted with an herbicide/diesel mix. Staff try to target seedlings when they are young as they spread by seed very easily. The key to control is locating the seed source which is often in the upper catchment and outside the river scheme maintenance area.

7 Flood Repair Project update

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

Key points included:

- Two years through the four year project and 50% of sites across the region have been completed.
- Work in the Whakatāne and Tauranga rivers is expected to take the full four years of the project. Completion by June 2021.
- 42 sites from a total of 108 sites in the Whakatāne-Tauranga Rivers Scheme have been completed (39%). 34 sites planned for repair in 2019-2020, leaving 32 sites to be repaired in 2020-2021.
- Progress in this scheme has been delayed due to constrained rock supply in the Eastern Bay of Plenty.
- Programme's budget is on track. Expenditure at end of 2017-2018 was overspent and the programme was ahead of programme. Expenditure at end of 2018-2010 was underspent due to rock supply constraints.
- Cost recoveries are on track with $9m recovered to date from Whakatāne District Council, NZTA, Ministry of Civil Defence and Emergency Management, and insurance progress payments. The repair work is being undertaken in a way that optimises recoveries to off-set cost to the schemes and ratepayers. Expecting to recover approximately $16m of the $45m project.

Discussion:

- Regional Council has started a strategic sustainable rock supply project to ensure a secure and long-term rock supply is available.
- The need for innovation and investigation into alternatives to rock was discussed. Geotech bags are being trialled on smaller streams with low velocities. With this system there are no transport issues and on-site materials are used. Also important to use willow and native species where appropriate.
- Hard engineering methods using rock are only considered in high velocity areas, areas where the river needs turning, and at sites where other methods have been used and then failed during a flood event. In these cases rock does become economical as the same site isn't being repaired after every significant event.

- With rock grading design improvements, and the inclusion of smaller particle sizes, sites quickly become vegetated and very stable, and after a few years can look like natural riverbank (except where there is tidal influence). Staff are currently investigating hydro-seeding methods to get the vegetation growing faster. Rockwork does need to be maintained and replenished so any planted vegetation needs to be able to survive being run over by a digger. Trees growing where there is rockwork is not ideal, however toi toi and cabbage trees can be suitable.
- Concrete rubble was suggested as an alternative to rock. Tony Dunlop explained that concrete had been trialled in the past and was found to have too many problems – too slabby and doesn't tie together, contains steel reinforcement and contaminated material that needs to be removed, and because concrete is alkaline it can impact the pH of the water.

7.1 Assessment of river management methods

Gary Williams presented on his assessment of river management methods in the Whakatāne-Tauranga and Waioeka-Otara schemes.

Key points included:

- The Bay of Plenty Region is markedly affected by changes in climatic conditions, with a strong correlation with the Interdecadal Pacific Oscillation (IPO) cycle resulting in periods of generally quiescent conditions followed by periods of larger and more frequent flood events. The IPO is a 20-30 year cycle and we are currently leaving a flood intensive phase that started in 1998.
- River management needs to adapt to changing climatic drivers of river processes, and a more flexible and responsive approach that takes account of natural trends is recommended.
- A more resilient approach to river management, which is less constraining of river processes and provides more management options and flexibility, is needed. Gary presented an example using the upper scheme reaches of the Whakatāne River which included a number of zones:
    - River corridor - the outer boundary demarcating the area that is river from land that is managed for productive human activities or for fixed assets. It includes reserve land for a more extensive vegetated buffer and forested river margin. This area provides space for the river to move within or expand as climatic conditions vary or become more intense with globally driven climate changes.
    - River management zone – the active river zone incorporating vegetated areas that will come and go, with erosion and re-establishment, acting as a buffer of flood flows.
    - Flexible fairway activity area – a moveable activity area within the river management zone where active channel management will be undertaken. Guidelines for management will indicate a width and general alignment of an activity area, within which the river processes of flood flows and sediment transport can take place.

ACTION:
Circulate Gary's PowerPoint presentation and report to advisory group members.

8 Engineering update

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

8.1 Whakatāne River capacity review

- During a capacity review the river is modelled to assess how much water can flow down the river. This informs whether stopbank upgrades are required to meet the agreed levels of service.
- Still working with NIWA to get agreement on the appropriate river rating so the annual exceedance probability (AEP) can be bench marked.
- Hydraulic modelling and preliminary design has proceeded based on the engineering team's interpretation of the river rating.

8.2 Lower Whakatāne River stopbank project

- This project brings together a number of different interdependent pieces of work (urban stopbank raising, Quay Street and Kakaharoa Drive seepage issues, and floodwall assessments) and construction will be undertaken as part of an overall project.
- Work is planned for 2019-2020 and will include a communications plan and community consultation.
- The project is also being influenced by Whakatāne District Council's Whakatāne Regeneration Project which is looking at improving access to the river. Stopbank and floodwall raising could be in conflict with the project's aims. Regional Council and District Council will need to work closely together to achieve urban regeneration and appropriate flood protection at agreed levels of service.

<u>Urban stopbank raising</u>

- The design level for urban Whakatāne stopbanks is 1% AEP + 800mm freeboard. The criteria for initiating stopbank raising is if the existing stopbank level is within 50% of the freeboard level.
- A number of areas from the McAlister Street to the river mouth met the criteria and need raising.

<u>Quay Street and Kakaharoa Drive seepage issues</u>

- This work is in response to excessive seepage observed during both the 2011 and 2017 flood events.
- A series of seepage trenches are proposed to intercept and control the seepage. Detailed design work is underway.

<u>Floodwall assessments</u>

- Three sections along the Whakatāne River are protected by floodwalls:
    - Site 1 - upstream of Landing Road Bridge
    - Site 2 - yacht club to fishing club/main wharf
    - Site 3 - waka shelter to boat ramp playground
- Geotechnical site investigations have been undertaken for sites 1 and 2, and analysis is now in progress. Investigations for site 3 are scheduled this month.

8.3 Te Rahu Pump Station upgrade

- Te Rahu pump station surge chamber suffered damage during the April 2017 flood event. While scoping the repair work it was discovered that the associated discharge pipeline to the river was in poor condition and need replacement.

- Funding for the surge chamber repair is from the flood repair project budget and additional budget provision of $260,000 has been approved during the Annual Plan process to undertake the pipe replacement work.
- The upgrade will ensure pump station operation is secure and the stopbank integrity restored with added resilience in the event of another flood or earthquake.
- Work is scheduled for completion in summer 2019-2020.

9 Finance report

Kirsty Brown spoke to the finance report provided in the agenda pack and gave an overview of the scheme's revenue and expenditure for the 2018-2019 financial year, noting that the figures are draft until approved by Audit New Zealand and adopted by Council at their meeting on 26 September.

Key points included:

- Total revenue was $2,268,000 - $3,000 higher than budget.
- Total operating expenditure was $1,938,000 - $622,000 lower than budget.
- Capital revenue - made up of Ministry of Civil Defence and Emergency Management claim for flood repairs and a portion of insurance recoveries – was $366,000 lower than budget as a result of delays with the April 2017 Flood Repair Project works.
- Capital expenditure was $2.4m lower than budget. This is due to the April 2017 Flood Repair Project completing fewer repair sites than planned because of constraints with rock supply. The unspent budget will be transferred to 2019-2020.
- The Whakatāne-Tauranga Rivers Scheme had a favourable total surplus of $824,000 at year end.
- The scheme's flood damage reserve has been fully allocated.
- The scheme's works reserve has $678,000 available.
- Outstanding loans of $6.9m at the beginning of the year have been reduced to $6.6m.
- Asset valuation increased by $16.8m to $70m due to higher construction costs and new assets created under the April 2017 Flood Repair project.

10 Kopeopeo Canal Remediation Project update

Bruce Crabbe delivered a presentation on the Kopeopeo Canal Remediation Project.

Key points included:

- Dredging work on 5.1km of canal was completed on 9 July 2019. All tests were validated to remediation target by 12 July 2019.
- The flood protection and drainage systems are fully operational again. Observed that day-to-day drainage and flood conveyance has improved and that drainage levels are lower. This is a result of the amount of sediment removed.
- Aiming to have public access back through the area by Containment Site 3 by Christmas.
- Bruce Crabbe offered thanks to the community for their input into the project, and acknowledged Scottie McLeod's involvement with the Community Liaison Group.
- Topsoil capping of the containment cells still needs to be completed and the bioremediation phase started. Bioremediation enhances the natural degradation process using a combination of fungi, bacteria and plants that help speed up the natural degradation of the dioxins.

In response to questions:

- Continued monitoring of the sediment in the containment bags is required by the Resource Consent over the next 10-15 years. Expected that testing will be carried out at two yearly intervals.
- Project did not receive any river scheme funding. Updates have been provided at advisory group meetings because Kopeopeo Canal is part of the Whakatāne-Tauranga Rivers Scheme and Rangitāiki Drainage Scheme flood protection and land drainage systems and these systems were impacted by the project.
- There is still some contamination in the canal to the west of SH30. Normal maintenance of this area (e.g. desilting) still cannot be undertaken and this is of concern to neighbouring landowners who feel the job has not been completed. This area will be investigated, the extent of contamination determined, and best options for remediation presented to Council for consideration.

11 General business

11.1 Gravel management update

The gravel management update provided in the agenda pack was taken as read and there were no questions from members.

11.2 Stopbank damage from grazing

Kirsty Brown delivered a presentation on damage to stopbanks over winter. Several examples were shown of stopbanks that had been overgrazed to the extent that there was no grass cover, and the stopbank and batters were muddy, pugged and rutted from stock and vehicle movement.

Key points included:

- This year has been particularly bad with stock and vehicle damage to some of our stopbanks.
- Exposing the stopbank like this weakens its integrity, making it vulnerable to slumping and failure.
- Council relies on landowners to proactively manage stopbanks on their property and it is disappointing to see our community assets in this state.
- Damage to stopbanks is covered by the Floodway and Drainage Bylaw 2008.
- Remediation of the cases shown was paid for by the landowners and was achieved by immediately removing the stock, blading the ruts, re-seeding the exposed areas and covering the area with hay.
- A brochure *'Stopbanks – a community asset'* has been produced and copies were provided to advisory group members.

11.3 Essential Freshwater

- Chris Ingle advised that staff are currently working through the implications for river scheme management as a result of the government's Essential Freshwater package released on 5 September. Anticipating that there will be a greater focus on water quality management, habitat management, and ecosystem health. The river schemes are not currently funded these areas of work.
- Scope of package includes – setting and clarifying policy direction, raising the bar for ecosystem health, supporting delivery of safe drinking water, better managing stormwater and wastewater, and improving farming practices.
- There will be funding implications for Regional Council and ratepayers.

- Tight submission timeframe with submissions closing 31 October. Regional Council will be making a submission.

11.4 River Scheme rating classification review

- Council is looking at the fairness of the current rating system and is scoping and prioritising schemes for a possible rating review.
- Process is about identifying areas of inequality and ensuring that those who get benefit from the flood protection and land drainage schemes are contributing appropriately.
- Not really an issue for Whakatāne-Tauranga Rivers Scheme. Focus is on the Kaituna and Waioeka-Otara schemes.

11.5 General business

Ballance Farm Awards are holding an alumni symposium on 24 October in Te Puke. Symposium will cover issues like farm planning and the governments recently released Essential Freshwater package. Speakers include Members of Parliament, and staff from Ministry of Primary Industries and Ministry for the Environment.

Meeting closed at: 12:36pm

Meeting Action Sheet

Whakatāne-Tauranga Rivers Scheme

18 September 2019

Action	Person Responsible	Completed	Comment
1. Circulate Gary William's PowerPoint presentation and report to advisory group members	Jo	✓	Circulated following the meeting and again prior to March meeting.

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: River Scheme Advisory Groups

From: Hemi Barsdell **Date:** 11 February 2020

Asset Management Specialist

File Ref: A3474745

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

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.
    - 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

Whakatāne-Tauranga Rivers Scheme Maintenance Work Programme - Financial Year 2019 - 2020

25/02/2020 Source document Objective ID: A3147629

		Work Type	Reach Number	Site	Location (LB=left bank, RB=right bank)	Annual Budget	Job Estimate	Status/Comments
1	**General**							
2		**Annual Flood Damage** (see separate 2017 Flood Damage priority list also)				**$193,500**		
3	**Tauranga River**	Erosion between trench willow needs planting	R5	K Clark	LB 15.1		$15,000	TBC
4		Trenched willows and planting	R5	B Clark	RB 12		$30,000	In progress
5		bank erosion slumping	R5	B Clark	RB 13		$13,000	Completed
6		Trenched willows and planting	R6	A Wardlaw	RB 22.2		$30,000	Completed
7		Trenched willows and planting	R6	A Wardlaw	LB 22.7		$33,000	Completed
8		Trenched willows and planting	R6	J Brown	RB 23.1		$33,000	Completed
9		Trenched willows and planting	R6	F Savage	LB 21.8		$30,000	Completed
10		Bank erosion threatening rock works repair	R6	Rakuraku's	RB 26.3		$50,000	Completed
11	**Whakatāne River**	Ohotu Bridge bank erosion repair rock work	R6	Ohotu bridge	LB 33.2		$0	WDC
12		bank erosion repair TW and Planting	R2	Langenberger(Adam Hirst)	LB 12.2		$15,000	In progress
13		Waikirikiri rock replenishment and channel realignment	R6	Waikirikiri	RB /LB 39.1		$120,000	Completed
14		Ōwhakatoro - Sisam's office site (1) rockworks	R7	Office site	LB 4.6		$7,000	Completed
15		Ōwhakatoro - Sisam's top site (2)rockworks	R7	top site	LB 5.3		$8,000	completed
16		Ōwhakatoro - Sisam's Dairy (3)rockworks	R7	Dairy 3 site	RB		$8,000	Completed
17				**Subtotal**			**$392,000**	
18								
19		**Fly tipping and rubbish collection/disposal**		all sites		**$8,000**	$8,000	Ongoing
20		**Pest Control**		all sites		**$8,000**	$8,000	Ongoing
22	**Whakatāne River**							
23	**Mouth to Lime works**	**Drain/canal/tributary maintenance**				**$37,300**		
24	**including Tributaries**	Deweeding	R7	Downards Rd Drain			$4,000	in progress
25		Pole planting and native planting	R7	Waioho Stream			$4,000	Completed planting stage 1
26		Desilting (tributaries)	R7	Waiwherowhero		**$58,460**	$5,000	Completed upstream Reid's Rd

	Work Type	Reach Number	Site	Location (LB=left bank, RB=right bank)	Annual Budget	Job Estimate	Status/Comments
27	Outlet desilting	R1 & 2	Various Sites	RB and LB		$12,000	Completed Red Devon and Rewatu
28	Desilting	R7	Waioho Canal	1.1 km-4.3 km		$16,000	Outlets desilted
29	Monitoring - drone flight	R7	Waioho Stream			$2,000	Completed
30							
31	**River channel weed spraying**		Various (all reaches)		**$11,816**	$20,000	In progress
32	Rūātoki Area	R4	33.2- 37.2 km			$10,000	
33	Waioho Stream pampas spraying	R7	White Pine to Downards Rd			$4,000	Completed
34	Rewatu Rd floodgate outlet - batter banks	R2	Rewatu Road 719			$4,000	Completed
35	Spray pampas on beaches	R3 to R6	various			$15,000	In progress
36							
37	**Tree clearing, mulching and layering**				**$61,989**		
38	Tree Layering	R2	Sisam's	20.2-21.0 km LB		$7,500	Completed
39	Tree layering	R4	Black/Holmes	31.2-32.2 km LB		$7,500	Completed
40	Nut tree/wattle eradication	R3	Various sites	RB and LB		$6,000	In progress
41	Nut tree & dead willow clearing	R4	McGougan's and Holmes	RB 28.8		$6,000	Completed
42	Weed spraying (rogue willows and blackberry)	R1	Martins Lease, all stopbanks	4.6-4.8km RB		$4,000	Ongoing
43	Mulching	R2	S. Brownless	17.6 km LB		$5,000	partial
44	Weed spray drains, Rewatu Road	R2				$1,200	Completed
45							
46	**Planting**				**$32,036**		
47	Back-up planting	R1 to R6	Various sites all reaches			$30,000	In progress
48	Release spraying of native plants	R5, 6 & 7	Various, Waikirikiri, McGougan & Sisam's			$10,000	Ongoing feb/mar 2020
49	Release spraying of native plants	R1 & 2	Simpsons x 2 , Martin's lease & Ferry Road			$6,000	Ongoing feb/mar 2020
50							
51	**Rock replenishment**				**$125,100**		
52	Rock replenishment	R1	Fretwell's Lease/Board Mills	5.1-5.5 km LB		$65,000	In progress
53	Rock replenishment	R2	WDC Pound			$6,000	completed Aug 2019
54							
55	**Fencing**	R1	Fretwell & Martin's lease			$10,000	Progressing

		Work Type	Reach Number	Site	Location (LB=left bank, RB=right bank)	Annual Budget	Job Estimate	Status/Comments
56		Stock water troughs new lease options	R1	Martins Lease			$5,000	awaiting quote and proposal
57								
58		**Beach shaping/ripping**				**$20,080**		
59		Beach ripping	R3	Various	RB and LB		$6,000	Holmes, Rini, Tuhoe Trust, Sisam's completed
60		Beach ripping	R4	Various	RB and LB		$6,000	On hold
61		Stripping vegetation - Pampas Tūhoe Beach	R3	Tūhoe 31.4 - 31.6	RB		$12,000	Completed
62		Over flow channel cuts	R3	Various sites	RB and LB		$12,000	Completed Tuhoi Trust /Sisam's
63		Overflow channel cuts - Ngāti Rango	R4	Various sites	RB and LB	**$30,000**	$20,000	On hold
64		Waikirikiri area	R6				$20,000	On hold
65								
66		**Remove rail iron from river bed**	R4, 5 & 6	Waikirikiri to Pekatahi and Valley Road			$10,000	Irons removed from Tuhoi Trust and Rūātoki
67								
68	**Stopbanks**	**Stopbank miscellaneous maintenance**				**$23,062**		
69		Stopbank mowing (u/s Rowing Club)	R1	Urban area (various)	RB		$7,000	Completed
70		stopbank repairs	R1	Keepa Road	LB		$3,500	Completed
71		Waioho Canal spraying pampas	R7	Ernest's	4.2 km LB		$5,000	Completed
72		Jones Outlet - culvert replacement	R3	Jones outlet	17.8 km LB		$22,000	Steel pipe/floodgate structure completed
74		All floodgate outlets - misc. repairs	all	Sykes, Houston's, Ingle's, Rewatu I	Various		$10,000	ongoing
75		Repairs, access & gravel extraction		Red Devon outlet			$10,000	Completed
76								
77	**Floodgates**	Floodgate Inspections	R1 &R2	Various sites		**$4,326**	$4,100	Ongoing
78	**(Kope-Orini &**	Floodgate replacements	R1	Various outlets	RB		$3,000	Te Rahu RHS & Orini maintenance
79	**Te Rahu floodgates)**	Floodgate desilting	R1	Various sites		**$53**	$4,000	in progress
80		Floodgate miscellaneous maintenance	R1	Various sites		**$3,150**		Ongoing
81		Floodgate ancillary maintenance	R1	Various sites		**$1,700**		Ongoing
82		New knife gate valve for culvert at 48 Henderson Street	R1				$10,000	Under investigation
83		Te Rahu floodgate wire and I bolt attachment x2	R1				$3,000	1 gate remaining
84								

		Work Type	Reach Number	Site	Location (LB=left bank, RB=right bank)	Annual Budget	Job Estimate	Status/Comments
85	**Pump Stations**	Pump Inspections				**$3,049**	$5,300	Ongoing
86	(Kope-Orini,	Pump six month Inspection				**$7,235**	$1,900	Ongoing
87	Fortunes &	5 year maintenance				**$7,390**		March 2020
88	Te Rahu stations)	10 year maintenance		Fortunes Road pump station, all pumps		**$9,450**	$24,000	March 2020
89		Ancillary maintenance				**$7,494**	$2,000	Hatchs and tyre weed boom [te Rahu) Asbestos status confirmed with test as negative
90		Electricity				**$48,000**		Ongoing
91		Te Rahu pump station: Surge chamber repairs and discharge pipe replacement						Being completed under separate capex work programme
92		Fortunes pump station floodgate replacement		Fortunes Road pump station			$6,000	Progressing
93								
94	**Floodwalls**	Misc. maintenance, incl sealant replacement	R1	Multiple			$3,000	March/April 2020
95								
96	**Tauranga River**							
97	**Confluence to**	**Channel & river bank weed spraying**	R5 & 6	All reaches various sites		**$14,406**	$25,000	Completed
98	**Barsdell's (30km)**							
99		**Tree clearing/mulching/layering**				**$38,862**		
100		Tree burning	R5 &6	Wallace, Clark & Fleming's			$6,000	on hold until May 2020
101		Willow clearing & mulching	R6	B Osborne	22.8 to 22.9km		$6,000	on hold till March 2020
102								
103		**Planting**				**$20,084**		
104		Release spraying native plants	R5	K. Flemming	RB 16.1-17.7 km		$4,000	Progressing
105		Release spraying native plants	R6	Osborne	LB 20.5-20.7 km		$3,000	Progressing
106		Release spraying native plants	R6	J Brown	RB 23.6		$5,000	Progressing
107		Release spraying native plants	R6	Wallace			$5,000	Progressing
108								
109		**Rock replenishment**	R5	B. Clark	RB 14.4km	**$38,114**	$35,000	Progressing
110								
111		**Fencing**	R5	Various Sites		**$0**	$5,000	Progressing
112								

		Work Type	Reach Number	Site	Location (LB=left bank, RB=right bank)	Annual Budget	Job Estimate	Status/Comments
113		**Beach shaping/ripping**				**$45,682**		
114		Ripping	R5	Beach ripping - various	RB and LB		$6,000	completed
115		Ripping	R6	Beach ripping - various	RB and LB		$12,000	on hold
116		Overflow channel cuts	R6	Various	RB and LB	**$30,000**	$8,000	J Brown Completed
117								
119		**Maintenance Works Only**				**$694,838**	**$611,000**	
120		**Annual Flood Repairs**				**$193,500**	**$384,000**	
121		**Overall Totals**				**$888,338**	**$995,000**	

Flood Repair Project

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

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

Repairing the damage

520
repair sites

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

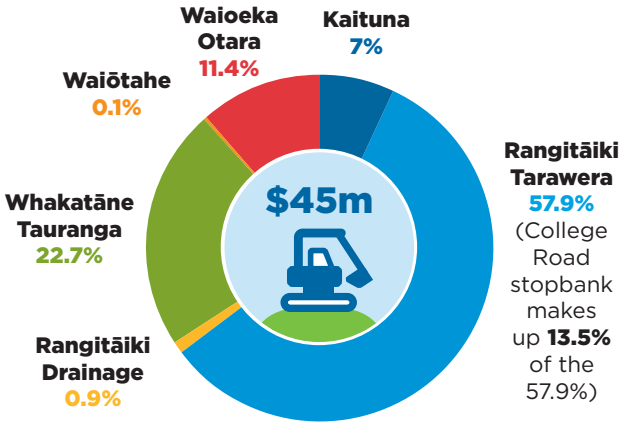
All repairs to be completed by **30 June 2021**

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.



(College Road stopbank makes up **13.5%** of the 57.9%)

Tracking our progress

Rangitāiki Tarawera	Whakatāne Tauranga	Waioeka Otara
224 sites	108 sites	59 sites
89 complete	59 complete	55 complete

Rangitāiki Drainage	Kaituna	Waiōtahe
53 sites	45 sites	31 sites
52 complete	12 complete	All sites complete

298 SITES 57%
completed as at **31 December 2019**

College Road **stopbank realignment**
COMPLETE

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

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

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Whakatāne-Tauranga Rivers Scheme Advisory Group**

For period 1 September 2019 to 31 January 2020

From: Paula Chapman **Date:** 27 February 2020

Project Manager - Flood Recovery

File Ref: A3486522

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 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 from the total programme of 520 sites (58%). This work includes many of the highest priority works. In the case of the Whakatāne-Tauranga Rivers Scheme, 63 sites from a total programme of 108 sites (58%) have been completed. Progress in this scheme has been hampered due to the constrained rock supply in the Eastern Bay of Plenty. The availability of suitable rock material remains a concern and may impact the programme period particularly in the Eastern Bay of Plenty. Of the high priority sites originally identified in this scheme 72% 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 development of the community open space in College Road, Edgecumbe is now complete and was officially opened at a low key ribbon cutting ceremony on 21 December 2019. The site named 'Papa Taonga' by the Edgecumbe community is the residual land following the purchase of sites required for the realignment and rebuild of the stopbank after the April 2017 breach (ex-tropical cyclone Debbie). The ribbon cutting was undertaken by the grandchildren of the various previous property owners. Council approved a grant of up to $100,000 for the development of the site. The physical works were managed by Whakatāne District Council in collaboration with Bay of Plenty Regional Council and the Edgecumbe Collective.

- 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 2019 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 due to the 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.

- A second progress payment of $189,653 has also been received to support Council's Material Damage insurance claim.

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 team is working with Coastal Catchments (Land Management) to identify opportunities to work together to increase inanga and tuna habitat.
- The project team continue to liaise with the Waimana Kaaku with regard to Tauranga River works. Repair works in the Whakatāne River upstream of the Ohotū Bridge are on hold at present pending information and direction from Ngāi Tūhoe about engagement with hapū and iwi.

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 Whakatane-Tauranga Rivers Scheme to date seven sites have been identified where work is not likely 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 resource has supported the delivery of the project. Council continues to input into the regular established newsletters, such as the Edgecumbe Collective Newsletter and the Regional Council website to keep the community informed on work plans and progress. The project page is now included on Council's web site and interested people can follow the page to ensure they receive regular updates https://www.boprc.govt.nz/floodrepairs.

1.5 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.
- The lack of suitable graded rock supply has constrained the programme of works in the Eastern Bay of Plenty, particularly work on the Whakatāne, Lower Rangitāiki and Tarawera Rivers.
- Rakauroa Quarry (Matawai) is currently supplying all Ōpōtiki and Tauranga River sites. Kaituna rock work is supported by Poplar Lane (Papamoa) and Kaitemako Quarry (Welcome Bay). Tarawera River rock requirements are being met through the Ratahi Quarry.
- For the summer construction season rock from Alan Rust Quarry (Te Mahoe) is supplying high priority Whakatāne River works. Staff were hopeful a recently consented new quarry in Tāneatua could support Whakatāne and Rangitāiki River works however the material is not expected to become available now until at least April (i.e. outside the main 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 303 sites have been completed, 63 of these are in the Whakatāne-Tauranga Rivers Scheme
• 148 sites are targeted for completion in the 2019/20 year, 34 of those are in the Whakatāne-Tauranga Rivers Scheme and to date 23 have been completed.
• Total programme completion date remains at 30 June 2021, however this is currently being reviewed

Key sites completed during the last period include:

Site reference	Comment
WH103 and WH104 Board Mills	Extensive area of rock slumping, damage and debris building up
WH169 Schatler, Kirkbride Road	Destroyed trench willow and eroded bank repair is rock material
WH129 Houston	Eroded bank and berm threatening existing stop bank, no existing insured assets
WH137 Tuhoe Trust lower corner	Damaged rock lining asset, and further eroded river bank, repaired with rock material
WH189 Raroa Trust	Destroyed trench willow and eroded bank repair is rock material
WH170 Schatler	Eroded river bank no existing insured assets, repair is trench willow
WH168 B Clark, river distance 13km	Destroyed trench willow and eroded bank repair is trench willow

Key sites currently underway 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

Key sites panned for the next 6 month period include:

Site reference	Comment
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

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

Original estimate total programme cost Whakatāne-Tauranga Rivers Scheme	$12,130,100
Estimated betterment value	$6,086,794

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 31 January 2020 – for infrastructure works	**$1,500,024**

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 Undertake drain bank repairs in summer	BOPRC
Weather	Future weather events will exacerbate damaged sites	Complete site works in priority order as this factors in risk and consequence	BOPRC MCDEM Insurer
Weather	Severe weather event may cause new damage	Review works programme against new works (annual flood damage)	BOPRC MCDEM Insurer
Rock material availability	Suitably graded rock supply is restricted and the operating environment is variable	Working with rock sources to supply suitable material for works in Ōpōtiki (Rakauroa Quarry in Matawai) and 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 some sites. Additional contract resource for rock grading/audits and works completion asset capture	BOPRC
Programme length	Property owners want works associated with their property undertaken first	Implement communications and engagement plan Direct communication with property owners	BOPRC
Insurance	Claim limits for individual works are not known	Aon insurance specialist supporting claim process	BOPRC Aon
Cost	Cost exceeds budget	Work closely with MCDEM and Insurers, maximise contributions from other stakeholders	BOPRC Aon MCDEM Insurer

3 Recoveries

- Loss adjustors have been assigned for our infrastructure claim and our material damage claim. Staff are working with insurance specialists Aon to progress the claims process. Progress payments have been received for Infrastructure Insurance ($3,000,000) and Material Damage ($304,653) claims.
- The project team is working with the central government (MCDEM) representative and is comfortable with the process adopted.

4 Expected progress within the next six month period

- Complete 65% of the total Whakatāne-Tauranga Rivers Scheme sites.
- Review of remaining Whakatāne-Tauranga Rivers Scheme sites to determine any sites that can be removed from the programme.
- Lodge and receive MCDEM Claim 11

Paula Chapman
Project Manager Flood Recovery

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Whakatāne-Tauranga Rivers Scheme Advisory Group**

From: Mark Townsend **Date:** 28 February 2020

Engineering Manager

File Ref: A3488083

Subject: **Engineering update**

1 Whakatāne River capacity review

Budget 2019/20 Modelling $94,000

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.

Work to date has generated the data needed to undertake urban stop bank raising. After an extensive peer review process NIWA have finalised the appropriate river rating which now references the April 2017 flood. River rating is used to bench mark the river flow and AEP (annual exceedance probability).

The rating finalisation means the hydraulic modelling component of the capacity review has been restarted and the complex calibration process can proceed. NIWA still need to determine how the rating is adjusted between the years 1998 and 2017 (a time of significant flooding) and produce a revised set of annual maxima flows.

2 Lower Whakatāne River stopbank project

Budget 2019/20 Design and Construction $1,389,000

This is a significant project that encompasses:

- Urban stopbank raising
- Quay Street and Kakaharoa Drive seepage
- Floodwall assessments

This project brings together a number of different but interdependent work streams with the objective of providing agreed levels of service to protect the people, property and livelihoods of the Whakatāne urban community.

Now that preliminary work has been undertaken it is clear that the current place holder budget allocations and timelines will be insufficient. Updates to both the budget and project period will be updated during this year to inform 2020/21 Annual Plan deliberations. A new Project Manager (Lars Thiel-Lardon) has recently been appointed to oversee the project and prepare for work streams to continue in 2020/21.

The scope of this work is also being influenced by Whakatāne District Council's Town Regeneration Project and discussions are continuing with them.

Figure 1: Proposed stop bank raising extent

3 Te Rahu Pump Station pipeline replacement

Budget 2019/20 Construction $ 260,000 (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 not specifically flood damage related (or claimable) there are cost efficiencies in undertaking the pipe replacement alongside the surge chamber repairs.

The surge chamber repair will be funded from the flood recovery budget and offset by insurance. The pipe replacement funding of $260,000 was approved during the 2019/20 Annual Plan process.

This design and procurement is now well advanced for this repair, and works will begin this month.

4 Awatapu Lagoon and Barry Avenue geotechnical issues

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 investigations have now been completed. A ground model is being produced which will attempt to constrain the ingress of water. This will facilitate the design of the remedial work.

The Barry Avenue situation arises from the District Council's storm water pump station and storm water basin, and is subject to further investigation alongside Whakatāne District Council.

Mark Townsend
Engineering Manager

Bay of Plenty Regional Council Toi Moana
Statement of revenue and expense - Whakatane-Tauranga Rivers Scheme

For the 6 months ending 31 December 2019

Run: 28-Jan-2020

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

Line		2019/20 Budget $000	2019/20 Actual $000	Variance $	Variance indicator		Variance comments	2020/21 Draft Annual Plan $000
	Operating revenue by class							
1	General rates	115	115	0	-			220
2	Targeted rates	1,145	1,145	0	-			2,120
3	External interest income	3	0	(3)	Lower			11
4	Other revenue	29	66	37	Higher		Additional grazing licences charged	60
5	Investment income	173	173	0	-			310
6	**Total revenue**	**1,465**	**1,498**	**33**	Higher			**2,721**
	Operating expenditure by class							
7	Administration expenses	0	9	(9)	Higher			9
8	Other expenses	88	174	(86)	Higher		Additional materials to repair damage caused by July 2019 event and infrastructure insurance premiums higher than budgeted	279
9	Consultancy fees	0	12	(12)	Higher			0
10	Contract work	289	335	(46)	Higher		Additional repair works caused by July 2019 event have been undertaken	488
11	Finance costs	236	128	108	Lower		Varied capital spend year to date than applied to budget borrowing costs	587
12	Depreciation and asset disposal	154	136	18	Lower			349
	Subtotal - expenditure	**767**	**794**	(26)	Higher			**1,712**
13	**Net overhead charges and recoveries**	**243**	**256**	(13)	Higher			**520**
14	**Total operating expenditure**	**1,011**	**1,050**	**(40)**	Higher			**2,232**
15	**Total operating surplus (deficit)**	**454**	**448**	**(6)**	Unfavourable			**489**
	Capital revenue by class							
16	Capital funding	615	613	(2)	Lower		Central Government contributions for works completed	1,257
	Total capital revenue	**615**	**613**	**(2)**	Lower			**1,257**
17	**Total surplus (deficit)**	**1,069**	**1,061**	**(8)**	Unfavourable			**1,746**

Bay of Plenty Regional Council Toi Moana
Statement of revenue and expense - Whakatane-Tauranga Rivers Scheme

For the 6 months ending 31 December 2019

Run: 28-Jan-2020

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

Line		2019/20 Budget $000	2019/20 Actual $000	Variance $	Variance indicator		Variance comments	2020/21 Draft Annual Plan $000
	Capital expenditure by project							
18	Whakatane River Capital New	387	75	312	Lower			297
19	Whakatane Tauranga Flood Damage Repairs	938	1,354	(416)	Higher		Works are ahead off programme but still expected to be on budget come year end	4,260
20	**Total capital expenditure**	**1,326**	**1,430**	**(104)**	Higher			**4,557**

	Reserves	Opening Balance	Net Movement	Closing Balance	
21	Flood Damage Reserve	0	0	0	
22	Asset Replacement Reserve	(944)	814	(130)	Funds available
23	Works Reserve	(678)	(359)	(1,036)	Funds available
24	**Reserves total**	**(1,622)**	**455**	**(1,166)**	Funds available
25	**Internal Loans**	6,593	48	6,641	

		1/07/2018 $000	Movement $000	1/07/2019 $000
26	**Asset Valuation**	70,360	8,325	78,685

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Whakatāne-Tauranga Rivers Scheme Advisory Group**

From: Mark Townsend **Date:** 28 February 2020

Engineering Manager

File Ref: A3488415

Subject: **Gravel management update**

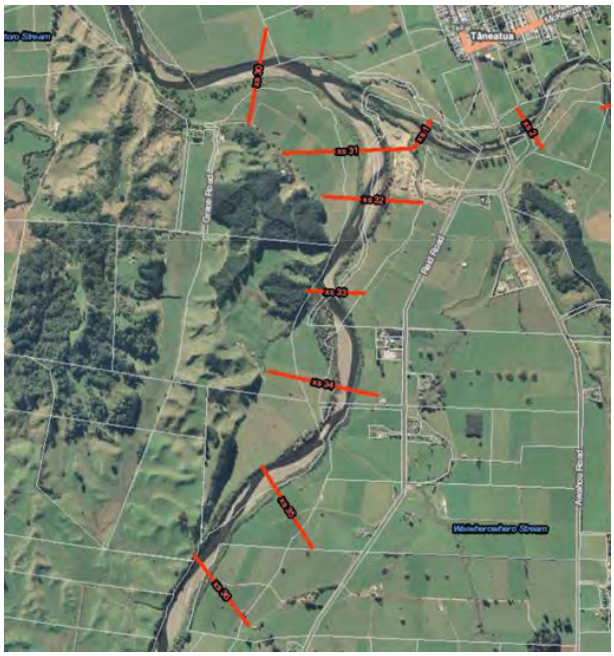
1 General

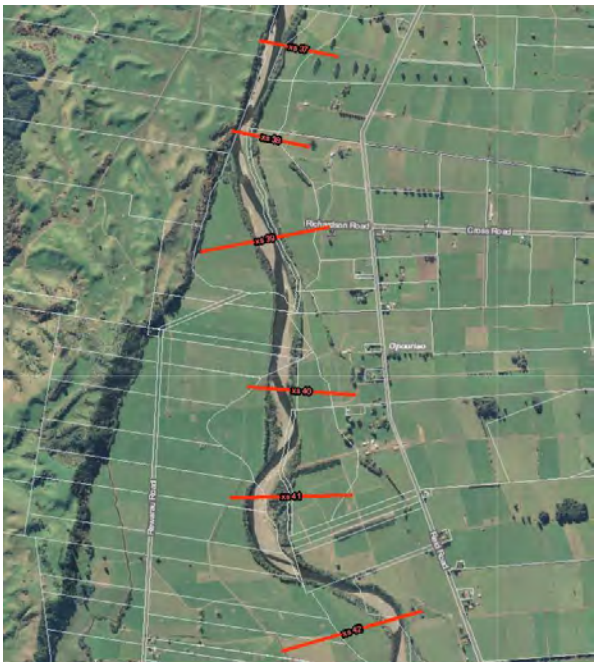
In April 2018 Council made a decision that due to bed levels having declined in the top section of the reach above Ohotū Bridge that gravel extraction in this section would only be undertaken for river management purposes until recovery has taken place and desired bed levels achieved. More recent technical analysis confirms this approach due to bed level degradation between Ohotū Bridge and 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 suspend any extraction within the active channel over the reach from about 1 kilometre upstream of the Tauranga confluence (cross-section 33) to Rūātoki Bridge (cross-section 47) until adequate recovery of the river bed is achieved.

From the 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.





2 Extractions

Currently the only extractions allocated for the Whakatāne and Tauranga rivers are for river management purposes. Specifically where flood repair work is being carried out and overflow paths are recommended to relieve pressure on eroded banks or new works.

10,000 m^3 was approved last year in the upper Whakatāne River (Te Whetu Road site) for river management purposes. However this work did not occur due to land access issues. There are concerns from local hapū about extraction activity in the Whakatāne River and this is apparent through contractor land access not being supported.

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 – 31 January 2020

River	Site	Allocation Quantity (m^3)	Confirmed Quantity (m^3)
Tauranga River	Chase Takao	6,000	0
Total		**6,000**	

Mark Townsend
Engineering Manager

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: River Scheme Advisory Groups

From: Kirsty Brown
Rivers and Drainage Assets Manager

Date: 5 February 2020

File Ref:

Subject: **River Scheme Advisory Group membership**

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 any vacancies created by current members not wanting to continue for a further three years.

Kirsty Brown
Rivers and Drainage Assets Manager