



Rangitāiki-Tarawera Rivers Scheme Advisory Group Meeting

Thursday 14 October 2021 at 10am

Mātaatua Room, Bay of Plenty
Regional Council Office

5 Quay Street
Whakatāne

Rangitāiki-Tarawera Rivers Scheme Advisory Group Meeting Thursday 14 October 2021 at 10am

Agenda

- 1 **Welcome**
- 2 **Apologies**
- 3 **Notes of previous meeting held 30 March 2021**
- 4 **Matters arising from previous meeting**
 - a. Funding of April 2017 Flood Repair Project (20 year loan term)
 - b. Rangitāiki River Erosion Report (Cardno)
- 5 **Scheme annual report 2020-2021**
- 6 **Capital work programme**
- 7 **Maintenance work programme**
- 8 **April 2017 Flood Repair Project**
- 9 **Co-governance/ freshwater community groups**
- 10 **Members forum**
 - a. Changing strategic landscape discussion
 - b. Regional Council liaison with river stakeholders
- 11 **General business**
 - a. Asset Management general business report
 - b. River scheme webpages demonstration
 - c. Environmental data portal demonstration
 - d. Aniwaniwa gravel update
- 12 **Public forum**
- 13 **Meeting closure**

Notes of the Rangitaiki-Tarawera Rivers Scheme Advisory Group meeting held in Edgecumbe War Memorial Hall, Edgecumbe, on Tuesday, 30 March 2021 commencing at 10am

Chair: Councillor Bill Clark

Advisory Group: Shona Pedersen, Peter Askey, Councillor Alison Silcock, Hayden Johnston, Linda Virbickas, Jim Finlay, Leeann Waaka, Alan Law

BOPRC Councillors: Chairman Doug Leeder, Councillor Toi Kai Rākau Iti

BOPRC Staff: Chris Ingle (General Manager, Integrated Catchments), Kirsty Brown (Rivers and Drainage Assets Manager), Bruce Crabbe (Rivers and Drainage Operations Manager), Mark Townsend (Engineering Manager), Laura Albrey (Communications Partner), Paula Chapman (Project Manager), Mereana Toroa (Finance Support Team Lead), Hemi Barsdell (Asset Management Specialist), Andrew Pawson (Area Engineer), Charles Harley (Team Leader Eastern Catchments), Cleo Hanlon (Rivers and Drainage Coordinator)

Public: Robin Cheung, John Struthers

Apologies: None received

1 **Welcome**

Councillor Clark welcomed everyone to the meeting and Councillor Iti opened the meeting with a karakia.

Councillor Clark introduced Leeann Waaka (newly appointed urban representative), Laura Albrey (Communications Partner) and Mereana Toroa (Finance Support Team Lead).

2 **Apologies**

Apologies received as recorded above.

3 **Notes of previous meeting held 9 September 2020**

Members requested clarification on why a 20 year loan repayment term continues to be applied. General discussion ensued about Council's finance policy and the need to investigate a more scheme specific loan repayment policy.

Resolution: Council staff to report back on why a 20 year loan term was accepted, and investigate whether the Rangitāiki-Tarawera Rivers Scheme has the ability to pay off debt earlier.

**Silcock/Pedersen
CARRIED**

Resolved

That the Rangitāiki-Tarawera Rivers Scheme Advisory Group:

- 1 Confirm the notes of the meeting held 9 September 2020 as a true and correct record.**

**Virbickas/Silcock
CARRIED**

4 Matters arising from previous meeting

- An independent review of the Cardno report is in progress. Trustpower could be invited to a future meeting, once the review has been completed.
- A new flow recorder site has been installed on the Whirinaki River. Council is negotiating with NIWA and Trustpower to make their data available.
- A memo was sent to the Advisory Group members on 16 November 2020 which included information on Crown Infrastructure Partners (CIP) funding. The memo clarified this funding is a grant, and outlined the impact it would have on rates.
- The Kohika Wetland has been granted a rating exemption, to take effect next financial year. Council is looking at options for a possible policy change and the potential exclusion of managed and protected high value ecological sites from the rating scheme.
- Wilding pine removal - timing did not coincide so no wilding trees were able to be removed under the Kia Kaha programme.

5 Engineering update

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

Key points:

- The River Scheme Sustainability (RSS) Project is considering options to address the difference between the current 1% AEP level of service and what will be required taking into account climate change effects.
 - Raised stopbanks require more space, and the risk of failure remains. There is also a large cost with building stopbanks, particularly on peat.
 - Dams are an important tool in managing flood flows, and Matahina Dam has a Flood Management Plan.
- Consultation with affected parties is underway for upgrades to the lower Rangitāiki River left bank stopbank downstream of Thornton Bridge. This work has been deferred until 2021-2022 construction season.

- Rangitāiki Floodway work is progressing well. Stage 7 (Hydro Road to SH2/Awakeri Road) was held up during the Covid-19 Level 4 lockdown, however landowner approval has now been granted and works are to begin in April 2021. Stage 6a (downstream of McLean Road) has been completed, with final reinstatement work in progress. Stage 6b (left bank between SH2/Awakeri Road and McLean Road) is around 50% complete. Stage 6c (left bank between SH2/Awakeri Road and McLean Road) has consent, and culvert upgrade works are progressing. This stage has fallen behind programme due to the consent process taking longer than anticipated.
- Design of the Rangitāiki Floodway spillway has been finalised ready for consultation with affected parties. The consent application is currently being prepared and will be lodged following the final round of consultation. Physical works are programmed for 2021-2022.

Discussion:

- Alan Law suggested that in terms of the RSS project options, a reduced level of service is economically viable.
- Possible choke point at the Thornton River mouth sand bar. Mark Townsend responded that this is typical for every river mouth, and it is natural for the mouth to close with low capacity. River mouths are inspected periodically, and interventions occur as necessary.
- Peter Askey noted that the Rangitāiki Floodway project has lost an opportunity by reinstating culverts at the same size rather than looking at the wider drainage picture.

6 Gravel management

Paula Chapman spoke to the agenda report.

Key points:

- There has been some gravel extraction in the Horomanga River.
- There was 5,000 m³ extracted from the Kopuriki Stream last year with further allocations pending. The stream is perched, and the engineer's recommendation is that extractions continue.
- Chris Ingle updated members on ongoing discussions with Pioneer Energy on the Lake Aniwanuiwa gravel issues.
- Members questioned if there has been an increased demand for gravel from forestry. Staff responded that the market for gravel is dependent on the surrounding land use as cartage costs can be high.

7 Operations update

Bruce Crabbe took the agenda report as read and Andrew Pawson delivered a presentation.

Key points:

- A recent condition assessment of the Rangitāiki-Tarawera stopbank system has identified asset defects that have been prioritised and programmed for

remediation. Expenditure may be slightly over budget to year end as a result of this additional work.

- The Operations Team continue to explore habitat creation and native planting opportunities.
- Piping issues under the Old Rangitāiki Channel floodgates have been identified. Commercial divers were brought in to investigate and inform a repair or replace decision and options. A temporary repair will be undertaken while the Engineering Team model and design an appropriate replacement option.
- Alligator weed (*Alternanthera philoxeroides*) has been found and identified in the region. Council's Biosecurity staff have a control programme in place. Chilean rhubarb (*Gunnera tinctoria*) has also been identified on the Rangitāiki River.
- Rabbits are a high risk to stopbanks and control occurs throughout the year. Recently a warren was located that contained 32 rabbits.
- Council are working through the procurement and maritime processes to purchase a purpose-built airboat for spraying aquatic weed.
- New drone technology is a useful tool in monitoring gravel extraction quantities.

Discussion:

- Councillor Iti commented that alligator weed is a substantial threat, and can be inadvertently spread when trying to remove it. If it is found, it is important that it is reported.
- Alison Silcock questioned the difference between annual budget and job estimates sub-totals in the maintenance work programme. Bruce Crabbe responded that the annual budget is generated from the Asset Management Plan, asset lifecycle information and maintenance schedules. The allocation of the budget across the works programme is not set in stone and there is flexibility to expend more money in one area and less in another if required.

8 April 2017 Flood Repair Project update

Paula Chapman spoke to the agenda report.

Key points:

- The Flood Repair Project is currently in Year 4. There are 22 remaining flood repair sites in the scheme. Four sites are currently underway with the remaining 18 sites to be completed, weather permitting, by 30 June 2021.
- The estimated cost of the entire programme was \$50 million, with an approximate completion cost of \$42 million. The Rangitāiki-Tarawera expenditure is currently at \$17 million, with an expected completion cost of \$21 million. Recoveries to date are \$6.8 million.
- Council has been working through a supply chain process and options to stockpile rock from quarries. Council looked at the option of owning a quarry, however it was considered not financially advantageous and that the better option was to go through a procurement process and stockpile rock.

- An error was noted in the Programme Delivery section of the report. 133 sites have been completed in the Rangitāiki-Tarawera Rivers Scheme, not 279 as stated.

9 Finance report

Kirsty Brown spoke to the Finance Report covering the six months to 31 December 2020.

Key points:

- Total operating revenue - \$119,000 lower than budget
- Total operating expenditure - \$713,000 higher than budget, mainly due to maintenance works being ahead of schedule.
- Resulting in an operating deficit of \$832,000
- Total capital revenue was \$1.9 million lower than budget, due to delays in formalising central government funding.
- Total capital expenditure was \$795,000 lower than budget, but is expected to be close to budget at year end.
- Total reserves funds - \$3 million available
- Loan balance at 31 December 2020 - \$39.4 million
- Scheme asset value at 1 July 2020 - \$115 million
- Council has been reporting to central government on works with Provincial Growth Fund contributions. Monthly and quarterly reporting on financials and social procurement outcomes is required. The funding agreements are set up so Council can claim quarterly and in advance. This means Council is not carrying any additional expense.

10 Rates forecast

The rates forecasts were discussed as part of the River Scheme Planning discussion (Item 11).

11 River Scheme Planning (AMP & LTP)

Hemi Barsdell delivered a presentation on the Asset Management Plan and Long Term Plan.

Key points:

- Changes to the capital and maintenance work programmes and budgets were discussed.
- A reduced loan interest rate of 2% (down from 5%) has been used for forecasting in this Long Term Plan round. This creates a significant saving to the scheme and offsets the increases in maintenance costs discussed at the September 2020 meeting.

- The Finance and Revenue Policy is approved by Council as part of each Long Term Plan round. This policy determines that borrowed funding for capital expenditure will be paid off over a 20 year term. This applies to all schemes.

12 **Co-governance/community group updates**

There were no updates to report.

13 **General business**

Kirsty Brown took the report provided in the agenda pack as read. The report provided updates on the infrastructure insurance review and Flood Protection and Drainage Bylaws 2020. No discussion followed.

14 **Public forum**

- Alan Law tabled a list of local contractors and growers for maize growing.
- Robin Cheung voiced her support of Council and their response to the April 2017 flood event.

Meeting closed at 12.38pm

MEMORANDUM



To: Rangitaiki-Tarawera Rivers Scheme
Advisory Group

From: Mereana Toroa
Finance Support Team Leader

Date: 26 August 2021

File Ref:

Subject: Funding of April 2017 Flood Damage Repair Works

This is in response to the following resolution made at the Rangitāiki-Tarawera Rivers Scheme Advisory Group meeting held 30 March 2021, with regards to the funding of the April 2017 flood damage: ***Report back why a 20 year term was accepted, and investigate whether this scheme has the capability to pay off debt earlier.***

Funding of repairs

The draft Long Term Plan 2018-2028 consultation topic for the April 2017 Flood Recovery Project focused on the funding approach for the repairs.

The consultation document identified two options:

- Option 1: Carry out all identified repairs as soon as possible. Resulting in a higher rates increase in year one and two and then smaller increases from year three (preferred option).
- Option 2: Carry out all identified repairs as soon as possible, with rates increases spread out over a longer period.

From the submissions received, support for both options by those impacted was relatively even. For that reason it was considered that Council should proceed with the option 1 and use the range of options for smoothing the rates impact that are within the scope of Council's Financial Strategy and Revenue and Financing Policy.

The April 2017 Flood damage repair works were funded in three ways: flood damage reserves, insurance and government funding, with the remainder through loans. Loan funding spreads the cost to the ratepayer over time (intergenerational equity) and is consistent with Council's Financial Strategy. Normally, Council uses 20 years for rivers and drainage infrastructure, and 10-year loans for flood protection works but due to the scale of the April 2017 flood damage, Council directed staff to use a 20-year loan term. It was also directed this was a one-off and not standard practice. This was adopted by Council at its meeting 22 May 2018 (full meeting notes attached).

The funding options proposed was discussed with the Advisory Group members at its 3 February 2018 meeting. The recorded feedback from the group is as follows (full meeting notes attached):

- Affordability was an issue. Farming businesses have had a few years of losses and would be good to be able to push some costs out if possible.
- Some members liked the transparency of Option 1 - showing where the costs lie and paying upfront.
- Overall feeling that it was a very individual question based on affordability. Members decided to take time to think about the options, speak with their communities and then possibly meet informally to put together a submission on their preferred option.

There was no submission from the group, but individual ones were received from Linda Virbickas and Alan Law. The responses are detailed in the staff tracking spreadsheet below. Linda supported Option 1 - and was advised of the 20-year term through the response to her submission (email dated 17 July 2018). Alan Law supported Option 2 - with his support acknowledged (email dated 17 July 2018).

Reference	First Name	Surname	Organisation	Theme	Comment	Response
M19	Alan	Law	Individual	Rivers & Drainage	I support the BOP Federated Farmers LTP submission.	Thank you for your submission, your support is acknowledged. Ongoing commitment to the scheme Advisory Group is much appreciated by Regional Council.
L95	Linda	Virbickas	Individual	Rivers & Drainage	I support Option One - fund the flood repairs as soon as possible.	Thank you for your submission. Regional Council is committed to completing flood repairs as soon as possible resulting in higher rates increases in year one and two and smaller increases from year three onwards (Option 1) and has taken the following steps to minimise the impact of flood repairs on targeted rates: 1. Full use of flood repair reserves for capital funding 2. Full use of insurance and government funding support for capital funding 3. 20 year loans (rather than normal 10 year loans) for capital funding Submitters have presented reasons to either increase or decrease the amount of funding from targeted rates. Regional Council has concluded that, on balance, 80% targeted rates and 20% general rates continues to be appropriate based on the spread of benefit from the work.

Capability to pay off debt earlier

Rangitaiki-Tarawera early loan repayment options

There are two general options available for repaying river scheme loans earlier than currently budgeted. At a whole of scheme level, higher rates could be set and the extra revenue applied to reduce loan balances, and this memo focuses on the considerations and financial models for this scenario. Alternatively, individuals could choose to pay more than their invoiced rates which would build a cash balance with Council that could be used to reduce rates payments for that individual in the future, however, any such balance does not currently attract investment interest and would be preferable for the individual to invest this money.

The figures provided are based on the current Long-Term Plan 2021-2031 financial forecasts and have been provided at a summary level.

Current situation

The majority of Council's capital works are funded via internal loans. This mechanism is used to allocate interest costs and repayment of principal to each activity, which is then funded by the revenue sources set in the Revenue and Financing Policy. For the river schemes the rates funding component (i.e. after other revenue) is split 80% targeted rates and 20% general funds.

The internal loans for the river schemes are currently repaid over a period of 20 years and the current interest rate is 2%. Council's borrowings are held over a range of maturities at fixed rates to reduce interest rate risk i.e. increases in current external interest rates will have a smaller impact on internal interest rates. The internal loans are assessed each quarter based on actual expenditure.

For the Rangitāiki-Tarawera River scheme the total borrowing is \$42.9 million and the targeted rates revenue for 2021/22 is \$4.1 million.

Repayment considerations

There are several considerations regarding repaying loans faster. From a process view, Council would be required to consult with ratepayers on any proposed change due to the impact on targeted rates. This would follow the principles of consultation in the Local Government Act, rather than the more prescriptive special consultative procedure, and would generally be aligned with Annual Plan consultation/information.

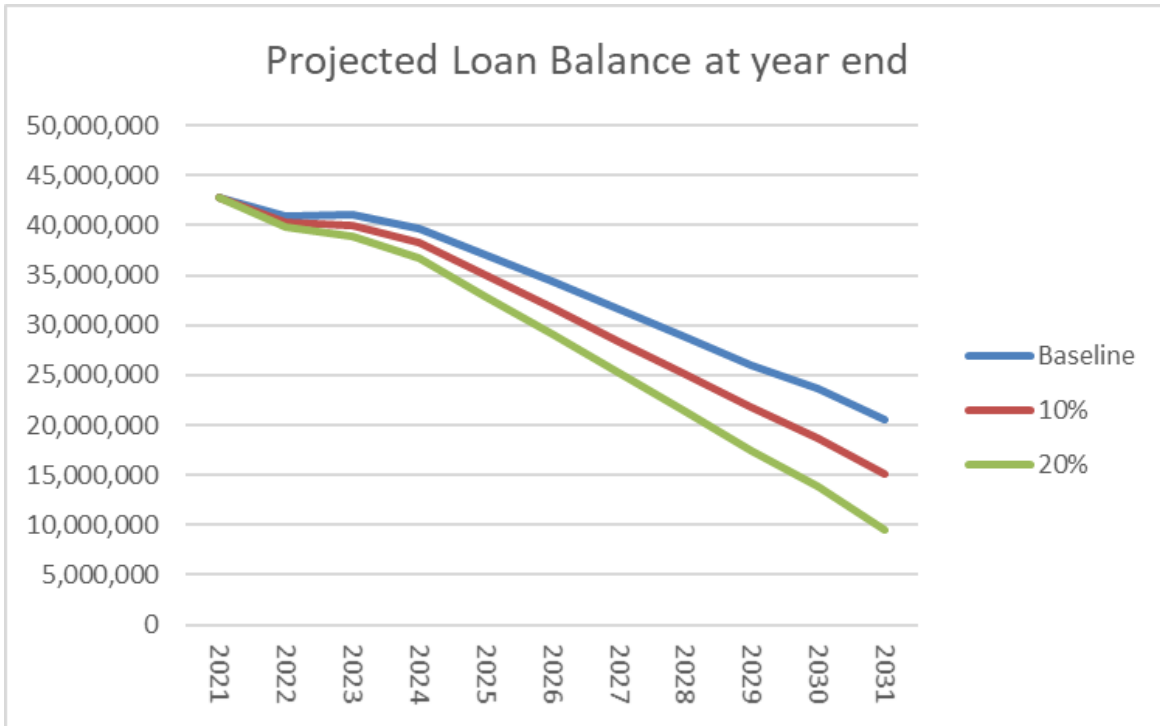
From an economic efficiency point of view, Council and Ratepayers would need to consider whether paying down loans at 2% interest represents the best use of money. For instance, some people may have mortgages or other borrowings at higher interest rates that would make financial sense to repay first, or other opportunities that they place a higher value on.

From an equity perspective, loan funding spreads the cost of an asset over time. Having a loan period that is similar to the life of the asset ensures that everyone that benefits from the asset also pays part of its cost i.e. people that move into an area serviced by the asset after it is built still pay for part of the asset.

Consideration would also need to be given to the extent to which rates should be smoothed to avoid a large increase/decrease when higher repayments are established, or loan repayments are completed.

Financial Modelling

Indicative modelling of loan balances under the current repayment scenario and with 10% (\$500,000) and 20% (1,000,000) rates increase on top of current rates forecasts are shown below.



The 20% increase scenario results in all loans being repaid in approximately 12 years and would avoid approximately \$1,000,000 of interest avoided over the next 10 years, and the 10% increase results in all loans being repaid in approximately 17 years and would avoid approximately \$500,000 of interest over the next 10 years. Any increases to capital expenditure forecasts will alter the projected loan balances and repayment terms.

Myself and the finance team are available to discuss options and to provide further modelling, policy advice or information.

Mereana Toroa
Finance Support Team Leader

Note for 14 October 2021 advisory group meeting - the above memo with all attachments was circulated to members on 3 September 2021. Only the memo is included in this agenda pack because of volume of the attachments.

Rangitāiki-Tarawera Rivers Scheme Annual Report 2020-2021

The purpose of this report is to provide an overview of the Rangitāiki-Tarawera Rivers Scheme operational and capital works programmes and finances for 2020-2021

Maintenance work programme

Maintenance works comprise activities that ensure the drainage and river flood protection networks are operational and providing the agreed level of service. These activities are programmed through the Rivers and Drainage Asset Management Plan taking into account asset lifecycle, and maintenance and inspection schedules.

The 2020-2021 Rangitāiki-Tarawera maintenance programme was delivered generally on budget and to programme.

Programme highlights

Environmental trials including: tuna townhouses, eel transfer around pump stations, block plantings along the Omeheu Canal.

Investigations at the Old Rangitāiki Channel floodgate to identify the cause and location of piping observed underneath the structure on an incoming tide. Initial dye testing was undertaken to confirm that piping was occurring and was followed up by divers to pinpoint the seepage pathway. A temporary repair is in place and replacement options being scoped.



A collaborative community approach to river maintenance and environmental outcomes resulted in the planting of close to 4000 native plants along the Rangitāiki River berm in Te Mapou. Ngā Iwi O Te Motu Monty Ramanui Whānau Trust provided land owner permission, Trustpower provided a grant for plant purchases from the Minginui Nursery, Regional Council's Operations Team arranged the site preparation (removal of pest plants and trees) and the autumn planting was undertaken by the community with support from local contractor Tāne Mahuta. Maintenance of the site over the midterm will be undertaken by Tāne Mahuta to ensure good plant establishment.

Capital work programme

The larger multi-year capital works projects are largely on track with some programme slippage provided for through carry forward funding recommendations. The reasons for programme slippage vary across the projects. Many of the projects are multiyear and multifaceted. Adjustments have been needed to allow for overseas supply issues, additional consultation and fitting in with other agencies timelines.

Project name	Revised Budget vs Actual Expenditure 2020-2021
<p>Rangitāiki Floodway</p> <p>This is a multi-stage project designed to take pressure off the Rangitāiki River by diverting some of its flow during flood events. The floodway starts at the spillway, upstream of Edgecumbe, and re-enters the river upstream of the river mouth.</p> <p>Work in 2020-2021 focused on the completion of Stage 7 (stopbank improvements and raising between Hydro Road and SH2/Awakeri Road, left and right banks) and construction of Stage 6 (stopbank improvements and raising – 6a on the left bank north of McLean Road, 6b and 6c on the left and right banks between SH2/Awakeri Road and McLean Road). Works have progressed well with some work in Stage 7 and Stage 6c being carried over to 2021-2022 for completion.</p> <p><i>Stage 6 has attracted Central Government Climate Resilience Funding.</i></p> <p>Project status – Stages 6 and 7 scheduled to be completed in 2021-2022</p>	<p>Revised Budget - \$12,262,000</p> <p>Actual - \$8,255,049</p>
<p>Rangitāiki Floodwalls</p> <p>This project involves work to upgrade and strengthen three existing floodwalls on the Rangitāiki River:</p> <ul style="list-style-type: none"> • West Bank Road/Greig Road • East Bank Road (upstream of Thornton Village) • 87-109 College Road <p>The upgrade of the West Bank Road/Greig Road floodwall is now complete. Work on the Thornton floodwall (East Bank Road) has commenced and consultation continues on options for the College Road floodwall.</p> <p>Project status – work on the Thornton floodwall and the College Road floodwall will continue in 2021-2022</p>	<p>Revised Budget - \$2,200,000</p> <p>Actual - \$1,572,178</p>
<p>Rangitāiki -Tarawera Rivers Scheme Capacity Review - modelling</p> <p>The aim of this project was to build and run a hydraulic model of the rivers and floodplain to help assess river and stopbank capacity and system performance.</p> <p>The scope involved the Rangitāiki–Tarawera Rivers Scheme and the Rangitāiki Plains Drainage Scheme.</p> <p>Work has progressed well and the final report has been completed.</p> <p>Project status – modelling complete</p>	<p>Revised Budget - \$76,000</p> <p>Actual - \$107,070</p>

Financial overview 2020-2021

Attached is the Draft Statement of Revenue and Expense for the Rangitāiki-Tarawera Rivers Scheme for the 12 months ended 30 June 2021.

Key points:

- **Operating revenue** was \$58,000 lower than budget, mainly due to lower than forecast interest rates (the call rate sat at 1.5% for the year) and reduced revenue from grazing licenses.
- **Operating expenditure** was \$409,000 higher than budget, mainly due to additional annual flood damage and asset defects work, and the effects of increased asset valuation.
- This resulted in an **operating deficit** of \$283,000
- **Capital revenue** was \$908,000 higher than budget, due to the inclusion of Flood Repair Project insurance recoveries and CIP funding for the Rangitāiki Floodway and Floodwalls projects.
- **Capital expenditure** was \$9,255,000 lower than budget figure of \$21,858,000, with the Flood Repair Project under budget and significant carry forwards into 2021-2022 proposed for a number of other projects.
- Total **reserve fund** opening balance of \$2,726,000 and closing balance of \$5,902,000 (increased by \$3,274,000)
- **Loan** opening balance of \$39,733,000 and closing balance of \$39,424,000 (decreased by \$310,000)
- **Asset valuation** as at 1 July 2020 of \$115.3m with the 2021 annual valuation currently underway

Bay of Plenty Regional Council Toi Moana

Statement of revenue and expenditure - Rangitaiki-Tarawera Rivers Scheme (Draft until adopted by Council)

For the 12 months ended 30 June 2021

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

Budget	Actual	Variance \$	Variance indicator	Variance comments	2021/22 Budget
\$000					

Line Operating revenue by class

1	General rates	397	397	0	-			425
2	Targeted rates	3,830	3,830	0	-			4,097
3	External interest income	22	0	(22)	Lower			35
4	Other revenue	87	56	(32)	Lower		Less grazing licence revenue	90
5	Fees and charges	12	0	(12)	Lower			12
6	Revaluation and asset disposal gains	0	7	7	Higher			0
7	Investment income	564	564	0	-			690
8	Total revenue	4,912	4,854	(58)	Lower			5,349

Operating expenditure by class

9	Administration expenses	3	19	(15)	Higher			3
10	Other expenses	421	473	(53)	Higher		Additional infrastructure insurance costs	452
11	Consultancy fees	0	45	(45)	Higher			0
12	Contract work	739	1,038	(298)	Higher		Additional annual flood damage and asset defects work.	852
13	Revaluation and asset disposal loss	0	107	(107)	Higher		Effect of 2020/21 revaluation of assets	0
14	Finance costs	1,065	1,210	(145)	Higher			0
15	Depreciation & Amortisation	565	311	254	Lower		Lower depreciation due to capital underspend	375
16	Subtotal - expenditure	2,793	3,202	(409)	Higher			1,683
17	Net overhead charges and recoveries	771	587	184	Lower		Less staff time. From 2021/22 finance costs will be included here.	1,899
18	Total operating expenditure	3,564	3,789	(225)	Higher			3,581
19	Total operating surplus (deficit)	1,348	1,065	(283)	Unfavourable			1,767

Bay of Plenty Regional Council Toi Moana

Statement of revenue and expenditure - Rangitaiki-Tarawera Rivers Scheme (Draft until adopted by Council)

For the 12 months ended 30 June 2021

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

		Variance			Variance comments	2021/22
Budget	Actual	\$	Variance indicator			Budget
		\$000				

Capital revenue by class

20	Capital funding	8,816	9,724	908	Higher		Includes insurance recoveries and CIP funding for Rangitāiki floodway and floodwalls	0
21	Total capital revenue	8,816	9,724	908	Higher			0
22	Total surplus (deficit)	10,164	10,789	625	Favourable			1,767

Capital expenditure by project

23	Rangitaiki Floodway	12,262	8,256	4,006	Lower		Proposed carry forward	2,800
25	Rangitaiki Tarawera Flood Damage Repairs	7,300	2,666	4,634	Lower		Repairs are almost complete	0
26	Rangitaiki Floodwalls	2,200	1,572	628	Lower		Greig Road works complete. Proposed carry forward of underspend	952
27	Rangitaiki River (Stopbank upgrade)	20	0	20	Lower		Construction to be carried forward into 2021/22.	0
28	Rangitaiki River modelling	76	107	(31)	Higher			0
29	Tarawera Stopbank design	0	0	0	-			51
30	Total capital expenditure	21,858	12,601	9,257	Lower			3,804

Reserves

	Opening Balance \$000	Movement \$000	Closing Balance \$000	
31 Flood Damage Reserve	193	147	241	Funds available
32 Asset Replacement Reserve	1,790	386	2,176	Funds available
33 Works Reserve	743	2,741	3,485	Funds available
34 Total Reserves	2,726	3,274	5,902	Funds available

35 **Loans** **39,733** **(310)** **39,424**

1/07/2019 \$000	Movement \$000	1/07/2020 \$000
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36 **Asset Valuation** 105,560 9,743 115,303 2021 annual valuation underway

Rangitāiki-Tarawera Rivers Scheme

Capital Works Programme 2021-2022

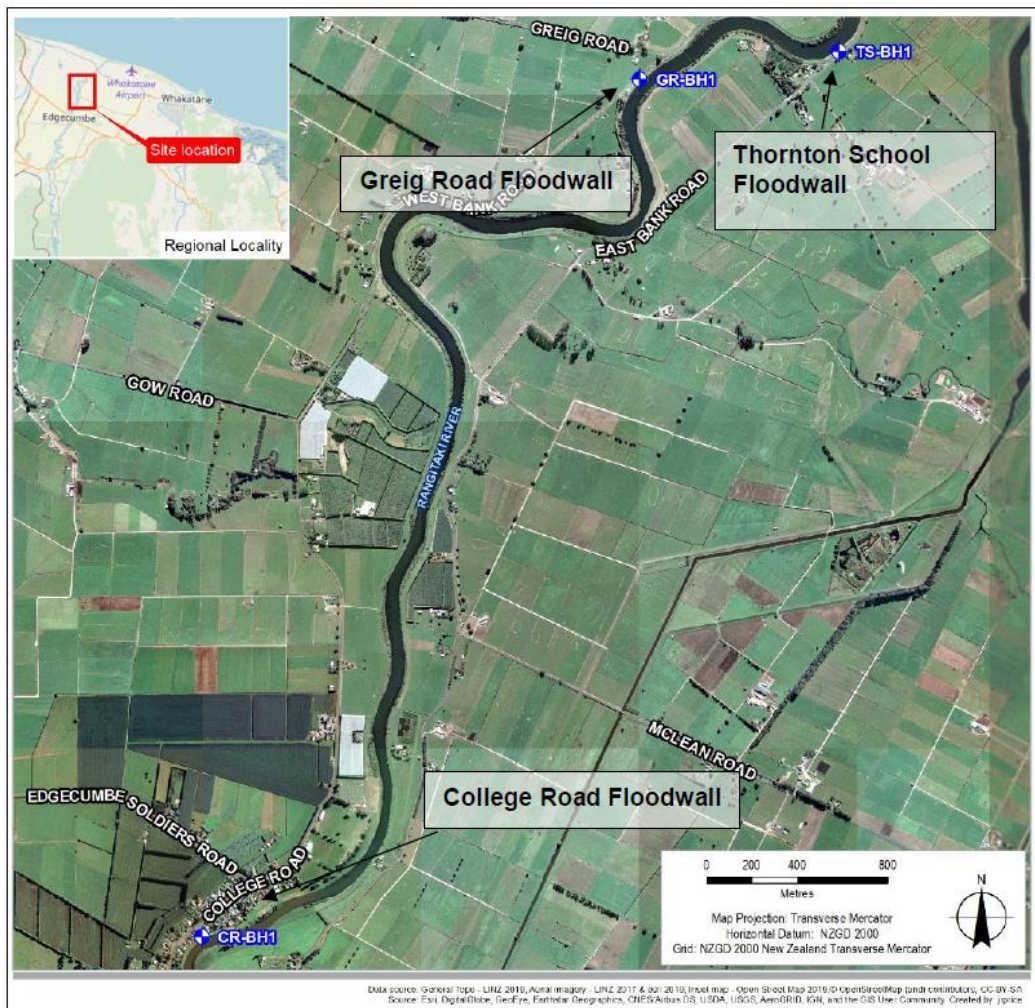
The following table outlines the Rangitāiki-Tarawera Rivers Scheme capital work programme for 2021-2022

Budget figures are from the Long Term Plan 2021-2031. There are proposed changes to these figures, incorporating unspent 2020-2021 budgets being carried forward. The proposed revised budget figures will be confirmed following Council's September meeting.

Rangitāiki-Tarawera Rivers Scheme Capital Budget for 2021-2022 (LTP Year 1) is \$3,803,520 (in addition proposed carry forwards of \$4,976,000 give a proposed revised budget of 8,779,520)

Project name and background	LTP Year 1 Budget 2021-2022	Proposed revised budget 2021-2022	Milestones 2021-2022
<p>April 2017 Flood Repair Project</p> <p>All flood repair works were planned to be completed by 30 June 2021, however five repair sites remain on the Rangitāiki River and these will be completed in the summer of 2021-2022.</p> <p>For information and updates visit the Project Page or www.boprc.govt.nz/our-projects/april-2017-flood-repair-project</p>	Unbudgeted	\$350,00 (carried forward from 2020-2021)	Remaining Rangitāiki River flood repair sites completed by March 2022.
<p>Rangitāiki Floodway</p> <p>The Rangitāiki Floodway is designed to take pressure off the Rangitāiki River during flood events by diverting some of its flow. It is a multi-staged project that started in 2011 and is scheduled for completion in 2021-2022 with work now focused on the following:</p> <ul style="list-style-type: none"> Completion of Stage 6c (stopbank improvements and raising on the right bank SH2/Awakeri Road to McLean Road) Completion of Stage 7 (stopbank improvements and raising between Hydro Road and SH2/Awakeri Road left and right banks) Stoplogs across McLean Road and McCracken Road – design and construction Spillway construction <p><i>Central Government Climate Resilience Funding has been approved for this project (for Stage 6 and Spillway construction).</i></p> <p>For information and updates visit the Project Page or www.boprc.govt.nz/our-projects/rangitaiki-floodway-and-spillway</p>	\$2,800,000	\$6,800,000 (includes \$4,000,000 carried forward from 2020-2021)	<p>Stage 6c and 7</p> <ul style="list-style-type: none"> Completion of Stage 6c and Stage 7 works put on hold over winter <p>Stoplogs</p> <ul style="list-style-type: none"> Roading Authority approval (Whakatāne District Council) Complete construction <p>Spillway</p> <ul style="list-style-type: none"> Resource Consent approval Complete construction

Project name and background	LTP Year 1 Budget 2021-2022	Proposed revised budget 2021-2022	Milestones 2021-2022
<p>Rangitāiki Floodwalls</p> <p>Three priority sites were identified as part of this project and two sites are still in progress:</p> <ol style="list-style-type: none"> East Bank Road (Thornton) – construction commenced April 2021 87-109 College Road – consultation and design in progress. Construction planned for 2022-2023 <p><i>There is also budget for this project in 2022-2023</i></p>	\$952,320	<p>\$1,578,320</p> <p>(includes \$626,000 carried forward from 2020-2021)</p>	<p>East Bank Road (Thornton) floodwall</p> <ul style="list-style-type: none"> Complete construction by October 2021 <p>College Road floodwall</p> <ul style="list-style-type: none"> Complete consultation with affected parties Resource consent application Design completed by December 2021



<p>Tarawera River Stopbank Design</p> <p>The Tarawera River left bank stopbank downstream of SH2/Matatā Road bridge requires upgrading to achieve the 1% AEP level of service. Work this year includes geotechnical assessment and analysis of the sections of stopbank to be upgraded.</p> <p>The construction phase is currently proposed during 2022 to 2024.</p>	\$51,200		<ul style="list-style-type: none"> Geotechnical assessment Consultation with affected parties Resource consent application Detailed design
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Project name and background	LTP Year 1 Budget 2021-2022	Proposed revised budget 2021-2022	Milestones 2021-2022
<p>Lower Rangitāiki Stopbank Upgrade (left bank)</p> <p>The Rangitāiki River Capacity Review identified that the stopbank on the left bank of the Rangitāiki River needs raising to achieve the 1% AEP design level. This work was initially planned for 2020-2021 but was deferred to 2021-2022 due to resource issues and in response to prioritising Government funded climate resilience projects.</p> <p>It involves stopbank raising and geotechnical seepage treatments on the left bank of the Rangitāiki River from the Thornton Road bridge to the residential properties before the boat ramp.</p>		<p>\$930,000</p>	<ul style="list-style-type: none"> • Consultation with affected parties • Cultural Impact Assessment and Archaeological Authority • Resource consent application • Tender in November 2021 • Construction to commence January 2022



Maintenance Programme 2021-2022

The purpose of this report is to provide an overview of the Rangitāiki-Tarawera Rivers Scheme maintenance work programme for 2021-2022

Maintenance work programme

Maintenance works comprise activities that ensure the drainage and river flood protection networks are operational and providing the agreed level of service. These activities are programmed through the Rivers and Drainage Asset Management Plan, taking into account asset lifecycles, and maintenance and inspection schedules. Maintenance programme budgets are set during the Long Term Plan and Annual Plan processes.

Scheme maintenance work includes:

- pump stations - operation, inspections and maintenance
- culverts and floodgates - inspections and maintenance
- stopbanks - inspections, maintenance, repairs, pest control
- river maintenance - pest plant control, vegetation maintenance, gravel beach shaping and overflow depressions, and habitat enhancement
- erosion control - rock refurbishment, edge planting, trenched willows, willow maintenance
- annual flood damage repairs
- repairs to defects identified through asset condition inspections and assessments

Key projects in 2021-2022:

- Repairs to five annual flood damage sites – three on the Rangitāiki River and two on the Tarawera River. Noting that the annual flood repair allowance (\$200,000) is already over-subscribed for this financial year.
- Kopeopeo West Canal – trial of a heavy duty polyethylene floodgate
- Reid’s Central Canal - rock replenishment in the lower reaches
- Repairing high priority defects identified through asset condition assessments
- Ongoing attack on rabbits and pest plants, including Alligator weed (*Alternanthera philoxeroides*)
- Collaboration with iwi and hapū on work planned in their rohe
- Funding application to Trustpower’s Rangitāiki River Environment Fund for native plants for another collaborative planting project.
- Implementing the objectives of the Rangitāiki River Forum, contained within their river document [Te Ara Whānui o Rangitāiki Pathways of the Rangitāiki](#). Specifically objectives 1 and 2 relating to protecting tuna (including enhancement and restoration of their habitat and migration paths) and creating, protecting and enhancing habitats that support indigenous species; and objective 7 relating to respecting the naturalness of the river landscape. Work includes fish passage through structures, habitat enhancement and native plantings.

Rock procurement to support community resilience

Last year Council approved a procurement plan for quarried rock material that resulted from a strategic review of Council’s existing rock procurement practices. The purpose of the plan was to consider fixed term contracts for rock supply chain components to build community resilience and more certainty of supply at an agreed price. The initial stage proposed the establishment and supply of flood event safety stockpiles.

An Invitation to Negotiate (ITN) process was adopted that invited suppliers to submit best prices to supply and maintain designated Regional Council stockpiles, and also stockpiles at supplier recommended sites. The process concluded with resolutions from Council to enter into stockpile arrangements for the most cost effective options.

In the case of the Rangitāiki-Tarawera Rivers Scheme, two permanent stockpiles will be established and maintained. The first will support the lower Rangitāiki River area and is located at Council’s Hydro Road site (5000 tonne). The second will support mainly the upper Rangitāiki River and is located at Wiseman Quarry, 2051 Galatea Road, Waiohau (2000 tonne). The stockpiles will be established once resource consent and supply agreements are satisfied.

The purpose of the stockpiles is to support community resilience by having material on hand in flood events and allowing time for staff to plan subsequent work should it be needed. The material will also be available to support renewal and capital works as required. The rock material referred to are not additional costs, and are included within existing budgets.

Additional to this all participating suppliers will be invited to enter into the Rivers and Drainage Panel supplier contracts for rock supply and transportation.

Maintenance programme budget 2021-2022

A budget summary table for the Rangitāiki-Tarawera Rivers Scheme maintenance programme is shown below, followed by a more detailed breakdown of the programme with estimated costs of proposed work. The annual budget figures include operational costs only and exclude non-operational costs (e.g. debt servicing and infrastructural asset insurance).

Rangitāiki-Tarawera Rivers Scheme Maintenance Works Programme Budget 2021-2022	
Annual Maintenance	\$1,107,600
Annual Flood Damage	\$200,000
TOTAL	\$1,307,600

MEMORANDUM



To: Rangitāiki-Tarawera Rivers Scheme
Advisory Group

For period 1 February to 31 July 2021

From: Paula Chapman
Project Manager - Flood Recovery

Date: 19 August 2021

File Ref: A3907011

Subject: Status Report - April 2017 Flood Repair Project (1 February to 31 July 2021)

April 2017 flood event - background

In early April 2017, the Eastern Bay of Plenty was hit by ex-Tropical Cyclone Debbie. The cyclone brought with it prolonged torrential rain, resulting in rising river levels across all the rivers and waterways in the region. The event resulted in significant damage to river and drainage networks and assets across the region, with more than 50% of that damage occurring in the Rangitāiki-Tarawera Rivers Scheme.

1 Programme update

1.1 Programme update summary

- The flood recovery project is substantially complete with only a small number of site repairs outstanding in the Rangitāiki-Tarawera and Whakatāne-Tauranga Rivers Schemes.
- The process for claiming eligible costs from central government has been ongoing, as the programme has progressed. Claim 14 was approved in July and a final claim to the National Emergency Management Agency (NEMA) for essential infrastructure repairs will be made in June 2022. The total amount received from central government to date is over \$10 million.
- Three progress payments for Infrastructure Insurance have been approved totalling \$3,600,000 and discussions are underway to finalise the claim.
- The Material Damage and associated Business Interruption insurance claim for all pump damage has been settled and received, this totaled \$1,501,719 (GST inclusive).
- Of the total 224 sites originally identified for the Rangitāiki-Tarawera Rivers Scheme, work has been completed on 144 sites, 75 lower priority sites were reassessed as work no longer required and five sites are outstanding to be complete before 30 June 2022.

1.2 Communications, community and stakeholder engagement

- Council continues to input into the regular established communication channels such as the Edgecumbe Collective Newsletter and the Regional Council website to keep the community informed on progress. The project page is included on Council's website <https://www.boprc.govt.nz/floodrepairs>

1.3 Programme risks and issues

Risk/Issue	Description	Action/management	Owner
Weather	Severe weather event may cause new damage	Review remaining sites against new works (annual flood damage)	BOPRC NEMA Insurer
Programme length	Some works unable to be completed as part of programme	Reassess at year-end and undertake works alongside annual maintenance.	BOPRC

2 Financial - Rangitāiki Tarawera Rivers Scheme

Forecast costs - total programme

Original estimated total programme cost - Rangitāiki-Tarawera	\$26,000,000
Current estimated total programme cost - Rangitāiki-Tarawera	\$18,620,000
Estimated betterment value	\$6,800,000

Expenditure and Revenue

Year	Expenditure budget	Expenditure actual infrastructure works
2016/17	\$0	\$458,439
2017/18	\$5,504,854	\$6,707,296
2018/19	\$5,497,800	\$5,320,620
2019/20	\$5,941,680	\$3,040,514
2020/21	\$7,300,000	\$2,666,409
Total	\$24,244,334	\$18,193,278
		Recoveries actual for infrastructure works
To date 2017-2021		\$7,869,828

3 Expected progress within the next six month period

- Progress remaining Rangitāiki-Tarawera Rivers Scheme site repairs.
- Complete Infrastructure Insurance Claim.

Paula Chapman
Project Manager Flood Recovery

Flood Repair Project

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



Repairing the damage



520
repair sites



Total budget
in excess of
\$45m



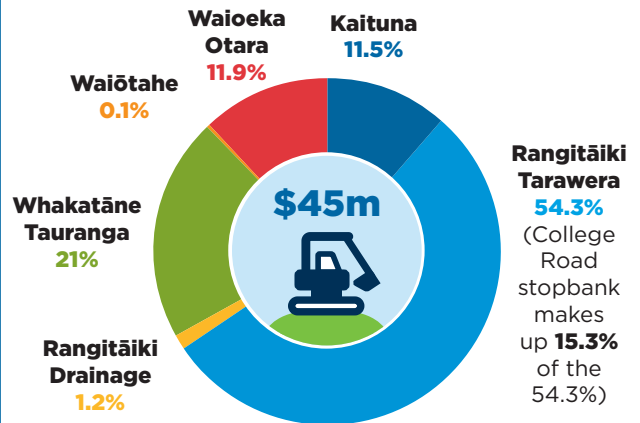
All repairs to
be completed by
30 June 2022

100% 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 217 complete ✓	Whakatāne Tauranga 108 sites 93 complete ✓	Waiōeka Otara 61 sites All sites complete ✓	Rangitāiki Drainage 53 sites All sites complete ✓
Kaituna 45 sites All sites complete ✓	Waiōtahe 31 sites All sites complete ✓	College Road stopbank realignment Complete ✓	Rangitāiki Drainage pump station repairs Complete ✓

500 SITES 96%
completed as at **30 June 2021**

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: Rangitāiki-Tarawera Rivers Scheme
Advisory Group

From: Kirsty Brown
Rivers and Drainage Assets Manager

Date: 17 August 2021

File Ref:

Subject: General Business Update

Infrastructure Insurance Review

As previously advised, a review of our infrastructure insurance is currently underway. The purpose of this review is to look at ways of reducing the annual premium costs which has been steadily increasing over the years due to market conditions, flood events and increased asset value.

As part of the review, Aon Ltd (our insurance brokers) are leading a flood risk assessment with expertise input from Tonkin & Taylor.

The main objectives of the assessment is to:

- Quantify the frequency and financial consequences of flood damage to infrastructure assets.
- Identify assets most at risk of damage from flood to inform asset management, resilience strategies and risk financing.
- Ensure cost-effective and sustainable flood risk financing by reviewing risk tolerance, flood risk retention and disaster reserving strategies.

The assessment is in two stages. Stage 1 which involved the data assessment has been completed and Stage 2 which involves the risk identification, analysis and evaluation is underway.

Group members will be kept informed of progress.

Safeguarding Our Stopbanks Project

One of the key factors that affects the performance of flood protection assets like stopbanks or floodwalls, is landowner encroachments of unauthorised structures and plantings. This is particularly concerning on the Whakatāne River where unauthorised structures like pools, sheds, fences and large trees may have reduced the intrinsic strength of the critical asset (stopbank or floodwall).

A project titled “Safeguarding our Stopbanks” kicked off 1 July 2021 which is being led by Paula Chapman. The purpose of this project is to resolve situations where

encroaching land use may have affected the integrity of the asset. The project has an urban focus. Work has been going on in the background prior to the project commencing, in particular understanding the:

- Legal and policy basis for BOPRC to undertake the project.
- Rights of property owners (building legislation, existing use rights, boundary and fencing regulations, structural vs non-structural improvements).
- Ability for BOPRC to potentially undertake works on private property (should there be high-risk situations that owners will not/cannot resolve).
- Liaison with Local Authorities to align communications and community engagement.

For the Rangitāiki-Tarawera Rivers Scheme there are fewer concerns around structure or land use encroachments. Any particular concerns will be assessed after the completion of the College Road floodwall.

Member Feedback Survey

The river scheme advisory groups enable effective communication and liaison between scheme ratepayers and BOPRC Councillors and staff.

Although the group has no statutory basis or authority to make decisions, members input is highly valued and recommendations are taken into account on all scheme matters.

It has now been four years since the current advisory group format was implemented. In the next few months a survey will be circulated seeking feedback on how members feel the groups are going and whether any improvements can be made.



Kirsty Brown
Rivers and Drainage Assets Manager

MEMORANDUM



To: Rangitāiki-Tarawera River Scheme
Advisory Group

From: Mark Townsend
Engineering Manager

Date: 19 August 2021

File Ref: A3907133

Subject: Gravel extraction in the Rangitāiki-Tarawera river catchments

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

The principal extraction occurs in the Horomanga River. The primary interest in extraction here is from Timberlands who use the material for forestry roading work.

1.0 Horomanga River – gravel extraction 2017-2021

Year	Quantity Allocated m ³	Quantity Extracted m ³
2017	19,000	12,834
2018	30,000	20,400
2019	76,000	56,353
2020	81,000	50,010
2021	40,000	32,655



Photo 1 – Horomanga River

Based on recorded gravel extractions, and surveys, the calculated inflow of gravel since 2001 has averaged only 3,700 m³ per year. However, the riverbed is still severely perched over the four-kilometre reach above Galatea Road.

It is expected that to achieve a desirable mean bed level, of around one metre below surrounding farmland, extraction of about 270,000 m³ will be required in the 5.3 km aggradational reach in the lower river.

Desirable bed levels that limit both erosion and flooding should be set to maintain a stable river profile. Extraction should then be limited to the input as measured by subsequent surveys. This number will be reassessed following each future cross-section survey. The last survey was conducted in 2019.

2.0 Jones Drywash, Mangamate and Ohutu Streams - gravel extraction 2017-2021

Year	Jones Drywash quantity extracted m ³	Mangamate Stream quantity extracted m ³	Ohutu Stream quantity extracted m ³
2017	16,519	26,492	23,920
2018	8,711	29,128	34,276
2019	22,638	0	0
2020	9868	0	0
2021	0	0	0

Staff are comfortable with no extraction occurring in Mangamate and Ohutu Streams. These two streams appear to be steep enough to transport significant quantities of gravel right through the system to the Horomanga River.

Gravel continues to move down to the Jones Drywash area due to large upstream slips in heavy rain events. This dynamic situation needs to be closely monitored to avoid significant gravel build-up that may cause flooding or infrastructure damage.

3.0 Kopuriki Stream

Year	Quantity Allocated m ³	Quantity Extracted m ³
2018	0	0
2019	0	0
2020	22,000	4,493
2021	10,000	989

Last year gravel extractions were approved for the Kopuriki Stream. Prior to 2020 there had been no gravel extracted since 2014. The Environmental Engineer notes that the Kopuriki streambed is extremely perched in places and should be dropped at least a metre in depth.

While no estimates of long-term supply have been made, significant resources now exist within the stream floodway. Any extraction should be focused on the lower reaches of the stream (i.e. cross-sections 1 to 4) and cross-sections 6 and 7, where bed levels are aggrading and large volumes have been gained over recent years.

Benefits to the river system of the extraction include:

- Reducing the potential for flooding from a severely aggraded stream;
- Reducing the potential for the stream to avulse (jump out of its bed and change course);
- Improving the flood carrying capacity of the Galatea Road Bridge.

The extraction contractor has recently applied to Whakatāne District Council for land use consent to process gravel material on land adjacent to the stream and that consent is currently being processed.

Regional Council staff from Land Management, Rivers and Drainage Operations, and Science have recently met and visited sites of interest in the Ngāti Manawa rohe alongside rūnanga staff. This has included the Horomanga and Kopuriki extraction locations. Ngāti Manawa, along with other iwi/hapū, are interested in the cultural impacts of gravel extraction, particularly on tuna habitat.

Council staff, the rūnanga and contractors are considering ways tuna habitat can be improved or created alongside gravel extraction activities.

Mark Townsend
Engineering Manager