Waioeka-Otara Rivers Scheme Advisory Group Meeting

Wednesday 23 September at 10.30am

Council Chambers
Ōpōtiki District Council
108 St John Street
Opotiki

Waioeka-Otara Rivers Scheme Advisory Group Meeting

Wednesday 23 September 2020 at 10:30am

Agenda

1 **Welcome**

2 **Apologies**

3 **Notes of previous meeting held 25 September 2019**
(25 March 2020 meeting cancelled)

4 **Matters arising from previous meeting**

5 **Central government funded projects**

6 **Engineering update**

7 **Gravel management**

8 **Operations update**

9 **April 2017 Flood Repair Project update**

10 **Finance report**

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

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

13 **General business**

a. Infrastructure insurance

b. Review of the Floodway and Drainage Bylaws 2008

c. Advisory group membership - September 2020 to September 2023

Notes of the Waioeka-Otara Rivers Scheme Advisory Group meeting held at Ōpōtiki District Council Chambers, Opotiki, on Wednesday 25 September 2019, commencing at 10:30am

Chair: Councillor Bill Clark

Advisory Group: Dean Petersen, Dave Wilson, Tania Te Whenua (part of meeting), Jessica Wiseman, Ari Erikson (Ōpōtiki District Counicl), Councillor Ken Young (Ōpōtiki District Council)

BOPRC Councillors: Chairman Doug Leeder, Councillor Norm Bruning, Councillor Marr

BOPRC Staff: Kirsty Brown (Acting Rivers and Drainage Assets Manager), Jo Heath (Asset Management Coordinator), Bruce Crabbe (Rivers and Drainage Operations Manager), Tony Dunlop (Flood Repair Project Engineer), Mark Townsend (Engineering Manager), Chris Ingle (General Manager, Integrated Catchments), Tim Senior (Land Management Officer), Hemi Barsdell (Asset Management Specialist)

Public: Tracey Hillier (Ngāi Tamahaua), Tim Herewini (Ngāi Tamahaua)

Apologies: Barry Hennessy, Robbie Petersen

1 Welcome

Councillor Clark welcomed everyone to the meeting.

Kirsty Brown introduced Hemi Barsdell who as has been appointed as Asset Management Specialist within the Rivers and Drainage Asset Management team.

2 Public Forum

Tim Herewini (Ngāi Tamahaua) addressed the meeting and expressed iwi concerns with river management, gravel extraction and resource consents. He summarised discussions between Ngāi Tamahaua and Regional Council and indicated that iwi want a joint river management agreement where Council achieves river scheme works through joint decision making that meets iwi/hapū priorities.

3 Apologies

Apologies received as recorded above.

4 Notes of previous meeting held 3 April 2019

Resolved

That the Waioeka-Otara Rivers Scheme Advisory Group:

1 Confirm the notes of the meeting held 3 April 2019 as a true and correct record.

Clark/D Petersen
CARRIED

5 Matters arising from previous meeting

Kirsty Brown ran through the actions from the previous meeting:

- 10-year financial projections for all river schemes were provided to members following the April meeting and members were also referred to the Rivers and Drainage Asset Management Plan, Section 10.3 pp199-210 https://cdn.boprc.govt.nz/media/786843/rivers-and-drainage-asset-management-plan-2018_2068-final-print.pdf

There were no other matters arising.

6 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.

Attendance: *Mark Townsend joined the meeting at 10:51 am.*

7 Operations update

Tony Dunlop delivered a presentation on scheme maintenance work – showing a range of operational and maintenance work and 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 in the last 12-18 months and there are 12 flood damaged locations requiring significant repairs at an estimated cost of $800k. This work is funded through the annual maintenance and operating budget and we are forecasting an overspend of $700k at the end of 2019-2020. This will be funded through a loan.
- Most of the sites are high priority from a scheme perspective i.e. areas protecting stopbanks and we don't really have a choice but to do the work. Important to spend scheme money where there is the highest level of risk.

Discussion:

- Rivers naturally want to move and meander, and bank erosion is a natural process that is accelerated by flood events. Erosion is only a concern because we have developed the land for production and want to artificially restrain the river to utilise as much land as possible.

- Concern expressed that the longer sites are left unrepaired the worse they get and the repair cost increases.
- Councillor Young raised the question of at what stage do we stop trying to control nature and let the river have the room it needs. Suggested that the money used for erosion repair could go to purchasing land along the river.

Attendance: *Tania Te Whenua joined the meeting, and Councillor Young left the meeting, at 11:15am.*

- The effects of climate change were discussed. With climate change there are a lot of unknowns and the concept of retreat is very much a key philosophy of action for climate change. Council's River Scheme Sustainability project is looking at the sustainability of the river schemes over the next 100 years and considering various options for the future.
- Suggestion made to have sacrificial areas all along the river where in times of flood the river flows over farm land. The silt left behind is beneficial to soil health, it's just the debris and rubbish that is an issue. From a river management perspective this is a good solution – making room for the river - however we don't see many landowners volunteering their land as a flood flow path and there is always the expectation of compensation.

7.1 Assessment of river management methods

Tony Dunlop explained that Council contracted Gary Williams (G & E Williams Consultants) to undertake an assessment of river management methods in the Whakatāne-Tauranga and Waioeka-Otara schemes. Tony briefed the group on what Gary's assessment covered and the key findings.

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 is suggesting a model with 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.

8 Flood Repair Project update

Kirsty Brown 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.
- Good progress has been made in the Waioeka-Otara scheme due to the security of suitable rock supply from Matawai.
- 55 sites from a total of 61 sites in the Waioeka-Otara rivers scheme have been completed (90%). The six remaining Waioeka-Otara sites will be completed by 30 une 2020.
- Overall programme 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 local authorities, 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.

9 Engineering update

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

9.1 Duke Street pump station

Modelling results indicated that the level of service is not being met and a number of options have been considered with Option 3, create more storage adjacent to Duke Street Pump Station, being determined as the most beneficial. This option does require a change to the level of service as some areas will have water ponded on them for longer than 30 hours (i.e. the existing level of service). A change to the level of service does require consultation and a review of the Rivers and Drainage Asset Management Plan.

9.2 Waioeka-Otara rivers capacity review

This work involves the 10-yearly review of the flood protection infrastructure to determine whether the accepted levels of service are being met. This capacity review has multiple components over a period of 4-5 years. The hydrological assessment scheduled for 2018-2019 was rescheduled to 2019-2020 as staff were diverted onto the Ngongotahā Flood Response project. Work will be undertaken in the first half of 2020.

10 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 $1,483,000 - $45,000 higher than budget.
- Total operating expenditure was $1,370,000 - $341,000 higher 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 $51,000 higher than budget reflecting the flood repair project being ahead of schedule in this scheme.
- Capital expenditure was $1.3m higher than budget. This is due to the April 2017 Flood Repair Project completing more repair sites than planned because of a secure rock supply while other schemes are struggling to get suitable rock in the required volumes. The 2019-2020 Waioeka-Otara budget has been reduced accordingly.
- The scheme's flood damage reserve has been fully allocated.
- The scheme's works reserve has $849,000 available.
- Outstanding loans of $6.5m at the beginning of the year have been reduced to $6.2m.
- Asset valuation increased by $9.4m to $44.7m due to higher construction costs and new assets created under the April 2017 Flood Repair project.

11 General business

11.1 Gravel management update

Mark Townsend spoke to the gravel management update provided in the agenda pack.

Analysis of survey data undertaken post the April 2017 flood events has been completed. Overall in the Waioeka system there has been a net volume gain of 31,000 m^3 (2014-2018). The quantity of gravel considered sustainable in the Waioeka is being reduced from 30,000 m^3 to 20,000 m^3 per annum.

Overall in the Otara system there has been a net volume gain of 61,000 m^3 (2013-2108). There has been a noticeable build-up of gravel over the last five to six years and future extractions should be considered for river management purposes (e.g. overflow cuts), particularly where high beach armoured areas exist. It is recommended that gravel extraction in this river be increased to keep the river at a desirable bed level.

Kirsty Brown updated members on the renewal of the consents for gravel extraction from the Waioeka and Otara rivers. The consents expired last year and we have been operating under Section 124 of the Resource Management Act which allows work to continue under the existing consent conditions until a new consent is issued. The consent applications were notified and five submissions have been received. Two of the submissions were opposed to the granting of the consents. Meetings are underway with the submitters to understand and address their concerns.

11.2 Stopbank damage from grazing

Kirsty Brown delivered a presentation on damage to stopbanks over winter. Presentation showed several examples 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 Rangitāiki Plains 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.
- Vehicle damage of the Waioeka River stopbank by Tarawa Creek is yet to be remediated as staff are waiting for the site to dry out to enable appropriate repair.
- A brochure *'Stopbanks – a community asset'* has been produced and copies were provided to advisory group members.
- Staff recently discovered an extensive rabbit warren inside a section of Rangitāiki River stopbank. The maze of tunnels presented a significant risk to the integrity of the stopbank and the area (approximately 40 metres long) was repaired immediately.

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.

Meeting closed at: 12:42pm

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Waioeka-Otara Rivers Scheme Advisory Group**

From: Mark Townsend
Engineering Manager

Date: 3 September 2020

File Ref: A3616325

Subject: **Engineering Update**

1 Waioeka-Otara Capacity Review

Budget 2020-2021: Hydrology and modelling $195,000

This work involves the 10-yearly review of the capacity of the Waioeka Otara Rivers Scheme infrastructure to determine whether the accepted levels of service are being met. Hydrology work has been carried out and the subsequent hydraulic modelling work has been through a tender process. Twelve proposals were received and evaluated. A preferred supplier has been selected and a kick off meeting has been arranged. The capacity review is expected to be complete by June 2021.

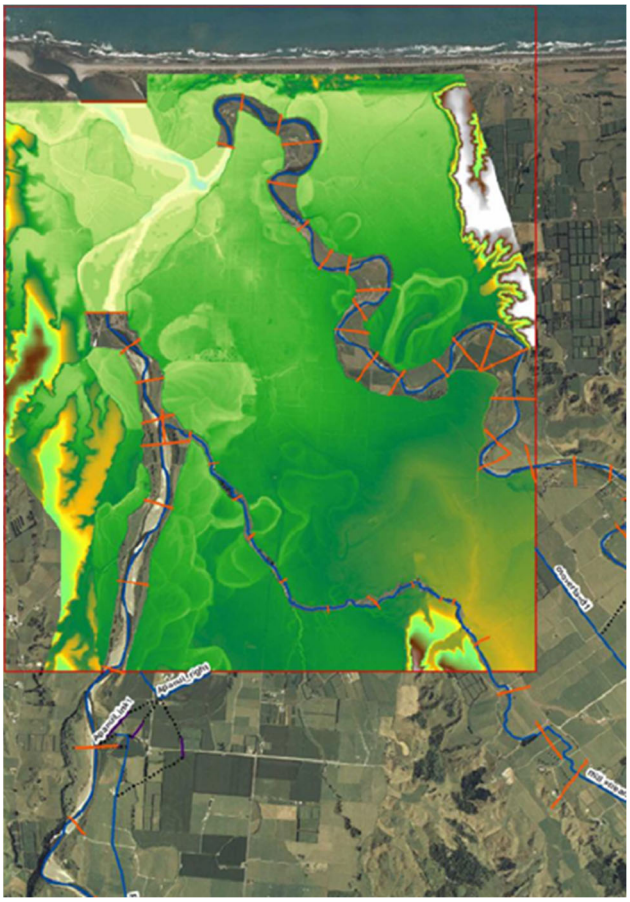


Photo 1: Waioeka Otara Rivers Scheme, Capacity Review Area

2 Otara River Stopbank Geotechnical Investigations

This project involves undertaking testing of stopbanks and floodwalls and the analysis of results alongside existing information to inform future upgrade works. The stopbanks will be analysed in sections based on the soil regions to allow seepage and stability assessment and two floodwalls will also be evaluated. The expected cost is approx. $200,000.

Good communications within the community will be required to ensure safe operations and to let the public know about the activity.

Photos 2 and 3: Waioeka-Otara Rivers Scheme Floodwalls

3 Waioeka Estuary Restoration and Floodway Enhancement

Budget 2020-2021: $4,000,000

This project involves removing existing stopbanks and converting low-lying farmland to estuary/wetland habitat. Extensive revegetation and some earthworks would be needed to enhance the estuary/wetland area and to maximise habitat restoration for native fish (particularly inanga and tuna) and bird species. The project would require the acquisition of most of the existing floodway land. Benefits of the proposal include;

- Improving the mauri of the river and estuary
- Restoring former estuary and wetland habitat
- Removing dairying and nutrient inputs from the floodway and surrounding area
- Adding to the adjoining priority biodiversity area
- Reduced flood risk to the Ōpōtiki urban stopbanks (to be confirmed by modelling)
- Enhancing recreational access
- Opportunity for walkway/cycleway through and around cultural and biodiversity sites

The total project cost estimate is $4 million and this was not originally included in the Annual Plan 2020/21.This project was one that was recently approved for Crown Infrastructure Partnership (CIP) funding of up to 75% or $3 million. The local share portion 25% ($1 million) would need to be funded through new borrowings.

At its meeting of 3 September the Council resolved as follows;

Agrees to fund new capital expenditure of $4.0 million in 2020/21; and agrees to new Crown Infrastructure Partners funding of $3.0 million which results in higher budgeted borrowings of $1.0 million for Waioeka Estuary restoration and floodway enhancement.

At this stage the limited Iwi, Hapū and District Council consultation has been extremely positive however the proposal has yet to be discussed widely with the community.

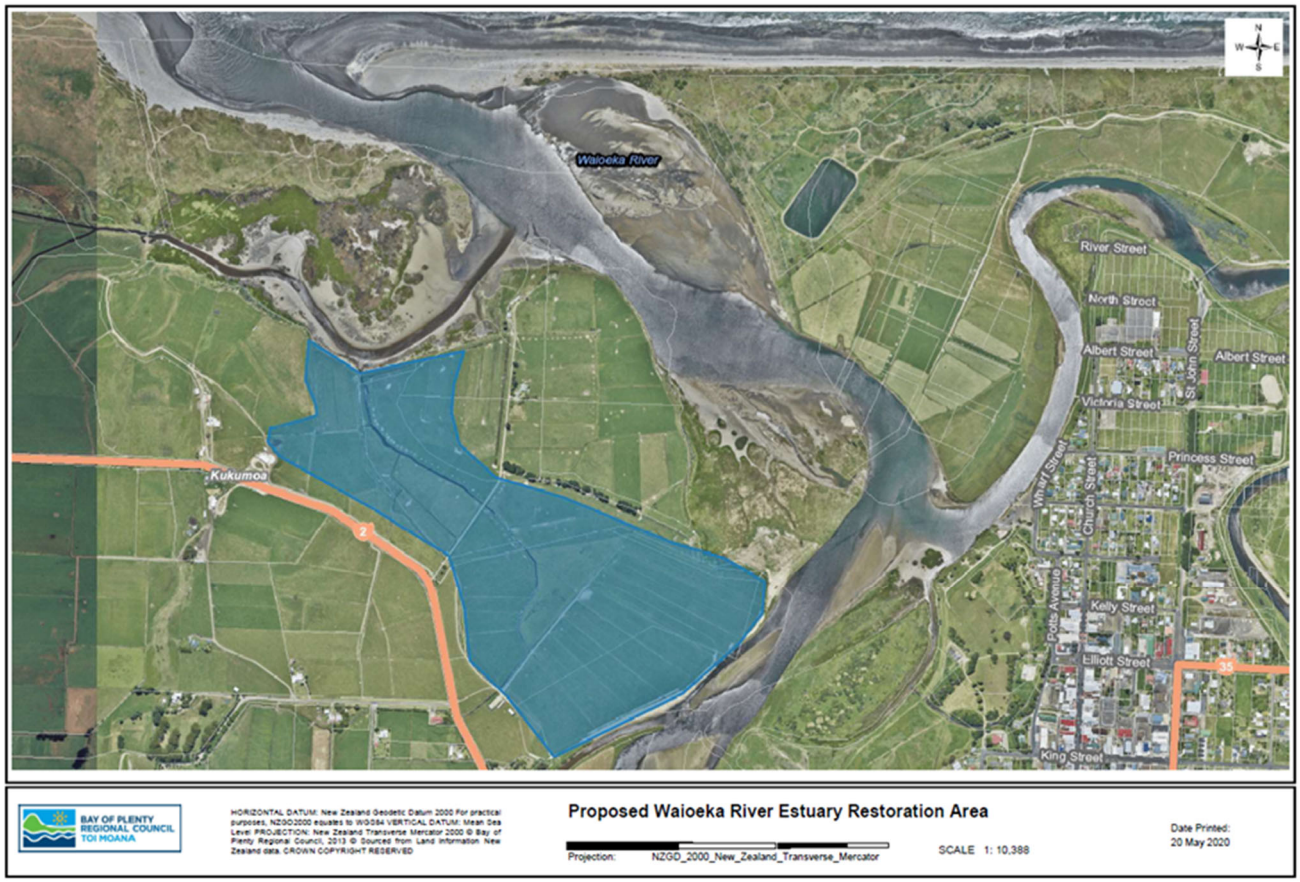


Photo 4: Indicative area of proposed Waioeka River Estuary Restoration

Mark Townsend
Engineering Manager

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Waioeka-Otara Rivers Scheme Advisory Group**

From: Mark Townsend **Date:** 3 September 2020

Engineering Manager

File Ref: A3616981

Subject: **Gravel Management Update**

1 General

Gravel extraction quantities within the Waioeka-Otara Rivers Scheme are detailed below. The floods experienced in April 2017 were a major influence on gravel river beds with significant changes observed. Cross section surveys were undertaken following the flood event to identify changes that have taken place.

2 Extraction

Waioeka River – The quantity considered sustainable in the Waioeka is 20,000 m3 per annum (reduced from 30,000 m3 per annum). Additional to this are significant quantities in the Waioeka Gorge on high beaches which should be lowered and loosened to facilitate travel of gravel downstream to the farmland reach.

Otara River – There are variables over the length of the Otara River. Overall, within the design width, there has been a net volume gain of approximately 61,000 m^3 (2013-2018). This is additional to the gains experienced in the periods 2010-2013, 2007-2010 and further back to 1996. Future extractions should be considered for river management purposes (overflow cuts), particularly where high beach armoured areas exist.

Council staff have been actively involved in talking with Whakatōhea hapū about the work of Regional Council, including work undertaken by Rivers and Drainage activity. More detailed discussions have progressed with Ngāti Ira hapū regarding gravel extraction.

3 Consents

The Rivers and Drainage section currently holds resource consents to extract up to 50,000 cubic metres per annum of gravel for river management purposes from both the Waioeka (RC 61321) and Otara (RC 61322) rivers. Both consents expired in April 2019 and renewal consent applications have been lodged, meeting Section 124 Resource Management Act requirements. This provides for consent holders to continue to operate under expired consents while replacement applications are processed.

Staff had an initial meeting with the two opposing submitters in August 2019. Their concern is about the extraction quantities proposed in the consent, and a perception that extraction is commercially driven. Since then staff have been working with Ngāti Ira Hapū to understand and resolve their concerns about extractions particularly on the Waioeka River and how Ngāti Ira want to work with the Council more closely on the consent renewal and the operation of the consent. Further meetings are planned.

4 Waioeka-Otara Rivers Scheme gravel extraction summary

1 June 2019 – 30 June 2020

River	Site	Quantity extracted (m^3)
Otara River	Carter's Pit	90
	St Johns Street	210
	Ford Street	200
Total		**500**
Waioeka River	Riverlock	756
Total		**756**

1 July 2020 – 31 August 2020

River	Site	Quantity allocated (m^3)
Otara River		0
Total		**0**
Waioeka River	Beaties Pit	10,000
	Maxwell's, left bank	7,000
	Maxwell's, left bank	6,000
Total		**23,000**

Mark Townsend
Engineering Manager

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Waioeka-Otara Rivers Scheme Advisory Group**

From: Tony Dunlop **Date:** 23 September 2020

Flood Restoration Engineer/Area Engineer

File Ref: A3605389

Subject: **Operations Update – Works Completion Report 2019-2020**

1 Waioeka River

1.1 Planned maintenance

Establish and maintain overflow diversions to ease/reduce velocities on river bank protections, reducing the possibility of river channel degrading causing river bank slumping at Robbie's Pit, Beattie's/Nicol's **(deferred to 2020-2021**) and Riverloch/Maxwell's. **Completed.**

Photo 1: Robbie's Pit overflow depression

- Ongoing scheme drain desilting/spraying - approximately 2.5 km. **Completed.**
- Floodgate checks and maintenance. **Completed.**
- Ongoing weed control, including 9.7 km of beach weed spraying targeting pampas grass and other invasive weeds. **Completed.**
- Willow and vegetation maintenance on the right bank berm downstream State Highway Bridge (town side). **Completed.**
- Waioeka SH Bridge remove silt build up blocking waterway under bridge. **Completed.**


Photos 2 and 3: Waioeka R SH bridge – Silt removal (before and after)

1.2 Reactive maintenance

At the September 2019 meeting we showed pictures of damage to the stopbank and berm at Tarawa Creek caused by a vehicle getting stuck and having to be towed out. Restoration of this site has now been completed.


Photo 4 and 5: Stopbank damage at Tarawa Creek outlet (before and after)

1.3 Annual flood damage

- Riverloch Farms, right bank, 10.6km: 80 lineal metres of channel narrowing causing rock slumping. **Rock replenishment repairs completed.**
- Riverloch Farms, right bank, 9.5km: 110 metres of channel narrowing causing rock slumping. **Rock replenishment repairs completed.**
- Whakatōhea, right bank, 5.0km: 110 metres of channel narrowing causing rock slumping. **Rock replenishment repairs partially completed.**
- **Nicol's**, right bank, 6.5km: 110 metres of channel narrowing causing rock slumping. **Rock replenishment repairs completed.**

Photo 6: Waioeka River Riverlock Farms 10.6km completed

2 Otara River

2.1 Planned Maintenance

Establish and maintain overflow diversions to ease/reduce velocities on river bank protections reducing the possibility of river channel degrading and causing slumping at Carters lower site, Carters top site and Rewa Hill site.

Photo 7: Carters Top Pit overflow diversion in place

Photo 8: Carter Lower – Overflow depression in place

- 9.7 km of beach weed spraying targeting pampas grass and other invasive weeds.
- **In progress.**
- Te Rere Marae drainage - upgrade Aerodrome drains (marked in red in Photo 9 below) to ensure they operate more effectively in heavy rain fall events and prevent frequent flooding around the Marae. **Completed.**

Photo 9: Te Rere Pā drainage improvements

Photo 10: Te Rere Pā Marae Drain before

Photo 11: Marae Drain Completed.

- Otara River berm area Ōpōtiki Pony Club – mulched vegetation and trees to allow for a more effective floodway. **Completed.**

Photo 12: Ōpōtiki Pony Club site on right hand side

Photo 13: Area after vegetation had been mulched

2.2 Annual Flood Damage

The following key sites needed urgent attention to prevent major erosion and damage occurring to existing assets:

- Carters/I Brown Pit Left Bank 13.3km - 80 metres of rock slumping repairs caused by gravel build up on beach, narrowing channel. **Completed.**
- Rewa Hill/Ernest site left bank - 80 metres of rock slumping causing channel degradation. **Completed.**
- I Brown property 12.6km left bank - replant/re-trench willows to repair river bank slumping amongst willow protection. **Completed.**


Photo 14 and 15: Ernest rock slumping – before and after

- Ōpōtiki Wharf - 200 metres of rock movement requiring topping up/replenishment. **– Completed.**

Photo 16: Ōpōtiki Wharf rock movement

Photo 17: Ōpōtiki Wharf site Completed.

- Thornton Orchard – right bank, 50 metres of raw bank erosion threatening existing rock work and stop bank. Pending suitable rock supply.
- D Peterson – right bank 19.8km 80 lineal metres of trench willow/pole planting**. Completed.**
- Pakihi Road left bank 19.4km - damage from February 2018 flood threatening security of the road. **Completed.**

Photo 18 and 19: Pakihi Road (before and after)

Tony Dunlop
Flood Restoration Engineer/Area Engineer

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Waioeka-Otara Rivers Scheme Advisory Group**

From: Tony Dunlop **Date:** 23 September 2020

Flood Restoration Engineer/Area Engineer

File Ref: A3605898

Subject: **Operations Update - Planned Works 2020-2021**

1 Waioeka River

1.1 Planned Maintenance

- Establish and maintain overflow diversions to ease/reduce velocities on river bank protections, reducing the possibility of river channel degrading and causing river bank slumping at Robbie's Pit, Beattie's/Nicol's and Riverloch/Maxwell's.
- Ongoing scheme drain desilting and spraying - approximately 2.5 km.
- Floodgate checks and maintenance.
- Floodgated culvert outlet desilting and spraying.
- Ongoing beach weed spraying targeting pampas grass and other invasive weeds.
- Willow and vegetation maintenance on the right bank berm downstream State Highway 2 Bridge (town side).

Photo 1: Waioeka River Robbie's Pit Overflow depression maintenance

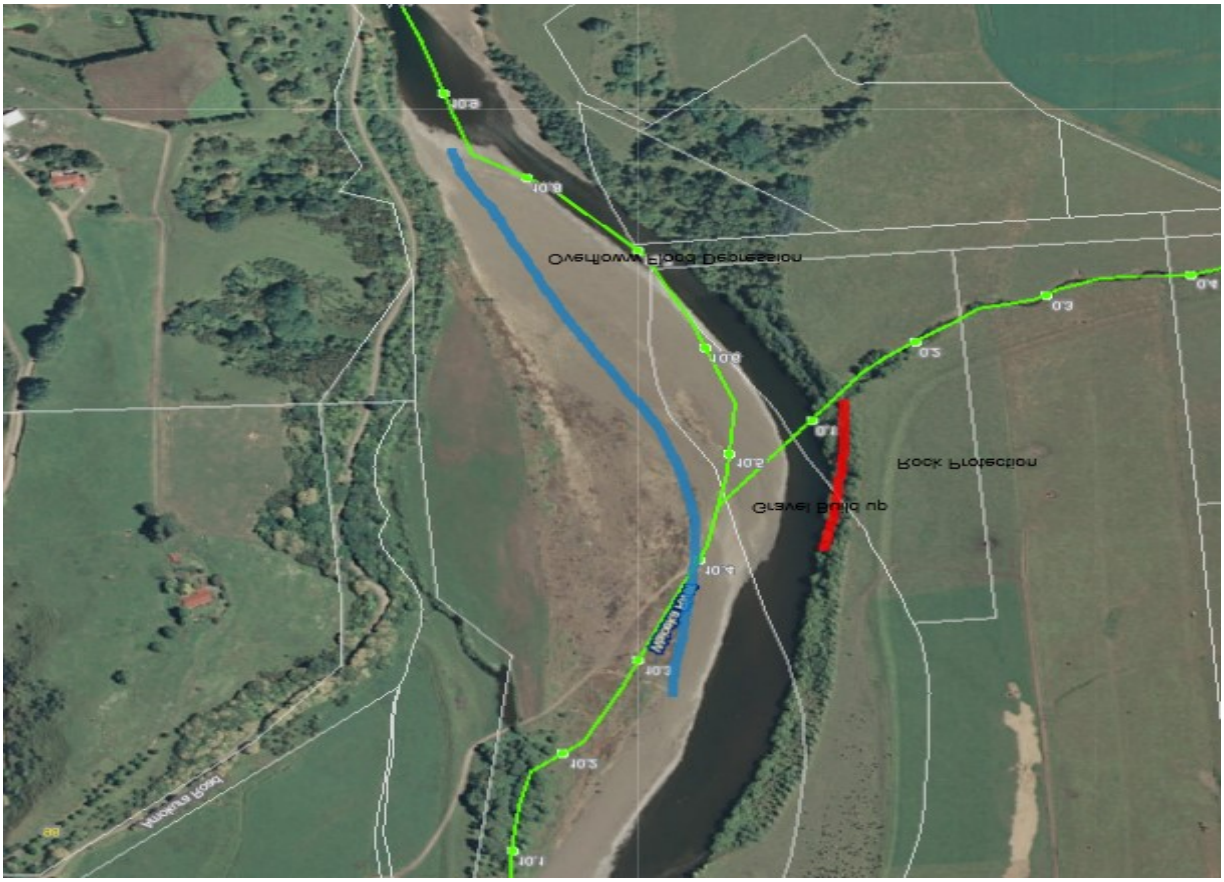


Photo 2: Maxwell Overflow depression

Photo 3: Beattie's Flood Overflow depression

1.2 Annual Flood Damage

- Riverloch Farms, right bank, 9.4km: 100 lineal metres rock lining damage.
- Connors, left bank, 2.4km: 130 lineal of rock slumping- rock lining.
- Whakatōhea, right bank, 5.0km: Complete rock lining works started May/June 2020.

2 Otara River

2.1 Planned Maintenance

- Establish and maintain overflow diversions to ease/reduce velocities on river bank protections, reducing the possibility of river channel degrading and causing river bank slumping at Carters (lower site), Carters (top site) and Rewa Hill/Hillyard's.
- Ongoing scheme drain desilting/spraying - approximately 2.5 km.
- Floodgate checks and maintenance.
- Floodgate culvert outlet desilting and spraying.
- Ongoing beach weed spraying targeting pampas grass and other invasive weeds.
- River berm willow and vegetation maintenance.
- Te Rere Marae drainage - desilt drains.
- Moody Trust – SH bridge.

Photo 4: Carter's Overflow diversion maintenance

2.2 Carters – Right Bank (DOC Lease) – Establish Wetland

- Mulch and clear unwanted willows and Japanese Nut trees.
- Replant with native shrubs – Cabbage trees, flax and toetoe.

Photo 5: Carter's right bank - Establish wetland

2.3 Rock Replenishment - Otara River Left Bank Memorial Park

Photo 6: Otara River, Left bank, Rock Replenishment 0.6-0.75km

2.4 Annual Flood Damages

The following key sites suffered significant erosion:

- **Thornton Orchard**, right bank: 50 metres of raw bank erosion threatening existing rock work - rock has been stockpiled 2019-2020, and work is ready to commence.
- **Ruby Trust,** right bank: Approximately 500 lineal metres of river bank erosion threatening a 'two-year' rural stopbank (see red line on map below). This site has had erosion slowly expanding for several seasons now. Unfortunately it ranks as a low priority site because there are no critical assets being protected. The cost estimate to carry out the repair is approximately $350,000 because of its length and depth. The Scheme has an annual flood repair allowance of $160,000 per annum. The current 2020-2021 year's flood repair budget is once again over-allocated to higher priority sites.

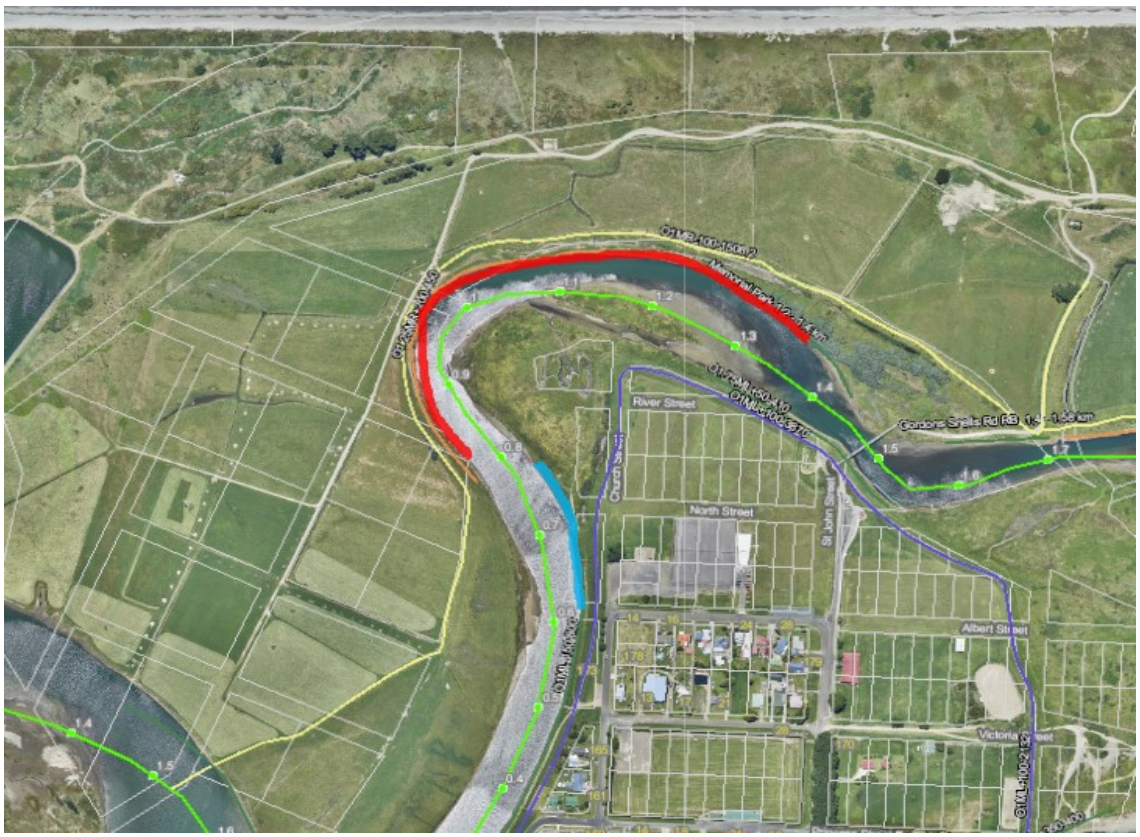


Photo 7: Ruby Trust site, Otara River

Photo 8: Ruby Trust, Otara River – River bank erosion

Tony Dunlop
Flood Restoration Engineer/Area Engineer

Waioeka - Otara Rivers Scheme Maintenance Works Programme: Financial Year 2020/2021

31/08/2020 Objective ID: A3510043

Row		Work type	Reach	Location (LB=left bank, RB=right bank)	Annual Budget	Job estimate	Status/notes
1	**General**						
2		**Annual Flood Damages**			**$160,000**		
3		Waioeka River, Connors - Rock lining 120m	R1	LB 2.5		$126,000	
4		Waioeka River, Riverloch Farms - Rock lining	R2	RB 9.3 to 9.5km		$85,000	Stock piled
5		Waioeka River, Whakatōhea - Rock lining	R2	RB 5.0km		$12,000	Started May/June 2020
6		Otara River, M Gloyns - Trench willows- 80m	R4	LB 16.9km		$15,000	Completed
7		Otara River, Thornton Orchard - 100 metres	R3	RB 2.4km		$41,000	High Priority (rock in stockpile)
8		Otara River, Gault's (lower Farm) - 150m trenched willows	R3	RB 9.4km		-	$15k, low priority
9		Otara River, Ruby Trust - 500 lineal metres of River bank deterioration	R3	RB 0.8-1.3km		-	$360k, low priority
10		**Subtotal flood repairs**				$279,000	Over budget, $113k
11							
12		**Fly tipping and rubbish collection/disposal**			**$8,000**	$4,000	
13		**Pest control**			**$8,000**	$4,000	
14							
15	**Drainage**	**Aquatic weed spraying**			**$10,200**	$11,000	
16		Apanui Drain/Whakatōhea - spraying (contact G Nicol)	R1	RB 0.0-3.8 km			
17		Mill Stream		L&RB various sites			
18		Baird's Drain - spraying		L&RB various sites			
19		Duke Street - spraying		RB 0.0-0.1 km			
20		Mill Stream to Warrington's Road - spraying		L&RB 0.0-6.0 km			
21		Mill Stream Otara Branch - G Young's					
22		McCallion's Drain - spraying		L&RB 0.0-2.4 km			
23		Te Rere Pa Drain - spraying		Various			
24		Aerodrome Drains x 2- spraying		L&RB 0.0-1.2 km			
25		Vanstone's Drain - spraying		L&RB 0.0-1.2 km			
26		Baird's Rd Drain (Connor's)					
27							
28		**Drain desilting**			**$8,800**		
29		Apanui Drain - outlet to G Nicols.				$8,000	Completed
30		Various if required		various		$5,000	
31							
32	**Rivers**	**Channel / berm /river banks weed spraying**			**$17,500**	$18,000	
33		Beach spraying	R1,2,3,4	Various beaches			
34		Nut tree eradication	R1,2,3,4	Various locations			
35		Matchett Road - Bamboo spraying	R2	RB 3.6 km			
36		Waioeka Pa outlet - spraying	R2	RB 12.0 km			
37		Floodgated outlets	R1,2,3,4	Various locations			
38		Waioeka confluence berm spraying - Connor's	R1	RB			
39		Berm weed Spraying - Waioeka (Ford St - SH Bridge) - Otara (Pony Club - Thornton Orchard)	R1 & 3	Various			
40							
41		**Release Spraying Native plantings (both rivers)**					
42		Otara River, Carters (Doc Lease) - Native shrubs	R3	RB 13.3 to 13.5km		$500	
43		Otara East Bridge - Native shrubs planted	R3	LB 9.8 to 10.1km		$500	
44		Riverloch Farms	R2	RB 9.5km		$500	
45		Anstis rockworks	R2	LB 6.9-7.1		$200	
46		D Wilsons	R2			$200	
47							
48		**Planting (Willows/native shrubs - Toetoe & cabbage trees)**	R2		**$22,800**		
49		Anstis rockworks	R2	LB 6.9-7.1		$1,200	
50		Waikere	R2	RB 12.7 km		$3,000	
51		Otara River Carters - Wetland Establishment	R4	RB 13.2km		$3,000	
52		Riverloch Farms	R2	RB 9.5km		$2,000	In progress
53							
54		**Tree maintenance: layering/mulching/clearing/replanting**			**$44,200**		
55		Gault's - Layering/transplanting	R3	RB 8.1 to 9.2km		$7,000	
56		Carters/Doc land - Mulching	R4	RB13.1		$3,000	In progress

57		Otara River, Thornton Rest Home - Berm mulching	R3	RB 2.5- 2.9km		$5,000	
58		Otara River, Richard St to Te Rere Pā Rd.	R3	LB 3.9 - 5.6km		$5,000	Completed
59		Otara River, Pampas etc	R4	LB 11.6-18.6km		$17,000	In progress
60		Waioeka R. SH Bridge, berm mowing maintenance	R1	RB 2.5 -3.6km		$8,000	ongoing
61		Waioeka River, Riverloch Farms, mulching willows	R2	RB 9.4 - 9.7km		$12,000	In progress
62		Waioeka River Whakatōhea Willow Trenching/planting	R2	RB 6.1km		$10,000	In progress
63		**Rock replenishment**			**$77,100**		
64		Otara River, Memorial Park - 120 metres	R3	RB 0.6-0.75km		$112,000	
65		Otara River, Moody Trust SH Bridge	R3	RB 3.2 km		$90,000	
66		**Fencing**			**$20,700**		
67		Various	All	Various locations		$4,000	
68							
69		**Beach shaping & channel maintenance**			**$90,600**		
70		Beach shaping	R1	Various locations		$1,000	
71		Beach shaping - ripping	R2	Various locations		$10,000	
72		Overflow channel maint. - Whakatōhea/Robbie's Pit	R2	RB		$3,000	
73		Overflow channel maint. - Nicol's/Beattie's	R2	LB		$3,000	
74		Overflow channel maintenance - Maxwell's/ Riverloch	R2	5.8-10.4km		$3,000	
75		Beach Shaping	R3	Various locations		$12,000	
76		Beach shaping - ripping	R4	Various locations		$10,000	
77		Overflow channel maint. - Rewa Hill/Hillyards	R4	RB		$3,000	
78		Overflow channel maint. - Carter's lower & top beach	R4	RB13.2-14.3km		$3,000	
79							
80		**Condition assessment defects repairs- Floodgates /stopbanks**	R1,2,3,4	Various locations		$30,000	On going
81							
82	**Stopbanks**	**Minor floodgates inspection/repairs/ maintenance**			**$11,800**		
83		Floodgate outlet inspections/maintenance	All	Various locations		$4,000	ongoing
84		Ford Street Outlet De silting	R1	3.0km		$2,000	Completed
85		Floodgate Outlet desilting	all	Various locations		$10,000	Ongoing
86							
87		**Stopbank miscellaneous maintenance**			**$37,000**		
88		Spraying floodwalls - Urban area	R1&3			$1,000	
89		Floodwall maintenance - sealant replacement (tbc)	R3	LB 3.4-3.6 km		$8,000	
90		Stopbank weed spraying/mowing	all	Various locations		$10,000	
91		Otara R. Edwardson's Outlet replacement				$8,000	Completed
92							
93	**Duke Street Pump Station**	**Pump inspections**			**$2,100**	$3,600	
94		Pump six-month inspection			**$600**	$600	
95		2.5 year maintenance			**$800**	$800	
96		5 year maintenance			**$4,200**		
97		Miscellaneous repairs/maintenance			**$2,100**	$2,100	
98		Electricity			**$9,500**	$9,500	
99							
100		**Annual operational maintenance budget**			**$376,000**		
101		**Estimate of scheduled annual maintenance**				**$476,200**	
102		**Annual flood damage budget & estimates**			**$160,000**	**$279,000**	
103		**Total Estimated Operating Costs**			**$536,000**	**$755,200**	**$109k over budget**
104							
105		**Capital Works**					
106		**Factory Rd - Mill Stream Outlet Replacement**	R2	Mill Stream	100,000		Under Investigation

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**

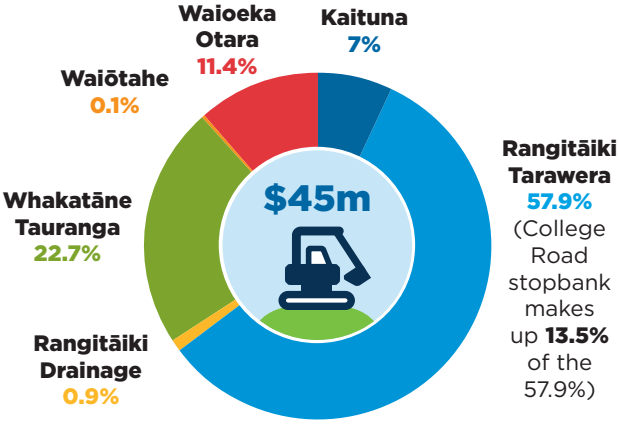
All repairs to be completed by **30 June 2022**

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

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

Repair costs by River Scheme

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



Tracking our progress

Rangitāiki Tarawera	Whakatāne Tauranga	Waioeka Otara	Rangitāiki Drainage
224 sites	108 sites	59 sites	53 sites
127 complete ✓	73 complete ✓	58 complete ✓	All sites complete ✓

Kaituna	Waiōtahe	College Road **stopbank realignment**	Rangitāiki Drainage **pump station repairs**
45 sites	31 sites		
29 complete ✓	All sites complete ✓	Complete ✓	Complete ✓

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

What's happening in 2020-2021

2020-2021 budget
11.3million

To complete:

93% of all sites

100% of high priority sites

110 Repairs to further sites across the region

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

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: **Waioeka-Otara Rivers Scheme Advisory Group**

For period 1 March to 31 July 2020

From: Paula Chapman **Date:** 3 September 2020

Project Manager - Flood Recovery

File Ref: A3614972

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 now in its fourth year of the estimated four year programme. Physical repair works have been steady across the programme as conditions and materials availability have allowed. Favourable weather, good ground conditions along with unconstrained material supply will see the entire programme completed by 30 June 2021, however it is more likely that there will be a small number of Rangitāiki River and Whakatāne River sites that will be carried over for completion in the 2021/22 year.
- As at 31 July 2020, 399 site repair works are complete from the total programme of 520 sites. This work includes many of the highest priority works. In the case of the Waioeka-Otara Rivers Scheme, only one site remains to be completed of the total programme of 61 sites (this includes twelve sites which have been assessed as low priority and not needing work and will be monitored until the end of the programme).
- The process for claiming eligible costs from central government is well established. Current claims are for essential infrastructure repairs. Claim 12 was received in June and Claim 13 is currently being drafted. The total amount received from central government to date is over $8.5 million.
- Two progress payments for Infrastructure Insurance have been received totalling $3,000,000.

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

1.2 Environment and Heritage

- Works comply with the Natural Hazards Plan, Bay of Plenty Regional Council policies and bylaws for the Rivers and Drainage activities.

1.3 Communications, community and stakeholder engagement

- 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.

1.4 Procurement

- The total programme is made up of multiple smaller projects and these have been delivered utilising established Rivers and Drainage Panel Supplier contract agreements. The panel approval process ensures contractors are capable of the work and hold the necessary accreditations and insurance cover.
- The shortage of suitable graded rock supply constrained the programme of works in the Eastern Bay of Plenty, specifically work on the Whakatāne River and the lower Rangitāiki and Tarawera Rivers however this did not impact the Waioeka-Otara River works.

1.5 Programme Delivery

A total of 520 sites have been identified in the repair programme across the region, 61 are associated with the Waioeka-Otara Rivers Scheme.
Across the programme 399 sites have been completed, 60 of these are in the Waioeka-Otara Rivers Scheme.
The remaining site in the Waioeka-Otara Rivers Scheme will be completed this financial year.
110 sites are targeted for completion across the total programme in 2020/21.
Total programme completion date remains at 30 June 2021, however there may be a small number of sites in other schemes carried over to the following year.

The last remaining site in the Waioeka-Otara Rivers Scheme is WO160 Gault, this work involves the repair of slumping and erosion on both sides of the existing culvert outlet.

1.6 Financial

Forecast costs - total programme

Estimated total programme cost Waioeka-Otara Rivers Scheme	$5,370,000
Estimated betterment value	$2,800,000

2017/2018 – actual costs

Expenditure budget – for infrastructure works	$882,124
Total expenditure at 30 June 2018 – for infrastructure works	**$2,371,870**

2018/2019 – budget vs actual

Expenditure budget – for infrastructure works	$1,234,200
Total expenditure at 30 June 2019 – for infrastructure works	**$2,942,622**

2019/2020 – budget vs actual

Expenditure budget – for infrastructure works	$700,000
Expenditure at 30 June 2020 - for infrastructure works	**$143,025**

2020/2021 – budget vs actual

Expenditure budget – for infrastructure works	$0
Expenditure at 31 July 2020 - for infrastructure works	**$0**

2 Programme risks and issues

Risk/Issue	Description	Action/management	Owner
Insurance	Claim limits for individual works	Aon insurance specialist supporting claim process	BOPRC Aon
Cost	Cost exceeds budget	Work closely with NEMA and insurers, maximise contributions from other stakeholders	BOPRC Aon NEMA Insurer

3 Recoveries

- Staff are working with insurance specialists Aon to progress the insurance claims process to date. Staff met with our insurance specialists recently to consider the remainder of the programme and early settlement possibilities.
- The project team are working with the central government National Emergency Management Agency (NEMA previously MCDEM) representatives and are comfortable with the process and speed of recoveries to date.
- Two progress payments for Infrastructure Insurance have been received totalling $3,000,000.
- Recoveries to date specifically related to Waioeka-Otara Rivers Scheme flood repair works amount to $2,127,723.

4 Expected progress within the next six month period

- Complete all April 2017 repair work in the Waioeka-Otara Rivers Scheme.
- Monitor Waioeka-Otara Rivers Scheme sites that do not require repair works.
- Submit and receive NEMA Claim 13.

Paula Chapman
Project Manager Flood Recovery

Bay of Plenty Regional Council - Toi Moana - Rivers Advisory Group
Statement of revenue and expense: Waioeka-Otara Rivers Scheme - draft

For the 12 months ending 30 June 2020

Waioeka-Otara Rivers Scheme

Run: 02-Sep-2020

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

Line No		2019/20 Budget	2019/20 Actual	Variance $	Variance indicator		Variance comments	2020/21 Annual Plan
		$000						
	Operating revenue by class							
1	General rates	143	143	0	-			150
2	Targeted rates	1,432	1,432	0	-			1,549
3	External interest income	0	14	14	Higher			11
4	Revaluation and asset disposal gains	0	109	109	Higher		Gain recorded on revalued assets	0
5	Investment income	216	216	0	-			213
6	**Total revenue**	**1,791**	**1,914**	**123**	Higher			**1,923**
	Operating expenditure by class							
7	Administration expenses	1	1	0	Lower			1
8	Other expenses	729	403	326	Lower			147
9	Employee expenses	0	1	(1)	Higher			0
10	Consultancy fees	0	23	(23)	Higher			0
11	Contract work	1,009	726	282	Lower		Additional budget of $849,000 was approved by Council on the 12th December 2019 to undertaken repairs caused by the July 2019 event. Some of the works were not able to be completed due to rock availability issues and Covid-19 restrictions on contractors.	829
12	Finance costs	368	206	162	Lower		Lower capital expenditure causing lower finance costs.	124
13	Depreciation and asset disposal	142	132	11	Lower		Lower capital expenditure causing lower depreciation costs.	146
	Subtotal - expenditure	**2,249**	**1,492**	757	Lower			**1,247**
14	**Net overhead charges and recoveries**	**341**	**309**	32	Lower			**0**
15	**Total operating expenditure**	**2,590**	**1,802**	**789**	Lower			**1,247**
16	**Total operating surplus (deficit)**	**(799)**	**112**	**912**	Favourable			**676**

Bay of Plenty Regional Council - Toi Moana - Rivers Advisory Group
Statement of revenue and expense: Waioeka-Otara Rivers Scheme - draft

For the 12 months ending 30 June 2020

Waioeka-Otara Rivers Scheme

Run: 02-Sep-2020

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

Line No		2019/20 Budget	2019/20 Actual	Variance $	Variance indicator		Variance comments	2020/21 Annual Plan
		$000						
	Capital expenditure by project	Revised Budget	Actual	Variance				
	Waioeka Otara Flood Damage Repairs	700	143	557	Lower			0
	Duke Street pump station	1,564	7	1,556	Lower		Following investigation and modelling the original work budgeted for the Duke Street pump was not required	0
	Capacity review	104	15	89	Lower		The underspend for this project has been carried forward to 2020/21	196
	Stopbank works	0	42	(42)	Higher			0
	Otara floodwalls	0	0	0	-			100
	Connor/Pertersen stopbank restoration	104	6	99	Lower		The underspend for this project has been carried forward to 2020/21	87
	Consent review 61321 & 61322	94	11	83	Lower		On hold. The underspend for this project has been carried forward to 202	94
19	**Total capital expenditure**	**2,566**	**223**	**2,343**	Lower			**477**

		Opening Balance	Movement	Closing Balance	
20	**Reserves**				
	Flood Damage Reserve	-	18	18	Funds available
	Asset Replacement Reserve	1,033	728	1,761	Funds available
	Works Reserve	849	- 103	746	Funds available
		1,882	643	2,525	Total reserves

		Opening Balance	Movement	Closing Balance
21	**Internal Loans**			
	Loans	6,213	- 1,150	5,063

		1/07/2019	Movement	1/07/2020	
23	**Asset Revaluation**	48,735			The asset revaluation is currently underway for 2020

MEMORANDUM

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

To: Waioeka-Otara Rivers Scheme Advisory Group members

From: Kirsty Brown **Date:** 26 August 2020

Rivers and Drainage Assets Manager

File Ref:

Subject: **General Business Report**

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

1 Infrastructure Insurance Review

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

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

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

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

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

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

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

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

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

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

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

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

2 Proposed Flood Protection and Drainage Bylaws 2020 update

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

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

During Alert Level 4, central government enacted the COVID-19 Response (Further Management Measures) Legislation Act 2020. This provided

temporary legislation that suspended the automatic revocation date of 30 June 2020, allowing the 2008 Bylaws to remain in force until the adoption of the Flood Protection and Drainage Bylaws 2020. The hearings, deliberations and adoption were postponed until the following dates:

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

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

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

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

3 Advisory Group membership update

As per the Terms of Reference for the advisory groups, the first three-year membership period is due to end in September 2020. Members were approached by staff to see who was interested in continuing. All current members advised that they wish to carry on, this meant no replacements were required.

Kirsty Brown
Rivers and Drainage Assets Manager