Notes of the Whakatāne-Tauranga Rivers Scheme Advisory Group meeting held at Bay of Plenty Regional Council, Whakatāne, on Wednesday 18 September 2019, commencing at 10am

Chair: Councillor Norm Bruning

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

BOPRC Councillors:

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

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

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

1 Welcome

Councillor Bruning welcomed everyone to the meeting.

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

2 Apologies

Apologies received as recorded above.

3 Notes of previous meeting held 16 April 2018

Resolved

That the Whakatāne-Tauranga Rivers Scheme Advisory Group:

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

McLeod/McGougan
CARRIED

4 Matters arising from previous meeting

Kirsty Brown ran through the actions from the previous meeting:

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

There were no other matters arising.

5 Review of the Floodway and Drainage Bylaw 2008

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

Key points included:

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

6 Operations update

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

Discussion:

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

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

Key points included:

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

Discussion:

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

7 Flood Repair Project update

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

Key points included:

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

Discussion:

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

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

7.1 Assessment of river management methods

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

Key points included:

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

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

8 Engineering update

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

8.1 Whakatāne River capacity review

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

8.2 Lower Whakatāne River stopbank project

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

<u>Urban stopbank raising</u>

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

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

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

<u>Floodwall assessments</u>

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

8.3 Te Rahu Pump Station upgrade

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

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

9 Finance report

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

Key points included:

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

10 Kopeopeo Canal Remediation Project update

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

Key points included:

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

In response to questions:

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

11 General business

11.1 Gravel management update

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

11.2 Stopbank damage from grazing

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

Key points included:

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

11.3 Essential Freshwater

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

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

11.4 River Scheme rating classification review

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

11.5 General business

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

Meeting closed at: 12:36pm