



PUBLIC COPY

AGENDA

Meeting of the Westport Rating District Joint Committee

Wednesday 8 June 2022
commencing at 1.00pm

To be held via Zoom due to Covid-19 restrictions
and
Live streamed via the West Coast Regional Council's Facebook Page:
<https://www.facebook.com/WestCoastRegionalCouncil>

Membership of the Westport Rating District Joint Committee:

Chairperson: Hugh McMillan

Members:

Allan Birchfield	Chair, West Coast Regional Council
Jamie Cleine	Mayor, Buller District Council
Laura Coll McLaughlin	West Coast Regional Council – Buller constituency
John Hill	West Coast Regional Council – Buller constituency
Phil Rutherford	Buller District Council
Jo Howard	Buller District Council
Francois Tumahai	Te Rūnanga O Ngāti Waewae
James Caygill	Waka Kotahi NZTA
Dan Moloney	Westport area community representative
Jodi Murray	Westport area community representative

Westport Rating District Joint Committee

1. Welcome (*Haere mai*)
2. Apologies (*Ngā Pa Pouri*)
3. Declarations of Interest
4. Confirmation of Minutes (*Whakau korero*)
 - Joint Committee Meeting 4 May 2022
 - Matters Arising

Reports

5. Westport Flood Protection – update on option assessment, design considerations, funding implications and related process matters (John Hutchings – Henley Hutchings)
6. Westport Rating District – Financial Report to 30 April 2022 (Heather Mabin - West Coast Regional Council)
7. Rating recommendation 2023 (Heather Mabin - West Coast Regional Council)
8. Matters of community interest (Dan Moloney, Community representative)
9. General Business

Public Excluded Items

10. Consultation matters (Rachel Vaughan – West Coast Regional Council)
11. Draft Joint Engagement and Communications Plan (Michael Henstock – Orbit Consulting)

H. Mabin
Chief Executive
West Coast Regional Council

S. Mason
Chief Executive
Buller District Council

Minutes of the Westport Rating District Joint Committee

Wednesday 4 May 2022 – 1.00pm

By Zoom and livestreamed via West Coast Regional Council

Present:

Hugh McMillan (Chair), Allan Birchfield (Chair, West Coast Regional Council), Jamie Cleine (Mayor, Buller District Council), Laura Coll McLaughlin (Clr, West Coast Regional Council), John Hill (Clr, West Coast Regional Council), Phil Rutherford (Clr, Buller District Council), Jo Howard (Clr, Buller District Council), Dan Moloney (Westport Area Community Representative), James Caygill (Waka Kotahi NZ Transport Agency)

Apologies:

Francois Tumahai (Te Rūnanga o Ngati Waewae), Jodi Murray (Westport Area Community Representative)

In attendance:

Heather Mabin (Chief Executive, West Coast Regional Council), Sharon Mason (Chief Executive, Buller District Council), Matt Gardner (Land River Sea Consulting Ltd), John Hutchings (Henley Hutchings), Nichola Costley (Staff, West Coast Regional Council)

1. Welcome

Chair McMillan welcomed members to the meeting.

2. Apologies

Moved (D. Moloney/Clr Howard) that these apologies be accepted.

Carried

3. Declarations of interest

Chair McMillan asked for any additional declarations to be declared.

Moved (Mayor Cleine/Clr Coll McLaughlin) that these declarations be noted.

Carried

4. Confirmation of Minutes

Clr Coll McLaughlin noted a correction to F. Tumahai's name in the welcome and addition to his name in the present list.

Moved (Clr Rutherford/Clr Coll-McLaughlin) that the Joint Committee adopt the minutes of the Westport Rating District Joint Committee meeting on 3 March 2022.

Carried

5. Shift in priorities for flood protection

J. Hutchings provided a verbal update on this item and referred to the Regional Council paper adopted on Tuesday night. Noted the change to how the works are referred to. These retrospective works (adjacent to Organs Island and erosion near O'Connor Home) are not emergency works as per the NEMA definition where they provide funding assistance 'like for like'.

In regards to the Stage 1 part of the ring embankment around Westport, the TAG have continued with the alignment, cost and design work on this. Davis Ogilvy have been working hard on the Geotech and working hard on the more detailed design. Work has been slightly out of sync with the getting the design and underlying information. Have also needed to ensure the alignment and design could be aligned with the proposed cycleway. Due to this, the emphasis went from the ring embankment back to the erosion and scour works of Organs Island and along the bank of O'Conor Home. These are described as adjunct work to the greater piece of work being considered by the Joint Committee being constructed down the track. If do not manage the river correctly then will have greater problems in the future, and keeping the river in its bed.

M. Gardener said that he does not see it as a significant change but a slight juggling round of timeframes. The design is taking a little longer, working in with the cycleway. Geotech work is underway. Were unable to put up in the few weeks had, but this will be coming up as soon as it is done. The erosion works are a significant cost. These are estimates done on size. Do not know the full volume of rock required until the work is completed. Ongoing river protection works are needed. This river has the largest flow and flood flow in New Zealand. There is likely to be ongoing maintenance required, and this is integral to any river management scheme, particularly where there is an urban settlement alongside.

Clr Birchfield asked with regard to the minutes, have been considering the internal drainage of Westport. Do not think this can be handled within the flood protection provided by the Regional Council and believe that it needs to be handled the District Council. Regional Council will have to make provision in the flood bank for culverts and gates but the internal stormwater is getting too big for this project.

Mayor Cleine commented on what had been presented to the Regional Council and noted that the scope had expanded on the advice of Mr Williams which will provide a more enduring and robust solution to what was originally thought was needed there. J. Hutchings said that the site visit brought that home. The length of rock required to prevent erosion at either end was greater than expected and the type of rock required has led to the costs being greater than expected. M. Gardener said the drone imagery informed the original design. No detailed design had been completed before that previous estimate.

Mayor Cleine agreed in part to the comments made by Clr Birchfield for stormwater. It is not necessarily the urban stormwater that will be part of the floodwall package but they will be a key element to the wider work underway. This Committee is dealing with the assets that will be owned by the Regional Council once they are built, but there are parts of stormwater management integral to this. The full stormwater package will need to form part of the business case. Important that everyone understands the work streams that are underway for Cabinet support. J. Hutchings explained that the business case will need to include the cost of the interface between the embankments and drains, culverts and the stormwater system. In regards to Westport's big scale stormwater system there is work to be done. When it needs to go through the wall flood gate and flap structures will be required. Costings are being done for both the urban and rural environment. The last meeting considered how many of those interface points would be required for the rural environment. The costings will be completed for the business case.

From the Regional Council meeting the night prior, Clr Coll McLaughlin noted that where the urgent work is being done these will become assets of the Regional Council. Becoming WCRC assets they come under the Council's insurance. Then if there is future damage there is an opportunity to claim 60% from NEMA to recover like for like. Historically they have never been assets of the regional

council and with no rating district in Westport there has been no means to access funding from NEMA following the July flood event. There has been no programme of ongoing inspection or maintenance of these structures to know how they were faring. With the Committees and Councils of today, have now come to the best place possible with these pieces of infrastructure. There are still river works that sit outside of the new scheme. Can work be undertaken to identify any piece of old catchment board works and bring these onto the books and in the asset register so inspection can be undertaken to provide pathways for insurance in the future? J. Hutchings said that the Treasury framework for the business case development requires us to satisfy management system elements. Critical in there is assets on a register with a regime to enable maintenance and insurance so that Central Government knows that they can be sustained into the long term. Adjunct works have, and will continue, to provide critical flood protection roles. The Regional Council have contracted assistance from Greater Wellington with developing the asset management system. J. Hutchings will follow up to ensure that it provides the comprehensiveness that is being sought.

Clr Hill said that he attended the extraordinary meeting to approve the funding, and wanted to ensure that the community understands what has been approved. Council has committed to putting a report into the media and wants to see this happen.

Clr Rutherford noted that the Regional Council originally consulted on a \$10.2m project. There has been an additional \$2.7M added to this cost which has been temporality funded by the Regional Council while await the outcome of the business case. Believes this group has a mandate on behalf of the rating district and wanted to understand the ultimate exposure for ratepayers. If the Government does not contribute funding will the rating district eventually have to bear these additional costs? H. Mabin explained that these works have been funded through the cashing up of Council's catastrophe fund. Have been asked what will happen when there is another catastrophe. This is something Council will have to consider at the time. The last time the fund was used was when Franz Josef was affected in 2019 until the insurance claim funding came through. Organs Island was not part of the consideration of Option 2 when Council consulted on the ring bank. It has been suggested the works will form part of the assets for the rating district but at no time has it been suggested that the rating district will have to fund this. Hope to know at the end of six months how much Government will fund. If not, Council will need to consider how this debt is faced going forward. It is a critical piece of infrastructure that needs to be done at Organs Island. Doing this will lessen the impact of any future flood. Clr Rutherford noted his concerned of the financial exposure for rating district and sought confirmation that the impact on the rating district is limited to the \$10.2M. H. Mabin confirmed that is the understating and decision at this time. There has been no discussion about the Rating District funding these additional works.

Clr Howard asked for clarification around the proposed cycleway referred to. In addition to this, the Kawatiri Cycle Club are seeking assurance that they will be consulted and involved in the process. M. Gardener said the TAG have been working together on the final preferred alignment in the realisation that there will still need to be detailed negotiation with landowners and groups such as the Cycle Club. Suggest that these points be taken back to Davis Ogilvy to ensure they are aware of these points and who they need to speak to. Clr Howard noted that it had been mooted that there was cycleway and walkways proposed for the stopbanks but these are now being planned? M. Gardner said that this is being considered closely and how this can be brought into the design.

D. Moloney noted that he was happy to see this work progress and that some form of timeframe had been put in place. This is what people had been asking for. The option of doing nothing would cost a lot more if had another flood. D. Moloney noted his congratulations to M. Gardener, J. Hutchings and the Regional Council Team.

Clr Coll McLaughlin made a follow-up query in regard to the cycleway comment noting that there may be some cases where it is practicable for the stopbank to have a dual purpose, but also that there may be some locations that this is not feasible or appropriate. However, if doing so would jeopardise the project going ahead then this needs to be taken into account. Want to ensure that are not setting an expectation that the entire stopbank will become a cycleway. Clr Birchfield wanted to note that this is a stopbank to protect the town not a cycleway and would not like to see any additional cost to make this a cycleway fall on the ratepayer. Need to separate the two. Clr Birchfield also noted that had yet to go out for tender. Be said that there is possibility to complete the works for \$10M. M. Gardner clarified that the cycleway was of limited reach down-stream of the Buller River. It will integrate with what is already there. This does not preclude opportunities in the future should it be appropriate.

Moved (Mayor Cleine/J. Caygill) that the Joint Committee receive the verbal report.

Carried

6. Matters of community interest

D. Moloney noted that there are a lot of people in the community who are very concerned when it rains. The Council meeting last night will reassure a lot of people, and the timeline in place for these works.

D. Moloney asked whether there are works that can be undertaken on a voluntary basis, for example Cats Creek. Unsure who is responsible.

Chair McMillan said that it depends on whose land it is on. There will be health and safety implications attached to undertaking any work. S. Mason recommended an offline discussion to be held on this matter. S. Mason noted her appreciation of community goodwill and offers of assistance. There are challenges around work of this type given health and safety requirements and the frameworks that have to work through.

S. Mason suggested the development of a Q&A around some of the questions that have been raised so are able to respond appropriately. Would be useful to have a shared site for some of these questions so people can see the answers. S. Mason said that will keep this an ongoing matter as will depend on when various things are happening.

Clr Coll McLaughlin noted that the Council has also received communications from residents who have been concerned around drains, particularly Cats Creek and other areas, and where the responsibility may lie. Clr Coll McLaughlin noted that she will share the information have found around this matter to D. Moloney and S. Mason.

Clr Howard noted that this report highlighted the misinformation that is still circulating around the community. Queried when the business case has been developed whether a public meeting can be held to help people understand what is happening and provide an opportunity for them to be involved.

Clr Rutherford noted that the background work Clr Coll McLaughlin was very valuable and that it is critical to understand who is responsible for the maintenance of these 'assets', culverts, drains. Important for the Joint Committee to understand this so know who to address matters with, whether it is the Regional Council or the District Council.

Mayor Cleine commented on the comms raised by Clr Howard noting that there is work ongoing in this space across the Steering Group, Regional Council and District Council to ensure that comms are aligned between the organisations. There will be packages of comms coming out later this month. Firstly, the work around Matts modelling information and the background as to why this is happening. This will be followed by a meeting on 26 May where the technical solutions will be presented to the Councils and Committees. Will be in a position quickly after this to show the community what will be happening and the timelines for this.

Moved (Clr Rutherford/Clr Coll McLaughlin) that the Joint Committee resolve to receive this report.

Carried

7. General business

H. Mabin provided more information to those matters raised by Mayor Cleine. Will be holding a stakeholder engagement session where the TAG will present each of the options, the reasoning behind them and then the reasoning for the final option recommended. The stakeholders include both Councils, the Steering Group and Joint Committee. It will be a closed-door meeting and will ensure that all stakeholders involved will hear the same message at the same time and understand the reasoning for these. Meeting details yet to be clarified.

P. Rutherford asked H. Mabin for financial information around this project. Is there a dedicated cost centre for these works? Is it possible to have current information on costs spent to date?

H. Mabin noted that there is a dedicated cost centre. Will need to have a clear split between the costs for the \$2.7M to date and for the Rating District. The Rating District is only responsible for the capital asset. Some of the costs incurred to date may be expenses and not pertinent to the Rating District. Will have this financial information available for the next Committee meeting.

8. Close of meeting

Chair McMillan thanked all members of the Joint Committee and closed the meeting at 1.51pm.

Report to: Westport Rating District Joint Committee	Meeting Date: 8 June 2022
Title of Item: Westport Flood Protection – update on option assessment, design considerations, funding implications and related process matters	
Report by: John Hutchings	
Reviewed by: Hugh McMillan, Chairperson	
Public excluded? No	

Report Purpose

To seek recommendations from the Westport Rating District Joint Committee (Joint Committee) on Westport flood risk mitigation structural and nature-based options, estimated costs, design considerations, funding implications and related process matters.

To inform the West Coast Regional Council's Annual Plan and the content to be included in a business case to Government for co-investment in Westport's resilience against flood risks.

Report Summary

Extensive climate change scenario, option and risk-assessment analysis has been carried out by expert flood risk modelling and flood risk mitigation engineers and consultants. Using the findings of this work, a Technical Advisory Group (TAG) has recommended preferred structural and nature-based solutions best able to contribute to the mitigation of the effects of Westport flood risks (the 'Westport flood risk mitigation scheme').

This report also provides information about the design, alignment, 'use of property' matters, resource management, construction, project management and cost elements of TAG's preferred Westport flood risk mitigation scheme. Recommendations are then made to enable the content of this report to be progressed for inclusion in a business case seeking central government co-investment in the proposal.

Recommendations

It is recommended the Westport Rating District Joint Committee resolve to:

1. Receive this report, and the report from Gary Williams '*Buller River Westport Flood Mitigation*' June 2022.
2. Receive the Technical Advisory Group advice about the preferred design, alignment, constructability, costs, and other matters related to consideration of Westport structural and nature-based options for mitigating Westport flood risks.
3. Agree the design 'service levels' of the preferred Westport flood risk mitigation scheme be based on:
 - I. 1:100 ARI protection along the length of the proposed flood risk mitigation structure extending down the true left of the Orowaiti River and estuary from the Stephens Road rail embankment to the coast.
 - II. RCP6 protection along the length of the proposed flood risk mitigation structure extending up the Buller River's 'true right' bank from the coast, inland and then around toward the Stephens Road rail embankment.
4. Agree, for recommendation to the West Coast Regional Council, and subject to consent, use of property agreements, funding, Iwi review and consultation requirements - to apply the following Westport flood risk mitigation scheme design and alignment guidelines:

- I. A combination of concrete wall, single board walls and double earth filled walls, with the use of each being selected to best suit site-specific circumstances.
 - II. Rock wall repair works for bank protection near O’Conor Home and Organ’s Island.
 - III. Embankments and walls - with an alignment, heights, and other design parameters to reflect the results of modelling and hydrological effectiveness research carried out by Land River Sea Consulting Ltd, Christchurch (May 2022) and advice provided by G & E Williams Consultants Ltd (June 2022).
 - IV. Extension of the flood risk mitigation embankment at Carter’s Beach eastward (toward the Buller River) along Schadick Avenue, to include houses along this road and the airport.
5. Agree there is limited merit in the inclusion of the following flood risk mitigation structural solutions:
 - I. Providing flood risk mitigation structures around the Snodgrass peninsula;
 - II. Dredging the Buller River to manage floods;
 - III. Excavating a cut to allow the direct sea-exit of the Orowaiti River;
 - IV. Excavating a causeway on the Snodgrass peninsula;
 - V. Constructing culverts at the Railway embankment at Stephens Road or on the embankment adjacent to the Orowaiti State Highway bridge.
 6. Agree to the recommendation that an estimated \$26 million cost of the preferred Westport flood risk mitigation scheme be included in the business case seeking co-investment with central government.
 7. Agree a 75:25 split with central government financial assistance / co-investment is required to improve the resilience of the Westport community against flood risks.
 8. Agree the matters included in this report be recommended to the West Coast Regional Council and Buller District Council as part of their consideration of the business case seeking co-investment from central government for Westport flood risk mitigation and resilience.

Background

BUSINESS CASE

The West Coast Regional Council (WCRC) and Buller District Council (BDC) have been invited to prepare a business case seeking central government co-investment in actions that will increase the resilience of the Westport community against flood risks. The matters to be covered in this business case were defined in correspondence forwarded to WCRC and BDC from Hon Nanaia Mahuta in March 2022.

PARA FRAMEWORK

Structural and nature-based solutions are proposed to be canvassed in the business case alongside other non-structural and planning-based actions. Avoiding flood risks, retreating or re-locating away from the flood risk and or improving response systems to accommodate flood risks will also be considered (figure one – the PARA framework). Operating in unison, these measures will assist the Westport community to build resilience against future flood events.

The focus of this report is on the proposed structural and nature-based flood risk mitigation measures to be included in the business case.

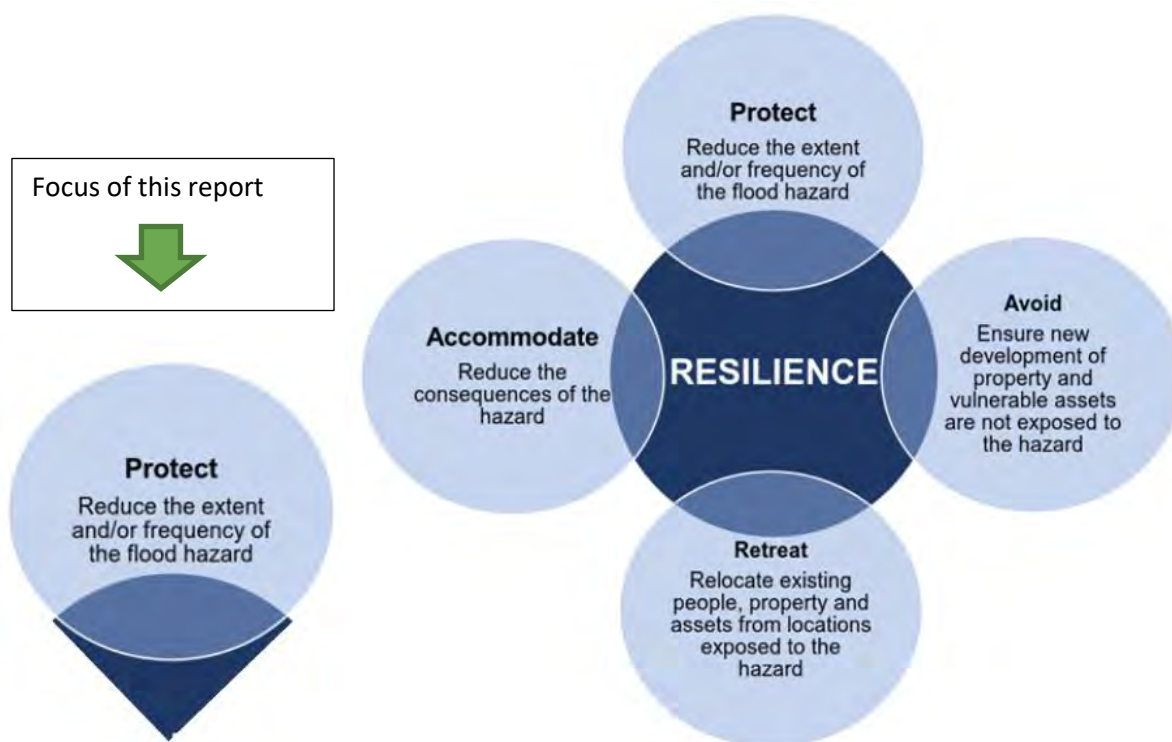


Figure one: The PARA framework

Several principles underpin the PARA framework. These will be applied within the proposed business case:

- *We cannot protect every single bit of Westport.* It is simply not feasible or affordable.
- *It is unlikely that we will be able to build our way out of this forever.* While it makes sense in the short term to build some embankments and structural defences, in the long run we are unlikely to be able to afford, or want, to do this forever.
- *Embankments and walls do not eliminate all the risk.* In agreeing on preferred structural and nature-based solutions, we need to be very clear that embankments and walls will not 'solve the problem'. No engineer will ever give a guarantee that the structures will not be overtopped – especially with more climate related weather events now certain.
- *We need to act with urgency.* While some of the non-structural interventions are long term and do not need to be deployed for some years, the structural defences cannot wait.

CHALLENGE TO BE ADDRESSED

The 'challenge' to be addressed within the Westport flood risk mitigation proposal may be described as in figure two. This model has been approved by the Buller Recovery Steering Group (the Steering Group) – comprising officers and officials from local and central government, and Mana Whenua.¹

¹ Consistent with the recommendations outlined in the letter from Minister Mahuta, a Steering Group was established. Their purpose, among other things, is to guide the development of the business case seeking central government investment in managing flood risks in Westport.

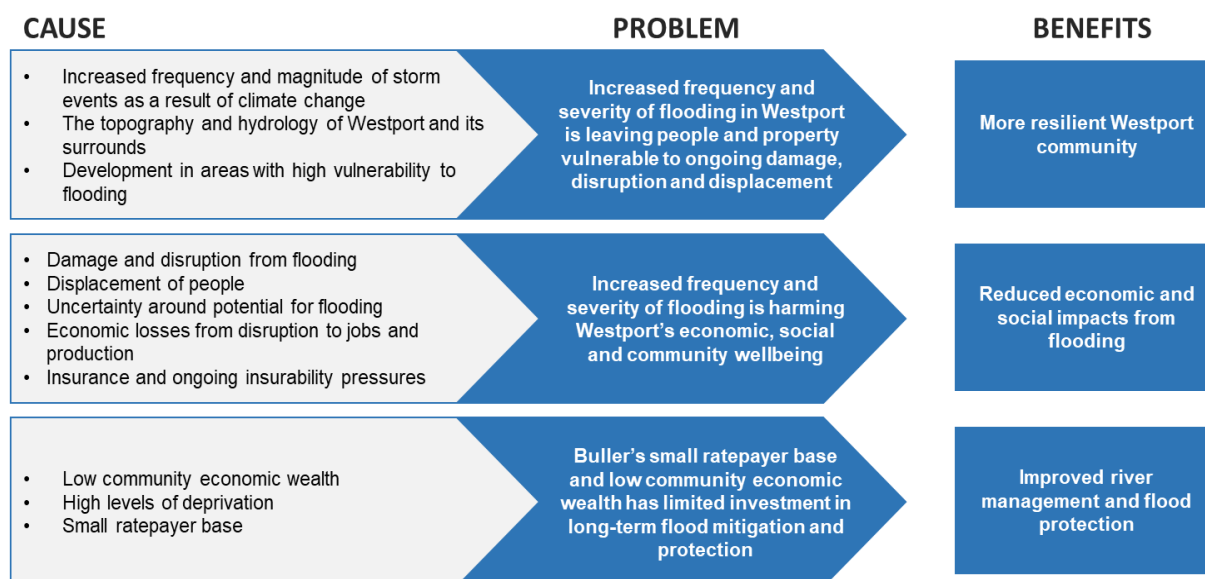


Figure two: the challenge to be addressed

OBJECTIVES

The Steering Group set four objectives to guide consideration of flood risk mitigation initiatives. The Steering Group's objectives (figure three) have been used by the TAG to help assess flood risk mitigation scheme options. Options that did not meet these objectives were not taken forward for further analysis.

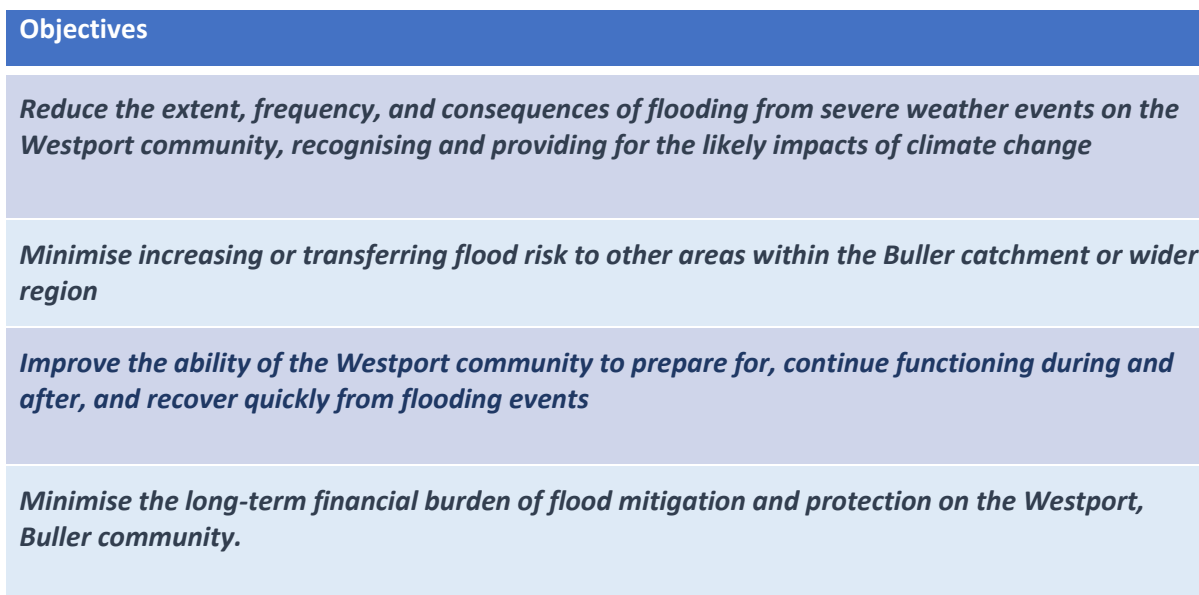


Figure three: Steering Group objectives

The Steering Group also defined a set of 'critical success attributes' essential to successful delivery of the project.

- **Strategic fit:** How well the option meets agreed objectives and service needs and how well the option aligns with WCRC and BDC strategies and plans and wider national and governmental objectives or directions.

- Value for money: How well the option maximises the return on investment (benefits over costs).
- Capacity and capability to deliver: How well the option matches the ability of agencies and service providers to deliver it and how well the option appeals to suppliers.
- Affordability: How well the option meets likely availability of funding and how well it matches other funding constraints.
- Achievability: How well the option is likely to be delivered in the current environment and how well the option matches the level of skills required for successful delivery.

Alongside the Steering Group's objectives, the above 'critical success factors' were kept foremost in mind by the TAG as it considered the structural and nature-based options for flood risk mitigation in Westport.

CONTEXT

The Buller River has the largest flood flow (for a given frequency of recurrence) of all rivers in New Zealand.

The West Coast Regional Council (WCRC) has investigated flood mitigation scheme 'proposals' since the mid-2010s.

Land River Sea Consulting Ltd² was commissioned by WCRC in 2014 to undertake hydraulic modelling of the Buller River system. This was to identify the likely extent of flooding in the Westport area, for a range of return period events. It was also to investigate potential flood mitigation options.³

The 'Westport 2100 Working Group' was formed late in 2018. Its recommendations were forwarded to WCRC and BDC in September 2019.

The draft 2021-31 WCRC Long-term Plan (LTP) provided details on two options for flood risk mitigation at Westport:

- Option one: Development of partial stopbanks and a flood wall scheme at an estimated cost of \$3.4m.
- Option two: Development of an extensive stopbank and flood wall scheme at an estimated cost of \$10.2m.⁴

The majority (71%) of those who submitted on the draft LTP, from within the Westport Rating District, supported Option two.

Following the extreme flooding that occurred in July 2021, BDC and WCRC requested co-investment from central government for risk mitigation structures capable of reducing Westport flood risks. In response, Minister Mahuta invited the Councils to prepare a business case. Among other things, the Minister requested this business case demonstrate how climate change would be addressed within proposed flood mitigation measures.

² Land River Sea Consulting Ltd is a Christchurch-based company led by Matthew Gardner. They have been extensively involved in providing flood risk mitigation advice to WCRC for over ten years.

³ The Buller Working Group was formed in 2014/2015. This was a joint working committee of BDC and WCRC. The Group consulted with the community and investigated a wide range of potential mitigation options. This included clearing the Orowaiti Overflow and dredging the Buller and Orowaiti Rivers. External experts provided advice to Group. In 2017, the Group put forward five options to the community. These options included the 'ring bank' option included in the WCRC 2021-31 LTP, as well as a cut to the sea at the Orowaiti River mouth.

⁴ We note these were preliminary estimates based on limited pricing information and without contingency built in. Construction price index and the inflation occurring since these costs were first estimated, has also caused these base costs to increase.

In December 2021, the TAG was established by WCRC to assist with identifying flood risk mitigation options. The work of the TAG was greatly assisted by further modelling carried out by Land River Sea Consulting Ltd. This modelling covered the effects of different flood frequency / magnitude scenarios and the flow management opportunities arising from more than seven different flood risk mitigation options. The modelling also considered the effects of a full range of future climate change scenarios.

The TAG's work was also greatly assisted by flood risk mitigation advice provided by Gary Williams from Otaki based company G & E Williams Consulting.⁵

TAG also considered the likely resource consent, stormwater interface, co-benefit, environmental, property and other 'technical assessment' matters arising from the construction of flood risk mitigation structures / nature-based solutions. In addition, they considered the cost, construction (and constructability), design, alignment, and preferred height of embankment options.

WCRC's decisions about urgent flood risk mitigation works

Based on a recommendation from the TAG to the Westport Rating District Joint Committee in March 2022, on 3 May 2022, WCRC unanimously agreed to invest \$2.6m to undertake urgent Buller riverbank rock protection works at Organ's Island and at the upper O'Connor Home sites. These works are to repair previously damaged and outflanked historic rock bank protection structures.

Protection at these sites will assist to maintain the current Buller River alignment and hence assist to protect the Westport 'ring embankment and walls' envisaged as being constructed as part of more general flood risk mitigation at Westport.⁶

With the assistance of consultants Davis Ogilvie and Partners Ltd, geotechnical investigations and related design work is also being progressed for the proposed embankment area extending from the Toki Bridge to the O'Connor Rest Home. Work on this aspect of the project was slowed slightly while the Land River Sea Consulting Ltd modelling work was completed. The TAG now expects draft design work from Davis Ogilvie and Partners Ltd to be completed in early July 2022.

'Service levels' expected from Westport flood mitigation structures

The TAG has recommended the structures to provide flood mitigation for Westport be designed to meet the following 'service level'⁷ expectations:

- For the full length of the 'true right' bank Buller River leg of the embankment and extending back toward the Orowaiti River as far as Stephens Road: sufficient to protect Westport from flows arising from a flood event occurring under a 100-year ARI / RCP⁸ climate change scenario.

⁵ Gary Williams has been providing flood risk mitigation advice to regional councils throughout New Zealand for over 40 years.

⁶ A third less urgent and smaller area of Buller riverbank rock protection has been proposed by TAG for a location near the O'Connor Rest Home. The cost of this additional work has been included in the total cost calculated for the overall Westport flood risk mitigation scheme.

⁷ 'Service level' means the flood mitigation expectations to be provided by the embankment structures.

⁸ 'ARI': Annual Return Interval. 'RCP' – Representative Concentration Pathway' to indicate one potential 'middle of the range of probability' future scenarios for climate change (NB this scenario is based on an expectation of greenhouse gas concentrations increasing for a time and then stabilising).

- For the 'true left' Orowaiti leg of the embankment extending from Stephens Road to the sea: sufficient to protect Westport from flows arising from a flood event with a 1:100 ARI, under a historic climate regime.⁹

Figure 12 in the attachment prepared by Gary Williams describes the intended location of where these 'service levels' will apply.

TAG's reasons for recommending a lower standard for flood risk mitigation in the area adjacent to the Orowaiti Estuary are based on a consideration of the:

- Less dangerous nature of flooding at this location compared to the Buller River.
- Reduced cost of \$650,000 compared to the complete 'ring bank' RCP6 flood mitigation option.
- Reduced environmental impacts compared to the RCP6 mitigation option.
- Comparatively constrained footprint available for construction at this location.
- A general desire to not extend flood mitigation structures into the estuary.
- Availability of the longer-term option of upgrading the proposed structure to a higher standard.
- Amenity impacts of the RCP6 option compared to the 1:100 flood risk mitigation structures.

Favoured flood risk mitigation structures

WESTPORT FLOOD MITIGATION STRUCTURES - OVERVIEW

The TAG investigations included several alternative alignments and flood risk mitigation standards. The costs (both financial and environmental) and benefits varied for the different options. Details are provided in the '*Buller River Westport Flood Mitigation*' report prepared by Gary Williams attached separate to this report.

The TAG's consideration of options were also strongly influenced by the modelling work undertaken by Matthew Gardner from Land River Sea Consulting Ltd, Christchurch.¹⁰

The selection process considered the:

- Risk and hydraulic effectiveness of different options.
- Relative likelihood of flooding.
- Consequences of flooding and the value of 'flood risks' avoided.
- Property ownership and occupation rights, resource consent, cost, and environmental impacts of flood risk mitigation structures on homes and infrastructure including roads, bridges, and the rail network.
- Construction implications.

Having applied these assessment criteria, seven favoured options were identified. These favoured options have the following general characteristics:

- A combination of concrete wall, single board walls and double earth filled walls, with the use of each being selected to best suit site specific circumstances.
- Rock wall repair works for bank protection near O'Connor Home (two sections) and Organ's Island.

⁹ 'Historic climate regime' is the term used to describe flow and sea level conditions unaffected by climate change. In the Westport data referenced in this report 'Historic Climate' has used flow statistics based on flood events up to July 2021.

¹⁰ The Land River Sea Consulting Ltd modelling report will be available later in June 2022.

- Embankments and walls with alignment, heights, and other design parameters to reflect the results of modelling and hydrological effectiveness research carried out by Land River Sea Consulting Ltd, and design considerations put forward by G & E Williams Consulting Ltd.
- Extension of the flood risk mitigation at Carter’s Beach to the east along Schadick Avenue to include houses along this road and to provide additional flood risk resilience to the critical lifeline utility services provided by the airport.¹¹

WESTPORT ‘RING BANK’ OPTIONS

Two favoured ‘ring bank’¹² options (figures four and five) have been put forward by the TAG. The TAG have expressed reluctance to recommend a preference between these options because they viewed the decision between the two to be more political than technical.¹³ The matters that may be considered by WCRC and BDC when making a final decision between these two options may include:

- Cost differences (Option two is a little over \$2m cheaper).
- Number of houses and area protected (Option two provides protection to a larger area than option one).
- Risk of further urban intensification taking place within the larger protection area (Option one provides a bigger area within which urban development may occur – unless prevented by rules in Te Tai o Poutini Plan (TTPP), the combined district plan for the West Coast).

The TAG suggest, following WCRC and BDC consideration of TAG’s two preferred options, a final recommendation be included in the co-investment business case.

NATURE BASED FLOOD RISK MITIGATION OPTIONS

Revegetation of a relic Buller River meander near Organ’s Island:

The area of land on the true right of the Buller River near Organ’s Island includes the old channel of the Buller River.¹⁴ The TAG propose this area be revegetated as a wide area of native riparian forest.¹⁵ The TAG proposed this would be established over three phases of five years each. The area would thereby provide a vegetative filter and moderator of flood overflows down the Orowaiti River and estuarine system.

An additional benefit of this proposal is that – as this vegetation is established, the hard control of the rock lining could be relaxed, with the river thereby able to move within this wider space, prior to its re-entry into the sharp bend downstream at the valley side bluff. Re-vegetation would also reduce long-term rock maintenance costs of the flood mitigation scheme, while allowing a more natural river movement within a forested floodplain environment.

While there are some property issues to resolve, this revegetation is likely to generate co-benefits for indigenous flora and fauna, and carbon sequestration, and could potentially attract external sources of funding.

Re-alignment of Abattoir Creek

The current alignment and grade of Abattoir Creek was identified by the TAG as contributing to the unwanted re-direction of flood flows toward areas of Westport urban development. The TAG

¹¹ The 244 properties at Carter’s Beach have a net capital value of about \$81m (information supplied by J. Bell WCRC). The Carter’s Beach flood mitigation structures are estimated to cost \$1.7m for the section immediately around the beach and \$2.25m for the length extending past the Westport Airport (information supplied by Gary Williams – both at RCP6). This information suggests the cost benefit of investment at this location is attractive.

¹² ‘Ring bank’ is a generic term used to describe the structure proposed for around the town of Westport.

¹³ Both options will provide the same ‘service level’.

¹⁴ This land is currently administered by LINZ and leased for grazing. The lease comes up for renewal in June 2022. WCRC is liaising with LINZ.

¹⁵ See Figure 14 in the attachment prepared by Gary Williams.

propose the grade of the bed of Abattoir Creek be altered to divert more flow away from this 'at risk' area of urban development.



Figure four – TAG favoured 'ring bank' option one



Figure five – TAG favoured ‘ring bank’ option two

Flood risk mitigation options not favoured by TAG

DREDGING OF THE BULLER RIVER

It has been suggested that flood risk to Westport could be mitigated by more extensive dredging of the bed of the lower Buller River.

The extraction of gravel material from the bed of the river has been investigated and reported on by Matthew Gardner¹⁶.

Matthew Gardner and Gary Williams informed the TAG that:

- The Buller River has the power, in large flood events, to determine its own bed levels and bed profile and will scour and deposit bed material to suit its very high magnitude sediment transport capacity.
- The Buller River channel, along its lower reaches and out to the river mouth bar, has been dredged for harbour development and maintenance purposes for many years. Rock tide walls have been used to confine flows in the main channel. This work indicates little effect on the bar or on channel depths occurred.
- Dredging / gravel extraction is costly and without commercial demand for the aggregate, dredging will come at significant ongoing cost.
- The benefits of gravel extraction are also unreliable, with small river floods having the ability to replace extracted gravel overnight.

DIRECT CUT TO THE SEA FROM THE OROWAITI ESTUARY

An ‘overflow cut’ option was put forward for consideration by the TAG. The proposed cut was suggested as best located where the Orowaiti Estuary bends to the east. The proposed cut was envisaged as allowing flow to go directly out to the sea, through the spit.¹⁷

Advice provided to the TAG by Gary Williams is the long length of a cut between the estuary and the current coastline, and the lack of hydraulic grade would make any overflow option at this location inefficient.¹⁸ Further, Mr Williams informed the TAG that:

- The cut would have to be wide and shallow to have sufficient capacity while still fitting the level limitations of the estuary and sea.
- The tidal range i.e. the difference between the height of the water in the estuary and the sea level at MHWS at this location, gives rise to a small useable height range across the spit.
- Maintenance of the cut would need to be relatively constant, with associated costs.
- An opening in this area would increase the risk of sea surge and tsunami hazards to residents of Westport.

¹⁶ ‘Buller River Gravel Extraction Recommendations,’ Gardner 2020.

¹⁷ The changes in the profile of the coastline and in the Orowaiti estuary over time, because of the coastal protrusion of the harbour moles, were demonstrated in slides presented by Matt Gardner at the Councillor briefing held on 26 May 2022

¹⁸ The complexity of Orowaiti ‘cut’ options are summarised in a report commissioned by WCRC in 2015. <https://www.wcrc.govt.nz/repository/libraries/id:2459ikxj617q9ser65rr/hierarchy/Documents/Publications/Natural%20Hazard%20Reports/Buller%20District/Westport/Orowaiti%20Cut%20%28Westport%20Flood%20Protection%29%20-%20Niwa%20recommendation%20May%202015.pdf>

FLOOD RISK MITIGATION STRUCTURES AT SNODGRASS

The option of providing flood mitigation structures at Snodgrass was fully explored by the TAG. This option was not favoured because the:

- Snodgrass area would remain inherently vulnerable, under present climatic conditions – and even more so, under climate change-induced sea level rise / increased storm intensity conditions.
- Snodgrass area is not made worse-off by the structural protection of Westport.
- Low-lying areas around the Orowaiti Estuary will be directly affected by any sea level rise, due to the consequent rise in groundwater levels back from the sea.
- Cost benefit of investment is not as attractive as the investments in the Westport ‘ring bank’ or at Carter’s Beach.¹⁹
- Construction of flood risk mitigation structures at Snodgrass would significantly increase water levels for upstream properties over a length of 6km with resultant adverse impacts on affected landowners.
- Resource consents for a structural solution may be difficult to obtain because the:
 - Toe of any embankment would extend into the estuary.
 - Public access would become increasingly restricted.
 - The structure may need to be of significant height thus creating unwanted amenity impacts for residents and visitors to this area.
 - Flow would be diverted to the true left side of the Orowaiti estuary causing a need for structures at this ‘other ‘Westport town’ side of the estuary to require additional height – with consequent cost and amenity implications.

OTHER OPTIONS NOT-FAVoured

Other options not favoured by TAG included:

- Excavating a causeway on the Snodgrass peninsula. The TAG investigated the effects of constructing a floodway along the lowest lying area of land in the Snodgrass area. The idea explored was whether this would provide a relief area from flood flows upstream of the State Highway 67 causeway. More particularly, the TAG explored whether excavation of the causeway could eliminate the transport restriction flooding effect that occurs on the embankment access road to the State Highway and whether an excavation could lower upstream flood levels, and hence lower the cost of flood defences at other locations. Despite these potential benefits, the TAG found that the:
 - Benefits in terms of lower flood levels in the Orowaiti were relatively small.
 - Costs would be high because:
 - Bridging or constructing a set of box culverts would be required for floodwaters to pass under the State Highway.
 - There is a substantial area immediately downstream of the State Highway that has been filled in and this fill would have to be removed at considerable cost.
 - There are several homes located on or near the proposed causeway.

¹⁹ The cost of the structures at Snodgrass has been estimated to be \$2.3m (1:100). The capital value of the 34 properties at Snodgrass has been calculated to be close to \$13m.

- Constructing culverts at the Railway embankment at Stephens Road. The railway embankment across the Orowaiti river at Stephens Road acts as a weir control on overland flood flows. This Railway embankment was severely damaged by flood flows in the recent overflow flood events. Existing bridge/culvert openings are small compared to the length of the embankment restriction. Despite these factors, the option of constructing culverts at the Railway embankment at Stephens Road was not favoured by TAG because the:
 - Flood impacts of the small existing openings are localised due to the poor hydraulic linkage across Stephens Road to the low wetland area below the railway line.
 - An enlarged waterway capacity could have significant long-term benefits for KiwiRail, but these would neither hinder nor significantly benefit broader flood risk management.
 - KiwiRail may see fit to apply, at its own discretion, for a resource consent to enlarge the opening at Stephens Road sometime in the future.

- Constructing culverts on the embankment adjacent to the Orowaiti State Highway bridge: Removing this hydraulic restriction was assessed by the TAG. It was not favoured because it would:
 - Have little flood mitigation effect as the causeway was mostly ‘drowned-out’ in large flood events.
 - Not generate sufficient cost / benefit.
 - Need to take place in a sensitive area of estuarine mud flats thereby likely making resource consent for this work difficult to acquire.

Design, construction, maintenance, staging / phasing, and asset management

DESIGN, CONSTRUCTION, MAINTENANCE

General ‘concept designs’ and the rationale for the Westport flood risk mitigation embankment and wall construction, are described in the attached report from engineer Gary Williams. Figures 3 and 4 included in a second attachment to this report provide a sketch of the likely appearance and proposed location of concrete, single board-wall, and double earth-filled walls.

Additional information about the ‘constructability’ of the proposed scheme, its physical and carbon footprint, maintenance, structural failure implications, and the adaptability of the proposed structures to accommodate more resilience against future climate change scenarios, are also addressed in the attached report prepared by Mr Williams.

In addition, the report from Mr Williams notes the current propensity of the Buller River to concentrate its erosive influence toward the true right bank near Westport. Mr Williams advises that further future bank protection work, and on-going maintenance of existing rock protection measures, will be required.

PHASING / STAGING OF PROPOSED CONSTRUCTION

A preliminary staging proposal for the proposed flood defences is described in figure 17 of Mr Williams’s attachment. This recommended staging has been based on a qualitative assessment of risk. The approach applied by Mr Williams considers a risk matrix made up of the following variables: likelihood of flood occurrence; consequences of flood occurrence; constructability (relative ease of construction); and consent-ability.

With this risk matrix in mind, Mr Williams recommends the first stage of construction should be focused on the inland portion of the scheme. The proposed embankment structure next to the Buller River is viewed as the number one priority.

Total construction of the proposed flood risk mitigation scheme is expected to take three years.

In addition, before construction can commence, process matters will need to be resolved. These include securing appropriate project management skills, confirming funding (including a decision from Cabinet about 'co-investment'), consultation with affected parties and landowners, acquiring resource consents and securing property access, confirming 'rights' for land occupation by scheme structures, completing final design, and tendering for the supply of services and materials. These processes may take 8-12 months.

Resource consent, environment, Te Ao Māori and property matters

RESOURCE CONSENT, ENVIRONMENT, AND TE AO MĀORI

Draft advice on resource consent and environmental matters associated with the options for the Westport flood risk mitigation scheme was provided to the TAG by Landmark Lile Ltd and those officers from WCRC with responsibility for developing TTPP. This advice covered the following matters:

- Te Ao Māori perspectives on the scheme proposal should be viewed by the TAG as requiring strong respect. These perspectives are to be included as part of the development of the draft business case. They are to be considered by BDC and WCRC before the business case is approved.
- Under the current Buller District Plan the scheme would be a permitted activity.
- Under the proposed TTPP, it is likely (after reconciliation) the area inside the proposed 'ring bank' part of the scheme will be identified in a 'Westport Hazard Overlay.' Within this overlay area subdivision is proposed to become a discretionary activity. New building freeboard heights may also be proposed.
- Under the WCRC's Regional Land and Water Plan, earthworks and vegetation removal in the riparian area is a restricted discretionary activity. In other areas, earthworks are a controlled activity. (The advice to the TAG suggests that with appropriate offsets and careful management, consent should be grantable).
- Under the Regional Coastal Plan, any activity falling within the Coastal Marine Area is a discretionary activity. In all but two small areas, the proposed embankment is likely to avoid the Coastal Marine Area. (In these small areas, TAG propose the toe of the proposed embankment may provide an opportunity to plant reeds and other vegetation suited to extending the area available for inanga spawning).
- An area defined as a 'regionally significant wetland' is located near the proposed embankment at Carter's Beach. Activities within 100 metres of this wetland are non-complying. (TAG propose to 'refine' the alignment of the embankment at this location to reduce the effect and risk of encroaching on the protected wetland).
- Several properties on the true left bank of the Buller River may be 'affected' by flood level increases. These effects require consideration of the length and height of the Buller River embankment located on 'true right' of the Buller River, as a discretionary activity. (The TAG propose the agreement of affected property owners at this location be sought – with appropriate amelioration before works are undertaken).
- Some minor earthwork areas may have contaminated soil. (The TAG advise that careful site management should be applied at these locations).

In summary, the advice provided to the TAG on resource consent and environmental matters suggests that with careful site management practices, design refinements and strong consultative processes etc. there is a low risk of the proposal not receiving resource consent.

In addition to the above resource consent matters, the TAG draw the Joint Committee's attention to the following:

- Preliminary discussions have taken place with Waka Kotahi about the effects of the embankment on peak flood flows on State Highway bridges. As part of their future asset management planning, Waka Kotahi have been encouraged to give a higher priority to the works required to increase the clearance height at the Buller River State Highway bridge.
- Embankment design and construction between the Toki and State Highway bridges will need to be integrated with the design and construction of the proposed enhancements to the Westport cycleway. Discussions are underway to achieve this objective.
- As noted elsewhere in this report, 'amenity' considerations have been considered as part of the process of selecting the alignment, height, and construction (concrete, single wall, or double wall) of the proposed embankment. At some locations, viewing platforms and other measures to enhance appreciation of the Orowaiti Estuary and Buller River will be constructed.

PROPERTY MATTERS

The total length of the proposed Westport flood risk mitigation embankment and walls is approximately 20km. Around 50% of this is on public property, 43% is on private property and 7% is on KiwiRail property (see figure six).

Around 36 private properties will have embankments or walls on their property. Many of these are farmed / grazed. Nine are lifestyle blocks. An additional 15-20 private properties will have the embankment or walls located on reserve land near their houses.



Figure six: Location and ownership of affected properties

As noted above, the agreement of all parties affected by the proposed structures will be required before construction can commence. This agreement will need to be formally recorded for resource consent, asset management, occupation, and access purposes.

The 'consultation' challenge currently faced by BDC and WCRC is the flood risk mitigation scheme can only be viewed – at this stage in the process, as a 'proposal.' This status will prevail until such time as funding is secured.

An active consultation process is proposed with both directly and indirectly affected parties as soon as this funding is confirmed. The significance of the project is also such that the special consultative procedures defined in the Local Government Act 2022 will be triggered. These require formal processes to be applied by the WCRC before the project proper commences. More information on the consultation process is included in the report 'Consultation Matters' on the Agenda for this Joint Committee meeting.

Estimated costs

Details about the basis of calculating preliminary flood scheme costs are included in the report prepared by Gary Williams. The diagrams attached to the report prepared by Mr Williams display comparative cost information for the various scheme sections and options considered by the TAG. The total estimated cost of proposed flood mitigation measures, as shown on Figure 16 of Mr Williams' attachment – inclusive of the larger town 'ring bank' embankment option, the Organ's Island revegetation and the Buller River rock repair works), is just under \$24 million.

The report prepared by Mr Williams recommends the cost of the structural and nature-based elements of the proposed scheme be stated as \$25 million. Of importance, Mr Williams notes:

- The massive uncertainty currently troubling all capital works and supply chains in New Zealand, and for local government especially.
- Costs have been estimated on a contract schedule basis, with a preliminary estimate of unit costs and volumes, not as an engineer's estimate for tendering purposes.
- Costs to obtain landowner access agreements, for construction and on-going maintenance, have been included, but this only covers the likely costs for willing party agreements.
- Costs include a percentage for engineering fees.
- Consent and other approval costs are not included.
- Costs of the Buller River rock works are based on a final design with a 10% contingencies allowance.
- Costs have been included for the flap-gates, culvert adjustments and other works to enable good management of the interface between the proposed flood risk mitigation structures and stormwater.

PROCESS COSTS

Preliminary work has been undertaken to estimate the cost of community engagement, acquiring resource consents, negotiating property agreements and general council project management. These costs may total \$1 million.

In addition, provision will need to be made for the cost of interest, depreciation / maintenance of the flood risk mitigation structures. Excluding interest, these may cost between 1% to 2.5% per annum of the final cost of the structures. This will be an operating cost that will flow directly to rates unless the assets are not depreciated.

STORMWATER

The 'cost summary' information used in the diagrams provided by Mr Williams includes stormwater management costs. BDC have advised (pers. comm, CEO of BDC, 3 May 2022) this information may have underestimated the cost of the scheme infrastructure, such as flap-gates and enhanced culverts, required to ensure an efficient interface with the stormwater systems within the 'town' part of Westport.²⁰

The final estimated cost of the scheme of \$25 million, as recorded in the report prepared by Mr Williams, is viewed by Mr Williams as sufficient to accommodate this potential underestimate.²¹

Cost benefit

WCRC commissioned NIWA to apply their 'RiskScape' model to analyse the direct damage of flooding effects on Westport arising from several climate change and flood magnitude scenarios.²² NIWA's report concludes that under an ARI100 / RCP6 flooding scenario²³ approximately \$212 million of damages is estimated to occur to Westport buildings²⁴. (NB the cost of the July 2021 flooding was estimated at \$100m).

The work of NIWA thereby confirms significant cost benefits will arise from the investment of \$25 million in the proposed Westport flood risk mitigation scheme.

The work undertaken by NIWA was further confirmed in a report prepared for WCRC by Infometrics.²⁵ The Infometrics report states...*'(page 4) the analysis in this report, although based on rather patchy data, clearly shows that (the) stopbank option recommended by the Technical Advisory Group...is highly cost effective...(page 15)... the case for pursuing (this option)...could not be clearer.'*

Business case

MATTERS TO BE ADDRESSED IN THE BUSINESS CASE

As noted earlier in this report, a business case is being prepared seeking central government co-investment in a full spectrum of Westport flood risk mitigation and community resilience building measures. A draft, and then a final version, of the proposed business case will be considered later in the month by both BDC and WCRC.

Among other things, the business case will present information about the strategic, financial, management, economic and commercial reasons for central government co-investing in Westport. It will also include information about how the matters raised in the correspondence from Hon Nanaia Mahuta have been satisfied and how the objectives and 'critical success factors' for the project – as established by the Westport Recovery Steering Group, have been satisfied.

²⁰ TAG are aware that major Westport stormwater upgrades may become part of the future work programme of the proposed new 'three waters' entity.

²¹ Land River Sea Consulting Limited's Matthew Gardner has advised that BDC may wish to consider commissioning detailed modelling of the long-term stormwater and groundwater changes expected in Westport because of climate change.

²² 'Direct Damage Analysis for Scenario Flooding in Westport', NIWA, May 2022

²³ This is the scenario recommended and used by TAG to guide the design of its preferred flood risk mitigation scheme

²⁴ The cost of damages increases to \$333 million if roads and the rail network were included in these calculations.

²⁵ 'Real Options Analysis of Strategies to Manage Risks to Westport from Climate Change', Infometrics, May 2022

STRATEGIC FIT

A draft report has now been prepared for the WCRC summarising the ‘strategic’ reasons for central government co-investment²⁶. This draft report describes Westport’s context, natural hazards, the operating environment, and the degree to which there is a ‘strategic fit’ between the:

- Case for Westport receiving funding from central government for a flood risk mitigation scheme; and the
- Current related central government, Te Uru Kahika²⁷, Buller District Council (BDC), West Coast Regional Council (WCRC) and other agency policy settings and actions.

A summary of this ‘strategic’ report is attached as attachment one to this report. It confirms there is strong alignment between the proposed project and wider national or sectoral priorities, goals, priorities, policy decisions, other multi-agency programmes and with the WCRC and BDC strategic intentions and business strategies.

CO-INVESTMENT COST-SHARE?

The business case will also include a final section describing the proportion of the total long-term costs sought from central government to help build Westport community’s resilience against flood risks. Precedents will be drawn upon to help develop this final section of the business case. The strategic report referenced above notes that:

- The 55 ‘shovel ready’ flood risk mitigation projects funded²⁸ in 2021 by central government, as part of their Covid recovery programme, received a cost share of between 60% (for comparatively wealthy regions) and 75% (for less wealthy regions).
- Prior to the early 1990s, the capital cost of substantial river management and flood protection schemes was commonly supported at levels of 50% to 75% by central government. Maintenance and operating costs were supported at rates of around 25%.^{29, 30}

These precedents suggest there is more than adequate grounds for WCRC and BDC to seek a 25:75% split with central government financial assistance / co-investment (75% from central government) to improve the resilience of the Westport community against flood risks.

Conclusion

The TAG’s proposed Westport flood risk mitigation scheme strongly satisfies the objectives and critical success factors identified by the Steering Group.

Risks

There are significant risks for WCRC and BDC as they navigate their way through the path toward investing in Westport flood risk mitigation and community resilience building. These risks have been identified throughout this report. Critical amongst these risks are achieving majority community support for the proposal and uncertainty about available funding. These risks should not detract from the most serious risk of all – that nothing happens, and Westport is flooded yet again.

²⁶ ‘Resilience against flood risks at Westport - Co-investment business case: Context and ‘Strategic Fit,’ HenleyHutchings, May 2022.

²⁷ Te Uru Kahika is the collective of regional and unitary district / city councils throughout Aotearoa New Zealand.

²⁸ A total of \$217m of funding was provided toward 55 projects with a total cost of \$313 million.

²⁹ The difficult financial period in the 1980’s and the application of ‘Rogernomics’ dealt a blow to this necessary investment.

³⁰ A review of documents from the time suggests this national support typically amounted to over \$114m per annum in today’s dollars.

Significance and Engagement Policy Assessment

The matters addressed in this report are of high significance. Positive and fulsome community and affected-party engagement and consultation is clearly recognised as critical to the success of the proposal.

Details about proposed engagement and communication processes are addressed elsewhere in this agenda.

The most important point to note at this stage of the process is that aspects of the preferred scheme, as described in this report, will not have certainty until such time as co-investment funding is secured from central government. Until that time, the proposal should be viewed simply as a 'proposal'. After co-investment funding is secured, then WCRC and BDC intend to apply very robust consultation and engagement processes.

Tangata whenua views

Iwi representatives are voting members of both the Buller Recovery Steering Group and the Westport Rating District Joint Committee. A report is expected shortly recording Te Ao Māori perspectives on the proposal. The results of this report will be woven into the business case for the proposal for consideration by BDC and WCRC later this month.

Financial implications

The matters raised in this report have significant financial implications for WCRC, BDC and the ratepayers of Westport, and potentially the wider West Coast.

Communications

If the matters raised in this report are approved, a Q and A and associated media material will be released, under the signatures of the CEOs of WCRC and BDC.

Attachments

1. 'Buller River, Westport Flood Mitigation, Engineering Report' G E Williams Consultants, June 2022
2. Figures and diagrams prepared by G E Williams Consultants, June 2022 to support the above report.

Appendix one: Executive summary from a report prepared by HenleyHutchings (May 2022)
'Resilience against flood risks at Westport, Co-investment business case, Context and 'Strategic Fit.'

There is a compelling 'strategic fit' case for Westport to be the recipient of co-investment funding for a flood protection scheme.

Geography: Westport is a small town situated at the base of one of the largest catchment areas in New Zealand. The town is built on a narrow floodplain, sandwiched between two rivers and the sea. This location makes the town highly susceptible to flooding.

Natural hazards: Liquefaction, earthquakes / tectonic movements, and coastal accretion compound Westport's natural hazard risk-scape.

Flooding and flood protection: Flooding is the number one natural hazard in Aotearoa. New Zealand now faces, on average, one major flood event every eight months. Flood protection schemes are the first line of defence.

Climate change: Sea level rise and higher flood flows (because of 9-19% more rainfall by 2100) compound Westport's flood risk.

Crown assets: For the past three decades, Crown-owned and related assets have received flood protection at a cost to regional and targeted local ratepayers, with little contribution from the Crown. Crown assets located in Westport have a value of over \$1 billion.

Socio-economic status of Westport: The underpinning economy of the Buller district remains strong but urban Westport is ranked nationally in the 92nd percentile for deprivation.

Buller District Council and West Coast Regional Council: Both councils have a small and widely distributed rating base. The two councils are capable of governing and managing necessary flood protection programmes but the ability of their communities to fund these on their own, alongside other programmes, is significantly constrained.

Previous work on flood protection in Westport: West Coast Regional Council – together with the Buller District Council, have been exploring Westport flood risk mitigation options since 2014. A significant 'Westport 2100' report was prepared in 2021. This recommended a 'ring embankment' around the town of Westport.

Other regional council flood protection research: Research undertaken by regional councils (January 2022) establishes a strong case for central government co-investment in flood protection schemes.

Insurance sector: Insurance in places like Westport will start to become unavailable or very expensive. The insurance sector itself has signalled that in coming years, future insurers are not likely to take on customers in areas prone to flooding.

Government's 30-year Infrastructure Plan: The Plan records the average annual costs of responding to flood events now exceeds \$50 million. While necessary, this is sub-optimal expenditure compared to preventative investment.

Productivity Commission: The Commission's report on local government funding identified 'national interests' and the 'benefit principle' as clear pointers for central government contributing to flood protection schemes.

RM reforms: These reforms clearly point to the need for a stronger natural hazard focus to the national planning framework.

- Spatial planning will greatly assist to define where New Zealanders are best to live, work and play; where we are best to put our infrastructure; where rivers and the coast should be permitted to run unhindered by structures; where biodiversity may flourish; where natural hazards will have unwanted effects and, most importantly; where, and how we build resilience into our rural and urban communities.
- The proposed Climate Change Adaptation Act will help define how a staged managed retreat process may operate and be funded, and how a dynamic adaptive management approach may be applied.
- The proposed Natural and Built Environments Act will contain clear statements of desired environmental (natural and built) planning outcomes, a national planning framework, and clear and fulsome national instruments. It will also better define the respective resource management accountabilities of central and local government.
- The Climate Emergency Response Fund has been established, with an initial focus on decarbonisation initiatives but no certainty yet about how it may assist the regional sector with fraught 'managed retreat' and other measures capable of building community resilience against flood / coastal risks.

Precedent central government co-investment decisions: In the past, (prior to the early 1990s), the capital cost of substantial river management and flood protection schemes was commonly supported at levels of 50% to 75% by central government.

Shovel ready funding: In 2021, regional councils throughout New Zealand received \$217m toward 55 'shovel ready' flood protection projects. Funding was provided at a 75% ratio for projects in those regions viewed as having comparatively high levels of deprivation. The proposed Westport flood protection scheme may well have been included in this programme but, at the time, it was not regarded as 'shovel ready'.

Previous Cabinet decisions: The July 2021 Cabinet report contains principles that clearly support co-investment in flood risk management at Westport.

Report to: Westport Rating District Joint Committee	Meeting Date: 8 June 2022
Title of Item: Westport Rating District - Financial Report to 30 April 2022	
Report by: Heather Mabin, Chief Executive	
Reviewed by: Hugh McMillan, Chair	
Public excluded? No	

Report Purpose

The purpose of this paper is to table the approved budget and costs incurred to 30 April 2022 by the Westport Rating District and the Westport Flood Protection Scheme Project (the Project).

Report Summary

In line with West Coast Regional Council's (WCRC) adopted Long-term Plan 2021-31, WCRC has undertaken pre-construction work on the Project, plus approved additional budget for immediate urgent work identified during the completion of the pre-construction work.

This paper presents the spend to date to the Westport Rating District Joint Committee (Joint Committee).

Draft Recommendations

It is recommended that the Westport Rating District Joint Committee resolve to:

- *Receive this report; and*
- *Note approved budget to date is \$2,775,113; and*
- *Note expenditure to 30 April 2022 was \$195,986.*

Issues and Discussion

Background

As part of WCRC Long-term Plan 2021-31 process, WCRC resolved to include \$150,000 for pre-construction work on the Project for the construction of flood protection infrastructure estimated to cost \$10.2M. The pre-construction work was to be undertaken during year one of the Project (2021-31) and has been completed within a compressed timeframe of 8 months.

Current situation

As a result of the work undertaken by the Technical Advisory Group (TAG) tasked with completing the pre-construction work on the Project, immediate urgent works were identified at Organs Island and adjacent to O'Connor Home on the Buller River.

A recommendation was received by WCRC from the Joint Committee, and on 3 May 2022 WCRC resolved to:

9. *Authorise WCRC Staff to proceed with maintenance work on the bank erosion near O'Connor Home, at an estimated cost \$923,351.*
10. *Authorise WCRC Staff to proceed with maintenance work on Organ's Island, at an estimated cost of \$1,701,762.*

The table below summarises the approved budget to date plus the proposed funding budget for 2023.

To date, no allocation of costs incurred to Organs Island, O'Connor Home Scour or the Project has been undertaken. It is envisaged that these costs will be reviewed once the work required by the TAG to finalise the content of the business case has been completed.

This report does not include costs for Henley Hutchings, Cedilla or Morrison Low to complete the business case as these are fully funded through the Buller Recovery Steering Group by DIA.

Westport Rating District & Flood Protection Scheme Project - Financial Report 30 April 2022

Approved Budget	<u>2022</u>	<u>2023</u>	Whole-of-Project	Funding Source	Decision
Pre-Construction	150,000		150,000	<i>Rating District</i>	WCRC LTP 2021-31
Organs Island	1,701,762		1,701,762	<i>LGFA borrowing</i>	3 May WCRC Extraordinary meeting
Scour O'Connor Home	923,351		923,351	<i>WCRC Catastrophe Fund</i>	3 May WCRC Extraordinary meeting
Preparatory works		700,000	700,000	<i>Rating District</i>	WCRC LTP 2021-31 - Option 2
	2,775,113	700,000	3,475,113		
Project Management	2,072		2,072		
Modelling	119,109		119,109		
Surveying	63,095		63,095		
Compliance	4,331		4,331		
Procurement	-		-		
Design	5,289		5,289		
Legal	-		-		
Construction	-		-		
Land Tenure	-		-		
Feb flood event	4,163		4,163		
	195,986	-	195,986		
<i>C/fwd as at 30 April 2022</i>		\$2,579,127			
Nett Budget Balance	\$2,579,127	\$3,279,127	\$3,279,127		

Report to: Westport Rating District Joint Committee	Date: 8 June 2022
Title of Item: Rating recommendation 2023	
Report by: Heather Mabin – Chief Executive, West Coast Regional Council	
Reviewed by: Hugh McMillan, Chairperson	
Public excluded? No	

Report Purpose

The purpose of this paper is to table for consideration the Rates to be levied on the Westport Rating District for 2023 for the pre-construction work on the Westport Flood Protection Scheme Project (the Project) and estimated cost of ongoing preparatory work prior to commencing construction.

Report Summary

Local authorities are required to adopt both a long-term plan every three years and annual plans for the years between the long-term planning cycles. By 30 June 2022, West Coast Regional Council (WCRC) must adopt its proposed rates to be levied on all rate payers in 2023.

In line with the consultation process WCRC undertakes with each Rating District, this paper outlines the proposed Rates to be levied on the Westport Rating District in 2023.

Draft Recommendations

It is recommended that Westport Rating District Joint Committee resolve to:

- Consider the Rates to be levied on the Rating District for 2023, namely;
 - \$2.23 per \$100,000 Capital value for Pre-Construction work; and
 - \$5.34 per \$100,000 Capital value for preparatory work for the Westport Flood Protection Scheme.
- Note the Engineering cost recovery levy of \$35,000.

Issues and Discussion

Background

In line with the consultation process necessary under the Local Government Act 2002, WCRC proposed two Options for the Westport Rating District in their Long-term Plan 2021-31 (LTP 2021-31) Consultation Document.

Option One was:

Option 1 - Preferred



Development of partial stopbanks and flood wall scheme estimated at \$3.4 million.

But what will that cost me?

\$25.93 per \$100,000 of Capital Value per year, commencing in 2022/23.

Pre-construction

\$1.35 per \$100,000 of Capital Value per year, commencing in 2022/23.

Maintenance

Any flood protection scheme will require maintenance, administration and insurance, however these costs are unknown at this point.

And Option Two:

Option 2
Development of an extensive stopbank and flood wall scheme estimated at \$10.2 million.
But what will that cost me? \$77.78 per \$100,000 of Capital Value per year, commencing in 2022/23.
Pre-construction \$2.28 per \$100,000 of Capital Value per year, commencing in 2022/23.
Maintenance Any flood protection scheme will require maintenance, administration and insurance, however these costs are unknown at this point.

After consideration of the submissions, WCRC adopted Option Two. It was determined in LTP 2021-31 that the Project was to be funded by a loan from LGFA, to be repaid over a number of years by the Westport Rating District.

WCRC strikes its rates in September each year which are then charged to ratepayers in two equal instalments. To date, WCRC has committed to funding \$2.6M expenditure on immediate urgent works at Organs Island and on a scour on the Buller River adjacent to O'Connor Home. These costs are not being funded by Westport Rating District. Instead, Council determined at an Extraordinary Council meeting on 3 May 2022 that these works would be funded by the 'cashing up' the catastrophe fund portion of the investment portfolio and increase a rollover of Council debt.

To undertake further preparatory work for the Project, WCRC needs to levy rates on the Westport Rating District.

The LTP 2021-31 determined an Engineering cost recovery to be levied on each Rating District. The exception being, the Westport Rating District who were to have this levy of \$35,000 applied for the first time in 2023. Minutes of the decision read:

Topic 3 – Engineer, and other rating district services, cost recovery

- Option 1 – Recover \$287,000 of the cost of administering the rating districts from the rating districts, with the remaining portion to be met from the general rate
- Option 2 – Recover \$232,250 of the cost of administering the rating districts from the rating districts, with the remaining portion to be met from the general rate

Amended Table:

	Value of asset as at 30/06/21	Option 1	Option 2
		Fixed fee to be prorated across rating district	
Saltwater Creek/New River	-	\$500	\$250
Neil's Beach	-	\$500	\$250
Matanui Creek	\$90,602	\$500	\$250
Rapahoe	-	\$500	\$250
Hokitika Southside	\$925,540	\$2,500	\$1,250
Mokihinui	\$2,098,312	\$2,500	\$1,250
Raft Creek	\$338,328	\$2,500	\$1,250
Okuru	\$997,200	\$2,500	\$1,250
Whataroa	\$923,075	\$2,500	\$1,250
Kongahu	\$1,412,309	\$2,500	\$1,250
Red Jacks	\$995,500	\$2,500	\$1,250

Vine Creek	\$2,647,692	\$7,500	\$3,750
Coal Creek	\$3,267,129	\$7,500	\$3,750
Inchbonnie	\$4,100,677	\$7,500	\$3,750
Kowhitirangi	\$5,526,272	\$7,500	\$3,750
Taramakau	\$10,726,503	\$12,500	\$7,500
Karamea	\$8,950,961	\$12,500	\$7,500
Nelson Creek	\$4,016,763	\$7,500	\$3,750
Waitangitona	\$3,796,510	\$7,500	\$3,750
Wanganui	\$18,808,551	\$20,000	\$15,000
Punakaiki	\$4,160,618	\$20,000	\$15,000
Hokitika Seawall	\$4,302,788	\$35,000	\$35,000
Greymouth Floodwall	\$15,438,938	\$35,000	\$35,000
Westport*	-	\$35,000	\$35,000
Franz Josef	\$13,275,032	\$35,000	\$35,000
Total	\$106,799,300	\$269,500	\$217,250

*Not applicable in the 2021-22 financial year.

H. Mabin requested that Council notes that Westport will not be rated in this current financial year, therefore their engineering costs and that management revisited the allocation to Nelson Creek and Waitangitona rating districts.

Moved (Coll McLaughlin / Ewen)

That Council proceeds with amended Option 2 (70% to be paid by the rating districts and 30% from the general rate).

Carried

As a result of this annual levy, WCRC Staff costs have not been included in the Westport Rating District and Flood Protection Scheme Project detailed in the separate paper, *Westport Rating District - Financial Report to 30 April 2022*.

Current situation

By 30 June 2022, WCRC will have incurred pre-construction costs of at least \$150,000. It is therefore proposed that WCRC levy the Rating District for the \$2.28 per \$100,000 of capital value in 2023, as detailed in the LTP 2021-31 Consultation Document.

Pre-construction costs

To prepare to undertake the preferred protection scheme option, Council proposes to undertake the survey and design work in the 2021/22 financial year. A flood modelling review will also be required to ensure the flood protection scheme meets the recommended level of service consulted on. Estimated pre-construction costs of \$150,000 would be recovered through a targeted rate in the 2022/23 year.

The final cost and magnitude of the capital works that is required to construct the Flood Protection Scheme will be dependent on the outcome of the business case to be submitted to Hon. Minister Mahuta by the Buller District Council and WCRC, due 30 June 2022.

The decisions that are made after receiving Cabinet's ruling on the request for funding in the business case, will then inform the detail of the annual plan of works for the Westport Rating District.

To keep the work on the Project moving forward, WCRC has budgeted an additional \$700,000 for preparatory work (over and above the internally funded \$2.6M on immediate urgent works at Organ's Island and O'Connor Home) in the 2023 financial year. These costs include ongoing project management, design, land tenure and consent costs.

Therefore, in line with the detail in the LTP 2021-31 Consultation Document, it is proposed that a Rate of \$5.34 per \$100,000 of Capital value be levied on the Rating District to fund this loan.

This equates to 7% of the \$77.78 per \$100,000 capital value, depicted above, for the Option two \$10.2M spend, e.g. preparatory expenditure of \$700,000.

Implications/Risks

The main risk to WCRC is the financial impact of carrying un-funded costs. In its decision on 3 May 2022 to fund immediate urgent works of \$2.6M WCRC has taken on this risk, the potential mitigation being a positive outcome regarding co-investment from Cabinet.

The proposed Rates in this paper are in line with WCRC's LTP 2021-31 consultation process that included receiving submissions, Hearings and deliberating to determine final outcomes.

Significance and Engagement Policy Assessment

The final Flood Protection Scheme asset will require an amendment to WCRC's policy.

Report to: Westport Rating District Joint Committee	Meeting Date: 8 June 2022
Title of Item: Matters of community interest	
Report by: Dan Moloney – Community representative	
Reviewed by: Hugh McMillan	
Public excluded? No	

Report Purpose

To provide the Joint Committee with an update on matters raised by the community.

Report Summary

Community interest in the Westport Flood Protection scheme is high with much commentary on the topic, and other matters related to the causes of flooding.

Draft Recommendations

It is recommended that the Joint Committee resolve to receive this report.

Issues and Discussion

Current situation

The bottom end of town around the Gladstone Street area was badly affected by the flood so much so that some houses are no longer habitable.

This area of town is protected from the lagoon and river by an old railway embankment that was formed many years ago to transport quarried stone from the Cape Foulwind quarry to form the eastern breakwater. The embankment now serves as a cycling and walking track.

There are at least two stormwater pipes that go through the embankment to empty stormwater into the lagoon area. They appear to be at about the level of the mean high tide level and can be subject to driftwood partially blocking the entrances. The outlets are controlled by a hinged flap. Residents reported the streets filling up with clear water in the early stages of the flood which would indicate that the flaps were unable to open due to the pressure of the floodwater in the Lagoon. The “dirty” water came later as water spread across the racecourse from the Orowaiti. Residents have expressed concerns about the apparent lack of ongoing maintenance of this tidal area. Further round the embankment is an open drain that cuts through a field from Derby Street and, in all probability, is connected by a culvert to a similar drain that runs behind the racecourse stables. The open drain is massively overgrown and residents suspect that the culvert under the embankment is blocked. The clearing of driftwood from the tidal channel and clearing of the culverts might help some of the water get away easier and prevent back up. The stormwater pipes are more problematical but a solution could be found to prevent the storm water flowing back into the streets.

Incidentally there is a stockpile of quarry stone five minutes down the track that might be of use. It is heavily overgrown but looks to be the same rock that was used to form the tipheads.

While it may be beyond the scope of this group a common complaint from flood victims is the “sightseers” who drive through flood waters sending pressure waves into people’s flooded homes. Perhaps council could consider coning off flooded streets to prevent this situation recurring.

THE WESTPORT RATING DISTRICT JOINT COMMITTEE

To: Chair, Westport Rating District Rating Committee

I move that the public be excluded from the following parts of the proceedings of this meeting, namely:

- Item 10
- Item 11

Agenda Item No.	General subject of each matter to be considered	Reason for passing this resolution to each matter	Ground(s) under section 7 of LGOIMA for the passing of this resolution
10	Consultation matters	The item contains information relating to consultation processes with property owners	To maintain the effective conduct of public affairs (s 7(2)(f)(1))
11	Engagement and communications matters	The item contains information relating to engagement and communications with property owners	To maintain the effective conduct of public affairs (s 7(2)(f)(1))

I also move that:

Heather Mabin, Sharon Mason, Rachel Vaughan, Nichola Costley, John Hutchings, Matt Gardner and Michael Henstock be permitted to remain at this meeting after the public has been excluded, because of their knowledge on these subjects. This knowledge will be of assistance in relation to the matters to be discussed.