



PUBLIC COPY

AGENDA

Meeting of the Westport Rating District Joint Committee

Monday 11 April 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 3 March 2022
 - Matters Arising

Reports

5. Update on recommended emergency works (R. Beal)
6. Drainage and culvert report (R. Beal)
7. Land tenure update (R. Beal)
8. Land River Sea modelling investigations update (R. Beal / M. Gardner / C. Coll)
9. Business case for central government support update (J. Hutchings)
10. District Plan designations for flood works (R. Vaughan / E. Bretherton)
11. Matters of community interest (D. Moloney)
12. General Business

H. Mabin
Chief Executive
West Coast Regional Council

S. Mason
Chief Executive
Buller District Council

Minutes of the Westport Rating District Joint Committee

Thursday 3 March 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), Jodi Murray (Westport Area Community Representative), Colin Hey (Waka Kotahi NZ Transport Agency)

Apologies:

Francois Tumahai (Te Runanga o Ngati Waewae), James Caygill (Waka Kotahi NZ Transport Agency)

In attendance:

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

1. Welcome

Chair McMillan welcomed members to the meeting and ran through the mechanics of the meeting.

Committee members were asked to introduce themselves for the benefit of those watching the livestream.

2. Apologies

Moved (Clr Coll McLaughlin/Mayor Cleine) that these apologies be accepted.

Carried

3. Declarations of interest

Chair McMillan asked Joint Committee members to declare their interests.

Clr Coll McLaughlin declared herself as an employee of Chris J Coll Surveying Ltd as well as being related to Chris Coll who was the Chair of the Westport 2100 Working Group.

Mayor Cleine declared that he was a submitter on the Regional Councils Long-term Plan Consultation Document on behalf of his farming business.

Clr Howard declared that she was a submitter on the Regional Councils Long-term Plan Consultation Document as well as owning a property in the Westport area.

Moved (Clr Hill/D. Moloney) that these declarations be noted.

Carried

4. Long Term Plan 2021 – 31 Outcomes

N. Costley spoke to this report, explained it had been provided as background information to the Joint Committee and took it as read.

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

Carried

5. Westport Rating District Works and Recommendations

Items under section 5 were divided into separate sections based on the reports presented.

Report on Technical Advisory Group (TAG) Workshops- (refer attachment 5.1)

Paulette Birchfield (WCRC Engineer) spoke to this report.

Mayor Cleine sought clarification of the TAG membership for the benefit of those watching the livestream to understand the expertise behind this group. R. Beal said the TAG was comprised of Chris Coll, Matt Gardner, Gary Williams, John Ellis (external independent experts) as well as engineers from both councils.

Clr Coll McLaughlin queried attachment 5.3 p.45 in regard to Orowaiti Rd at Averys. Work undertaken here wasn't at same scale as to other emergency works, was unsure whether it had to be explicitly excluded in the resolution or fallen out as not at same scale of works. In regards to Avery's, the report stated that there was a proposed concrete wall around existing culverts. The culverts have stopgates to prevent backflow from the Orowaiti River. Understand that the stopgates as they are are not fit for purpose. Wanted to flag these for consideration by the TAG.

Clr Hill asked if there was any idea of the retrospective costs for sea level rise and climate change. R. Beal said that this would be covered off in the reports to come.

Clr Rutherford said that he had questions but were more pertinent to specific items referenced for consideration by the group.

Clr Howard acknowledge that the TAG considered the common themes that came from the community. Know that the community would want to know that these have been considered and a 'why' and 'why not' around these. Recommendations for further modelling – what were those for following up? From meetings attending in Westport there are a number of ideas and the community want answers as to what is feasible and what is not. Wanted to acknowledge Heather's letter which has cleared up some of the misinformation. R. Beal said that the TAG is considering and reviewing both the recommendations of both the Westport 2100 Working Group recommendations as well as the submission via the Long-term Plan consultation. First two TAG meetings have been focused on what we can get progressed to immediately meet the needs of the community and making safe recommendations for the Joint Committee to consider. There will be further communications around the process as we start to finalise the recommendations as well.

Moved (Clr Coll McLaughlin/Mayor Cleine) to receive the report on the Technical Advisory Group workshops.

Carried

Presentation from Land River Sea Consulting Ltd - Matt Gardner

Matt Gardner of Land River Sea Consulting Ltd presented to the Joint Committee providing an explanation of the modelling, how it has been calibrated with events in 2012, 2018 (Fehi) and July 2021. The modelling has been peer review and determined it is fit for purpose with no major issues. M. Gardner noted that there are still some runs to complete for blockage scenarios, future climate change, increase in peak flows and sea level rise based on IPCC guidelines and localized modelling.

Mayor Cleine noted that it was a brilliant model and a very useful tool. Mayor Cleine questioned asked why there were no crest levels on the Carters Beach side of the river and did the model cover this area, and whether the model could determine the velocity of the water? M. Gardner explained that Carters Beach is included but was not aware of any current protection structures. If there are then he can include them in the model. M. Gardner explained that velocity is one of the key outcomes of the model Determining depth and velocity can be used for building purposes and hazard maps.

Clr Coll Mclaughlin sought clarification as to how sea level rise works in with Westport flood protection. Climate change will make Buller River events more severe but currently do not have knowledge of how sea level rise could impact. M. Gardner explained the impacts of sea level rise on flood protection being that river water needs to go out to sea. If the sea is higher then it becomes harder for the water to get out. Sea water will be higher at the mouth of the Orowaiti and which backs this water up. Councils need to plan for 100-years for climate change.

Clr Hill asked if sea level rise will cause a back-up of water wouldn't extensive dredging of the Buller reverse this? M. Gardner explained that this is a complex matter. His 'gut feeling' would be that in this case any dredging would be less effective.

Clr Rutherford asked about the gravel levels within the river itself and whether the buildup of gravel is considered a blockage? M. Gardner explained that in the model blockages and gravel are generally considered separately. It can be a matter of luck with large logs coming downstream as to whether they may snag which can bring together other material. Usually allow for a degree of blockage and snagging within the model and take in the worst-case scenario. The model also runs through the potential gravel buildups. The model does not allow for live scour going on. The model results are interpreted to inform design. Noted that there are a lot of other things going on in nature that cannot be accounted for within a model.

Clr Howard asked whether the modelling considers the impact of the breakwater. M. Gardner explained that there are impacts the model cannot predict. Have sought the advice of Gary Williams, an experienced geomorphologist, on different changes to the environment and how this would impact the river and the impact on floodwaters. Have considered a lot of different scenarios but narrowing the breakwater is not one that have looked at to date.

C. Hey asked whether the model was based on mean high water tide. M. Gardner said that modelling uses mean high water spring as a datum level. There is a storm surge component added to that.

D. Moloney commented that there is high community interest in the Orowaiti and asked whether a cut directly to the sea would alleviate the flood impact. M. Gardner said that this has been looked at extensively with at least 5 or 6 different options modelled. One of these options was presented in the consultation in 2017. He has recently rerun the models for the cut and while it can be seen to reduce flood depth and extent it does not prevent the flooding.

J. Murray asked whether the model accounted for outputs, for example can you add in pumps to manage stormwater. M. Gardner said that pumps are simple to add even though the model is predominantly used for modeling flooding not for smaller issues such as stormwater. Just need to know the capacity of the pump.

Clr Coll McLaughlin said that she found the Orowaiti cut modelling fascinating and asked whether the walls could be lowered if had the cut. M. Gardner said that that could be considered, or could use the 0.3m as a buffer.

R. Beal said that there is new data for the TAG to consider which will then be put forward to the Joint Committee in regard to the design heights going forward.

Moved (Moloney/Major Cleine) that the Joint Committee resolve to receive the presentation from Matt Gardner of Land River Sea Consulting Limited.

Carried

Report on State of Emergency Works (refer 5.3 Attachment 2)

R. Beal spoke to the report on state of emergency flood protection works that were undertaken. While they are fit for purpose for that event, the TAG recommendation is to bring these up to design height and specification to become a permanent part of the overall scheme.

Clr Coll McLaughlin said that it seemed assumed in the report that the stopgates near Avery's were working properly but they are not. R. Beal said that this would be taken back to the TAG with the recommendation that the stopgates be upgraded as part of that project.

R. Beal said that with the Snodgrass stopbank need some more time to look at this and run the models, impacts of that bank on the south side of the Orowaiti and on the town in order to determine any adverse effects.

Mayor Cleine sought clarification on the Orowaiti stopbank that may not be fit for purpose. Buller District Council will be leaving this in place for time being for the reassurance for the community. R. Beal agreed with leaving it there, confirming that there would not be any further work to bring it up to design specification at this time.

Moved (Mayor Cleine/Clr Howard) that the Joint committee resolve to recommend to WCRC that with the exception of Snodgrass area, the state of emergency works are, where required, brought up to design height and standard.

Carried

Report on the floodwall protection scheme (refer 5.4 attachment 3)

R. Beal explained that these initial proposals are the no regret options identified by the TAG, those that would need to be done regardless of any future decisions being made.

Mayor Cleine asked what sort of height was being proposed between the Toki Bridge and Buller Bridge, M. Gardner clarified that this was approximately 0.5-1m high. In regards to the dotted line alternate alignment, this was being investigated for stage 2 recommendations.

Clr Coll McLaughlin support the recommendation. She noted that there is a lot of anxiety in the community from those who may be negatively impacted by the design alignment and clarified that any landowner that would be impacted will be spoken with. They have very valid concerns and we

must be clear in our communications. Noted that are not authorizing this now but will be part of the investigations going forward.

Clr Hill supported the comments made by Clr Coll McLaughlin. Highly visible part of the scheme and will second the motion.

Clr Rutherford asked what authorizing a sphere of work that will have financial implications. Does the team know the costs of that work and what it would mean for the rating district. R. Beal said are very aware of the financial implications of the additional works identified post consultation. The two stopbank recommendations were included within the Long-term Plan Consultation Document last year. The implication will come when the Joint Committee decides to include to climate change and sea level rise. The 2014 working group made a deliberate and practical decision to exclude that but the signals going forward, particularly from central government, is that these costs are included. These recommendations will be coming back to the Joint Committee and incorporated into the NIWA advice M. Gardner has just received. Clr Rutherford sought clarification on the costs. R. Beal said that the additional works proposed through Report 5.5 which were not included in the consultation but are what the TAG are unanimous that they must be progressed. Will have an impact on the total cost of the project. For the items in 5.4, this will be an increase in the volumes of material. P. Birchfield provided an approx. cost implication based on a number of assumptions at this stage, that to raise the Toki bridge stopbank another .4m would cost an estimated \$160,000. For the section from the Bridge to O'Connor Home, this increases it by another estimated \$400,000. Until get detailed design drawings these are approximate costs only.

Clr Howard stated that she was in support of the work to be done. Works along the esplanade needed to allow for trucks, and in regard to the Kawatiri cycle trail carpark, works may need setting back for access purposes. R. Beal said that they are working closely with Buller District Council Engineers on this. Recent rain events had pushed this work back about a month. As soon as receive the peer review report staff from the Councils will be working through these points.

Mayor Cleine asked queried whether the work is authorising was in line with the consultation that the Regional Council has done. R. Beal stated that both stopbank upgrade projects were part of the consultation undertaken last year. Any cost increase would be because of incorporating climate change and sea level rise height increases.

Moved (Clr Birchfield/Clr Hill) that the Joint Committee resolve to recommend to the West Coast Regional Council to consider the work identified for Stage One of the flood protection scheme are approved to commence.

Carried

Report on Retrospective Maintenance Works – (refer 5.5 Attachment 4)

R. Beal explained that these works were not identified in the consultation budget as the Regional Council was not aware of them. The TAG agrees that this work needs to be undertaken.

S. Mason said that the Chief Executives had had an offline discussion and there will be financials reports accompanying future papers going forward.

Chair McMillan said that he had gone at looked at these areas this morning and asked Chris Coll to comment on it. C. Coll explained that if you do not protect the town from erosion then stopbanks will not be of much use. If do not put the rockwork in then the stopbank will be eroded. The previous rockwork had done a good job for the past 80-90 years but if do not do this it could have serious ramifications.

Clr Birchfield said he would be prepared to move Option B – to reuse existing rock and bring more rock in.

Mayor Cleine queried whether these works would be wrapped up in the package going to cabinet, or if the funds are committed then is it omitted? J. Hutchings confirmed that these works would be included in the application for co-investment.

Clr Coll McLaughlin said that the urgency of the works had been well communicated in the reports today. It was clear that the O'Connor Home works will protect that area, but also protect the whole town. These works are for everyone in Westport Town. She also noted that following the July event it was clear that there were historic issues regarding ownership of the current Westport flood protection assets and wanted to clarify who will own these assets. If have another big event that may damage them then need to check that they are insured appropriately. R. Beal said that there is further investigation going into this, for example Organ Island is gazetted as river protection reserve and Council is getting legal advice on what this means. R. Beal said that would want these works to come under an asset management plan of the Regional Council. Clr Coll McLaughlin commented that there is a certain pool of funding from that National Emergency Management Agency (NEMA) that is hard to access now with the current setup. R. Beal agreed and explained that damaged assets can have their repair costs funded 60% from NEMA. There is criteria that must be met currently making a claim on behalf of the Wanganui, Taramakau and a couple of other rating districts following the February 2022 flood event.

Clr Hill thanked P. Birchfield and R. Beal for the approximate costs provided.

Clr Rutherford asked for the costs around some of the works. P. Birchfield said that for Option A, using the rock that was already there, taking rock from the downstream and replacing it at the top realigning and pulling back to the bank, would cost an estimated \$378,000. For Option B, bringing in new rock to repair as well as using what was there, the cost was approximately \$735,000.

Clr Howard commented that she was in favour of Option B. The wall has lasted for 100 years, and done really well it can do that again. Bringing more rock in will provide the protection for the town.

C. Hey noted that in his experience, trying to recover rock can be a futile action. D. Moloney said that short cuts could not be taken with this and wanted to progress with Option B. J. Murray also agreed with Option B.

Clr Rutherford commented that the recommendation did not reflect that there were two options for consideration. Chair McMillan confirmed that Option A was to plug a breach brought about by the past two flooding events with Option B bringing in new rock, and utilizing what could be, to rebuild the wall.

Moved (Clr Birchfield/Clr Howard) that the Joint Committee resolve to recommend to the West Coast Regional Council Option B

Carried.

6. Medium term actions: Initial matters for consideration

J. Hutching presented this report and spoke to direction of travel and where are heading as well as lay more context for the Joint Committee going forward. Important to present a strong case to Government noting that Minister Mahuta that Westport could be a case study for con-investment for building community resilience and flood protection through the Steering Group and Joint Committee.

Clr Birchfield commented that the climate change requirement have put an impact on the scheme – 400mm. Do not personally believe in climate change but required to go along with it. May be an avenue to obtain additional funding.

Mayor Cleine said that there was nothing surprising in what was being asked in regard to the complexity of what dealing with. Why is Westport different? There are good economic statistics in the bottom 2 or 3 territorial authorities for median household income. Show the impact on our community to fund such works. people to be able to fund. J. Hutchings said that this will be forefront in the report.

Clr Coll McLaughlin asked about the criteria as this is what we are passing today. Concerned to be passing the criteria if the bottom bullet point is “other criteria”, a bit open ended. If there were other criteria would be keen for these to come back to discuss. There is a comment about appropriately weighted decision-making – probably more of an art than a science. Not sure what group will be making these. Would hope this Committee would have some say around what weight goes where. Are on Te Tai o Poutini Plan (TTPP) Committee along with Clr Birchfield and Mayor Cleine. Discussion in Westport on ways this work’s timeline may mitigate hazards in Westport and how that could be reflected in provisions. Do we have any kind of rough idea could lodge consent? Thought June would be the crunch date. May be ways to feed modification of hazard in and who this fits in with TTPP. J. Hutchings commented that the words ‘in principle’ are the get out of jail card for the criteria. Also notes that the TAG experts and Steering Group may also have views on what needs to be weighted. Will need to go through a couple of exercises to get it right. Looking for first thoughts and comments around this noting that we are short on time. Dealing with weighting will be part and parcel of that exercise. Consents for a preferred scheme option. Do not think can do this until post June until have the information on the higher-level design, construction techniques applied and materials. July/August/September. Consider how can incentivise development in locations less at risk for flooding for TTPP. When think short, medium, long-term achievements for community resilience, planning provisions are longer term. A flood protection scheme starts working for you as soon as constructed. Clr Coll McLaughlin explained how on the one had government has said we need to see you incentivising building in less hazardous areas. The TTPP interfaces with this work, there are draft overlays out for consultation showing areas at great risk with severe restrictions. Would like to see a lessening of these when the protection is in play. Can you show how flood protection will feed through to the provisions. J. Hutchings pointed to the multi-tool diagram and noted the tension between the parts. Clr Coll McLaughlin recommended a debrief with TTPP members to inform the business case work.

Clr Coll McLaughlin confirmed that did not have an issue anymore with the criteria following the explanation of J. Hutchings.

Clr Hill said that he was happy with how it was tracking.

Clr Rutherford noted that there are a range of threads that need to be drawn together to make it successful, and that Buller District Council are currently working through a process to adapt and refine their own climate change policies.

C. Hey noted concern over the timeframe for the business case to pulled together in and asked whether it will build in allowance for the improvement in the social wellbeing, economic flow on, business stimulation, investor confidence that flood protection will provide. J. Hutchings explained that will not be a deep analysis but will need to know some of this going forward and may need some additional support. There is a lot of good background coming together, for example M. Gardners

model, the Joint Committee work. H. Mabin said that staff will be developing a full project plan which will be costed and included in the business plan.

Clr Coll McLaughlin sought clarification that there would not be any works undertaken on the ground before July. J. Hutchings believes that this is the case but would not dismiss the importance of the decisions made today. Clr Coll McLaughlin asked even if had another event and the ability to use emergency powers? R. Beal said that the first phase of work is the Toki Bridge to Buller Bridge. Have a consent consultant helping. Linking closely with BDC as they are also planning stuff in this area. Important to tie two projects together as identified by Neil Hatley from the Buller District Council. If there are emergency works then there are provisions can operate under if accepted by Council and have done in the past. Have made recommendation to Council to progress such works before. All those that have been discussed today could be classified as such today.

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

Moved (Clr Rutherford/Cr Hill) that the Joint Committee agree in principle to the criteria to be applied to the Flood Protection Scheme to be recommended to the West Coast Regional Council.
Carried

7. General business

Next meeting

Chair McMillan sought confirmation of when to meet next and the frequency of meetings for the Joint Committee. R. Beal said that the TAG will be meeting fortnightly going forward now have modelling confirmed. For example, the TAG will look at additional works and mapping drainage and culverts to see what can be progressed in that space. The TAG will also be looking at managing adverse effects. The outcomes of these will be brought back to the committee.

Clr Coll McLaughlin said that she would prefer monthly meetings at a minimum, even just for receiving reports noting that this benefits the community as well accessing information. Mayor Cleine was conscious of the effort needed to generate reports in amongst getting the work done so also confirmed a preference for monthly meetings. H. Mabin said that for recommendations to go to Regional Council meetings then the Joint Committee would need to meet the week prior. Chair McMillan confirmed monthly meetings for the Joint Committee with the Regional Council to confirm dates going forward.

Communications

D. Moloney noted his thanks to everyone. There is intense interest in this matter from the community. He wanted to keep communications coming out and noted the open letter that had been published the previous day. Suggested the next topic should be the Orowaiti and why not dealing with it immediately. H. Mabin noted this and said that will progress with information on the Orowaiti.

Mayor Cleine sought clarification of the spokesperson for the Joint Committee. Chair McMillan was confirmed at the spokesperson. A comms plan for the Joint Committee was recommended as well as a newsletter to be produced following meetings.

8. Close of meeting

Chair McMillan thanked all members of the Joint Committee and closed the meeting at 3.33pm.

Report to: Westport Rating District Joint Committee	Meeting Date: 11 April 2022
Title of Item: Update on recommended emergency works	
Report by: Randal Beal – Director of Operations, West Coast Regional Council	
Reviewed by: Hugh McMillan – Chair, Westport Joint Committee	
Public excluded? No	

Report Purpose

To provide the Joint Committee with an update on progress of the recommended emergency works.

Report Summary

The Westport Technical Advisory Group (TAG) recommended emergency works be undertaken as a result of post flood damage assessments from both the July 2021 and February 2022 flood events.

Draft Recommendations

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

Issues and Discussion

Background

The Westport Joint Committee approved the TAG's recommendations for emergency works at their meeting on 3 March 2022. The recommendations were then presented to the March Council meeting.

Council approved these recommendations in principle but requested more accurate financial information before final approval for the works to commence was given.

Current situation

The work is required to be tendered to provide accurate financial implications. The works could be tendered on an hourly rate basis, but this would provide no greater certainty on the final costs than the estimates provided. Staff have begun preparing to put these works to tender and the first step is to undertake geotechnical investigations which is needed to inform the material volumes required for the structures.

Staff have requested, and received, a proposal to undertake the necessary geotechnical Investigation. The geotechnical investigation and reporting is to include the following:

- a) a desk study which will include review of publicly available data and documents provided by the client to determine the nature of the field investigation required.
- b) a field investigation which will include a site walkover to assess current performance as well as mechanically excavated test pits and/or drilled boreholes at critical or representative locations. The intention will be to determine the founding material beneath the proposed structures.
- c) analysis of the field investigation data which may include laboratory test results and slope stability, or seepage modelling to determine the stability of the existing bunds and affects of raising the height. If the testing results identify any geotechnical issues or areas of concern, then additional field investigation may be required.
- d) assessment of Section 71 of the Building Act for natural hazards and reporting including results of the field investigation and data analysis as well as recommendations regarding the proposed bund development, future monitoring and maintenance. Where applicable, geotechnical earthwork specifications will be provided.

Considerations

Implications/Risks

There is still the same level of risk from flood events, and further property damage, until the flood protection scheme is completed. However, staff believe there is greater risk from smaller events occurring until the Organs Island work is completed.

If the project is to be advanced before the full design and recommendations are completed, then the project needs to be staged appropriately so as to not adversely affect other properties.

Report to: Westport Rating District Joint Committee	Meeting Date: 11 April 2022
Title of Item: Drainage and Culverts report	
Report by: James Bell - Engineering Officer, Brian Murphy – Engineering Officer	
Reviewed by: Randal Beal – Director of Operations, West Coast Regional Council	
Public excluded? No	

Report Purpose

To provide the Joint Committee with an update on staff investigations into improving drainage of flood waters.

Report Summary

The Westport Technical Advisory Group (TAG) recommended emergency works be undertaken as a result of post flood damage assessments from both the July 2021 and February 2022 flood events. A proposal for improving stormwater drainage is set out in the following report.

Draft Recommendation

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

Issues and Discussion

Background

The West Coast Regional Council adopted option two of its Long-term Plan Consultation Document in September 2021 – construction of extensive floodwalls and stopbanks. Drainage was identified by many submitters through the Long-term Plan process as a major issue and one that needed to be considered alongside other flood mitigation proposals.

Current situation

Staff have inspected the main “arterial” drains and culverts and reported to the TAG that there are options for improving drainage issues. This includes cleaning out the existing drains to improve flow, increase the size of culverts, and increase the number of culverts and appurtenances to improve the efficiency of the flood protection structures.

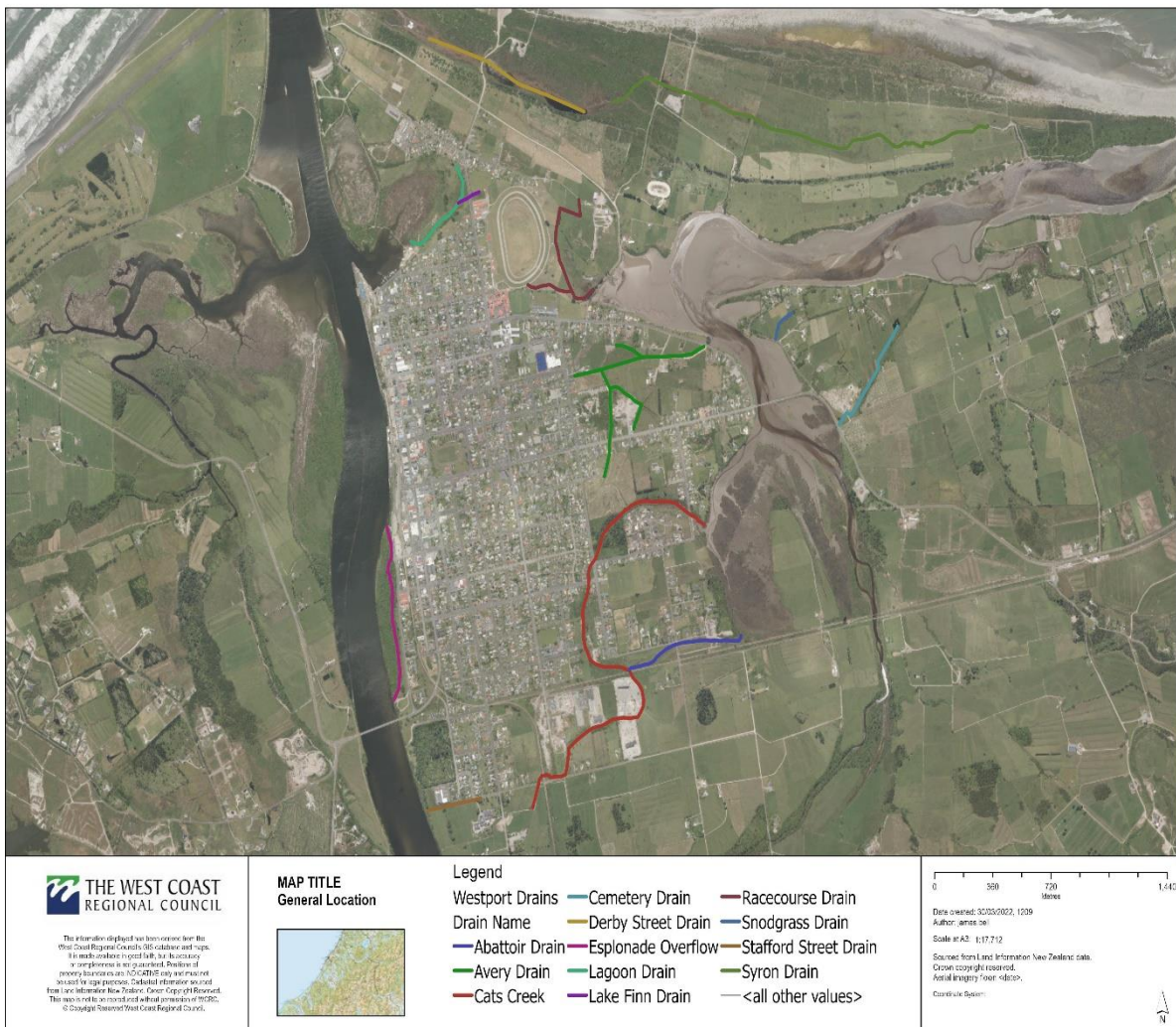
Culvert size	# Current culverts	# Potential additional culverts
100mm	1	0
150mm	1	0
200mm	3 (2 temporary)	4
300mm	7	14
350mm	2	0
400mm	4	0
450mm	3	3
600mm	2	6
750mm	1	0
900mm	2	2
1200mm	2	0
1350mm	2	0
1500mm	4	2
Total	34	31

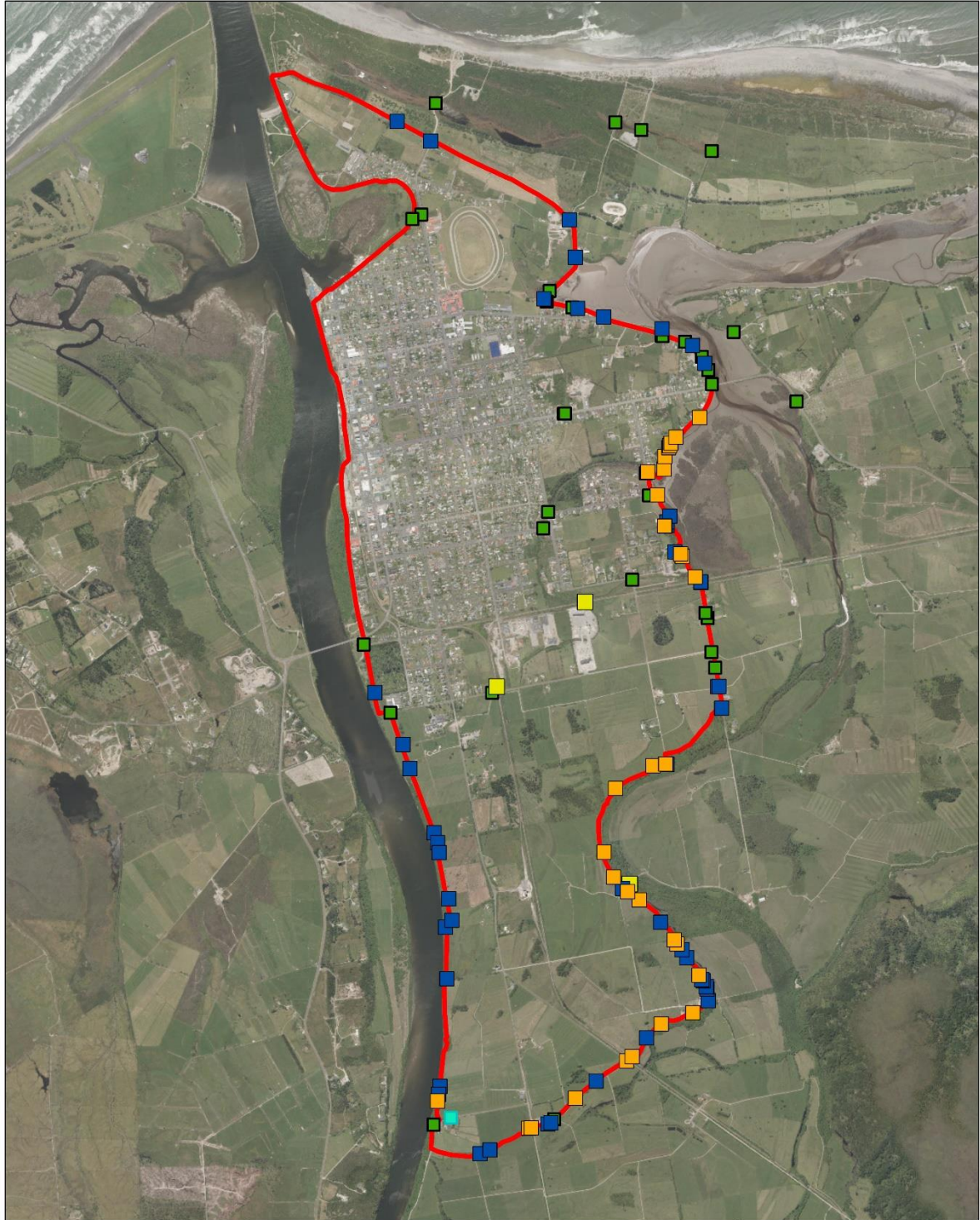
Drain Name	Length (km)
Avery Drain	1.901
Cemetery Drain	0.644
Snodgrass Drain	0.177
Lagoon Drain	.574
Racecourse Drain	1.100
Lake Finn Drain	0.142
Stafford Street Drain	0.333
Cats Creek	2.822
Abattoir Drain	0.748
Esplanade Overflow	0.887
Syron Drain	2.500
Derby Street Drain	1.030
Total	12.862km

Note:

- the potential culverts column only is an estimation on culvert size, further investigation is needed once the height of the bank has been confirmed.
- drainage length has been defined as a line on GIS there may be some differences to actual lengths (add 10%). This does not include any farm drains.

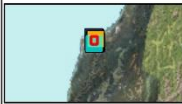
The final design and modelling will inform what the TAG recommends to the Joint Committee. It is possible that the Westport Rating District will be recommended to become a flood protection **and** drain maintenance scheme.





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Westport Culverts



Legend

- Potential Culvert Required
- Points of Interest
- Bridges
- Current Westport Culverts
- Ringbank_plan_02Dec2021



Date created: 30/03/2022, 12:09
 Author: james.bell
 Scale at A3: 1:20,606

Sourced from Land Information New Zealand data.
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 Aerial imagery from <date>

Coordinate System:



Considerations

Financial implications

Any costs associated with improving the drainage within the Rating District will be in addition to the Flood Protection scheme budget that was consulted on in 2021.

Report to: Westport Rating District Joint Committee	Meeting Date: 11 April 2022
Title of Item: Land Tenure investigations update	
Report by: Randal Beal – Director of Operations, West Coast Regional Council	
Reviewed by: Hugh McMillan – Chair, Westport Joint Committee	
Public excluded? No	

Report Purpose

To provide the Joint Committee with an update on staff investigations into land tenure.

Report Summary

Draft Recommendations

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

Issues and Discussion

Background

The Westport Technical Advisory Group (TAG) recommended emergency works be undertaken as a result of post flood damage assessments from both the July 2021 and February 2022 flood events. The Joint Committee members requested advice be provided on land tenure and asset ownership.

Current situation

Staff engaged Ward Property Services to investigate and provide a report on the status of the land tenure and assets specifically relating to the emergency works recommended at the March 2022 Joint Committee and Regional Council meetings.

As the final alignment of the flood protection scheme is confirmed, further land tenure advice may be required but road reserve and rail corridor are likely to provide the majority of the required land use.

Considerations

Implications/Risks

Consultation with individual property owners will be undertaken once the final design height and alignments are confirmed. Access agreements for maintenance and repairs will need to be discussed and finalised.

Attachments

- Ward Property services report
- Section 261 Coal Mines Act 1961



Ward Property Services

Chris Ward

Accredited Supplier to LINZ

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Lincoln 7608

New Zealand

Telephone 03 321 7046

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Email: wardproperty@xtra.co.nz

Home Page: www.wardpropertyservices.co.nz

15 March 2022

West Coast Regional Council
P O Box 66
Greymouth

Attention: Paulette Birchfield

Dear Paulette

Status – Buller River – Protection Works

Thank you for your email of the 9 March 2022 requesting status reports for a number of areas where work is proposed in the Buller River.

General

The Buller River – its legal riverbed – is understood to be Crown land managed by LINZ. The Chief Surveyor, Lands and Survey, Nelson considered that in terms of the Coal Mines Act 1979 (and its predecessor the 1925 Act) the Buller River was navigable from Shingle Beach below the port of Westport (the upstream limit of the Coastal Marine Area), upstream to the Landing at Inangahua, hence the surveyors have adopted this.

The Act provides that the bed of a navigable river is vested in the Crown – see extract attached.

Note reference to “Napalis” is the LINZ database references.

Reference to “Crown land” in this report means Crown land subject to the Land Act 1948 and managed by LINZ.

I will deal with each plan as follows:

O’Connor Home Rock Protection and Gravel Extraction – see attached plan 1

Firstly, the rock protection area on the true right of the Buller. The Buller River at this point maybe encroaching onto freehold land held by Kawatiri Farm Limited NL12A/397 over Section 73 Square 141 and by E and JR Reedy NL2A/626 over Part Section 74 Square 141. The proposed line of the rock protection as shown on the plan would be on this freehold.

These sections are fronted by a Local Purpose Reserve – River Protection, originally created by NZ Gazette 1877 page 88.

The legal riverbed beyond is Crown land.

Secondly, the Gravel extraction area on the true left. There is a Local Purpose Reserve – River Protection, originally created by NZ Gazette 1877 page 88 which fronts the freehold land at this point.

The legal riverbed beyond is Crown land.

Note: the alternative alignment as shown on the plan (Fig 3) sent follows the line of an unformed legal road (Buller DC) which crosses Nine Mile Road and the railway. It adjoins 10 freehold parcels, 9 owners, plus the railway – see plan 1A attached.

Organs Island Rock Wall and Gravel Extraction – see attached plan 2

Firstly, the rock wall on the true right – this is located on either the legal bed of the Buller River (Crown land – Napalis 2710062 and 3330469) or on land taken under the Public Works Act 1876 for a relief channel by NZ Gazette 1881, page 1627 – this land is managed by LINZ in terms of the Public Works Act – Napalis 2716203 and 2710063.

Secondly, the gravel Extraction Area on the true left – this is mainly located on the land taken under the Public Works Act 1876 for a river relief channel by NZ Gazette 1881, page 1627 – this land managed by LINZ – Napalis 2716203 and 2710063. The downstream end may also be on the legal bed of the Buller River (Crown land – Napalis 3330469).

Rock Wall Ownership

I cannot establish the ownership of the actual existing rock wall at Organs Island as I can't access info as to when and who built it. Works like this were often put in place by Ministry of Works in the early days and later installed and existing works managed by Catchment Boards.

There was a policy from the Soil Conservation and Rivers Control Council – 1955 – that required Catchment Boards to acquire the land on which works were placed but, in my experience, this was ignored more than was observed and acted upon.

The fact that the majority of the wall appears to be within the boundaries of the land acquired under the Public Works Act 1876 and, depending on when the rock wall was established, the ownership possibly lies with the Crown. With the responsibilities for river control now in the hands of Regional Councils, equally it could be considered to be an asset of the Regional Council particularly if maintenance work has been carried out by that body.

O'Connor Home Stopbank – Design 2 – see attached plan 3

Attached is a spatial print showing the land ownership along this section of the proposed stopbank. It is freehold land from the unformed legal road (the alternate route as above) downstream to the recreation reserve above the bridge over the Buller River. There is a small section of land held for Harbour Purposes and unformed legal road adjacent to the bridge and SH.

The owners are as shown on the attached plan.

There is a local purpose reserve – river protection NZ Gazette 1877 page 88 fronting this freehold land down to Stafford Street.

Legal road – 2 areas – and an area vested in Council as esplanade reserve fronts the parcel owned by Amies, Hewetson and others.

The legal riverbed here is Crown land.

Toki Bridge to Buller Bridge – see attached plan 4

Starting at the SH Bridge the Buller Council owns/manages two areas which are in title NL9B/1300. These are areas taken/set aside for Harbour Purposes by NZ Gazette 1960, page 1810.

There is a small enclave of the bed of the Buller River opposite Hughes Place and a finger of the bed of the river between the esplanade and the land in title NL9B/1300. The bed of the river is Crown land.

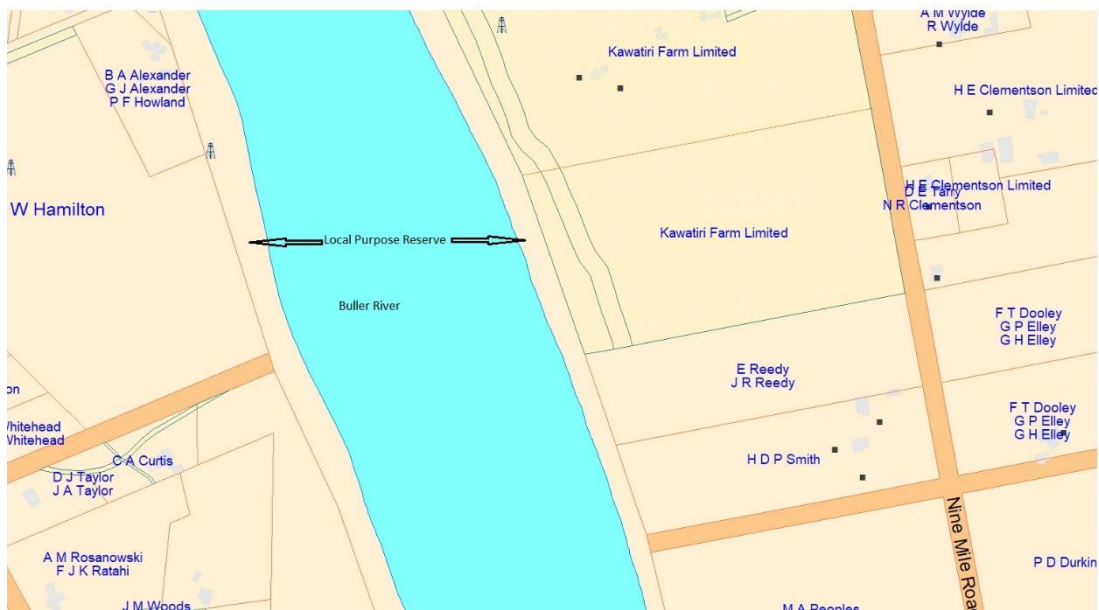
From the end of The Esplanade the land is Railways, part of the core asset and Kiwi Rail are the managers.

Please let me know if you want further information on any of these areas.

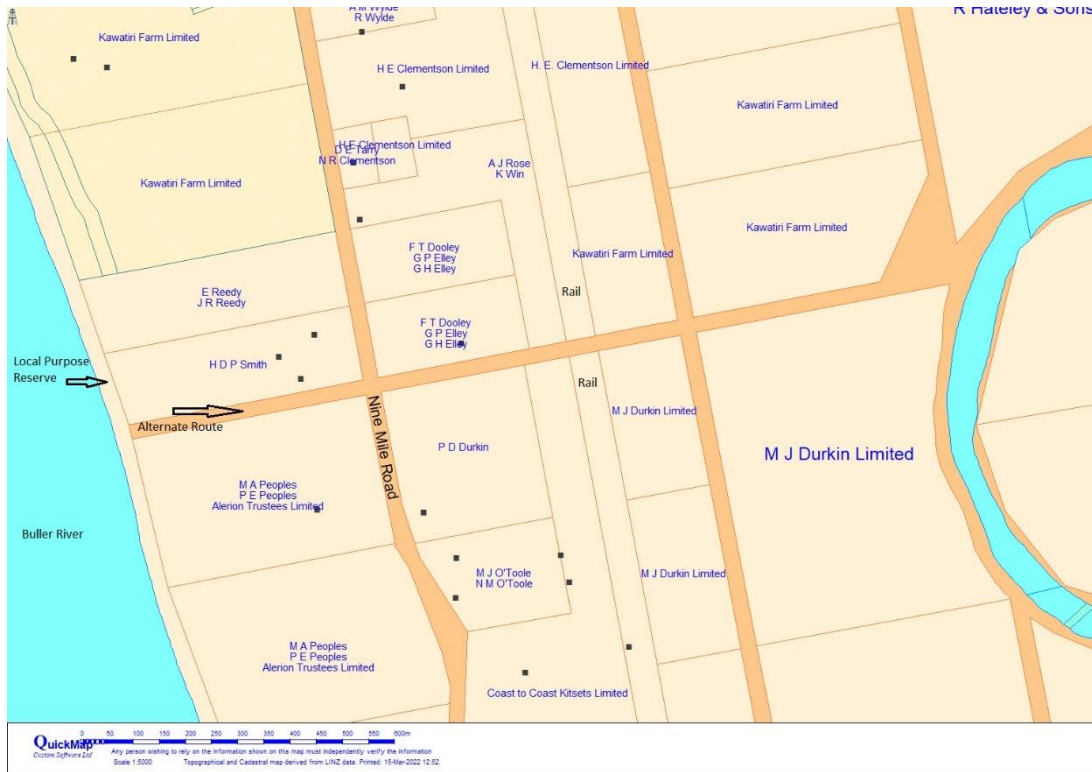
Yours faithfully



Chris Ward
Ward Property Services



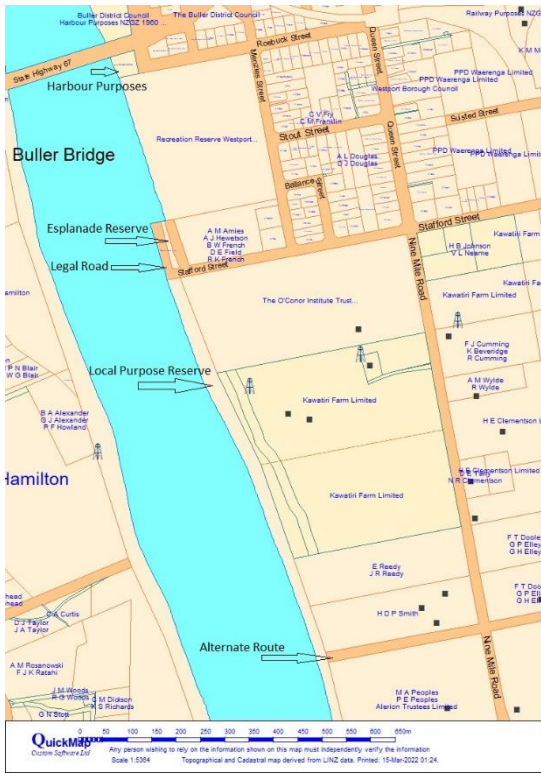
Buller River reserve @ oconnor home



Alternate route



Organs island



Oconnor home stopbank



Buller bridge to Toki Bridge



THE
NEW ZEALAND GAZETTE.

Published by Authority.

WELLINGTON, THURSDAY, DECEMBER 15, 1881.

Land taken for Relief Channel, Buller River.

(L.S.) ARTHUR GORDON, Governor.
 A PROCLAMATION.

WHEREAS the land described in the Schedule hereto is required to be taken under "The Public Works Act, 1876," and "The Public Works Act 1876 Amendment Act, 1878," for a certain work, to wit, the construction of a relief channel for the Buller River: And whereas the Mini&r for Public Works has laid before the Governor the memorial and map mentioned in and signed and certified as required by the said Acts:

Now, therefore, I, Arthur Hamilton Gordon, the Governor of the Colony of New Zealand, by and with the advice and consent of the Executive Council of the said colony, in exercise and pursuance of the powers and authorities in me vested by sections twenty-one, twenty-two, twenty-three, twenty-four, and twenty-five of "The Public Works Act, 1876," and by section twenty-eight of "The Public Works Act 1876 Amendment Act, 1878," and of any other power and authority enabling me in that behalf, do hereby proclaim and declare that the land described in the Schedule hereto is hereby taken for the purpose of a relief channel for the Buller River; and that, from and after the day of the date hereof, the land so described shall become absolutely vested in fee-simple in Her Majesty, discharged from all mortgages, charges, claims, estates, and interests of what kind soever, for use as a relief channel for the Buller River.

SCHEDULE.

ALL that piece or parcel of land containing by ad-measurement 300 acres 3 roods 24 perches, more or less, situate in the Surrey Districts of Kawatiri and Ohika, Provincial District of Nelson, being portions of Sections Nos. 52, 53, 54, 55, and portion of a road reserve within the Native reserve near Snag Falls, Buller River, commencing at a point 9203.6 links distant, on a bearing of 97° 53' 43.4" from the initial station of the Buller Meridional Circuit. Bounded— Southerly by portions of Sections Nos. 52, 53, 54, road reserve, and portion of Section No. 55, 7247 links; Westerly by portion of Section No. 55, 700

links; Southerly by portion of Section No. 55, 2800 links; Easterly by road reserve, 632 links; generally Northerly and Easterly by lines, 142, 597, 383, 440, and 465 links respectively, the same being portion of boundary of Section No. 55 of said Native reserve; generally Easterly by lines, 385, 1008, 1313, and 1515 links respectively, the same being portion of boundary of Section No. 55 of said Native reserve; generally Northerly and Easterly by lines, 754, 735, and 552 links respectively, the same being portion of boundary of Section No. 55 of said Native reserve; generally Northerly and Westerly by lines, 480, 1975, 1022, 1048, 1201, 1132, and 792 links respectively, the same being portion of boundaries of Section No. 55 road reserve, and Sections Nos. 54, 53, and 52 of said Native reserve; generally Northerly and North-easterly by lines, 759 and 860 links respectively, the same being portion of boundary of Section No. 52 of said Native reserve; Westerly by a line, 445 links, being portion of boundary of Section No. 52 of said Native reserve, to commencing point; the above piece or parcel of land is more particularly delineated upon the plan marked P.W.D. 5582, attached to the memorial above referred to.

Given under the hand of His Excellency the Honorable Arthur Hamilton Gordon, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Her Majesty's High Commissioner for the Western Pacific, Governor and Commander-in-Chief in and over Her Majesty's Colony of New Zealand and its Dependencies, and Vice-Admiral of the same; and issued under the Seal of the said Colony, at the Government House, at Wellington, this thirteenth day of December, in the year of our Lord one thousand eight hundred and eighty-one.

WALTER W. JOHNSTON,
 Minister acting for the Minister for
 Public Works.

Approved in Council.

F. P. MURRAY,
 Acting Clerk of the Executive Council.

GOD SAVE THE QUEEN!

every respect as though such lands had never been comprised in any proclaimed gold field:

Now, therefore, I, George Augustus Constantine, Marquis of Normanby, the Governor of the Colony of New Zealand, in pursuance and exercise of the power and authority for this purpose vested in me, do hereby withdraw from the Nelson South-West Gold Field, proclaimed on the eighth day of June, one thousand eight hundred and sixty-eight, so much of the parcels of land described in the Schedule hereto as is included within the said gold field.

SCHEDULE.

ALL that piece or parcel of land in the Provincial District of Nelson, in the Colony of New Zealand, situate on the eastern bank of the Buller River, and lying between the line of high watermark and the south-western boundaries of Rural Sections Nos. 71, 72, 73, 74, so much of the public road, Nos. 75, 76, 77, 78, so much of the public road, Nos. 79, 80, 81, 82, so much of the public road, Nos. 83, 84, 85, 50 and 51 (Native reserves), the south and south-western boundaries of Rural Section No. 90, and the south-eastern boundaries of Rural Sections Nos. 88 and 89.

Also all that piece or parcel of land situate in the said provincial district, commencing at a point at the line of high watermark opposite to and in a line with the eastern boundary of Rural Section No. 88, and extending in a north easterly, easterly, and southerly direction along the line of high watermark of said river for a distance of 120 chains or thereabouts; thence in a north-easterly direction 20 chains or thereabouts; thence in a north-westerly, westerly, and south-westerly direction across the public road to the eastern boundary of Rural Section No. 87, 158 chains or thereabouts; thence in a south-easterly direction along the eastern boundaries of Rural Sections Nos. 87 and 88 to the commencing point, 20 chains or thereabouts.

Also all that piece or parcel of land in the said provincial district situate on the southern and western bank of the Buller River, commencing at the line of high watermark opposite to and in a line with the western boundary of Section No. 52 (Native reserve); thence in a north-westerly direction along the line of high watermark to a point opposite to and in a line with the south-eastern boundary of Rural Section No. 205; thence in a south-westerly direction partly along the south-eastern boundary of Rural Section No. 205, 410 links or thereabouts; thence parallel to the line of high watermark through Crown lands, public road, Rural Sections Nos. 235, 234, public roads to the intersection of the western boundary of Section No. 52 (Native reserve); thence in a northerly direction to the point of commencement, 410 links or thereabouts.

Also all that piece or parcel of land in the said provincial district situate on the said bank of the said river, commencing at the line of high watermark opposite to and in a line with the south-eastern boundary of Rural Section No. 205, and lying between the high waterline and the eastern boundaries of Rural Section No. 205, Section No. 48 (Native reserve), Rural Sections Nos. 203, 202B, 201C, so much of the public road, Nos. 201D, 200, 198, 197, so much of the public road, Nos. 195, 194, 193, 59, so much of the public road, No. 46 (Native reserve), and terminating at the line of high watermark opposite to and in a line with the north-western boundary of said Native reserve.

The said pieces or parcels of land are delineated in red upon the plan marked P.W.D. 5416, which plan is deposited in the office of the Minister for Public Works at Wellington.

Given under the hand of His Excellency the Most Honorable George Augustus Con-

stantine, Marquis of Normanby, Earl of Mulgrave, Viscount Normanby, and Baron Mulgrave of Mulgrave, all in the County of York, in the Peerage of the United Kingdom; and Baron Mulgrave of New Ross, in the County of Wexford, in the Peerage of Ireland; a Member of Her Majesty's Most Honorable Privy Council; Knight Commander of the Most Distinguished Order of Saint Michael and Saint George; Governor and Commander-in-Chief in and over Her Majesty's Colony of New Zealand and its Dependencies, and Vice-Admiral of the same; and issued under the Seal of the said Colony, at the Government House, at Wellington, this twenty-fourth day of January, in the year of our Lord one thousand eight hundred and seventy-seven.

D. REID.

GOD SAVE THE QUEEN!

Land reserved for a Site for protection of the River Buller.

NORMANBY, Governor.
ORDER IN COUNCIL.

At the Government House, at Wellington, this twenty-fourth day of January, 1877.

Present:

HIS EXCELLENCY THE GOVERNOR IN COUNCIL.

WHEREAS by "The Waste Lands Act, 1858," it is enacted that it shall be lawful for the Governor in Council, at any time and from time to time, to except from sale, and either reserve to Her Majesty or dispose of in such other manner as for the public interest may seem best, such of the waste lands of the Crown in any of the provinces of the colony as may be required for the purposes of military defence, or for the construction of trunk lines of road, or as sites for public buildings for the use of the General Government, or for other purposes of public utility or convenience:

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council of the Colony, in exercise and pursuance of the power and authority in that behalf vested in him, doth hereby except from sale and reserve to Her Majesty so much of the waste lands of the Crown particularly specified and described in the Schedule hereunder written, for the purpose in the said Schedule mentioned, and set opposite the descriptions of the said parcels of land.

SCHEDULE.

Description of Reserve.	Purpose of Reserve.
<p>PROVINCIAL DISTRICT OF NELSON.</p> <p>All that piece or parcel of land in the Provincial District of Nelson, in the Colony of New Zealand, situate on the eastern bank of the Buller River, and lying between the line of high watermark and the south-western boundaries of Rural Sections Nos. 71, 72, 73, 74, so much of the public road, Nos. 75, 76, 77, 78, so much of the public road, Nos. 79, 80, 81, 82, so much of the public road, Nos. 83, 84, 85, 50 and 51 (Native reserves), the south and south-western boundaries of Rural Section No. 90, and the south-eastern boundaries of Rural Sections Nos. 88 and 89.</p>	<p>For the protection of the banks of the River Buller, near Westport.</p>
<p>Also all that piece or parcel of land commencing at a point at the line of high watermark opposite to and in a line with the eastern boundary of Rural Section No. 88, and extending in a north-easterly, easterly, and southerly direction along the line of high watermark of said</p>	

Provided that nothing herein shall prevent the institution of proceedings by a mine manager against any person employed in or about the coal mine for a breach of this Act or of any regulations thereunder.

Cf. 1925, No. 39, s. 203

PART XII

GENERAL PROVISIONS

261. Right of Crown to bed of navigable river—(1) For the purpose of this section—

“Bed” means the space of land which the waters of the river cover at its fullest flow without overflowing its banks:

“Navigable river” means a river of sufficient width and depth (whether at all times so or not) to be used for the purpose of navigation by boats, barges, punts, or rafts.

(2) Save where the bed of a navigable river is or has been granted by the Crown, the bed of such river shall remain and shall be deemed to have always been vested in the Crown; and, without limiting in any way the rights of the Crown thereto, all minerals (including coal) within such bed shall be the absolute property of the Crown.

(3) Nothing in this section shall prejudice or affect the rights of riparian owners in respect of the bed of non-navigable rivers.

Cf. 1925, No. 39, s. 206

262. Certificates of title may be issued to Crown—Notwithstanding anything in any Act or rule of law, a certificate of title under the Land Transfer Act 1952 may, upon application made by or on behalf of the Minister, be issued without fee in the name of the Crown in respect of any land, or estate in fee simple, or lease for the time being vested in the Crown for the purposes of any of the provisions of this Act, and no transfer or mortgage to the Crown for the purposes aforesaid of any estate or interest in land comprised in any certificate of title shall operate as a merger of that estate or interest.

Cf. 1948, No. 37, s. 44

Report to: Westport Rating District Joint Committee	Meeting Date: 11 April 2022
Title of Item: Land River Sea Modelling investigations update	
Report by: Randal Beal – Director of Operations, West Coast Regional Council	
Reviewed by: Hugh McMillan – Chair, Westport Joint Committee	
Public excluded? No	

Report Purpose

To provide the Joint Committee with an update on modelling investigations into design heights and alignments.

Report Summary

The Westport Technical Advisory Group (TAG) recommended emergency works be undertaken as a result of post flood damage assessments from both the July 2021 and February 2022 flood events. A review of the food modelling has been completed with the outcomes set out in this report.

Draft Recommendations

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

Issues and Discussion

Background

The West Coast Regional Council adopted option two of its Long-term Plan Consultation Document in September 2021 – construction of extensive floodwalls and stopbanks. Prior to the July 2021 weather event, Council had planned a 12-month period to allow for flood modelling review, survey and design work to be undertaken prior to construction beginning.

Current situation

The independent peer review on the Land Rive Sea Consulting Ltd flood model has been completed which has confirmed that it is fit for purpose to inform recommendations and decisions made to both the Joint Committee and Regional Council.

The Westport TAG have requested Land River Sea Consulting run 7 new model investigations incorporating Representative Concentration Pathway (RCP) 6 as well as RCP 4.5 and RCP 8.5. The TAG is likely to recommend adopting RCP 6, but the other scenarios need to be considered before making the final recommendation.

Land River Sea Consulting has run RCP 6 which shows more extensive flood protection is required at Carters Beach than what was consulted on in 2021. It also shows that planning should be undertaken now for the future location of the airport, which is a critical lifeline, before suitable areas are developed into residential or commercial properties.



2021 Long-term Plan Option Two - Extensive floodwalls and stopbank proposal



OPTION 1 - Extensive ring bank including Carter's beach and Snodgrass banks



OPTION 2 - Extensive ring bank including Carter's Beach but excluding the Snodgrass banks



OPTION 3 - New alignment for reduced ring bank including Carter's Beach and Snodgrass banks



OPTION 4- Extensive ring bank including Carters Beach and Snodgrass Banks, remove Orowaiti Causeway



OPTION 5- Extensive ring bank including Carters Beach and Snodgrass, Stephens Rd, and Railway Opening



OPTION 6- Extensive ring bank including Carters Beach bank extended to airport, and a Snodgrass cut

OPTION 7 – Investigate options for Orowaiti overflow and Organs Island

Next steps

Consultation with individual property owners needs to be undertaken. This includes consultation with property owners outside of the flood protection scheme that may be remain affected by flood waters.

Considerations

Implications/Risks

here is still the same level of risk from flood events and further property damage until the flood protection scheme is completed.

If the project is to be advanced before the full design and recommendations are completed, then the project needs to be staged appropriately so as to not adversely affect other properties before protection for individual properties is in place.

Financial implications

The original flood protection scheme recommended by the “Buller Working Group” in 2014, which included staff and Councillors of the Buller District Council and West Coast Regional Council, deliberately excluded the effects of sea level rise and climate change from the flood protection scheme in order to keep the proposed scheme as affordable as possible for the current community and property owners. They did this recognising that future upgrades of the scheme would be required as the forecasted science began to take effect.

Adopting RCP 4.5, RCP6 or RCP 8.5 will have a significant impact on the overall cost of the scheme.

Attachments

Buller Model Peer Review Report 2022

Memorandum



To: Matt Gardner, Land River Sea Consulting

From: Philip Wallace, River Edge Consulting

Date: 29 December 2021

Re: Buller Flood Model – Peer Review

I have carried out an initial review of the latest Buller River and floodplain hydraulic model. This follows earlier reviews of the model in 2015 and 2017, after which you made various modifications to the model.

We have also had several discussions over the past month about the latest model and various details of its set-up, as you have been refining the model.

My initial review has been carried out on the files you supplied 23 December 2021. These do not include model result files. Once these are received, and after you have considered my comments below, I will be able to carry out a more complete review.

I will provide a spreadsheet with various notes I have made during my initial review, which may be of use to you.

In summary, the model appears to be sound and I only have minor suggestions regarding its set-up. Most of these suggestions that follow are unlikely to have any significant effect on the key results.

1. MIKE FLOOD couple file

1.1. Lateral links.

I have used the MIKE FLOOD Python functions tool to map the lateral link connections (resulting shape file provided). Most connections look reasonable, although there are a few locations where there is a small gap in the linked M21 cells and another location (possibly unavoidable) where there is a minor cross-over. Refer to the screen-shots in the “MF couple” tab in the attached spreadsheet.

There is a link to a low cell in the right bank 13496 link. That shouldn’t make any difference to results (as high cells immediately inland), but it would be better to link to the higher cell just in case there is any chance of instabilities.

A suggestion is also to realign link 82 where it crosses the side harbour entrance, as I have shown in the spreadsheet. That would better represent the right bank alignment interpolation between the upstream and downstream cross-sections.

The model log file also gives a warning about an overlap between links 41 and 42. That overlap should be corrected. Another warning relates to a small overlap between links 54 and 55. A

further warning is also issued for link 82, but I cannot immediately see an obvious reason for that.

1.2. Standard links

I note that default values are used for all standard links except for those relating to StephensRoadMainBridge_NZVD2016. The non-default values may be fine (although preferable not to have the momentum factor as zero in that location), and have presumably been used for stability reasons but I have made some other comments about that branch which if addressed might possibly allow you to restore the default values.

There are discontinuities between MIKE 11 and MIKE 21 levels at the standard links, as highlighted by the MIKE 11 log file. In some cases these are quite large, although these may not cause any significant concerns at the flood peak. Refer to the “notes” tab of the spreadsheet.

2. MIKE 21FM file

2.1 Time step

The minimum time step could be reduced from 0.1 s, perhaps to 0.01 s. I suggest that you check what the minimum and average time steps are for a completed simulation. If these are above 0.1 s then there should be no need to, but if they are close to or at the minimum then decreasing it might be useful.

2.2 Boundary

Sea boundary at 1.3 -2 km offshore. Possibly further than it needs to be, depending on how the calibration (NIWA Ecoconnect) and design conditions are sourced, but ok. Model effectively assumes sea level at the river entrance is the same as that offshore boundary (other than the 0.2 m adjustment made in the calibration case). Should make some comment/justification in the final model report, although not expected to affect results in township or far up the river.

2.3 Resistance

Although results may not be too sensitive to floodplain resistance, the resistance dfs2 map could be refined – e.g. where there has been new development since your original model and perhaps in larger drains where photos suggest significant weed growth.

3. MIKE 11 files

3.1 Network file – dxmax value

The 4.8 m dx value used for the main Buller River is small for a river of this scale. Although I have no concerns with that, I suggest that a larger value (eg 10-20 m) would be fine and also would decrease simulation times.

3.2 Network file – culverts and bridges

We agreed that the rail bridge (Railway_Embankment_Bridge, i.e. Nine Mile Rail Bridge?) could be removed from the model. As it was represented in the model, it was probably misleading in

any case (I made comments about this in my review in 2015). We also agreed that the Orowaiti SH67 bridge should be removed from the MIKE 11 component of the model.

I note that the artificial cross-sections used for the structure branches tend to have a top level of 14 m RL – quite a bit higher than need be.

In some locations, warning messages in the log file indicate that the MIKE 21 cell levels are somewhat lower than the culvert levels. That would suggest that the (presumably assumed) culvert inverts in the model are too high (normally we'd see MIKE 21 levels (from LiDAR) higher than true invert levels of streams/culverts, not the other way around).

It may be worth clarifying why particular culverts and bridges have been included in the model and others left out. In the "notes" tab of the spreadsheet, I've marked the locations of several structures that are not explicitly included, several of which might be as significant as those that you have included.

3.3 StephensRoadBridge1_NZVD2016

There is a partial double-counting of the conveyance at this structure (MIKE 11 and MIKE 21). Is this structure actually needed in the model? Should there be a culvert under the road?

3.4 STEPHENSROADMAINBRIDGE_NZVD2016

The boundary condition (dummy water level, for standard link) for this branch is at chainage 15 rather than chainage 30 (so I am surprised that it actually runs). Should the road bridge be represented to allow for submergence of soffit and pier obstruction?

3.5 STEPHENROADCULVERT and STEPHENSRDCHANNEL2_NZVD2016

I would have probably combined these into a single branch, with lateral links to the floodplain in between the two structures, for simplicity and also because standard links can often be the cause of instabilities (so the fewer the better).

3.6 STEPHENROADCULVERT

There is no culvert structure in this branch, yet the rail bridge has nine culverts at that location.

3.7 STEPHENSRDCHANNEL1_NZVD2016

The way this is set up, it would never flow (linked entrance cells are higher than the culvert soffit).

3.8 RAILWAYCULVERT1 and RAILWAYCULVERT2

I know that we discussed these over the phone. Are they effectively redundant?

3.9 Cross-section file

There is a slight difference in the <1> marker and in one point on the right berm, between the river branch and the bridge branch for chainage 11349.

You have used the same interpolated cross-section at 14083 in the 2017 and 2021 sets (i.e. you have not reinterpolated between the later cross-sections, nor adjusted to NZVD2016). That section is also referred to as “XS03A” in the cross-section file but the cross-section shape file shows 3A as a real section – so you should check the naming.

3.10 HD11 file

The initial conditions (global 6m RL and zero flow) are extreme for many locations, and it might be possible that some initial floodplain inundation occurs at standard link locations as a result (although I cannot see any). Some local variation in initial conditions might be better.

As I have commented in the past, some sensitivity testing of the Buller River resistance values will be useful (notwithstanding that you are satisfied with calibration).

4. Subcatchment inflow

I know that I have previously suggested allowing for subcatchment (Orowaiti, Cow Creek) inflows, and that you and WCRC believe that such inflows would be much less than river overflows. I agree that this is likely to be the case (e.g. previous model results suggest in excess of 2500 m³/s overflow), but nonetheless those subcatchments are quite large (nearly 50 km²) and using the NIWA River Flood Statistics web tool suggests that even a 20-year ARI event in those subcatchments (not inconceivable with a 100-year event in the main river) would deliver nearly 200 m³/s to the overflow path. As the model is set up at present however, with a 2D representation of the overflow path, unless more detail was added to the Orowaiti channel the model may show unintended early inundation of the floodplain. Perhaps this is something to consider for future model refinements.

No doubt you will want a little time to consider my comments and then discuss them further with me. Please feel free to contact me when you are ready. As per the brief for the review, I will prepare a report on the model review after that, once you have prepared a final version of the model (and, I assume, some report or documentation of your recent modelling).

Report to: Westport Rating District Joint Committee	Meeting date: 11 April 2022
Title of Item: Business case for central government support - update	
Report by: Randal Beal, WCRC Director of Operations & John Hutchings, Henley Hutchings	
Reviewed by: Hugh McMillan – Chair, Westport Rating District	
Public Excluded: No	

Report Purpose

To provide the Joint Committee with additional detail and a progress statement about the preparation of a business case to secure Central Government co-investment into the Westport Food Protection Scheme.

Report Summary

Arrangements are now largely in place to enable the Council to prepare a business case seeking central government co-investment into a Westport Flood Protection Scheme. The business case is to be submitted by the end of June 2022. There is much work to do over the next eleven weeks. This includes weaving the proposed river management solutions into a broader fabric of other initiatives that will help build longer term community resilience against the risks of flooding.

Recommendations

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

Issues and considerations

Background

The Minister (appendix one contains a summary of the Ministers expectations) wrote to Chair Allan Birchfield and Mayor Jamie Clemie on 17 February 2022. The Minister views Westport as a test case for central government potentially returning to the table as a co-investor in flood protection measures throughout New Zealand.

Three Buller Recovery Steering Group meetings have been held since the Joint Committee last met. The most recent of these meetings (1 April 2022) included the adoption of four overriding objectives. These were envisaged as ‘strategic settings’ to guide the consideration of options for building community flood resilience.

- Reduce the extent, frequency, and consequences of flooding from severe weather events on the Westport community, recognising and providing for the likely impacts of climate change.
- Minimise increasing or transferring flood risk to other areas within the Buller catchment or wider region.
- Improve the ability of the Westport community to prepare for, continue functioning during and after, and recovery quickly from flooding events.
- Reduce undue long-term financial burden on the community of flood mitigation and protection.

In addition, a cross-agency workshop was convened on 17 March 2022. The purpose of this workshop was primarily to seek views about the matters to be included in the proposal to central government seeking agreement to a co-investment model. The workshop discussed such matters as:

- Critical success factors e.g., strategic fit, value for money, affordability, capacity to deliver.
- A long list of potential means to build community resilience against flood risks.
- Methods and criteria to assess and prioritise options for building community resilience i.e., to reduce the long list of options to a short list of options. (NB appendix two lists some of these likely criteria).

One of the clear signals to emerge from the workshop, particularly from central government agencies, was the expectation that the means of building community resilience must reflect not only structural / river management solutions, but also long-term spatial planning and improved flood response initiatives. This expectation is captured in a diagram included in appendix three.

A second workshop is proposed to be convened early in June 2022. The purpose of this workshop is to seek further input and confirmation of the direction-of-travel of the preferred package of flood risk / community resilience building measures.

Current situation

As discussed in other parts of the Joint Committee's agenda, good progress is being made on the task of

- Modelling the efficacy of river management options to assess their comparative capacity to address different storm events / sea level rise scenarios.
- Assessing land tenure implications.
- Assessing District Plan implications.
- Assessing drainage and culvert implications.

The Technical Advisory Group (TAG) has met three times since the last Joint Committee meeting. They have assisted to guide the above tasks. The TAG has also offered valuable on-the-ground views about each of the food protection scheme options.

Further TAG input will occur at a field trip planned for 14 / 15 April 2022. The primary purpose of this workshop is to ground truth the modelling, surface the implications of a preferred option, and confirm the actions required to manage these implications.

Next steps

Matt Gardner from Land, River, Sea Consulting will write up the results of the modelling.

Other subsequent steps include:

- **Design and cost:** Designing the structure(s) and assessing the cost of the preferred option (considering geo-technical / foundation conditions), compared to other options.
- **Stormwater:** Assessing the cost of stormwater management structures and drains / culverts / pumps i.e., how they interface with the flood protection structures.
- **Landowner impacts:** Assessing property impacts and determining the measures to mitigate these.
- **Access and occupation:** Providing for the price and other arrangements to confirm the use and access to the for construction and maintenance of river management structures.

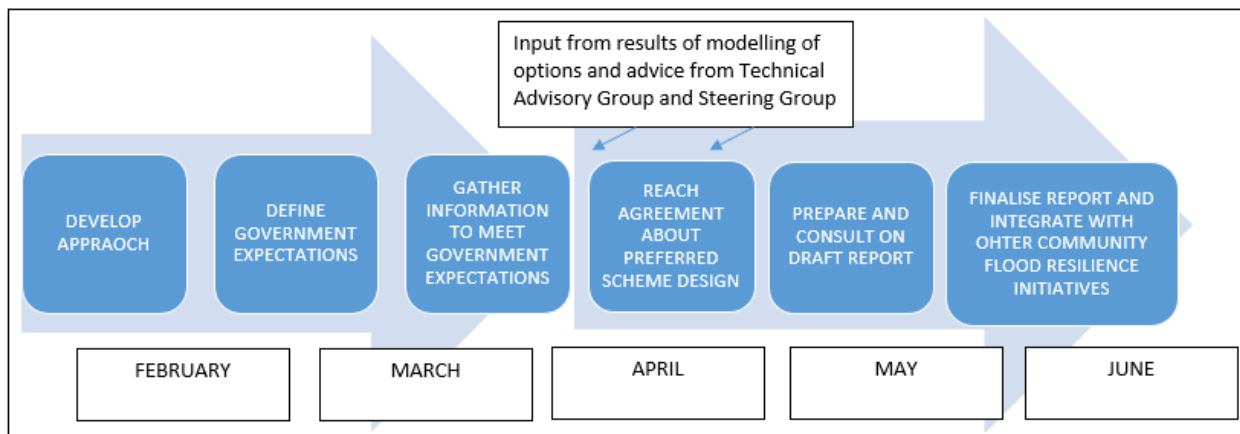
- **Environmental impacts:** Assessing the ecology, visual, heritage, other natural hazard effects and Te Ao Māori impacts.
- **RMA:** Assessing resource consenting matters.
- **Rail and road impacts:** Determining the Implications of preferred options on Waka Kotahi and Kiwi Rail structures – and the cost of any works that may need to be undertaken by them.
- **Integrated catchment management solutions:** Examining whether there are any upstream ‘integrated catchment solutions’ that may mitigate flooding impacts.

In parallel with the above river management actions, several indirect considerations will be explored. These include how the preferred structural solution:

- Satisfies the ‘objectives’ agreed to by the Steering Group on 1 April 2022.
- Dovetails into non-structural solutions.
- Dovetails into the strategies, policies and plans promulgated by local, regional, and central government and others e.g., the regional council SIG co-investment report.
- Is the best option compared to the other options that were considered (i.e., record the results of the process of moving from a long list to a short list to the preferred solution etc.).
- Maximises the return on investment e.g., the capital cost of the structural solutions compared to the positive value from managing the risk of flooding affecting assets, people, productivity, insurability and investment confidence.
- Contributes co-benefits such as recreational walking / cycling and ecosystem improvements.
- Can be delivered on time i.e., the adequacy of the capacity, capability, and management systems (NB this includes the procurement strategy and the proposed project management system, governance arrangements, accountability frameworks (KPI, risk assessment etc.).
- Can be delivered at an affordable cost i.e., the degree to which the business case balances funding contributions from the rating district and from central government.

Overview – project status

The broad phases of proposed Westport Flood Protection Scheme work, to be undertaken between now and June 2022, are summarised in figure one. The project is on track. Some resourcing risks have emerged. Measures have been taken to ensure these do not derail the project.



Appendix one: Expectations recorded in correspondence from Hon Nanaia Mahuta

The Ministerial correspondence foreshadows the need for the following matters (paraphrased below) to be addressed as part of a request for central government co-investment:

- Integrated initiatives should be packaged and agreed to, through the Buller Flood Recovery Steering Group.
- Value for money should be displayed.
- Robust costing practices should be applied.
- Plan of action should be clear.
- Reasons for why central government support is essential should be displayed.
- Reasons why a 'bare-bones' local government response won't be enough on its own should be apparent.
- Reasons why Westport is special, compared to other flood prone communities in New Zealand, should be described.
- Proposed flood protection initiatives should show how the solution deals with climate change.
- Proposed flood protection initiatives should show how the solution deals with emerging resource management policies.
- Proposed flood protection initiatives should show how the preferred solution is the best to be applied from the options available.

Alongside the Minister's requirements, the business case will also address the:

- Principles and criteria for central government co-investment in measures to increase community resilience against flooding – as specified in a July 2020 Cabinet Paper.
- Better Business Case requirements, as defined by Treasury for application to all significant investment proposals.
- Many additional positive reasons for central government co-investment – as raised in the January 2022 joint regional council business case seeking nation-wide central government co-investment in flood protection schemes (NB this report will be discussed by the West Coast Regional Council on 12 April 2022). These include, for example, the protection that will be provided by the proposed Westport Scheme to close to \$1 Billion of Crown assets located in the Westport area.

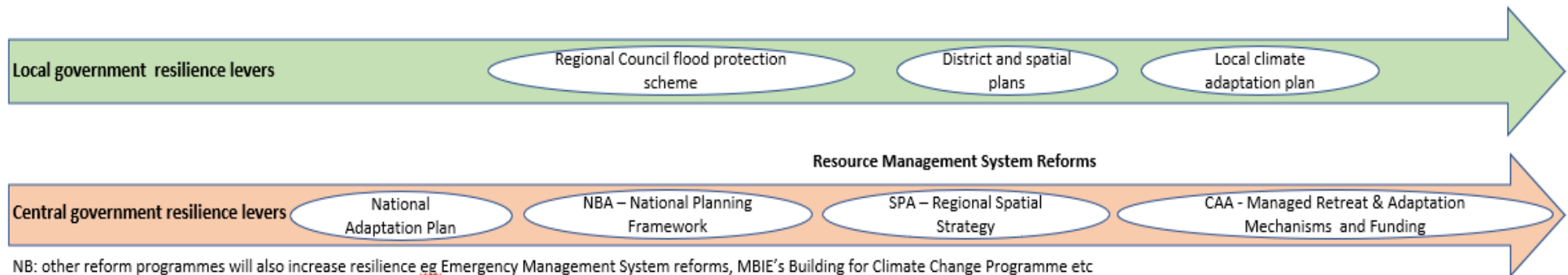
Appendix two: Likely criteria to be applied to help select preferred flood protection scheme methods to build Westport community resilience against flood risks.

- Manage climate change-induced flood level flows and sea level changes / surges (suggested ARI - 150 years).
- Be best value for money (cost / benefit).
- Meet the cost share requirements foreshadowed in correspondence from the Minister of Local Government (17 Feb 2022).
- Land tenure - achieve best gains with least impact on private properties / affected properties.
- Include early / no regrets 'phase one' wins.
- Have least environmental impacts and best contribute to te mana o te wai / iwi concerns.
- Have least design complexity.
- Able to be constructed within a relatively speedy window.
- Best able to satisfy resource consent concerns (the ease or difficulty of achieving consent).
- Have long term integrity and have manageable maintenance requirements etc.
- Minimise the number of structures / stormwater / stream interface structures / ancillary costs.

Appendix three: generic description of actions that may contribute to community resilience against flood risks

Some actions will be short-term, others will be longer-term

Risk treatment action	Short-term (within 1 year)	Medium-term (1-5 years)	Long-term (5 years +)
Protect <i>(reduce the frequency/extent of the flood hazard)</i>	Flood recovery works - infrastructure and asset recovery works	Flood protection schemes (hard engineering and nature-based solutions; detention and relief mechanisms; flood flow diversion; stormwater management)	Building design and asset management - resilient building and infrastructure design and ongoing asset management
Avoid <i>(ensure new development is not exposed to flood risk)</i>	Flood modelling and hazard mapping - updated for climate change and new flood events	Land use planning tools – strong national direction to limit new development and intensification in highest flood-risk areas using zoning/restriction; spatial planning to drive development into lower-risk areas; long-term strategic planning	
Retreat <i>(move existing development to lower risk areas)</i>	Land use planning tools - to relocate existing development from highest flood risk areas (eg property acquisition, easements, land swaps)		
Accommodate <i>(reduce the consequences of the flood hazard)</i>	Emergency management tools - flood early warning systems & civil defence evacuation planning	Community engagement - on flood risk and preparedness	Building controls - to accommodate flooding (eg minimum floor heights, relocatable houses, floodable basements etc)
Insurance/property market actions	Community and property-level resilience measures - to live with flood risk (eg wet flood proofing, flood storage areas)	Insurance market levers - to transfer risk through insurance pay-outs; higher premiums, excesses or withdrawal in highest risk areas	New insurance products



NB: other reform programmes will also increase resilience eg Emergency Management System reforms, MBIE's Building for Climate Change Programme etc

Report to: Westport Rating District Joint Committee	Meeting Date: 11 April 2022
Title of Item: District Plan designations for Westport protection works	
Report by: Edith Bretherton, Senior Planner Te Tai o Poutini Plan / Rachel Vaughan, Acting Planning and Science Manager	
Reviewed by: Randal Beal – Director of Operations, West Coast Regional Council	
Public excluded? No	

Report Purpose

To update the Committee on Planning Options for the flood protection works, and seek a decision to identify the flood wall in the Te Tai o Poutini Plan (TTPP) through the designation process

Draft Recommendations

It is recommended that Council resolve to:

1. *Receive the report.*
2. *Recommend that the Committee direct the Regional Council to lodge a notice of requirement to insert a designation in the Buller District Plan, and subsequently TTPP, for all parts of the protection works.*

Issues and Discussion

The Officers drafting the Te Tai o Poutini Plan (TTPP) are seeking support from the Committee to use the designation process available under the RMA as a planning pathway for the protection works at Westport.

The use of designations for flood protection structures has been considered by the Officers drafting Te Tai o Poutini Plan (TTPP). Using the designation process for the protection works, would identify the Westport protection works in the TTPP, including the extent of the structures and would allow a robust rules framework to be developed. The rules framework would reflect the Community request for reduced flood hazard restrictions, by allowing for development rules to be linked to the designation of the protection works. Consultation on the draft coastal natural hazard provisions have been paused in Westport to allow consideration of the planned protection works. The method for doing this would be creating rules that allow for development in lower risk areas after the construction of the protection works.

The Officers are now seeking that the Committee instruct the Regional Council to lodge a notice of requirement to insert a designation in the Buller District Plan, and subsequently TTPP, for all part of the protection works.

What is a designation?

Designations form a key part of the district plan review process. The plan review process, such as the preparation of TTPP, provides an opportunity to 'roll over' existing designations, and for Councils or requiring authorities to introduce new designations through a notice of requirement.

A designation is a planning technique used by Ministers of the Crown, local authorities, and network utility operators. Historically, designations enabled central and local government to get planning authorisation for public works and protected land for future public works. Local authorities can only make a designation where they are financially responsible for the project, work, or operation on the designated land.

A designation is a form of 'spot zoning' over a site, area, or route in a district plan. The 'spot zoning' authorises the requiring authority's work and activity on the site, area, or route without the need for land use consent from the relevant territorial authority.

A designation has a similar effect to a plan change establishing an activity as it:

- identifies the land affected in the district plan
- enables a requiring authority to undertake the works within the designated area without the need for a land use consent
- sets the parameters under which the activity can occur.

The designated area is still subject to any regional council resource consents that may also be needed. A designation restricts anyone other than the requiring authority from carrying out work on the designated land that will prevent or hinder the project or work to which the designation relates, without first obtaining the requiring authority's permission (refer s176(b) of the RMA).

The designation provides for the long-term 'approval' of the work. Because details of the work may not be known at the time of lodging the notice of requirement, s176A of the RMA provides for further detail or subsequent changes and updates to the work through an outline plan. An outline plan is required to be submitted to the territorial authority, showing details of the work or project to be constructed on the designated land.

Buller flood protection works

In the case of the Buller Flood protection works, stop banks are currently permitted activities in the Buller District Plan under rule 6.2.4. This means that no resource consent is required from the Buller District Council. Applying for a designation is an additional application, that would otherwise be unnecessary to undertake the construction.

As outlined above, the designation will not just allow the protection works, the designation provides for the activity, and any additional future maintenance or activity. Such as extension to the seawall. The designation also protects the activity if future national direction or standards change the status of the activity.

A key benefit to the community is that the extent of the structures can be understood, and appropriate zoning and natural hazard rules can be included in TTPP.

The activity would trigger a number of rules of in the draft TTPP. While the exact location of the walls is to be confirmed, it is assumed that some of it is in the coastal environment, and some might be in areas of natural character, natural landscape, may be in a significant natural area, and in several natural hazard overlays. It is likely that the works would trigger at least a restricted discretionary consent for the structure. Earthworks would be permitted activity. This means that if the works is not started by the time the TTPP is notified, resource consent for this works would be required.

The notice of requirement for the designation would need to be lodged with the West Coast Regional Council and be processed in accordance with the first Schedule and sections 168-178 of the RMA. Given the activity is permitted, this would be a consideration for notification. Additionally, Section 170 allows the requirement to be included in the notification of the TTPP, if it is within 40 working days of the notification.

This process would need to be agreed with Buller District Council as the Order doesn't apply to designations, only plan preparation. The designation is only over to WCRC to process if the Schedule 1 process is used, not if it follows Section 169 – 179 which mandates notification. Section 170 allows the designation to be processed through the first schedule.

Considerations

Consultation

The Committee would need to decide the most expedient way to obtain notification and approval of the landowners that may be affected by the works. Notification under the RMA would allow for all parties to be notified. However, notification under the RMA can be confrontational for parties and it would not constitute consent under the Property Act.

Tangata whenua views

A Cultural Impact Assessment will be prepared by Pokeka Poutini Ngai Tahu on behalf of Te Rūnanga o Ngāti Waewae following finalisation of the design and drawings. The CIA will outline any Runanga concerns, or modifications required to the design to meet cultural values.

Legal risks

The legal risks have been outlined above. The risk of not acting is:

- the work is not started before the TTPP is notified and additional resource consent is required
- the delay from needing to obtain additional resource consents
- potential changes to plans or national direction requiring maintenance or upgrade work to obtain additional resource consents
- public opposition to works results in delays to resource consents

The risk of acting is:

- additional cost to go through the designation process
- public notification of the designation process
- public opposition to works results in delays to the designation process

Financial costs

The financial costs of the designation process is not outlined in the Buller District Council fees and charges. The cost for Outline Development Plan approval is \$200.00 deposit with full cost recovery. The fee will depend on the amount of work involved. Prior works will be completed as part of the application process, including details plans and drawings.

Report to: Westport Rating District Joint Committee	Meeting Date: 11 April 2022
Title of Item: Matters of community interest	
Report by: Dan Moloney – Community Representative, Westport Joint Committee	
Reviewed by: Hugh McMillan – Chair, Westport Joint Committee	
Public excluded? No	

Report Purpose

To provide the Joint Committee with an update on matters of community interest.

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

Feedback from the community since the last meeting of the Joint Committee has been gathered and is summarised below.

Communication

There continues to be intense interest into what happens next. People do realise there is plenty of planning going on but would love to see some action.

Flood walls

A suggestion has been made that the walls could be made using used tractor tyres and used tyres from the big vehicles at Stockton. These could be put in place and filled with aggregate. Would this be a feasible option?

Stormwater pipes

A number of residents have suggested angling the outlet pipe say 20 to 30 degrees downstream with the intent of the flood water sucking the pipe contents out rather than forcing the water back into the pipes and thus into the town. Would this actually make any difference?

Photos

The photos are from what we would loosely call McKennas Creek. In February the Creek became dammed, possibly due to a dead willow falling into the creek, forcing debris to build up and diverting the river out of its natural waterway. Farmers noted the water flowing in different directions as it sought the easiest path out. The question again arises as to who is responsible in these situations. Creeks like McKennas meander through a number of farms and it is unclear as to who has the responsibility of ensuring these waterways are kept clear enough so that risk of them damming in a flood is reduced.

The photos from Harneys Road indicate the extent of the flood and much of this came about because of the creek being blocked further upstream.

The dam photos show the extent of the blockage to the creek and the amount of debris that had to be removed to ensure a normal course for the stream.

A site visit can be arranged for members of the Joint Committee.



