

## **THE WEST COAST REGIONAL COUNCIL**

Prepared for: West Coast Regional Council & Buller District Council  
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& Westport 2100 Group (moved by Neal Clementson/seconded by Grant Weston)  
Date: 28 September 2019  
Subject: **Westport 2100 – Recommendations of the Working Group**

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### **Purpose**

To present the phase one recommendations of the Westport 2100 Working Group to Council to be included in future work programmes.

### **Background**

The Westport 2100 Working Group was formed at the end of 2018 and met for the first time in March 2019.

The purpose of the Westport 2100 Working Group has been to engage with the Westport community and work together, with Council staff, to identify a pathway forward for the town for the benefit of future generations. This project has a long term focus and is to result in recommendations to the Buller District Council and West Coast Regional Council for future work programmes for civil defence, hydrology and operations.

The Group has also been required to:

- identify the work required to enhance the resilience, and protect, the Westport community;
- prioritise the projects within the work programme to deliver on this; and
- determine how this work could be funded and resourced.

### **Review of the Westport 2100 hazardscape**

The Group has met monthly to review the hazardscape of the Westport 2100 area. This has included the risks associated with:

- fluvial flooding from the Buller River;
- coastal inundation;
- sea level rise and the increase in severe weather events;
- earthquake risk; and
- threat of tsunami.

There has also been discussion undertaken around:

- the Orowaiti overflow;
- build up of gravel and shingle bars in the Buller River;
- telemetry and warning systems;
- planning and zoning; and
- robustness of transport routes and other critical infrastructure.

Over this time the Group has drafted a series of short, medium and long term recommendations for the Councils to consider adopting into their future work programmes for civil defence, hydrology and operations. However, the Group also recommends that these be split into two phases as further investigative work is required on some matters to fully quantify the risk and to identify robust options for the medium to long term. Once this work has been completed, the Group can reconvene and provide further detailed recommendations around the management of risks associated with fluvial flooding, sea level rise and more severe and frequent weather events, potentially in the form of hard protection structures.

This two phased approach will ensure that those actions that can be undertaken quickly, or can commence now, can get underway and the Westport area can grow its resilience to hazards now.

### **Budget for future work**

A specific budget was not established for the Westport 2100 Group as it was unknown what the Group may have required at the start of this process. Now that the recommendations have been identified, the costs of the various work streams can be calculated and funding of these considered.

The Group is proposing that several of the recommendations be funded through a targeted rate due to their importance in being accelerated to address immediate concerns. These include:

1. As per the NIWA flood forecasting roadmap, completion of the early warning system for the Buller River catchment to be operational by mid-2020

2. Modelling of above from mid 2020.
3. Completion of a study of islands and gravel bars from Martins Island to Organs Island with recommendations for gravel/aggregate management.
4. Development of a scheme which would provide protection from inundation by 1% exceedance flooding, taking into account the effects of sea level rise and the more frequent and severe weather events predicted.

Other work can be implemented through current work streams, dealt with through future Annual or Long Term processes, or considered by the rating district for funding.

Note that any future potential protection scheme would be consulted on with the community.

### Recommendations of the Westport 2100 Group

Throughout the course of the Westport 2100 meetings, aspirations for the future of the wider Westport area that came through identified:

- Westport as a thriving and resilient town, knowledgeable about the hazards it faces with a community who is prepared in case of an event.
- Critical infrastructure is able to continue to undertake business as usual (BAU) in the case of an event
- In the short term, actions will seek to defend against flood risk, move towards adapting in the medium term, with a view towards providing for relocation through planning provisions in the long term.
- Local government, health, civil defence, the community and other stakeholders will work together to plan for their responses to an event at a community, organisational and individual level.
- Development of the Te Tai o Poutini Plan (TTPP) will incorporate clear direction for hazard mitigation and options for the future for the economic, social and cultural wellbeing of the wider Westport community.

To achieve these aspirations, the Westport 2100 Group have identified the following recommendations and highlighted whether they are to be undertaken during a phase 1 or phase 2 workstream.

The Westport 2100 Group has defined the timeframes as follows:

- Short term           18 months
- Medium term       18 months to 5 years
- Long term           5+ years

**Table 1: Recommendations of the Westport 2100 Group**

Timeframe	Action	Responsible agency	Potentially funded via	Phase
<b>Evacuation plans and community preparedness</b>				
Short	Complete the development of an evacuation plan for the Westport community, including robust triggers for evacuation and the process for warning dissemination.	CDEM	BAU budget	1
Short	As part of the evacuation planning process, confirm evacuation sites and the preparedness of those to receive evacuees.	CDEM	BAU budget	1
Short	Review and test health facility evacuation planning.	WCDHB		1
Short-medium	Evacuation plans are to be socialised and tested with the community.	CDEM	BAU budget	1
Medium - long	Evacuation plans are to be reviewed and updated following testing, implementation during an event, or when infrastructure upgrades or new information will result in changing timing of evacuation actions.	CDEM	BAU budget	1
Short – Medium - Long	Work with the community to build awareness and knowledge of the hazardscape and develop the resources to better prepare, and respond, to events.	CDEM	BAU budget	1
<b>Forecasting and modelling</b>				
Short	Accelerate the installation of the telemetry system for the Buller catchment (one outstanding asset)	WCRC	Rating district	1

Timeframe	Action	Responsible agency	Potentially funded via	Phase
Short-medium	Adopt the recommendations on the NIWA report –Flood forecasting roadmap for evacuation warnings and see that these are implemented in order to have the system operational within a year of commencing these.	WCRC	Rating district	1
Short - Medium	Recognising that accurate forecasting and impacts of rainfall accumulations can take several (5+) years, commence modelling as soon as possible to gain certainty of key information in the future.	WCRC	Rating district	1
Medium - Long	Review modelling data following the implementation of other mitigations (such as hard structures) as required.	WCRC	Rating district	2
<b>Flood protection structures</b>				
Short	<p>Obtain expert advice as to the development of a scheme which would provide protection from inundation by 1% exceedance flooding, taking into account the effects of sea level rise and the more frequent and severe weather events predicted.</p> <p>This assessment would include:</p> <ul style="list-style-type: none"> <li>- the ability to utilise the current structures in place;</li> <li>- potential weak points in current structures and the feasibility to strengthen these in the short to medium term;</li> <li>- confirmation of the flow path of flood water and potential impact on Carters Beach</li> <li>- confirmation of the severity of flood that would impact the airport and its access routes.</li> </ul> <p>Advice would also include:</p> <ul style="list-style-type: none"> <li>- the viability of using the Orowaiti for flood mitigation.</li> </ul>	WCRC	Rating district	1
Medium	Present an option to the Westport community for a flood protection scheme to defend against flood hazard.	WCRC	Rating district	2
Medium	Undertake development of flood protection scheme as per outcomes of community consultation.		Rating district	2
<p>Note: The development of hard protection structures for Westport is complicated and any protection proposal will need to take into consideration the effects of both river flooding, sea level rise and coastal inundation to ensure the effects of another hazard are not exacerbated when defending against another.</p>				
<b>Other flood management – infrastructure, river and gravel</b>				
Long	<p>As part of the recommendation to obtain expert advice on the development of a flood protection scheme above, the assessment is to also recognise that flood management is more than just hard protection structures. Advice would also review options for alternative flood management infrastructure, such as:</p> <ul style="list-style-type: none"> <li>- establishing the viability, location and type of pump stations. For example diesel powered may be more advisable than electrical pump systems</li> <li>- upgrading the combined stormwater/sewerage systems</li> <li>- identifying other infrastructure upgrades that may assist.</li> </ul>	WCRC/BDC	Rating district and BDC	2
Short	As part of the recommendation to obtain expert advice on the development of a flood protection scheme above, the assessment will also include a study of the gravel islands and bars from Martins Island to Organs Island with recommendations for gravel/aggregate management. The assessment will also review:	WCRC	Rating district	1

Timeframe	Action	Responsible agency	Potentially funded via	Phase
	<ul style="list-style-type: none"> <li>- whether gravel is moving through the river</li> <li>- if there is a requirement for gravel extraction</li> <li>- whether the removal of gravel from Organ's Island would provide beneficial effects downstream</li> <li>- the effects of the gravel alongside the half tide wall</li> <li>- the requirement of any form of maintenance programme for the control of river gravel.</li> </ul>			
Short – Medium	Outcomes of the recommendations identified above are to be built into the consideration of hard protection structures and river flow modelling for evacuation.	WCRC	Rating district	2
<b>Critical infrastructure</b>				
Ongoing	<p>Advocate that new critical infrastructure is:</p> <ul style="list-style-type: none"> <li>- Fit for purpose</li> <li>- Sited in an appropriate location recognising risks of the area and their role and function within their community</li> <li>- Accessible to communities, and the vulnerable, during peacetime and adverse events.</li> </ul>	Multi-agency		1
Medium-Long	Appropriate building standards are included within the TTPP recognising the various effects of the wider hazardscape. and the long term time frame anticipated before the One District Plan is operational	WCRC / BDC	BAU budget	1
Ongoing	Advocate for robust internal plans to be developed and maintained for all critical infrastructure facilities	Multi-agency		1
<p><b>Notes:</b></p> <p>Critical infrastructure, such as health facilities, must be located within their community in order to provide services to the vulnerable, as well as being accessible to both its ancillary services such as pharmacies, and its workforce.</p> <p>The IFHC is anticipated to have a 50-year lifespan. At this time, there may be sufficient population elsewhere in Westport which could lead to a future relocation or upgraded protection measures..</p>				
<b>Protecting transport routes</b>				
Short	<p>Egress points and routes (road and rail) will be assessed, and if necessary surveyed, to check that they will be available and intact in the event of a major flood. This would also include:</p> <ul style="list-style-type: none"> <li>- The identification of low spots on the access routes, and the water levels whereby it becomes unpassable/unsafe.</li> <li>- Whether the bridge, and its approaches, are high enough, looking at potential flood modelling scenarios.</li> <li>- Review the effect river flows over the bridge approaches would have.</li> </ul>	NZTA / BDC		1
Medium	<p>Address any deficiencies, or work identified by the above action. Until these have been identified, budgeting and planning for these cannot be determined. However, these are a priority for the future.</p> <p>Note - Projects undertaken to address potential deficiencies would be assessed as part of any proposal to ensure that it would not exacerbate issues in other areas (e.g. would building up bridge approaches on each side create a "dam" forcing water into the town on the eastern side?</p>	NZTA/BDC		1/2
Short	Current status of egress routes (point at which the route is compromised) is built into response and evacuation plans. Expected that this will change over time as they are improved	CDEM	BAU budget	1

Timeframe	Action	Responsible agency	Potentially funded via	Phase
	or heights raised.			
<b>Planning provisions and hazard information</b>				
Short	Support the undertaking of LiDAR for the West Coast and particularly Westport and surrounding areas.	BDC / WCRC		1
Short – Medium – Long	Up to date hazard information is used to inform the development of the TTPP. This information is also to be recognised and adopted by the Buller District Council for inclusion on LIMs.	BDC / WCRC	BAU budget	1/2
Short – Medium	Recommend to the Buller District Council and West Coast Regional Council to be very considered in the decisions that are made around planning provisions for the future to take into account the effect and impact of hazards (bearing in mind the 2100 Group ceases to exist after 2020. )	2100 Group		1
Long	TTPP development to include: - zoning within the wider Westport area to avoid new development in hazard prone areas and provide more suitable areas for residential development - more stringent building restrictions within hazard areas to encourage organic relocation over time.	BDC / WCRC	BAU budget	1/2
Medium - Long	Consider location and development of community assets (including Reserves and Recreational assets) in areas not affected or threatened by climate change.	BDC	Future LTP/Annual Plans	2
Medium-Long	Recommend that the TTPP be clear on the decision making to be undertaken post-event in regards to declaring areas uninhabitable.	BDC / WCRC	BAU budget	1/2
Short – Medium – Long	Hazard information is conveyed to the community in easy to understand formats e.g. sliding scale of sea level rise see Greater Wellington example.	WCRC/BDC/ CDEM	BAU budget	1/2
<b>Relocation</b>				
Short – Medium – Long	It is possible that parts of Westport may not be able to remain in their current location in the future recognising the unpredictable effects of natural hazards, including climate change. The development of the TTPP provides an opportunity to start discussing options for the future as well as in other high level documentation for the District.	BDC/WCRC	BAU budget	1/2
Long	Consider the relocation of Westport as a long term outcome recognising that this may not occur for 50, 80, 100 or more years.	BDC / WCRC	BAU budget	1/2
Short	Update the cost estimates from the 2017 assessment report to potentially support the review for any form of partial or full relocation, as these cost figures did not reflect the effect of sea level rise and climate change. These figures should be spread over a long enough time frame that future generations will share in the financial burden and benefits.	WCRC	Rating district	2

### Limitations

The Westport 2100 Group acknowledges that there are limitations to the recommendations they have put forward. It is likely that these will form many of the questions and concerns of the public. These include:

- *How do you implement a plan when you do not know with complete certainty what will happen?*

The Group appreciates that they are reliant on the best information that is available at the time when decisions, or in this case recommendations, are made. There is no data available to inform when the next significant flood, earthquake or storm surge will occur. There is no precise data on sea level rise, how much by when. As a result, it is critical that the CDEM planning, community preparedness and evacuation route protection be prioritised.

- *When considering hard protection structures, such as floodwalls, how much should be put in place, or spent on it, before the community decides no more?*

There will come a point where the cost is too high that the community will decide that they can no longer pay for protection. Alternatively, the hazard risk may increase to a level that the community can no longer live with. However, what those points will be are unknown at this stage. It would be wise to adopt an adaptive planning approach allowing us to change our actions as key environmental triggers occur.

- *Previous consultation work had been completed in 2017 on protection measures and nothing happened. Why do we have to do this again?*

This is a fair question. Several options were presented and the feedback received indicated a desire to do something, however there was no clear final outcome as to what sort of protection works should proceed. This was then followed by the storm surge from Ex-tropical Cyclone Fehi. Further work is required to take into effect the risk from flooding, storm surge and predicted sea level rise.

### **Next steps**

The next steps of the Westport 2100 process are:

- Prior to the report being submitted for inclusion in Council meeting papers a summary document will be prepared for the public to outline where the Group has got to and the next steps.
- Report presented to the West Coast Regional Council and Buller District Council.
- Recommendations for phase 1 are implemented, including the further investigative work required to inform the recommendations in phase 2.

Review the Westport 2100 Working Group membership recognising that there will be new elected members and that some current community representatives may wish to step down.

Note some elected members who are standing down have indicated they would like to remain on the group. This would be beneficial in the retention of information gathered and help ensure continuity of the project.

The Westport 2100 Working Group will continue to have a role ensuring that the recommendations from phase 1 are put into place, advocating for various actions to take place and reviewing the further investigative work to take place and making recommendations for the phase 2 work.

### **Recommendations**

*That the West Coast Regional Council:*

1. *Receives this report;*
2. *Adopts the phase 1 recommendations as identified in Table 1: Recommendations of the Westport 2100 Group, for inclusion in the Long Term Plan 2020-2023 and subsequent Annual Plans, unless they can be prioritised earlier in current business as usual budgets;*
3. *Establishes a rating district for the wider Westport area to accelerate recommendations to improve the resilience of the Westport community and to undertake the further investigative work required to inform the phase 2 work.*

**Chris Coll**  
**Chairman, Westport 2100 Group**