



# Buller District Council

## Infrastructure Health Check Report

October 2021



#### Document status

Job #	Version	Approving Director	Date
2654	1	Dan Bonifant	15 September 2021
2654	2	Dan Bonifant	16 September 2021
2654	3	Dan Bonifant	29 September 2021
2654	4 (final)	Dan Bonifant	6 October 2021

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## Overview

### Introduction

1. There was significant flooding within Westport and across the Buller District, from both the Buller River and the Orowaiti estuary, from 15 to 18 July 2021. More than 800 properties were flooded with 23% of the housing stock needing repair to make them habitable<sup>1</sup> (assessed as at 30 July 2021). Three separate civil defence centres were established to support displaced people in need of emergency accommodation. An unknown number of other impacted residents chose to stay with friends or families.
2. Buller District Council's (BDC / Council) infrastructure assets including the roading, water supply, wastewater and stormwater assets were impacted by the July 2021 floods. Other asset portfolios including housing for seniors, Westport Airport, Westport Port and solid waste were also impacted by the flood events.
3. The Department of Internal Affairs (DIA / Department) wishes to understand Council's capability and capacity to manage their existing assets as well as their ability to manage operationally any rebuild assets.
4. Morrison Low was engaged by the Department to provide quality assurance of Council's asset management (AM) practices at a high level as an infrastructural health check. The review also included engagement with / assessment of West Coast Regional Council's (WCRC) assets also affected, flood protection issues and any financial impacts from rated properties damaged. The main purpose of the review is a health check of BDC's capability.
5. This Infrastructural Health Check Report supports the separate overarching Health Check Report on Council's governance and management, **financial situation and capability**.

### Project objectives

6. The overall objective of the Health Checks (financial and infrastructure) is to provide assurance as to Council's financial situation and capability and an understanding as to their operating constraints as a result of the recent floods. For the infrastructural health check, the review considered:
7. Assessment of its AM practices compared to appropriate practices for similar sized district councils
  - What new tasks Council now have
  - What business as usual task have become harder to do
  - The changed priorities from the 2021 Long Term Plan (LTP) i.e. what will now be delivered
  - Ability to deliver the new priorities over the medium to long-term (including operational AM).

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<sup>1</sup> Buller District Council Draft Recovery Action Plan

## Background

### Scope of activities

8. Council's infrastructure assets include:
- **Roading network** comprising approximately 606km of sealed (321km) and unsealed road (285km) road, including Special Purpose Road (SPR) Karamea Highway (approx. 62km). Note this does not include the State Highway which passes through the Buller District.
  - **Roading structures** across the network include 100 bridges and 43 culvert bridges.
  - **Water supply** consists of 174km of reticulation, 13 operational water sources / intakes and 4 water treatment plants that serve 8 domestic water schemes (2 are community operated).
  - **Wastewater** consists of 81km of reticulation, 21 pump stations, 4 treatment plants that serve 3 wastewater systems.
  - **Stormwater** consists of 51km of piped systems in Reefton and Westport, and approximately 19km of open drain systems in 8 townships.
9. This infrastructure health check was mainly focused on the core assets of three waters, roading and land transport. Other assets that were also impacted by the July 2021 floods included housing for seniors, Westport Airport, Westport Port and solid waste. A high level health check of these assets was also completed as part of this review.

### Damaged assets

10. A summary of Council's damaged assets is presented in the following table by activity. This shows that Westport's water supply assets were not significantly damaged. The most impacted asset classes were wastewater, stormwater, road networks, including the Special Purpose Road (SPR) to Karamea, public facilities, airport and port. This assessment was based on inspections as at 2 September 2021 noting the stormwater and wastewater CCTV surveys still need to be completed. The estimates cover capital and operational expenditure and still need to be further refined.
11. The actual capital programmes delivered for the last two years is also shown to compare with the proposed recovery programme. The proposed recovery programme is of similar size to the annual capital programmes at activity level.

Table 1 Summary of Council damaged assets

Activity	Damaged asset classes	Estimate at activity level (\$)	Estimate at asset class level (\$)	Actual capex delivered in 2019/20 (\$)	Actual capex delivered in 2020/21 (\$)
<b>Three waters</b>		<b>8,570,000</b>		<b>6,883,898</b>	<b>7,525,807</b>
	Water supply		880,000		
	Wastewater		3,560,000		
	Stormwater		4,130,000		

Activity	Damaged asset classes	Estimate at activity level (\$)	Estimate at asset class level (\$)	Actual capex delivered in 2019/20 (\$)	Actual capex delivered in 2020/21 (\$)
<b>Roading and transport</b>		<b>7,600,000</b>		<b>4,657,284</b>	<b>8,332,171</b>
	Local roads		3,000,000		
	SPR		4,200,000		
	Transport - footpaths		400,000	<b>498,061</b>	<b>1,088,952</b>
<b>Solid waste</b>	Westport Transfer Station	<b>1,000,000</b>	1,000,000	<b>913,425</b>	<b>1,890,305</b>
<b>Property</b>		<b>4,380,000</b>			
	Public facilities		3,110,000		
	Commercial operations (airport and port)		1,270,000		
	<b>Total</b>	<b>21,550,000</b>	21,550,000		

Source: BDC Infrastructure Rebuild spreadsheet (2 September 2021)

12. It was confirmed through the interview process that there were no WCRC assets damaged with the July 2021 floods.

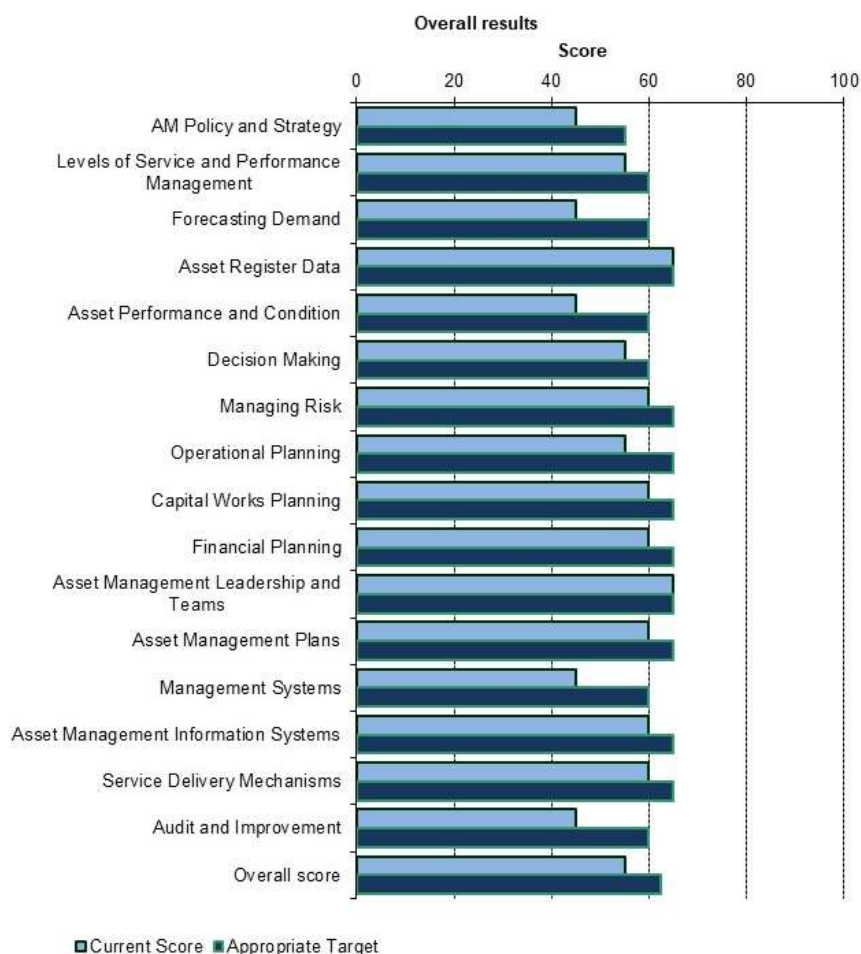
## Summary results for BDC

### Assessment of three waters

13. Overall Council scored at higher level of core level of maturity at 55% in the management of its three water activities using the AM Maturity Assessment Model. The results for each of the 16 elements for Council are shown in the figure below. Note that core maturity level is between 40% to 60%.

14. An overall maturity target of 60% is recommended for Council's three water activities based on Morrison Low's Strategic AM Specialist industry knowledge. This is appropriate for a small rural district council.

Figure 1 Overall AM Maturity results for Buller – Three Waters Activities



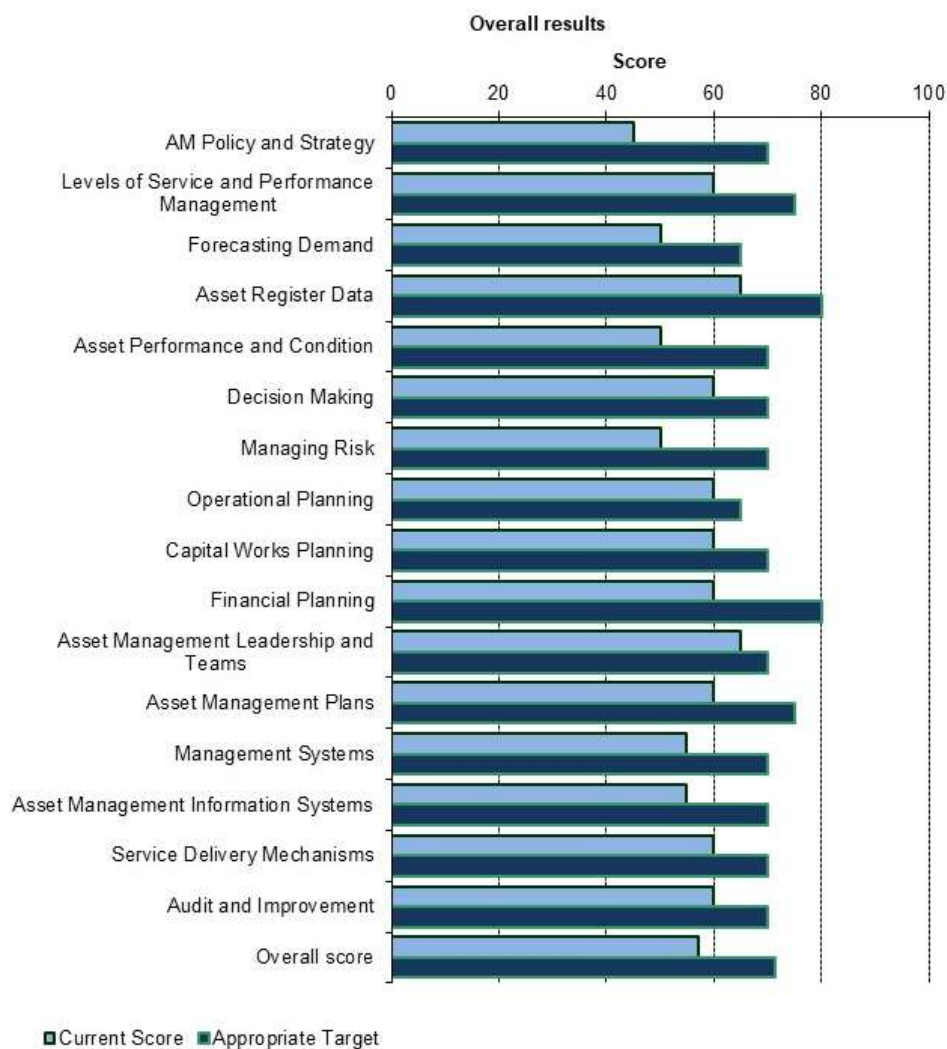
## Recovery capability for three waters

15. As part of the health check, the review assessed Council’s capability to undertake the recovery programme as well as the business as usual capital programmes. For three waters, we are confident that Council can undertake a larger capital programme through their established PMO and use of external consultants and contractors. Council has been successful on delivering the three waters capital programme for 2019/20 and for 2020/21. In addition, the Infrastructure Services Group management team is strong so have capability to manage larger resources (internal and external).
16. Council’s three waters capital programmes as adopted in its 2021 LTP is focused on meeting compliance with drinking water standards and resource consents. We understand that these priorities are unchanged with the flood events.

## Assessment of roading and transport

17. Overall Council scored at core level of maturity in the management of its roading activity using the AM Maturity Assessment Model. The results for each of the 16 elements for Council are shown in Figure 2. Note that core maturity level is between 40% to 60%.
18. The target level for each element has been taken from the 2021 Transport AMP, as a collective target across the three West Coast councils (Buller, Grey and Westland District Councils) for the roading activity with the councils working towards an AM maturity level of core to intermediate. This is considered suitable for a rural district council.

Figure 2 Overall AM Maturity results for Buller – Roading Activity





## Recovery capability for roading and transport

19. As part of the health check, we considered Council’s capacity and capability to undertake the recovery programme as well as delivering the business as usual operational and capital programmes. For the transport activity, with the recently established PMO that provides a focussed capital projects team, we are confident that Council can deliver the larger capital programme, including flood recovery works and other externally funded projects. Professional services providers and contractors will continue to be engaged as required to work with Council in delivering the works. This will be essential through the recovery phase when additional resources will be required. Council has a capable management team who have been successful in delivering the transport capital programme for 2019/20 and for 2020/21 through internal and external resources.
20. We understand that the priorities and capital works programmes, including renewals, adopted in the 2021 LTP, are unchanged with the flood events. Council is also confident that the flood events will not have an impact on business as usual activities for the transport activity.

## Assessment of other asset portfolios

21. Other assets that were also impacted by the July 2021 floods included housing for seniors, Westport Airport, Westport port and solid waste. A high level health check was completed as part of this review and summarised in the following table with the findings in Appendix E.

Table 2 Summary results for other asset portfolios

Asset portfolio	Summary of high level health check
Housing for seniors	In summary, 5 of the 26 units in Westport were flood damaged. The insurance application has been approved and remedial work is underway. The housing portfolio is being managed adequately appropriate for the size and improvements have been identified as part of this high level review such as preparing an AMP. The 2021 LTP recognised that it is difficult to invest in staff and capital on the properties with the current constrained budgets. Council has approved as part of the 2021 LTP to review suitable future management options for the housing portfolio.
Westport Airport	In summary, the terminal building and lighting equipment at Westport Airport were impacted by the floods. However, the sealed main runway was not damaged by the floods. The Westport Airport portfolio is being managed adequately for the size and complexity and meeting all its mandatory obligations. No process improvements were identified as part of this high level review.
Westport Harbour	In summary, the Kawatiri Dredge damaged the cut off wharf piles when it came down during the sea level surges associated with the floods. The Westport Harbour portfolio including the port and Kawatiri Dredge are being managed adequately for the size and complexity. Council is proactively taking steps to ensure the long term viability of this portfolio. No process improvements were identified as part of this high level review.
Solid waste	In summary, the Westport Refuse Transfer Station was damaged by the July 2021 floods from the Orowaiti estuary. Flood waters inundated the facility offices. The remediated Hector Closed Landfill performed reasonably well during the storm event and there was no asset damage. The solid waste activity is being managed adequately for the size and complexity. No process

Asset portfolio	Summary of high level health check
	improvements were identified as part of this high level review.

## Key achievements

22. A number of key achievements were identified through the interview process and provided context for the infrastructure health check. The identified key achievements are:
- **Regional collaboration** – There are a number of regional initiatives achieved by the West Coast Councils working together. These include the 2021 West Coast Councils Transport Programme Business Case Activity Management Plan and 2018 West Coast Regional Waste Management and Minimisation Action Plan involving the three district councils. WCRC, the three district councils and iwi partners are preparing Te Tai o Poutini Plan, a combined District Plan for the region.
  - **Strong delivery of the capital programmes** – There has been strong achievement on delivery of the capital programme for roading and transport, three waters and waste activities at 94% for 2019/20 and 2020/21.
  - **Set up of the PMO** – The Programme Management Office (PMO) was set up in the last year for delivering major capital projects. It consists of core Council staff and external consultants are used to match the programme size and complexity. The PMO has been invaluable with assessing Council's flood damaged assets as well as the recovery programme going forward.
  - **Infrastructure Services management team** – The Infrastructure Services management team consists of a group manager supported by three managers. Each team has a clear focus and this has allowed the Infrastructure Services team to move from an operational role into asset planning as well as the setup of the PMO as noted above. This evolution ensures that day to day operations continue to be managed soundly but also provides for a forward-thinking team and strong delivery of the capital programme.

## Key issues

23. Whilst it has been concluded overall that Council is managing its infrastructure assets effectively, there are a number of constraints that were identified through the interview process. Many of these are already being addressed prior to the flood but need to be considered with the recovery programme.
24. Key issues identified through the review of documentation and interviews included:
- **Staff recruitment** – Whilst the Infrastructure Services Group has three streams of delivery, additional resources would fill any remaining gaps in capability and capacity. Both the Delivery and Planning streams currently have vacancies. In recognition of the difficulty in recruitment on the West Coast, Council is using the initiative to advertise these both as an individual (permanent) position and as an organisational secondment (fixed term). The current resourcing status of the Infrastructure Services Group is presented in Appendix F by permanent and fixed term staff, and fixed term contractors.
  - **Supplier market** – Whilst there a number of external suppliers that provide services to the Buller District, it is noted that response to tenders is often limited. For example, there was only one submission to the new roading O&M Contract (2020). A market analysis should be completed prior

to implementing any significant or complex projects to determine the best procurement approach.

- **Reliance on external funding** – Council is very reliant on external funding particularly for the large capital projects. The small rating base makes it difficult for the significant infrastructure investment based on Council loans only. Recent examples include the Provincial Growth Fund Hector Landfill Remediation, DIA Three Waters reform package Tranche 1, and Provincial Growth Fund for harbour upgrades.

## Conclusions for BDC

### Three waters

25. Overall, we assessed Council's AM maturity at core level for its three assets. They are effectively managing their assets at a level appropriate for a small rural District Council.
26. Overall Council's Infrastructure Services Group has increased its capability to undertake many of these AM elements internally rather than solely relying on external consultants. The 2021 Infrastructure Strategy is a good example of this. There has been strong achievement on delivery of the capital programme for three waters at 97% for 2019/20 and at 100% for 2020/21. The original programme for both years has doubled as well so these are impressive results.
27. The major gaps identified are for the management systems, audit and improvement areas. Although the Infrastructure Services Group has completed a number of good initiatives, the underlying quality management systems and processes need strengthening.
28. For three waters, we are confident that Council can undertake a larger capital programme through their established PMO and use of external consultants and contractors. A market analysis should be completed prior to implementing the recovery programme to determine the best procurement approach.

### Roading and transport

29. Overall, we assessed Council's AM maturity at core level for its roading and transport assets. They are effectively managing their assets at a level appropriate for a small rural District Council. Initiatives are underway where there are gaps or areas for strengthening with a challenging but achievable Improvement Plan as part of the 2021 Transport AMP. With a recent restructure of the infrastructure Services Group and the establishment of the PMO, there is a high level of in-house capability and capacity with external specialists used as appropriate.
30. The major gaps identified are around management systems and risk management of critical assets. The underlying quality management systems and processes should also be strengthened. Working in collaboration with Grey and Westland District Councils, Council is working towards an intermediate level of AM over the next three years for the roading and transport activity.
31. With a capable management team and the recent establishment of the PMO, focussed on delivery of capital works projects, we understand that the priorities and capital works programmes, including renewals, adopted in the 2021 LTP, are unchanged with the flood events. Council is confident that the

flood events will not have an impact on business as usual activities for the transport activity.

32. Council will continue to engage professional service providers and contractors to work with them in delivering increased capital works programme, including both flood recovery works and other externally funded projects. This will be essential through the recovery phase when additional resources will be required.

### Other asset portfolios

33. Other asset portfolios that were also impacted by the July 2021 floods included housing for seniors, Westport Airport, Westport port and solid waste. A high level health check was completed as part of this review and found that these asset portfolios were being managed adequately appropriate for the size and risk. A number of AM improvements have been identified as part of this high level review such as preparing an AMP for the housing portfolio.

## Assessment of WCRC assets

### Overview and regional context

34. WCRC were also interviewed as part of the health check to understand the flood impact and recommend a way forward to best protect the Westport community. This section outlines the key issues with flood protection provision between WCRC and BDC. Joint governance issues and rates loss projections are covered in the main Health Check Report.
35. It is acknowledged that WCRC and BDC have different responsibilities and legislation in relation to three water assets and flood protection as follows:
- BDC – management and operation of three water assets in the district’s urban areas
  - WCRC - management and operation of flood protection schemes in the region.
36. It was confirmed that there were no WCRC assets damaged with the July 2021 floods.

### Key issues

37. Overall the relationship between the two councils is problematic. This has resulted in no joint agreement for a flood protection approach for Westport. The key issues with flood protection provision between WCRC and BDC are categorised as follows:
- **Draft 2021 LTP** - WCRC is late in finalising and adopting their draft 2021 LTP. It must be adopted by early October 2021. The 2021 Long Term Consultation Document presented two options for the Westport flood protection works. Option 1 was identified as the preferred in the document. The options are:
    - Option 1 - partial stopbanks and flood wall scheme estimated at \$3.4 million
    - Option 2 – extensive stopbanks and flood wall scheme estimated at \$10.2 millionWCRC have now received submissions on the Consultation Document with range of feedback. Most submissions supported undertaking works with the majority supporting Option 2. The draft LTP is being progressed ready for adoption with Option 2 starting in 2022/23 and spread evenly over four years.
38. BDC submitted on WCRC’s draft 2021 LTP in relation to the proposed flood protection works. It supported that do nothing was not an option. BDC did not support options 1 and 2. It preferred a broader flood management solution package. It supports the flood modelling review, design and survey works for option 1 in 2021/22. The BDC submission includes an appendix with technical advice by Tonkin & Taylor Consultants.
- **Westport Rating District** - A new rating district for Westport was established in 2020 to access Government funding and deliver the proposed flood protection works programme for this community. There have been discussions on the defined area boundary for the Westport Rating District in relation to the beneficiaries and those that pay. A draft Terms of Reference has been prepared for the Joint Governance Committee for the Westport Rating District. The Joint Committee makes recommendations to WCRC for consideration and implementation once approved.

- **Historical flood studies and working groups** –There are various historical flood studies of Westport and the wider Buller catchment prior to 2014. The 2014 Buller Working Group involved Councillors and staff from both Councils and investigated a range of flood mitigation options. The Buller Working Group selected various flood mitigation options based on modelling and outcomes. These flood mitigation options were consulted on in 2017 by WCRC. However, there was limited community appetite to implement the works at that time.

The Westport 2100 Working Group was set up in 2018 with an independent chair and community based group. It took a hazardscape view to the natural hazards (i.e. wider than flooding including liquification and tsunamis) facing Westport in the short, medium and long term. The Westport 2100 recommendations were presented to both Councils in 2019. BDC requested more time to review the options.

WCRC submitted two projects and applied to the Crown Infrastructure Partners project fund that was made available as part of Central Government’s COVID 19 economy stimulus package in April 2020. The advance evacuation warning project was successful in securing funding but the \$10.2 million flood protection scheme application did not meet the shovel ready criteria at the time of evaluation.

Following the consultation with the community on providing the required co-funding for the advance evacuation warning project and considering the feedback, WCRC formed the Westport Rating District in 2020.

Through the interview process, WCRC stated that they validated the flood model against the July 2021 flood event. It calibrated extremely well against the actual event. The flood model was peer reviewed by DHI (external consultants) in 2018.

NIWA provided technical advice to WCRC with the latest event in July and August 2021 and completed field work including flood extent assessment and model calibration.

- **Flood protection approach** - Both councils have different flood protection approaches as noted above. WCRC’s overarching approach to flood protection for Westport is which BDC supports:
  - Supports fit for purpose flood protection scheme
  - Best intentions for the Westport community
  - Wishes to work together with BDC based on an open and transparent manner and good will.

## Recommended way forward

39. A recommended way forward for agreeing on a flood protection approach between WCRC and BDC are categorised as follows:

- **WCRC’s 2021 LTP** - Finalise and adopt WCRC’s 2021 LTP as a very high priority. This should include a capital allowance for flood protection in Westport recognising that it requires further refinement (subject to Audit New Zealand approving this flexible approach).
- **Flood protection approach** - WCRC and BDC to use the joint overarching approach to flood protection for Westport as a starting point for developing the strategy and joint governance.
- **Joint Governance Committee** – Set up a Joint Governance Committee for the Westport Rating District to provide oversight and manage the risks as a very high priority. The committee must have a strong independent chair to ensure good governance, fair and transparent process for both

councils. It is expected that the proposed Joint Recovery Governance Group will provide oversight of the Westport Rating District Joint Governance Committee.

- **Get the strategy right** – Pause the technical reviews by both councils to allow time to jointly agree and get the strategy right. The Joint Governance Committee should provide oversight of the strategy workstream. The strategy will outline the outcomes sought and determine the broad technical workstreams.
- **Effective relationships** - WCRC and BDC recognise the importance of establishing and effective relationship between the Buller Recovery Group with its role in overseeing the effective recovery including the use of Crown funding and the Joint Committee in its role to establish and deliver an effective solution to flood risk mitigation. It is critical that it is recognised their roles are different but must eventually be strategically aligned.

## Conclusions for WCRC assets

40. It was confirmed that there were no WCRC assets damaged with the July 2021 floods. However, a number of key issues with flood protection provision between WCRC and BDC were identified through this review process. The key issues included:

- WCRC's draft 2021 LTP not finalised or adopted
- Set up of the Westport Rating District
- Historical flood studies and working groups with varying success
- Agreeing on flood protection approach.

41. A recommended way forward for agreeing on a flood protection approach between WCRC and BDC are summarised as follows:

- **WCRC's 2021 LTP** - Finalise and adopt WCRC's 2021 LTP as a very high priority.
- **Flood protection approach** - WCRC and BDC to use the joint overarching approach to flood protection for Westport as a starting point for developing the strategy and joint governance.
- **Joint Governance Committee** – Set up a Joint Governance Committee for the Westport Rating District to provide oversight and manage the risks as a very high priority, with a strong independent chair.
- **Get the strategy right** – Pause the technical reviews by both councils to allow time to jointly agree and get the strategy right.
- **Effective relationships** - WCRC and BDC recognise the importance of establishing and effective relationship between the Buller Recovery Group with its role in overseeing the effective recovery including the use of Crown funding and the Joint Committee in its role to establish and deliver an effective solution to flood risk mitigation.

## Appendix A Acronyms

Acronym	Definition
AM	Asset management
AMP	Asset Management Plan
Council	Buller District Council
CCTO	Council Controlled Trading Organisation
DIA	Department of Internal Affairs
FWP	Forward Works Programme
IIMM	International Infrastructure Management Manual
LOS	Levels of service
LTP	Long Term Plan
NLTP	National Land Transport Programme
OBIS	Online Bridge Information Systems
PGF	Provincial Growth Fund
PMO	Project Management Office
REG	Road Efficiency Group
SPR	Special Purpose Road
Waka Kotahi	Waka Kotahi New Zealand Transport Agency
WCRC	West Coast Regional Council



## Appendix B Methodology

### Review methodology

The methodology used to undertake the AM Assessment for the infrastructure activities was as follows:

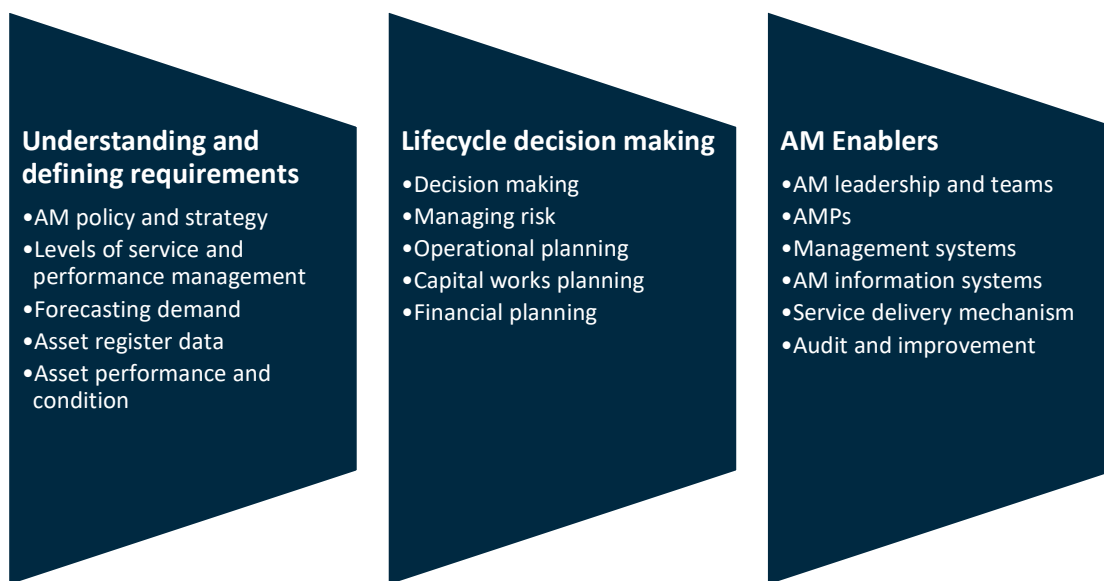
- Relevant AM and financial information were gathered and reviewed prior to interviews with key managers.
- A review of Council's AM practices was completed by Morrison Low specialists in September 2021 including interviewing key Council managers covering infrastructure activities.
- Each AM area was assessed based on the interviews and compared with the maturity target.
- Key WCRC senior managers were also interviewed to understand the damage to the regional assets, revenue impacts on rateable properties impacted by the floods (i.e. red and yellow stickered properties), and the key issues with flood protection provision between WCRC and BDC.
- A summary report was completed to document the high-level review findings and is structured to align with the AM Maturity Assessment Model.
- Validated the draft report with BDC and WCRC key senior managers. The report was updated to reflect the agreed changes.

### Maturity model

The assessment was structured to align with the 16 AM areas defined in the International Infrastructure Management Manual (IIMM) as part of the AM Maturity Assessment Model. The model is grouped into the following three elements to be consistent with the asset lifecycle and as shown in Figure 3:

- Understanding and defining requirements
- Lifecycle decision making
- AM enablers.

Figure 3 Outline of AM Maturity Assessment Model



The maturity scale is made up of five levels from aware to advanced, with a score ranging from 0 to 100 as shown below.

Figure 4 Maturity level gradings

Aware	Basic	Core	Intermediate	Advanced
0-20	21-40	41-60	61-80	81-100

The assessment of maturity comprises two parts:

- Setting the appropriate maturity target
- Assessing current practice against the target.

This is completed for each of the 16 subject areas.

Current practices would be expected to achieve core maturity level for a small rural district council **for core infrastructure**. Note that the core maturity level is between 40% to 60%. It may be appropriate for some elements that the target maturity levels are working towards lower end of intermediate level.

### Review limitations

There were the following limitations with this review:

- Due to travel restrictions as a result of Covid-19, an on-site review was not possible. Hence, all interviews were held as video conferences.
- There was a short period to undertake the review to provide assurance to DIA due to the nature of the flood events and Council seeking Crown funding. Therefore, there was a limited number of interviews undertaken.
- It was a very high level review for assurance purposes. It is not considered full AM practices review where gaps are systemically identified and developed into a full AM Improvement Programme.

## Appendix C Key Assessment Results for Three Waters

### Findings - Understanding and Defining Requirements

#### Overview

Council demonstrated that it is generally operating AM at core level of maturity in relation to understanding and defining requirements as summarised in the figure below. The strongest AM areas are asset register data and levels of service. Overall Council’s Infrastructure Services Group has increased its capability to undertake many of these AM elements internally rather than solely relying on external consultants. The 2021 Infrastructure Strategy is a good example of this.

Figure 5 Three water results for Understanding and Defining Requirements



#### AM Policy and Strategy

Council has a complete strategic framework to guide decisions for the three waters. The framework includes the LTP, Annual Plan, Annual Report, Infrastructure Strategy, Financial Strategy, District Plan, AM Policy, technical AMPs and specific plans and strategies such as Water Safety Plans.

The 2021 Infrastructure Strategy covers the core assets as required by the Local Government Act Section 101B and solid waste activity. Council developed the 2021 Infrastructure Strategy mainly with internal capability with an adequately resourced Infrastructure Services team. An external consultant peer reviewed the strategy. Historically the strategy was undertaken by external consultants with input from Council staff as mainly operationally focused.

There was also better alignment between the 2021 Infrastructure and Financial Strategies through the teams working together better at Tier 3 level. A debrief of the 2021 LTP process still needs to be undertaken so business improvements can be addressed prior to the next round (overtaken by the July 2021 floods).

Council has an overarching AM Policy (2015) covering the infrastructure asset groups. It is overdue for an update and was not undertaken as part of the 2021 LTP. It has been identified as an improvement action for 2021/22 (refer to Appendix D in relation to regional land transport AM Policy).

There is currently no Strategic AMP covering the infrastructure asset groups. It is noted that it is not normal practice for small rural district councils to have a separate Strategic AMP in addition to the technical AMPs for the activities in New Zealand.

### Levels of service and performance management

The LOS are presented in the 2021 Water, Wastewater and Stormwater AMPs and 2021 LTP. They are based on DIA's mandatory performance measures only with no additional technical LOS. However, this seems appropriate for a small rural district council.

Council is generally not meeting the mandatory performance measures for providing safe drinking water. This is measured in terms of meeting the Drinking Water Standards for bacteria and protozoa compliance criteria. Reefton is currently on a precautionary boil water notice. Investment is underway and identified in the 2021 LTP to address this significant gap (\$2.081 million for water quality district wide improvements).

The levels of service are reported monthly to a Council Committee and in the Annual Report. Council has also undertaken customer satisfaction surveys in 2019 and 2021. These surveys were mainly about the experience with Council rather than the services provided.

Technical performance measures are reported in the field by Council's Utility Services Contractor WestReef using GPS handhelds. Performance data includes meeting service requests for responding to faults and system failures (such as overflows) and water quality complaints.

### Forecasting demand

There is a good snapshot of the district's socio-economic profile provided in the 2021 LTP. This was based on the Regional Analysis and Forecasting for LTP prepared by Infometrics (January 2021) and a post Covid Socio-economic Deprivation (April 2021). The Buller district has a socio-economic deprivation index of 9 (where 10 is the most deprived) as at December 2020. This socio-economic is considered with Council's decision making across the infrastructure assets.

Although historically there has been declining / steady population in the district, Westport is experiencing relatively high development activity as people seek affordable housing in provisional areas.

Council is generally meeting the current demand of its water schemes based on operational knowledge. Water meters are only installed for users with extra ordinary demand. Leak detection surveys are undertaken periodically.

There is high water leakage in the water network as reported with the mandatory performance measures. The major trunk lines in Westport and Punakaiki are being replaced to resolve the ongoing leakage issues as well as providing resilience. These two projects will address the major leakage issues.

Council is working with WCRC on strategies for managing natural hazards, and the issue of longer term climate change adaption and mitigation, and the impacts on the urban stormwater systems. The capacity of the existing stormwater system is generally only assessed when it is considered not acceptable to the individual community taking into account risk and benefits / costs. The 2021 LTP identified flood mitigation works in Westport (at \$0.5 million).

There are known stormwater infiltration issues into the Westport wastewater network. Westport's existing combined sewer system can overflow during extreme storm events when overloaded into the Buller River. There is an ongoing programme to separate the stormwater from the sewer system.

## Asset register data

AssetFinda is Council's asset register for the three waters assets and has been in place for about ten years. There is a well-established process for updating the data from the service provider in the field with interfaces with AssetFinda. Council's Asset Information Coordinator actively keeps the data up to date and accurate.

The valuation process in June 2019 assessed the asset data in terms of completeness and data confidence. The asset data was assessed as generally complete for the different asset classes. The quantity, size and age asset attributes were assessed as highly reliable to reliable. The condition and performance asset attributes were assessed as almost reliable.

## Asset performance and condition

The overall condition of the three water assets is considered average. Water supply pipeline assets of galvanised iron pipe material are in very poor condition and progressively being replaced. It is known that there are major leakage issues and the trunk mains are being replaced as noted above.

The condition results for pipeline and non-pipeline assets are presented in each AMP based on data recorded in AssetFinda. The Utility Services Contractor records the condition in the field. Treatment plants are inspected annually to assess current state in terms of condition and performance by Council's Asset Information Coordinator.

There have been some CCTV surveys undertaken of the wastewater pipelines. The wastewater network and combined sewer system have variable condition based on material and age.

The stormwater network also has variable condition based on material and age, with earthenware, polyvinyl chloride and reinforced concrete as the main pipe materials. There have been no proactive CCTV surveys of the stormwater networks to formally assess the condition to date.

Drinking water quality is monitored and reported monthly in the Annual Report as noted above. Council is broadly following the Water Leakage Plan prepared by Opus Consultants in 2012. The focus in recent years has been to address the major leaks on the trunk water mains as noted above.

Requirements for meeting compliance with resource consents for three water schemes is increasing, similar to other councils nationally. The current resource consent for Westport's wastewater network expires in 2023. Council is currently working through the process to renew this.

## Findings - Lifecycle Planning

### Overview

Council demonstrated that it is generally operating AM at the higher end of core level of maturity in relation to developing AM lifecycle strategies as summarised in the figure below. All areas are reasonably sound particularly managing risk, capital works and financial planning.

Although the three water assets have been classified in terms of criticality, the criteria for this classification was not clear. The criticality framework is used in many decision-making processes, so this improvement is important (noting it is strengthening an existing practice rather than developing a new practice).

Figure 6 Three water results for Lifecycle Strategies



### Decision making

The overarching justification for the investment for three waters are documented in the 2021 Infrastructure Strategy with evidence provided in the supporting technical AMPs. The evidence includes the data recorded in AssetFinda including asset age, condition and faults, particularly service failures and leaks. Asset criticality is used as part of the prioritisation of the proposed capital programmes.

Many of the three water capital projects approved as part of the 2021 LTP remain unchanged with the July 2021 floods as needed for compliance such as the Drinking Water Standards.

Council values its partnerships with West Coast councils and Government agencies such as Waka Kotahi, Ministry of Health, DIA, Taumata Arowai, Ministry of Business, Innovation, and Employment, and Ministry for the Environment. It is Council’s key business approach to work in partnership to unlock funding assistance.

The decision-making roles and responsibilities between the three teams in the Infrastructure Services Group are clear and understood. There are good capital planning processes with supporting decision-making processes set up for the PMO for the major capital projects. These are documented in the Major Delivery Guidelines.

The better business case model is used for the major projects with external co-funding as part of the project management framework. Stakeholder specifications are used as required. There is governance oversight of major projects with steering groups that sometimes include the co funder as a governance member. This is supported by the project working group which is management focused and technical in nature.

Council has strengthened processes to provide opportunities for Māori to contribute to the decision-making processes, particularly with three waters. It resolved in May 2021 that one iwi representative will have voting rights at Council committee meetings from 1 July 2021.

Part of Council’s approach to decision making is to work collaboratively regionally to get better outcomes for small rural district councils. The regional initiatives include the 2021 West Coast Councils Transport Programme Business Case Activity Management Plan and 2018 West Coast Regional Waste Management and Minimisation Action Plan.

## Managing risk

There is a Corporate Risk Management Framework including the Risk Management Manual (February 2021) and Strategic Risk Register with identified corporate and business risks. The Strategic Risk Register also covered high level asset and infrastructure risks. The Finance, Risk and Audit Committee provides governance on risk management approaches.

There is also a Department Risk Register for the Infrastructure Services Group (June 2021) covering three waters, roading and transport, and waste risks. Project risk registers are also developed for the major capital projects and also used to compare options.

Activity risk registers have not been developed for the three water activities as part of the AMPs (but are developed for the transport activity). This is considered good industry practice.

The three water assets have been classified in terms of criticality from very high to low or non-critical. The criteria for this classification was not clear in the AMPs or through the interview process. The critical assets are categorised in AssetFinda. In addition, simple categories have been used to define critical water assets including critical, important and significant.

There are Water Safety Plans for all water supply schemes and are all up to date (noting that the requirements are changing with the Water Services Bill). The Water Safety Plans identified primary gaps in providing safe drinking water such as no treatment or residual disinfection, permanent Boil Water Notice in place.

Council has a suite of Business Continuity Plans including the corporate Emergency Plan for Civil Defence emergencies. WestReef have prepared Covid Return to Work Plan for roading and utility services.

The West Coast Civil Defence Emergency Management Group prepared a Vulnerability Assessment (2017) that identified vulnerable transport and three water assets in different scenarios (i.e. earthquake, tsunami, major storms).

Three waters network resilience has been considered in the 2021 Infrastructure Strategy and AMPs at a high level. Pipeline material selection considers resilience at design and construction phases. This approach was adopted to address the coastal erosion at the Hector Closed Landfill. The remediated landfill performed reasonably well during the July 2021 storm event with no asset damage (refer to Appendix E). Climate change preparedness was identified as a strategic focus in the 2021 LTP and 2021 Infrastructure Strategy.

## Operational planning

Council's Infrastructure Delivery Team manage the day to day operations of the three water networks with WestReef. Mōkihinui and Ngākawau / Hector are small and remote schemes managed by the local residents. Cape Foulwind is a rural water scheme.

WestReef responds to customer requests and undertakes reactive and planned maintenance activities for the three water networks. WestReef's communication with Council's Infrastructure Delivery Team and their general network management are considered sound. WestReef also collect any asset data changes in the field using GPS.

All treatment plants are operated within the drinking water standards and consent conditions. Existing asset performance gaps are noted above. The treatment plant facilities are remotely controlled using SCADA. Council reports regularly on meeting the mandatory performance measures using WaterOutlook as noted above.

The floodwater from the July 2021 flood impacted the wastewater network. There was high volume of silt which required suction removal so not to damage the wet well pumps.

### Capital works planning

The capital programmes are developed mainly internally through the Infrastructure Planning Team for renewals or the PMO for the large programmes. External consultants are used to undertake designs for the large projects through the PMO. WestReef undertake the minor network and treatment plant renewals.

The forward works programme for renewals is generally three to five years ahead based on faults recorded in AssetFinda and identified asset performance issues. It is prioritised based on asset criticality. The ten year capital programmes are detailed in each AMP and 30 year capital programme is detailed in the 2021 Infrastructure Strategy.

A major focus has been to upgrade the water schemes to be compliant with the drinking water standards and address the major leaks on trunk water mains as noted above. There has been a focus for the team to be more forward looking and linking to Government initiatives and latest industry thinking. Council is also establishing a Backflow Prevention Programme to protect public health and meet compliance requirements. The capital programme involves installing backflow prevention valves. There is also a programme to separate Westport's combined sewer network.

The PMO was recently set up in the Infrastructure Services Group for delivering the major capital projects. It was an important step for Council to separate business as usual functions and delivery of the major capital programmes. There has been strong achievement on delivery of the capital programme for three waters at 97% for 2019/20 and at 100% for 2020/21. The original programme for both years has doubled as well so these are impressive results.

### Financial planning

The 2021 LTP ten year forecasts are based on the AMP investment programmes. Three options were presented for prioritising the ten year investment programme. The Affordable Asset Preservation and Compliance option was selected for the 2021 LTP. The preferred AM programme based on asset needs was considered unaffordable to ratepayers.

The 2021 Financial and Infrastructure Strategies were better aligned and integrated than historical LTP planning rounds. This has mainly been due to increased internal capacity and capability within the Infrastructure Services Group and improved relationship with the Financial Team. It is recognised there are lessons learnt from the 2021 LTP process on getting the budget right.

Council is reliant on external funding for the capital programmes. It is Council's key business approach to work in partnership to unlock funding assistance including Government agencies.

Asset valuation is undertaken every three years. The latest valuation of the three water assets was completed as at 30 June 2019.



## Findings - AM Enablers

### Overview

Council demonstrated that it is generally operating AM at the higher end of core level of maturity in relation to developing AM enablers as summarised in the figure below. The strongest AM areas are leadership and teams, systems and service delivery mechanisms. The major gaps identified are for the management systems, audit and improvement areas. Although the Infrastructure Services Group has completed a number of good initiatives, the underlying quality management systems and processes need strengthening.

Figure 7 Three water results for AM Enablers



### AM leadership and teams

AM is mainly undertaken by the Infrastructure Planning team within the Infrastructure Services Group for three waters, roading and transport, and solid waste activities. The Infrastructure Planning team has three full time positions including the manager.

The Infrastructure Services Group has increased in capacity and capability recently. The AM roles and responsibilities between the three teams in Infrastructure Services Group are clearly defined. The evolution of the Infrastructure Services Group is recognised as a strength and achievement for Council as noted above. This evolution ensures that day to day operations continue to be managed soundly but also provides for a forward-thinking team and strong delivery of the capital programme.

The Infrastructure Services Group's leadership team is strong. They meet weekly and keep up to date with latest industry thinking.

### Asset Management Plans

There are separate technical AMPs for each water and were recently updated for the 2021 LTP. The Infrastructure Planning team completed the technical AM work and external consultants (Waugh Consultants) prepared the AMP documents. The 2021 Water AMPs are generally consistent with industry good practice as set out in the IIMM.

The next step in Council's maturity in AM practices is to update the three water AMPs with internal capability, similar to the 2021 Infrastructure Strategy. The Infrastructure Planning team are hands on with the asset data and various supporting information so are best place to update the plans.

### Management systems

There are various supporting processes and plans prepared for the sound management of three waters (refer to the above sections). The PMO provides good oversight of the major capital projects.

Council has a continuous improvement culture of its business processes including its O & M contracts. A service review of the Utilities Services Contract is currently underway to identify opportunities for operational improvements and efficiency gains (refer below).

It is recognised that much of the infrastructural knowledge is not always formally documented. The supporting systems and processes including documented Standard Operating Procedures is recognised as an improvement area. Strengthening quality management systems and processes is also important for supporting internal processes such as engineering requirements / standards for land development.

### Asset Management Information Systems

Council's financial system is MagiQ which also manages customer service requests. There are new modules to be added for purchase orders and contract management with upgrades for better integration. Esri is Council GIS system. GIS is used to analyse water faults spatially. Corporately, an appropriate information management system has been approved as part of the 2021 LTP to manage digital records to ensure legally compliant. This was identified as a strategic risk for Council.

AssetFinda is Council's asset register for the three waters assets and has been in place for about ten years. Water Outlook is used to store and report on drinking water quality results. WaterOutlook is used for managing operational data and reporting such as drinking water quality and has been in place for about one year.

### Service Delivery Mechanisms

The current Utility Services Contract is a cost plus contract and was let during 2016/17 with a 5 year term. It was extended for 5 years in January 2019 with the contract expiring in 2024. This right of renewal may extend the contract term to 10 years (5+5). The contractor is generally considered to be performing well as noted above. They also undertake minor capital works.

Council is progressively reviewing the operational contracts with its service providers as part of its continual improvement. The roading contract review was completed in 2019. A service review of the Utilities Services Contract is currently underway (by FieldForce4) to identify opportunities for operational improvements and efficiency gains. Council also wishes to be best placed with the three water reforms.

Other specialist contractors are used from time to time. Major capital works are tendered on the open market through the PMO. External contractors undertake the large renewal projects and all new works.

Although Buller District is in a remote region, Council is generally well served by consultants and contractors for its business-as-usual programmes. There are currently no Tier 1 contractors located permanently in the district, but the larger South Island contractors were very responsive and adaptable to the flood response work required.

## Audit and Improvement

Three year AM Improvement Programmes were developed as part of the 2021 AMPs. The improvement actions are high level statements rather than defined actions. Responsibility needs to be assigned for each action. The AMPs were internally reviewed as part of the 2021 LTP process but there is no formal monitoring review timetable provided. The plans were also reviewed externally by Audit New Zealand. The other key audit process is the preparation and adoption of the Annual Report including the disclosure of the mandatory performance measures.

There is no formal AM steering group to provide oversight of the AM Improvement Programmes and consistency across activities. There was no documented evidence of AM maturity level for three waters or target set. It is normal practice for maturity target to be set in the AM Policy (identified as an improvement).

## Appendix D Key Assessment Results for Roading and Transport

### Findings - Understanding and Defining Requirements

#### Overview

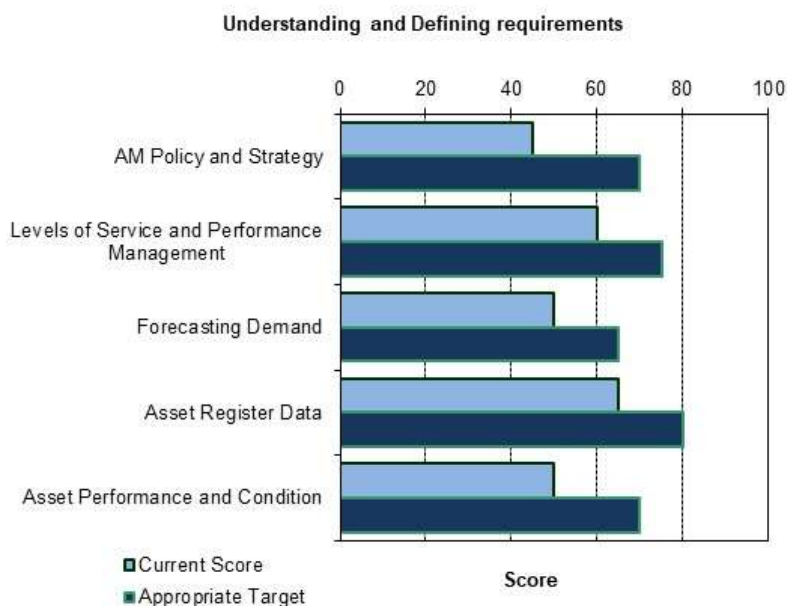
Council demonstrated that it is generally operating AM at a core level of maturity in relation to understanding and defining requirements, as summarised in the figure below.

Council’s Infrastructure Services Group has increased its capability and capacity to undertake many AM tasks internally rather than relying on external consultants. Both the 2021 LTP and Infrastructure Strategy were prepared in-house using the 2021 Transport AMP to inform them.

In collaboration with Grey and Westland District Councils, through the preparation of the 2021 West Coast Councils Combined Transport Programme Business Case Activity Management Plan (2021 Transport AMP), target levels of AM maturity have been set as core-intermediate for the roading activity.

The West Coast councils have worked together to improve data quality to enable a better-informed decision-making process in setting the Forward Works Programme (FWP) and a combined level of service framework was developed with locally defined targets, promoting consistency whilst also having a local line of sight. This collaborative approach is reflected in improved REG data quality results and a final AMP that was well-received by Waka Kotahi as part of the 2021 National Land Transport Programme (NLTP) funding submission.

Figure 8 Results for Understanding and Defining Requirements



#### AM policy and strategy

Council has a complete strategic framework to guide decisions for the roading and transport activity. This includes the LTP, Annual Plan, Annual Report, Infrastructure Strategy, Financial Strategy, District Plan and the 2021 Transport AMP.

With a recently restructured Infrastructure Services Group providing increased capability and capacity, both the 2021 Infrastructure Strategy and LTP were prepared in-house with the 2021 Transport AMP used to inform the roading aspects of both. There is currently no Strategic AMP in place but the Infrastructure Strategy and 2021 Transport AMP consider identified strategic issues including the need to maintain affordability of assets to ratepayers whilst achieving asset renewal and compliance and how to prepare for and protect communities against climate change. A key aim is to address the infrastructure backlog (the deficit of renewal works required to meet Level of Service outcomes).

Council has an AM Policy in place which provides for all infrastructure and includes objectives and strategic context. However, it is outdated (2015) and requires review. The 2021 Transport AMP Improvement Plan includes provision for a combined Asset Management Policy across the region to support ongoing collaboration, in particular for the roading activity.

There has been improved alignment between the 2021 Infrastructure and Financial Strategies through the internal teams working together better at Tier 3 level and with support from Tier 2 leadership.

### Levels of service

The roading and transport levels of service (LOS) are presented in the 2021 Transport AMP and are a mix of mandatory performance measures and Waka Kotahi ONRC levels of service, relevant to each of the West Coast Councils. Whilst LOS and measures are the same, appropriate targets have been set for each individual council.

Only mandatory performance measures are included in the LTP (appropriate for a small rural district council). They are monitored monthly against targets and reported in the Annual Report. ONRC measures are monitored for the purpose of the AMP only.

Council is generally meeting the levels of service for the transport activity. Data for the 2020/21 Annual Report is not available at the time of writing. However, the 2019/20 Annual Report showed all levels of service were met other than that related to 'the percentage of the sealed local road network that is resurfaced', which was justified on the basis that wider urban roads were resealed (measure based on the length of network) and high bitumen costs.

Council undertook customer satisfaction surveys in 2019 and 2021. These surveys were mainly about the experience with the organisation rather than the services provided but the 2021 survey demonstrated 89% satisfaction with customer services, an improvement from 2019. A joint West Coast survey, specific to the roading activity, was completed in 2019 and used to inform the 2021 Transport AMP. The survey enabled Council to better understand, operate and make decisions on the network. Respondents were generally satisfied with the network but there are areas for improvement such as footpaths and the desire for improved cycling and pedestrian facilities. There were also some isolated concerns over the condition of rural unsealed roads.

A Contract Performance Monitoring System included in the Road Maintenance Contract is used to measure performance of the contractor / BDC team in meeting LOS and Key Result Areas (KRAs). These KRAs are related to customer response, quality of work, safety and reporting and programming and they are measured every three months.

### Demand forecasting

Although historically there has been declining / steady population in the district, Westport is experiencing relatively high development activity as people seek affordable housing in provisional areas.

Factors affecting demand for the roading network have been identified in the 2021 Transport AMP with discussion on assumptions and potential impacts although a full assessment has not been completed.

Prior to the Covid-19 pandemic, the West Coast was experiencing high growth in tourism. As such, providing the right infrastructure on the local roading networks to support this growth was considered paramount. However, in March 2020, the country went into lockdown and tourism stopped overnight. The future of international travel is still unknown and so the focus of the FWP moved to be more 'asset-focussed' with a stronger emphasis on addressing network risks such as resilience, safety and access through network improvements, renewals & targeted maintenance. This aligns with the focus of the Infrastructure Strategy and LTP.

The demand for transport services across the region is currently driven primarily by:

- The need to service the resident population and visitors.
- Increased volume and loadings from heavy vehicles (HV) placing extra demand on the pavement and bridge structures throughout the district and on the West Coast in general.

Assessment of future HV demand will be key to supporting economic development across the District and the West Coast.

### Asset register data

RAMM is used as the database for roading assets. Bridge data is held on the WSP Online Bridge Information Systems (OBIS).

The replacement value of roading assets was reassessed in 2019<sup>2</sup> and incorporated into the 2021 Transport AMP. There are some gaps in information, but data confidence levels were assessed generally as 'reliable' or 'highly reliable'. The exceptions were traffic services and pavement base where data confidence is 'uncertain'.

Improvements in collection and upload of data in RAMM has been implemented through the new O&M contract (commenced October 2020).

The REG data quality results are used to demonstrate the quality of roading asset data. Interim results for 2020/21 show that roading data quality for BDC is 72% (of expected standard), up from the previous year<sup>3</sup>. Whilst this an improving area, results for Buller are generally lower than 'Peer Group' councils<sup>4</sup>.

The 2021 AMP Improvement Plan provides for the development of a Data Improvement Strategy to be developed collectively across the west Coast councils.

### Asset condition

Asset condition data is considered adequate to plan maintenance and renewals over the short term. However, formal condition assessment programmes for roading assets needs to be further developed and implemented.

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<sup>2</sup> Buller DC 2019 Valuation of Roding Infrastructure Assets, Beca

<sup>3</sup> REG Data Quality Export Report (Interim) 2020/21

<sup>4</sup> <https://www.nzta.govt.nz/roads-and-rail/road-efficiency-group/projects/data-quality/rca-annual-data-quality-results/>

Pavement and drainage condition surveys are generally undertaken bi-annually with roughness surveys annually. RAMM is used as a basis for site selection. Pavement condition was assessed to support the FWP in the 2021 AMP. The assessment determined that the overall network condition is satisfactory although there was some concern over the rising trend of network roughness and the variation in results.

The overall condition of bridge assets (approx. 50/50 steel and concrete construction) has been assessed as good with common issues being corrosion, water issues such as scour damage and deterioration of timber components. Level of service is more of a concern for bridges such as restricted and posted bridges and single lane bridges.

Footpath condition surveys are completed bi-annually although the impacts of Covid-19 meant that assessments were not completed in 2020. With recent investment, footpath condition has been improving with mandatory LOS being met.

Inspections following the July 2021 flood events have identified a number of assets that require repair or renewal.

## Findings - Lifecycle Planning

### Overview

Council demonstrated that it is generally operating AM at core level of maturity in relation to lifecycle decision making as summarised in the figure below. The main gap in AM practices is the identification and management of critical assets.

In collaboration with Grey and Westland District Councils (2021 Transport AMP), target levels of AM maturity have been set as core-intermediate for the roading activity.

Figure 9 Results for Understanding and Defining Requirements



## Decision making

The overarching justification for the investment for the land transport activity is documented in the 2021 Infrastructure Strategy with evidence provided in the supporting 2021 Transport AMP. The evidence includes asset data - asset age, condition and faults. This data is used in the prioritisation of capital works programmes.

The 2021 Infrastructure Strategy and LTP have been driven internally and are aligned with the 2021 Transport AMP. There is also a key link between the Infrastructure Strategy and Financial Strategy. Affordability, adequate service levels and maintaining the quality of assets are all important, especially as some assets are ageing and will require repairs or replacements in the near future. Spending on assets is necessary to maintain LOS but there needs to be a balance between cost and risk. This highlights the importance of prioritising work programmes.

The land transport projects approved as part of the 2021 LTP remain more or less unchanged with the July 2021 floods, recognising the commitment made.

The Business Case approach has been used to identify and justify the capital projects included in the 2021 Transport AMP. This is the underlying project information that supports the 10 year LTP investment programme and the 30 Year Infrastructure Strategy. This approach is also used to justify the investment for capital projects not included in the adopted LTP, such as those funded through the PGF. Steering groups provide a governance oversight of major projects.

The decision-making roles and responsibilities between the three teams in the Infrastructure Services Group are clear and understood. There are good capital planning processes with supporting decision-making processes set up for the PMO for the major capital projects.

Council values its partnerships with West Coast councils and Government agencies, in particular Waka Kotahi and the DIA for the land transport activity. Good relationships with these other agencies have assisted in attaining funding assistance. It is recognised that regional collaboration can achieve better outcomes for the local communities. For the land transport activity, this has included the preparation and delivery of the 2021 Transport AMP.

## Managing risk

**Corporate Risk:** There is a Corporate Risk Management Framework including the Risk Management Manual (February 2021) and Strategic Risk Register with identified corporate and business risks. The Strategic Risk Register also covers high level asset and infrastructure risks. The Finance, Risk and Audit Committee provides governance on risk management approaches.

**Roading Activity:** There is a Department Risk Register for the Infrastructure Services Group (June 2021) covering three waters, roading and transport and waste risks.

A Risk Management Framework has been developed and included in the 2021 Transport AMP. This identifies risks associated with delivery of the roading activity and outlines mitigation measures to minimise and / or manage the risk. Critical assets are not identified, rather 'key routes' of the roading network such as the Karamea Highway SPR. The 2021 Transport AMP Improvement Plan provides for the identification and management of critical assets.

**Projects:** Risk registers, with control plans, are developed for individual projects with the content reflecting the complexity of the project.



**Business continuity:** Council has a Business Continuity Strategy with responses coordinated on an incident by incident basis as well as Civil Defence Emergency Management Plans and Incident Response Plans. WestReef have prepared Covid Return to Work Plan for roading and utility services.

The West Coast Civil Defence Emergency Management Group prepared a Vulnerability Assessment (2017) that identified vulnerable transport and three water assets in different scenarios (i.e. earthquake, tsunami, major storms).

## Operational planning

### Roading

Inspections and programming are a critical part of operational planning as provided through the Road Maintenance Contract. WestReef responds to customer requests and undertakes reactive and planned maintenance activities for the local roading network. Inspections and the identification and prioritisation of work for the local road network, including structures, and the SPR is the responsibility of the Contractor with work programmes agreed between the Contractor and BDC. WestReef's communication with Council's Infrastructure Delivery Team and their general network management are considered sound.

Works are programmed monthly as cyclic (such as potholes, edge break, mowing), reactive (such as responding to customer queries or incidents on the network) or planned (such as culvert cleaning, pavement repairs, grading or drainage maintenance) works.

Maintenance strategies are developed collectively to support work programmes and priorities and to ensure LOS are met.

Complex processes are not required for networks of this scale and hence this level of operational planning is deemed appropriate. However, the development of formal and joint Maintenance Strategies across the West Coast councils has been recognised as an area for improvement in delivering a consistent level of service and delivering efficiencies and costs savings.

### Streetlights

Currently the maintenance and installation of street lighting is carried out by Buller Electricity Limited and Westpower. The replacement of bulbs is undertaken by the power companies according to a cyclic program, based on expected lamp life. The contract agreements with these companies also specifies response times for any single bulb, which may blow before its planned replacement.

### Flooding Impact

The July 2021 flood event has impacted the local road network. Damage included slips and dropouts, scouring of shoulders, blocked culverts, potholes and seal damage. Typical structural damage included scour and build-up of debris with some blockage of culvert bridges. The extent of damage is still being assessed with estimated costs for repairs to be finalised. Flood related works are being coordinated and managed through the PMO, with additional external support as required, enabling operational works to continue as usual.

## Capital works planning

The PMO was established for delivering the major capital projects in January 2021 in response to recent external funding success and a \$20M capital expenditure (capex) programme over the pursuant 12 months. It has enabled Council to separate business as usual functions from delivery of the major capital programmes.

## Renewals

RAMM is the main tool used to programme renewals alongside contractor feedback through inspections. Council staff undertake drive overs to 'ground truth' potential renewal sites where possible.

Reseals are undertaken as a stand-alone contract (annual programme of works). A more robust method of renewals planning was incorporated into the FWP for the 2021 AMP. The FWP for reseals was developed using a field validation exercise following a desktop assessment of surfacing records in RAMM and condition data to identify potential reseal sites. Reseals were then prioritised and balanced with a target percentage of network to be resealed each year over the next 10 years.

Pavement rehabilitations are typically assessed through visual assessments such as obvious signs of surface deformation and pavement defects or are completed as part of a reseal programme due to pavement age.

Pavement markings are renewed on an annual basis.

WestReef undertakes routine inspections and maintenance of all structures but annual bridge inspections enable renewals works to be identified and planned.

## Improvements

Business cases are frequently used to plan improvement works, depending on the 'significance' of each project.

Much of the capital works programme for 2020/21 has been funded through external funding, primarily through Waka Kotahi and the Provincial Growth Fund. The PMO has been instrumental in achieving delivery of these projects.

There has been strong achievement on delivery of the capital programme for the transport activity for 2020/21. The Northern Buller roading improvements include Tidal Creek #2 Bridge, Kōhahai seal extension, Glasseye, Hells Gate and Tobins safety improvements and the Nile River Suspension Bridge was also completed.

## Financial planning

The 2021 LTP ten year forecasts are based on the 2021 Transport AMP FWP, which was confirmed prior to the July 2021 flood event.

BDC's Financial Strategy is aligned with the 2021 AMP and LTP and states '*Expenditure to be adequate to maintain existing services and to maintain the quality and avoid deterioration of assets and capacity*'. This fits with the direction of the 2021 AMP and the supporting Programme Business Case which has a preferred option of 'Preserving our Assets'.

The 2021 Financial and Infrastructure Strategies were better aligned and integrated than historical LTP planning rounds. This has mainly been due to increased internal capacity and capability within the Infrastructure Services Group and improved relationship with the Financial Team. It is recognised there are lessons learnt from the 2021 LTP process on getting the budget right.

Roading assets are valued every three years with the last valuation being completed in 2019, so informing the 2021 AMP.

Council is reliant on external funding for the capital programmes working in partnership with Government agencies such as Waka Kotahi and the DIA for the transport activity to unlock funding assistance.

## Findings - AM Enablers

### Overview

Council demonstrated that it is generally operating AM at a core level of maturity in relation to AM enablers, as summarised in the figure below.

The Infrastructure Services Group is vulnerable to change and can struggle to recruit. In the past, this has meant a focus on operational & reactive work, inhibiting their ability to be strategic & plan. The establishment of the PMO has provided additional capacity and capability for the Infrastructure Delivery team with their focus on the delivery of major infrastructure projects.

It is recognised that the provision of the right resources with the capability and capacity to deliver both asset management planning and operations will be key to the success of the preferred programme.

Whilst complex AM systems and processes are not essential for this scale of network, alignment of systems such as asset registers, customer services requests and monitoring asset management will support a collaborative approach both internally and externally.

Figure 10 Results for Asset Management Enablers



### AM leadership and teams

AM is undertaken by the following three groups, each with clearly defined roles and responsibilities:

- Infrastructure Services Planning – the asset owner and responsible for asset planning including AM. The team of three including the manager also manage the roading network.
- Infrastructure Services Delivery – operates and maintains the network and undertakes renewal works.
- PMO – delivery of major capital works, established in January 2021.

The Infrastructure Services Group has increased in capacity and capability recently, but it continues to seek additional resources to strengthen the team. The structure of the Group both supports the effective delivery of operations as well as providing for a forward-thinking team and strong delivery of the capital programme.

Relationships between the leadership team are strong as is support from Governance and Tier 1 levels.

### Asset Management Plans

A combined 2021 Transport AMP was developed in collaboration with Grey and Westland District Councils for the 2021-24 NLTP funding submission, comprising:

- Part A: West Coast Councils Transport Programme Business Case
- Part B: Part B Integrated Approach to Asset Management
- Part C: Part C: Buller District Council Local Level Input to Asset Management
- Part D: Appendices

Whilst allowing for a local district-level focus, this joint approach recognised the degree to which many issues are common to all three councils, so supporting a streamlining of processes with consequent efficiencies and cost savings.

The AMP is 'asset-focussed' and has a strong emphasis on addressing network risks such as resilience, safety and access through network improvements, renewals & targeted maintenance. It has been well-received by other agencies such as Waka Kotahi and has been used as a template around which the 3-Waters 2021-24 AMPs have been prepared.

### Management systems

There are various supporting processes and plans prepared for the sound management of the transport activity (refer to above sections). The PMO provides good oversight of the major capital projects.

A review of Council's LGOIMA practices in 2020 concluded that Council's information management system requires updating and modernising. Provision has been made in the 2021 LTP to develop an information strategy and protocols which meet legislative standards and requirements and install and implement information management software. This will interface Council's financial system, MagiQ, which also manages customer service requests. There are additional platforms that can be added to MagiQ such as for contract management and performance measurement.

It is recognised that much of the infrastructural knowledge is not always formally documented. The supporting systems and processes including documented Standard Operating Procedures is recognised as an improvement area. Strengthening quality management systems and processes is also important for supporting internal processes.

### Asset Management Information Systems

RAMM is used as the database for roading assets. WestReef uses Pocket RAMM onsite to manage road inspection information, identify defects and provide data updates to RAMM Contractor for programming of works. RAMM is used as a tool to prepare maintenance and renewals programmes, highlighting the importance of keeping the database up to date.

It is generally recognised that RAMM is not currently being used to its full potential.

The WSP Online Bridge Information System (OBIS) is used for bridge assets. This is managed and updated by

WSP and is used as a basis for renewals and improvement programmes.

### **Service Delivery Mechanisms**

Council adopted its Roading Procurement Strategy in late 2019.

The Infrastructure Services Delivery Team is responsible for the delivery of road maintenance and minor renewal activities through the Buller District Council Road Maintenance Contract 2020/2023 and specifications. The Road Maintenance Contract is currently held by WestReef, a Council Controlled Trading Organisation (CCTO). Works include the maintenance of roads and bridges on the local roads network along with culverts, signs and other assets. Street sweeping on state highways within the network is also included. The current contract is a cost-plus contract and was let in October 2020 with an initial term of three years and provision for two 2-year extensions to a maximum of seven years. WestReef is generally considered to be performing well as noted above. The 2020 contract followed a S17A review by FieldForce4 in 2019 to identify opportunities for operational improvements and efficiency gains.

Other specialist contractors are used from time to time. Major capital works are tendered on the open market through the PMO. External contractors undertake the large renewal projects and all new works.

As required, the Infrastructure Services Group engages external support in professional services.

### **Audit and Improvement**

#### **Quality and Audit**

Quality of work is critical to the successful implementation and completion of maintenance, renewals and improvement works. External suppliers (contractors and consultants) are required to prepare and implement Quality Management Plans, suitable for the scale and complexity of the works to which they apply. BDC also has a Quality Framework in place.

The Infrastructure Services Delivery Team manages the Road Maintenance Contract. Whilst this includes an element of audit, the contract relies on strong collaboration between the Contractor and BDC with the Contractor providing the “eyes and ears” of the network. Keeping everyone informed through good reporting, programme development and reporting against KPIs is key.

Depending on scale and complexity, capital works are managed and supervised by the Infrastructure Services Delivery Team, the PMO or by external professional services providers (generally where they have been responsible for the design).

Waka Kotahi has a legal obligation to audit organisations that are funded through the NLTP. Investment audits typically take place every two to four years and assess value for money, review contracts and financial information and look at management of the contracts subsequent to them being let. The latest audit was completed in 2021.

#### **Improvement planning**

A three year Improvement Plan was developed as part of the 2021 Transport AMP. Key elements of the Improvement Plan, generally collectively across the West Coast councils, include the development of a Data Improvement Strategy, Maintenance Strategies and risk management of critical assets.

The AM maturity target is core with some areas working towards intermediate status.

## Appendix E Other asset portfolios

Other asset portfolios that were also impacted by the July 2021 floods included housing for seniors, Westport Airport, Westport Port and solid waste. A high level health check was completed as part of this review and detailed in the following tables.

### Housing for seniors

In summary, 5 of the 26 units in Westport were flood damaged. The insurance application has been approved and remedial work is underway. The housing portfolio is being managed adequately appropriate for the size and improvements have been identified as part of this high level review such as preparing an AMP. The 2021 LTP recognised that it is difficult to invest in staff and capital on the properties with the current constrained budgets. Council has approved as part of the 2021 LTP to review suitable future management options for the housing portfolio.

Table 3 Housing for seniors' health check

Function	High level health check assessment
Portfolio overview	There are 45 housing units in total across the district with 26 in Westport. The 2021 LTP recognised that it is difficult to invest in staff and capital on the properties with constrained budgets. Rents are kept as low as possible so affordable for people. However, tenants of Council owned accommodation are unable to access some central government rent subsidies. Councils are also unable to access some subsidies for capital works on the housing. Council has approved as part of the 2021 LTP to review suitable future management options for the housing portfolio.
Asset maintenance	There is a rolling work programme for the portfolio. Adequate maintenance is generally undertaken as required such as roof replacements as well as meeting new legislative requirements (Healthy Home Standards) with installing heat pumps. There is generally high demand for the units with a waiting list.
Asset planning	Asset data is currently stored in various spreadsheets. This is appropriate for the portfolio size. They may consider moving information to AssetFinda in future now that the Infrastructure Planning team is better resourced. There is currently formal AMP for the portfolio. It could be added to the existing Council Building AMP (which is overdue for update).
Flood damage	There was a block of five units located in Henley Street damaged by the floods. The tenants were evacuated from the flood damaged units. The properties were assessed as inhabitable needing significant repairs and classified as yellow stickered.
Work underway / required	The floor levels of the five units are being assessed to ensure they will not be flooded again with future events. Council has prepared the insurance application been approved. Local builders have been secured to complete the remedial works.

### Westport Airport

In summary, the terminal building and lighting equipment at Westport Airport were impacted by the floods. However, the sealed main runway was not damaged by the floods. The Westport Airport portfolio is being managed adequately for the size and complexity and meeting all its mandatory obligations. No process improvements were identified as part of this high level review.

Table 4 Westport Airport health check

Function	High level health check assessment
Portfolio overview	The Westport Airport is a joint venture between BDC and the Ministry of Transport. The airport is managed and operated by Council which oversees the daily operation. It provides a public transportation link for the region. Sounds Air operates commercial flights from Westport to Wellington.
Asset overview	The airport facility includes buildings, lighting equipment, fuel storage and runways (a sealed main runway and one grass taxiway).
Flood damage	The runways were not damaged by the floods, but the terminal building and lighting equipment were impacted. Flights can only operate during daylight hours without lighting to meet Civil Aviation Authority mandatory requirements.
Work underway / required	The terminal building requires remedial work and damaged lighting equipment needs to be replaced.

## Westport Harbour

In summary, the Kawatiri Dredge damaged the cut off wharf piles when it came down during the sea level surges associated with the floods. The Westport Harbour portfolio including the port and Kawatiri Dredge are being managed adequately appropriate for the size and complexity. Council is proactively taking steps to ensure the long term viability of this portfolio. No process improvements were identified as part of this high level review.

Table 5 Westport Harbour health check

Function	High level health check assessment
Portfolio overview	Westport Harbour supplies berthage and marine services for fishing and leisure boats. The harbour and the current upgrades underway are important to support the ongoing growth in the fishing. This will ensure that the Buller District diversifies its economies by opening the port for fisheries.  The Westport port and Kawatiri Dredge were strategically reviewed as part of the 2021 LTP to ensure the long term viability as well as supporting the District's economic diversification.
Asset overview	The port includes wharf and berthing facilities. The Westport Harbour assets includes the Kawatiri Dredge.  Council was successful in gaining Provincial Growth Fund for harbour upgrades. New floating jetties and facilities are being installed for the fishing fleet.
Flood damage	The Kawatiri Dredge was tied up at the wharf during the July 2021 storm event. It damaged the cut off wharf piles when it came down during the sea level surges associated with the floods.
Work underway / required	WSP Consultants are assessing the structural damage.

## Solid waste

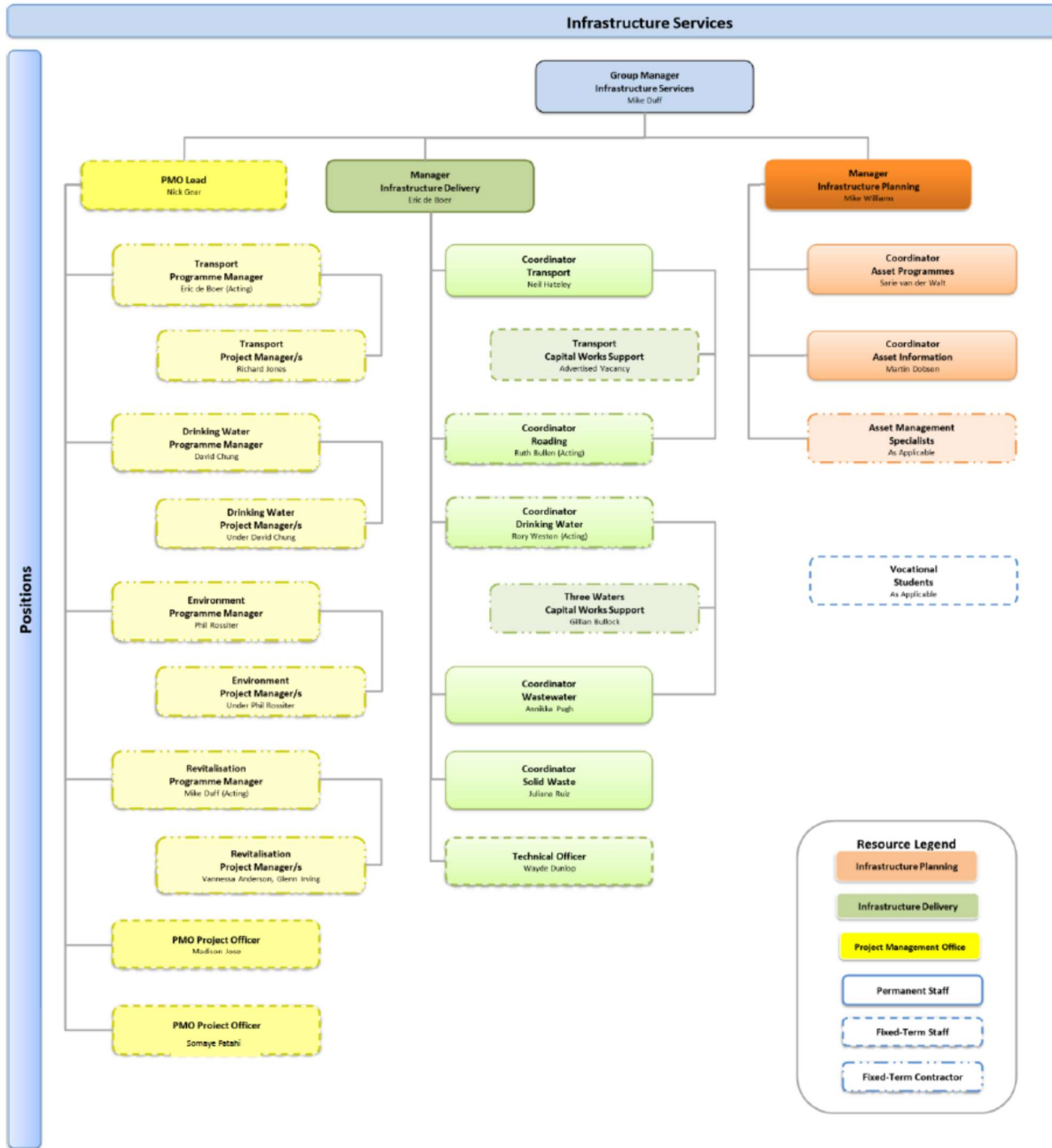
In summary, the Westport Refuse Transfer Station was damaged by the July 2021 floods from the Orowaiti estuary. Flood waters inundated the facility offices. The remediated Hector Closed Landfill performed well during the storm event and there was no asset damage. The solid waste activity is being managed adequately for the size and complexity. No process improvements were identified as part of this high level review.

Table 6 Solid waste health check

Function	High level health check assessment
Portfolio overview	<p>Council provides refuse and recycling services for its residents and businesses in three zones:</p> <ul style="list-style-type: none"> <li>• Zone 1 covers about 90% of the residents including provision of transfer station services in Westport and Reefton, as well material recovery facilities at Westport Transfer Station. The residual waste is transported to York Valley landfill in Nelson.</li> <li>• Zones 2 (Karamea) and 3 (Mariua) are for rural areas managed by these communities with operational landfills.</li> </ul> <p>Council's waste collection contractor is Smart Environmental for zone 1 under a ten year contract expiring on 1 February 2024.</p>
Sustainability	<p>Council also promotes waste minimisation in its District as well as involved with regional initiatives. There is a dedicated waste coordinator for this activity. The 2018 West Coast Regional Waste Management Minimisation Action Plan sets out the goals, objectives, targets and an action plan that drive the waste activity. The 2018 West Coast Regional Waste Management Minimisation Action Plan covered the three councils.</p>
Asset performance	<p>Council also provides the aftercare of its closed landfill sites and undertakes monitoring to ensure meeting its resource consent conditions.</p>
Asset planning	<p>A Waste AMP was prepared as part of the 2021 LTP process (but not sighted as part of this review). The solid waste activity was included with the 2021 Infrastructure Strategy although not required by the Local Government Act Section 101B.</p>
Flood damage	<p>The Westport Refuse Transfer Station was damaged by the July 2021 floods from the Orowaiti estuary. Flood waters inundated the facility offices.</p> <p>Remediation work had just been completed at the Hector Closed Landfill. It is located next to the coastline and suffered from erosion. The new rockwall / seawall was completed in June 2021 with Provisional Growth Fund of about \$1million. The remediated Hector Closed Landfill performed well during the storm event and there was no asset damage.</p>
Work underway / required	<p>The damaged facility requires replacement for impacted areas.</p>



# Appendix F Infrastructure Services Group Chart



Source: BDC (as at May 2021)