



WAIMAKARIRI
DISTRICT COUNCIL

Council Agenda

Tuesday 23 February 2021

Commencing at 10.00am

**Function Room
Rangiora Town Hall
303 High Street
Rangiora**

Members:

Mayor Dan Gordon
Councillor Neville Atkinson
Councillor Kirstyn Barnett
Councillor Al Blackie
Councillor Robbie Brine
Councillor Wendy Doody
Councillor Niki Mealings
Councillor Philip Redmond
Councillor Sandra Stewart
Councillor Joan Ward
Councillor Paul Williams

The Mayor and Councillors

WAIMAKARIRI DISTRICT COUNCIL

A meeting of the **WAIMAKARIRI DISTRICT COUNCIL** will be held in the **FUNCTION ROOM, RANGIORA TOWN HALL 303 HIGH STREET, RANGIORA** on **TUESDAY 23 FEBRUARY 2021** at **10.00am**.

Sarah Nichols
GOVERNANCE MANAGER

Recommendations in reports are not to be construed as
Council policy until adopted by the Council

BUSINESS

Page No

1. **APOLOGIES**

2. **CONFLICTS OF INTEREST**

Conflicts of interest (if any) to be reported for minuting.

3. **CONFIRMATION OF MINUTES**

3.1. **Minutes of a meeting of the Waimakariri District Council held on 26 and 27 January 2021**

RECOMMENDATION

THAT the Council:

- (a) **Confirms** as a true and correct record the circulated minutes of a meeting of the Waimakariri District Council held on 26 and 27 January 2021.

(NOTE: These minutes will be circulated separately)

MATTERS ARISING

4. **REPORTS**

4.1. **Final Utilities and Roothing Activity Management Plans 2021 – G Cleary (Manager Utilities and Roothing), S Collin (Infrastructure Strategy Manager)**

7 - 161

RECOMMENDATION

THAT the Council:

- (a) **Receives** report No. 210203017791.
- (b) **Approves** the following completed draft 2021 Activity Management Plans for Roothing, Water, Wastewater, Drainage, Stockwater, and Solid Waste, for consultation for the purpose of the LTP.

i. **Introduction, IFR-02-01, TRIM 200716088682**

ii. **Roothing AMP, IFR-02-02**

Scheme / Document Reference	TRIM Number
Section 1 Executive Summary Waimakariri Transport AMP 2021	201208166991
Section 2 Introduction Waimakariri Transport AMP 2021	201208166992
Section 3 Levels Of Service Waimakariri Transport AMP 2021	201208166993
Section 4 Future Demand Waimakariri Transport AMP 2021	201208166995
Section 5 Risk Management Waimakariri Transport AMP 2021	201208167107
Section 6 Life Cycle Management Plan Waimakariri Transport AMP 2021	201208166996
Section 7 Financial Summary Waimakariri Transport AMP 2021	201208166997
Section 8 Asset Management Practices Waimakariri Transport AMP 2021	201208166998
Section 9 Plan Improvement And Monitoring Waimakariri Transport AMP 2021	201208166999
Appendix A Glossary of Terms Waimakariri Transport AMP 2021	201208167000
Appendix B 2020 Strategic Business Case	201208167001
Appendix C Level Of Services Waimakariri Transport AMP 2021	201208167002
Appendix D Roothing Valuation Report Waimakariri Transport AMP 2021	201208167003
Appendix E Risk Management Waimakariri Transport AMP 2021	201215171784

iii. **Water Supply AMP, IFR-02-03**

Scheme / Document Reference	TRIM Number
Water Supply AMP Overview Document 2021	200120006283
Rangiora Water Supply Scheme AMP 2021	200120006291
Kaiapoi Water supply AMP 2021	200120006318
Woodend/ Pegasus Water Supply Scheme AMP 2021	200120006288
Oxford Urban and Oxford Rural No 2 Water Supply Scheme AMP 2021	200120006286

Oxford Rural No. 1 Water Supply Scheme AMP 2021	200120006298
Waikuku Beach Water Supply Scheme AMP 2021	200120006307
Cust Water Supply Scheme AMP 2021	200120006305
Mandeville/Fernside Water Supply Scheme AMP 2021	200120006303
Summerhill – West Eyreton Water Supply Scheme AMP 2021	200120006309
Ohoka Water Supply Scheme AMP 2021	200120006311
Poyntz Road Water Supply Scheme AMP 2021	200120006292
Garrymere Water Supply Scheme AMP 2021	200120006317

iv. Wastewater AMP, IFR-02-04

Scheme / Document Reference	TRIM Number
Wastewater AMP Overview Document 2021	200120006527
Rangiora (including Fernside) Wastewater Scheme AMP 2021	200120006521
Oxford Wastewater Scheme AMP 2021	200120006513
Kaiapoi Wastewater Scheme AMP 2021	200120006504
Woodend Wastewater Scheme AMP 2021	200120006520
Pegasus Wastewater Scheme AMP 2021	200120006515
Waikuku Beach Wastewater Scheme AMP 2021	200120006524
Mandeville Wastewater Scheme AMP 2021	200120006508
Pines/Kairaki Wastewater Scheme AMP 2021	200120006516
Tuahiwi Wastewater Scheme AMP 2021	200120006523
Woodend Beach Wastewater Scheme AMP 2021	200120006518
Loburn Lea Wastewater Scheme AMP 2021	200120006506
Eastern District's Wastewater Scheme AMP 2021	200120006525

v. Drainage AMP, IFR-02-05

Scheme / Document Reference	TRIM Number
Drainage AMP Overview Document 2021	200120006602
Rangiora Urban Drainage Scheme AMP 2021	200120006574
Ohoka Rural Drainage Scheme AMP 2021	200120006593
Coastal Urban Drainage Scheme AMP 2021	200120006582
Pegasus Urban Drainage Scheme AMP 2021	200120006578
Oxford Urban Drainage Scheme AMP 2021	200120006576
Kaiapoi Urban Drainage Scheme AMP 2021	200120006577
Loburn Lea Rural Drainage Scheme AMP 2021	200120006590
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Oxford Rural Drainage Scheme AMP 2021	200120006595
Cust Rural Drainage Scheme AMP 2021	200120006587

Central Rural Drainage Scheme AMP 2021	200120006583
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vi. Stockwater AMP, IFR-02-06

Scheme / Document Reference	TRIM Number
Stockwater Race AMP 2021	200819107116

vii. Solid Waste AMP, IFR-02-07

Scheme / Document Reference	TRIM Number
Solid Waste AMP November 2021	201016139173

- (c) **Notes** that the final suite of Utilities and Roading Activity Management Plans, adjusted for any changes made during the LTP consultation period, will be reported to Council at the 15 June 2021 Council meeting for adoption.
- (d) **Circulates** a copy of this report to all Community Boards for their information.
- (NOTE: *The Activity Management Plans will be circulated separately*)
- 4.2. **Draft Long Term Plan 2021 – 2031, draft Consultation Document, draft 30 Year Infrastructure Strategy and draft Financial Strategy– J Palmer (Chief Executive)**

162 - 318

RECOMMENDATION (the items are to be taken separately, in the order as below)

THAT the Council

- (a) **Receives** report No. 201027143087;
- (b) **Receives** the Audit opinion from Audit New Zealand on the Consultation document;
- (c) **Adopts** the Financial Strategy, noting it is one of the principal documents relied on for the content of the Consultation Document and is included within the Draft Long Term Plan for adoption;
- (d) **Adopts** the Draft Revenue & Financing Policy that is included within the Draft Long Term Plan for adoption;
- (e) **Adopts** the 30 Year Infrastructure Strategy, noting it is one of the principal documents relied on for the content of the Consultation Document and is included within the Draft Long Term Plan for adoption;
- (f) **Adopts** the Draft Long Term Plan 2021-2031 (Trim 201027143087) as the principal document relied on for the content of the Consultation Document;
- (g) **Adopts** the Draft Consultation Document (Trim 210205018703) as the statement of proposal for public participation in decisions on the content of the draft LTP;
- (h) **Notes** the Draft LTP Engagement Schedule with the special consultative procedure to open on 5 March 2021 and close on 12 April 2021;
- (i) **Notes** the Draft LTP and the draft Consultation Document refers to further information and reports and this information will be provided on the Council website during the special consultative procedure from 5 March 2021 to 12 April 2021;

- (j) **Delegates** to the Mayor and Chief Executive authority to make changes to the Consultation Document following Audit opinion and Council comments.

(NOTE: The Draft Annual Plan documents will be circulated separately)

4.3. **Confirmation of Voting Method for 2022 and 2025 Local Body Election – S Nichols (Governance Manager)**

319 - 332

RECOMMENDATION

THAT the Council:

- (a) **Receives** report No. 210212023675.
- (b) **Notes** no countermand poll has been received for a change in voting method therefore First Past the Post (FPP) voting method will be used in the 2022 and 2025 local body elections, as previously resolved by the Council on 4 August 2020.

5. **QUESTIONS (UNDER STANDING ORDERS)**

Nil.

6. **URGENT GENERAL BUSINESS (UNDER STANDING ORDERS)**

Nil.

7. **NEXT MEETING**

The next scheduled meeting of the Council is on Tuesday 2 March 2021, commencing at 1pm in the Function Room, Rangiora Town Hall.

BRIEFING

There will be a Councillor briefing to follow the meeting from 11.30am to 12.15pm.

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: IFR-02 /210203017791

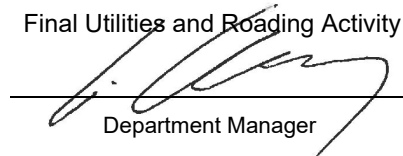
REPORT TO: Council

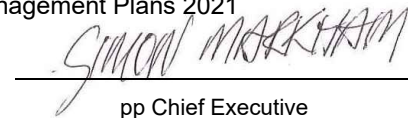
DATE OF MEETING: 23 February 2021

FROM: Gerard Cleary, Manager Utilities and Roding
Simon Collin, Infrastructure Strategy Manager

SUBJECT: Final Utilities and Roding Activity Management Plans 2021

SIGNED BY:
(for Reports to Council,
Committees or Boards)


Department Manager


pp Chief Executive

1. SUMMARY

- 1.1 This report presents the final 2021 Roding, Water Supply, Wastewater, Drainage, Stock Water and Solid Waste Activity Management Plans to Council for adoption.
- 1.2 During 2020, in preparation for the 2021 Long term plan (LTP), the 3 Waters, Roding and Solid Waste Activity Management Plans were reviewed and updated. This work formed the basis for the draft 2021-2031 LTP budgets.
- 1.3 Management of these activities is one of the most important undertakings that Councils carry out. For Waimakariri District the replacement cost of it's roading assets is \$1.03 billion and the replacement cost of the 3 waters assets is \$0.79 billion. These assets underpin the levels of service that those that live and work in Waimakariri rely on every day.
- 1.4 Activity Management Plans (AMPs) are important documents that state how the Council will manage its assets and activities in the future and provide the supporting information for the LTP and 30 Year Infrastructure Strategy. The plans outline the significant issues associated with the activities and assets. They summarise the various components of the schemes and identify future funding requirements and upgrades to maintain levels of service, and manage growth and renewals.
- 1.5 The Council briefing of 10 Nov 2020 included a high level view of the Council's Activity Management Plans (AMPs), their purpose, and what they contain. The draft AMPs were presented to the Utilities and Roding Committee at its 18th December 2020 meeting, (TRIM 201127161314)
- 1.6 Any changes in the 3 Waters, Solid Waste and Roding budgets that have been made since the draft AMPs were presented to the Utilities and Roding Committee have been incorporated in the AMPs presented here.
- 1.7 The 3 Waters and Roding AMPs have been peer reviewed by David Jeffrey of Infrastructure Associates.
 - He has assessed the 3 Waters AMPs as achieving a score of 0.72 out of a maximum possible of 1.0. This is an improvement over the score for the 3 waters AMP's in 2018.

- The Roding AMP was assessed at 0.69, which shows a small improvement over the 2018 assessment
- This is the first peer review for the Solid Waste AMP, which was assessed at a score of 0.63.

1.8 The audit review of the Council's LTP process was underway when this report was written. Staff have been responding to requests for additional information and clarification as needed. The results of the audit review are expected to be available by the time of this meeting.

Attachments:

- i. Utilities and Roding Committee report December 2020 (201127161314)
- ii. Introductory Chapter for the Utilities and Roding Activity Management Plans (200716088682)
- iii. Utilities and Roding Activity Management Plans (these will be circulated separately to members)
 - Roding AMP, IFR-02-02
 - Water Supply AMP, IFR-02-03
 - Wastewater AMP, IFR-02-04
 - Drainage AMP, IFR-02-05
 - Stockwater AMP, IFR-02-06
 - Solid Waste AMP, IFR-02-07
- iv. Peer reviews by Infrastructure Associates for water supply, drainage, wastewater and solid waste asset management plans (respective TRIM no's: 210111001755, 210127012401 210125010560, 210127012402).

2. RECOMMENDATION

THAT the Council:

- (a) **Receives** report No. 210203017791.
- (b) **Approves** the following completed draft 2021 Activity Management Plans for Roding, Water, Wastewater, Drainage, Stockwater, and Solid Waste, for consultation for the purpose of the LTP.
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 - ii. **Roding AMP, IFR-02-02**

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Central Rural Drainage Scheme AMP 2021	200120006583

vi. Stockwater AMP, IFR-02-06

Scheme / Document Reference	TRIM Number
Stockwater Race AMP 2021	200819107116

vii. Solid Waste AMP, IFR-02-07

Scheme / Document Reference	TRIM Number
Solid Waste AMP November 2021	201016139173

- (c) **Notes** that the final suite of Utilities and Rooding Activity Management Plans, adjusted for any changes made during the LTP consultation period, will be reported to Council at the 15 June 2021 Council meeting for adoption
- (d) **Circulates** a copy of this report to all boards for their information.

3. **BACKGROUND**

- 3.1. The Utilities and Rooding Activity Management Plans cover the following activities:
- Rooding
 - Water Supply
 - Wastewater
 - Drainage
 - Stockwater
 - Solid Waste
- 3.2. Management of these activities is one of the most important undertakings that Councils carry out. For Waimakariri District the replacement cost of it's rooding assets is \$1.03 billion and the replacement cost of the 3 waters assets is \$0.79 billion. These assets underpin the levels of service that those that live and work in Waimakariri rely on everyday.
- 3.3. Activity Management Plans (AMPs) are important documents that state how the Council will manage its assets and activities in the future and provide the supporting information for the LTP and 30 Year Infrastructure Strategy. The plans outline the significant issues associated with the activities and assets. They summarise the various components of the schemes and identify future funding requirements and upgrades to maintain levels of service, and manage growth and renewals.

4. **ISSUES AND OPTIONS**

- 4.1. While the Local Government Act 2002 does not specifically require councils to produce Activity or Asset Management Plans, it does require councils to provide robust and well documented planning for their assets. Audit New Zealand specifically seeks this information as part of their audit of the LTP process.
- 4.2. To meet the requirements of sound asset management and of Audit NZ, there is no workable alternative than to produce Activity Management Plans.
- 4.3. Waimakariri District Council's AMPs have been developing and improving over a number of LTP cycles, and have been peer reviewed regularly since 2009. A considerable number of the improvements recommended in the 2018 peer review have been incorporated in the latest version of the AMP's, and a workshop is programmed with the peer reviewer to discuss further potential improvements.
- 4.4. For the 2021 AMPs the overall "score" for a sample of all three suites of 3 Waters documents is now at 0.72 out of a maximum score of 1.00, and a recommended target of 0.7. This is an improvement from the 0.61, 0.62, and 0.63 for Water, Wastewater, and Drainage achieved for the 2018 AMPs.

- 4.5. Previous iterations of the Solid waste AMP had not previously been peer reviewed. The first time assessment by the peer reviewer for the Solid waste AMP was 0.63. The areas identified as being in the most need of improvement were links to other planning documents, asset systems and data, and risk management.
- 4.6. The Roading AMP peer review provided an overall assessment of 0.69 out of a total possible score of 1.0. This is a modest improvement over the 2018 assessment of 0.68. The three areas recommended as needing improvement were providing additional information about the process for the AMP development, asset systems and data, and optimised decision making.
- 4.7. The audit review of the Council's LTP process was underway when this report was written. Staff have been responding to requests for additional information and clarification as needed. The results of the audit review are expected to be available by the time of this meeting.
- 4.8. The Management Team have reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Groups and Organisations

Where levels of service are being changed for specific schemes targeted and specific consultation is carried out. An example would be upgrading a water supply scheme to meet drinking water standards. Typically, costs, benefits and risks associated with each option under consideration are presented to the affected community and their feedback taken into account in making a decision about which option to select.

5.2. Wider Community

- 5.2.1. The level of service component of the Activity Management Plans was consulted upon comprehensively as part of the 2005 review. While a comprehensive public review has not been carried out since then, levels of service are tested with the public in the following ways:
 - i. The three yearly customer satisfaction survey, which is now able to be analysed to provide 3 Waters scheme specific feedback.
 - ii. Monitoring service requests.
 - iii. The LTP and Annual Plan process.
 - iv. Specific engagement when significant district wide LOS changes are proposed, e.g. kerbside collection services were exhaustively consulted upon prior to the expansion of the services in 2019.
 - v. As with 3 Waters, there has not been a significant review of LOS for Roading for a number of years, but there has been additional consultation with key users groups resulting in the Strategic Problem Statements which underpin roading forward works.

6. **IMPLICATIONS AND RISKS**

6.1. **Financial Implications**

There are no financial implications from adopting these AMP's. The financial implications contained therein are already incorporated in the 2021-31 LTP budgets

6.2. **Community Implication**

Comprehensive Activity Management Plans are the foundation to ensuring that agreed levels of service continue to be provided to the community, both now and into the future as assets age, and that appropriate infrastructure is in place to meet the demands of growth

6.3. **Risk Management**

6.3.1. An inappropriate level of activity management would have significant financial and risk implications for the Council.

6.3.2. Risk is managed by having a representative sample of the AMPs peer reviewed, and through the feedback received from Audit NZ as part of its LTP process review.

6.4. **Health and Safety**

The AMPs consider the health and safety implications within each activity group, and allow for actions to be taken to reduce the risks associated with the activities.

7. **CONTEXT**

7.1. **Policy**

Approval of these draft AMPs is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Legislation**

Local Government Act 2002 Schedule 10

7.3. **Community Outcomes**

7.3.1. AMPs contribute to the following Community outcomes, taken from the draft 2021 LTP.

- i. There is a safe environment for all
- ii. Transport is accessible, convenient, reliable, and sustainable
- iii. Core utility services are sustainable, resilient, affordable; and provided in a timely, manner

7.4. **Delegations**

Council approval is required for the adoption of the U and R Activity Management Plans.

WAIMAKARIRI DISTRICT COUNCIL**ATTACHMENT I****REPORT FOR INFORMATION**

FILE NO and TRIM NO: IFR-02/201127161314

REPORT TO: Utilities and Roothing Committee

DATE OF MEETING: 18 December 2020

FROM: Gerard Cleary, Manager Utilities and Roothing, and Simon Collin.
Infrastructure Strategy Manager

SUBJECT: Utilities and Roothing Activity Management Plans 2021

SIGNED BY:
(for Reports to Council,
Committees or Boards)

Department Manager	Chief Executive
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1. SUMMARY

- 1.1. This report follows from the Council briefing of 10 Nov which included a high level view of the Council's Activity Management Plans (AMPs), their purpose, and what they contain. A selection of draft 2021 Roothing, Water Supply, Wastewater, Drainage, and Solid Waste Activity Management Plans are attached, noting their role as supporting documents to the draft 2021-31 LTP.
- 1.2. Further details of the general format used in Council's Utilities and Roothing AMPs are presented, to provide an understanding of what to look for if Committee members have an interest in a particular infrastructure scheme and the detail of how it is managed
- 1.3. Graphs are included in the report that compare the district wide spending on infrastructure for each utility type forecast at the last LTP, with that now forecast in the draft 2021AMPs. These may change as the budgets are considered, and the LTP consultation process takes place early in 2021
- 1.4. The draft Activity Management Plans (AMP's) are used to inform the Council's draft 2021–2031 Long Term Plan (LTP). If LTP budget debates and the public consultation process result in significant changes the AMPs will be subsequently amended to record these changes so that the final AMP's align with the LTP.
- 1.5. The full suite of draft AMP's will be reported to Council for adoption in February

Attachments:

- i. Introductory Chapter for the Utilities and Roothing Activity Management Plans (200716088682)
- ii. Utilities and Roothing Activity Management Plans
 - Activity Management Plan – Introduction Chapter
 - Transport AMP 2021
 - Water Supply AMP Overview 2021
 - Kaiapoi Water Supply AMP 2021
 - Rangiora Water Supply AMP 2021
 - Wastewater Supply AMP Overview 2021
 - Rangiora Wastewater AMP 2021

- Oxford Wastewater AMP 2021
- Drainage Activity Management Plan Overview 2021
- Rangiora Urban Drainage AMP 2021
- Ohoka Rural Drainage AMP 2021
- Solid Waste AMP 2021

2. **RECOMMENDATION**

THAT the Utilities and Rooding Committee:

- (a) **Receives** report No. 201127161314
- (b) **Notes** the draft 2021 Activity Management Plans for Rooding, Water, Wastewater, Drainage, and Solid Waste in italics in the tables below have been sent to be peer reviewed. The remainder are still being finalised with completion programmed before the February LTP meeting.

i. Introduction Chapter TRIM 200716088682

ii. Transport AMP

2. Scheme / Document Reference	TRIM Number
<i>Section 1 Executive Summary Waimakariri Transport AMP 2021</i>	201208166991
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i. Water Supply AMPs

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v. Solid Waste AMP

Scheme / Document Reference	TRIM Number
<i>Solid Waste AMP 2021</i>	201016139173

- (c) **Notes** that the levels of service provided for are reflected in the draft budgets for the Long Term Plan (LTP), and that the 3 Waters levels of service were approved by Council (TRIM 200406043184).
- (d) **Notes** that the final suite of draft Utilities and Rooding Activity Management Plans will be reported to Council at the February 2021 Council meeting for adoption
- (e) **Circulates** a copy of this report to all boards for their information.

3. **BACKGROUND**

3.1. **Activity Management Plan Structure**

3.2. The Utilities and Rooding Activity Management Plans cover the following activities:

- Rooding
- Water Supply

- Wastewater
 - Drainage
 - Stockwater
 - Solid Waste
- 3.3. Activity Management Plans (AMPs) are important documents that state how the Council will manage its assets and activities in the future. They provide the supporting information for the LTP and 30 Year Infrastructure Strategy, and contain a wealth of information about each of the infrastructure schemes that the Council operates. They identify future upgrades and funding requirements to maintain levels of service, manage growth and a renewals programme. Significant issues and required future major decisions associated with the activities and assets are also identified.
- 3.4. Because each 3 Waters supply/service is rated separately there is a separate AMP for each scheme. The structure of the 3 Waters, Solid Waste and Stockwater AMPs is identical, and comprises the following sections:
- Executive Summary
 - Scheme Description (What Do We Have?)
 - Scheme Management Issues (What Do We Need to Consider?)
 - Levels of Service
 - Asset Condition
 - Asset Criticality
 - Risk Assessments
 - Growth
 - Capacity & Performance
 - Future Works and Financial Projections (What Do We Need to Do)
 - Operations and Maintenance
 - Renewals Programme
 - Capital works for growth and to meet Levels of Service
 - Financial projections
 - An AMP Improvement Plan
- 3.5. The Solid Waste and Stockwater AMPs are stand-alone documents that (including appendices) provide a complete picture of the activity, its assets and how they are managed.
- 3.6. For 3 Waters with the numerous different water, wastewater and drainage schemes, the AMPs have been structured so that two documents need to be referenced to get a complete picture for each scheme. These are the Overview document relevant to the activity and the scheme specific AMP. The Overview document provides information that is common across all of the district schemes for either the water supply, wastewater or drainage activity
- 3.7. The Roding activity is rated by district, so there is only one Roding AMP. It is structured to cover a combination of NZTA guidance and accepted international asset management practice. Hence the Roding Activity Management Plan includes a Strategic Business case, which includes chapters related to levels of Strategic Problem Definition, Levels of Service, Demand and Risk and a Programme Business Case which includes the Life Cycle Management Plan, Financials and Improvement Plan. The Executive Summary provides a high level overview of the entire document

4. ISSUES AND OPTIONS

4.1. The following sections summarise for each activity area the key future challenges for that activity that have been identified during the AMP review process. Where available each section also includes the 10 year draft total budget (capital and operational) compared to the budget that was forecast at the 2018 LTP

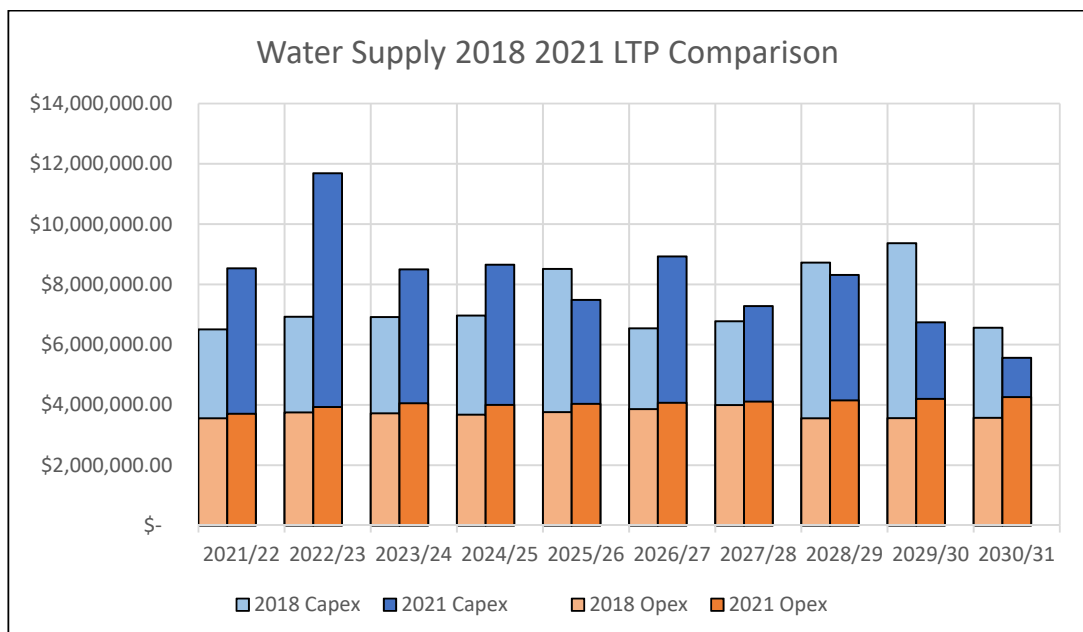
4.2. **Water Supply Future Challenges**

4.2.1. An updated version of the Drinking-water Standards are expected to be released in 2021, and the new drinking-water regulator (Taumata Arowai) will be taking over from the current Ministry of Health Drinking-water Assessors. With these changes to standards and regulation, comes some uncertainty. While financial provision has been made for changes to treatment requirements in anticipation of changes, the transition to the new environment is still likely to provide some challenges.

4.2.2. A Government Three Waters Review is in progress, and potentially very significant reforms to the way water and wastewater are delivered are being considered. While this brings some opportunities in terms of the funding that has been made available to participate in the first stage of the reforms, it also brings considerable uncertainty about the future provision of these services, and where this responsibility will ultimately lie.

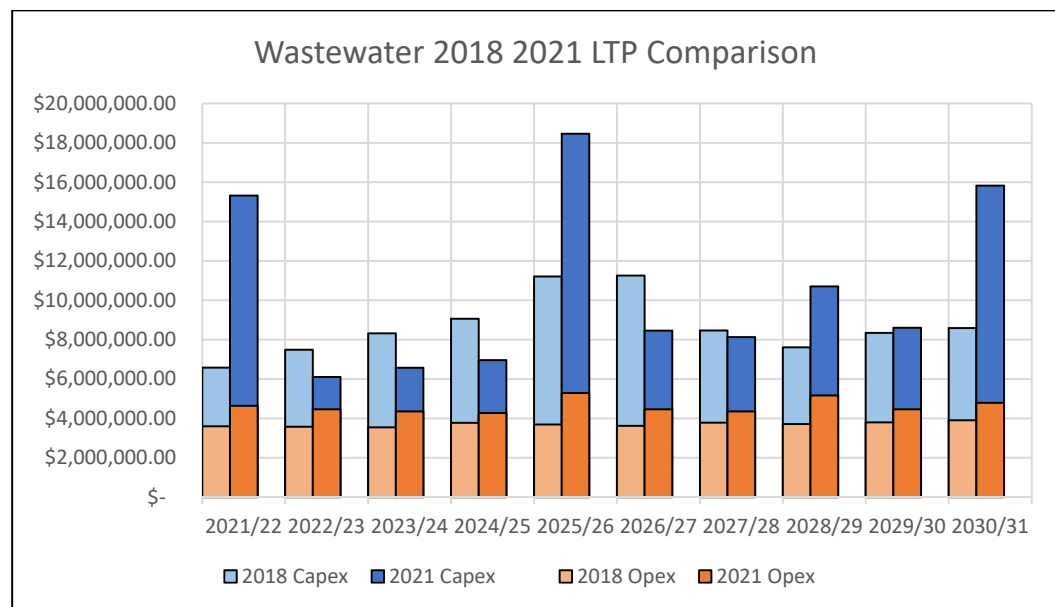
4.2.3. The potential impacts of climate change and sea level rise to water supplies requires attention. Consideration is needed both in terms of potential impacts of sea level rise to coastal assets and infrastructure, and in terms of the availability of groundwater which may be affected by changing rainfall patterns. Recent reports have been produced primarily identifying the impact of sea level rise to coastal areas which can be referenced to anticipate the impact on assets, and the Council will continue to work closely with Environment Canterbury regarding the allocation of groundwater to ensure there is adequate resource available going forward.

4.2.4. Summary view of Opex and Capex compared to the last LTP. The 2022/23 peak is from the installation of UV plant at a number of the water treatment plants



4.3. **Wastewater Supply Future Challenges**

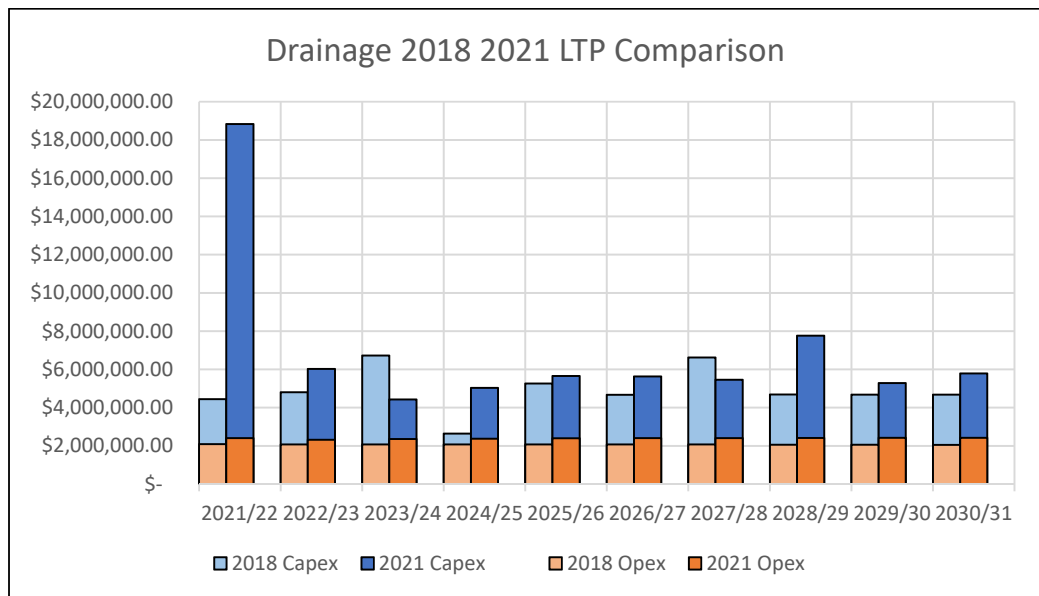
- 4.3.1. The Three Waters Review equally effects the wastewater activity
- 4.3.2. The Ocean Outfall Discharge Consent Expires in 2039. The process to renew the consent will need to begin well in advance. There is likely to be opposition to the continued discharge to sea. Any changes to consent conditions related to effluent quality may have a significant impact to existing treatment plants.
- 4.3.3. The Oxford WWTP discharge consent expires in 2031. Possible changes to future discharge consent conditions may result in the individual sewer rates increasing.
- 4.3.4. The potential impacts of climate change on wastewater also requires attention. Consideration both in terms of likely impacts of sea level rise to coastal assets and infrastructure, elevated groundwater levels and increased frequency of storm events is required. A study looking at the possible impact to the EDSS treatment plants will be undertaken in the next three years.
- 4.3.5. Summary view of Opex and Capex compared to the last LTP: The 2021/22 peak comes from the stage 5 of the Rangiora capacity upgrade, and stimulus projects. The 2025/26 peak includes the Kaiapoi capacity upgrade, Todds Rd pumpstation and rising main, and servicing for East Rangiora via the Northbrook Rd pump station. The 2030/31 peak also includes the Kaiapoi capacity upgrade together with a new oxidation pond at Woodend



4.4. Drainage Future Challenges

- 4.4.1. Council has applied for discharge consents into receiving waters for all of its urban drainage networks. Although there is now more certainty about the conditions that these consents may impose, challenges remain about how best to comply with the conditions.
- 4.4.2. Climate change mitigation is the most significant long term challenge. Recent research has indicated that while low lying coastal areas will remain protected by the dune system, increasing ground water levels will become problematic, when combined with the effects of storm events and high tides. Further assessment work is needed, and consideration given to the types of solutions that may be practical. Conversations need to be commenced with affected communities, and the Regional Council, with a view to reaching agreement on an adaptive strategy that is acceptable to all.

- 4.4.3. The outcome of the 3 Waters Review may or may not significantly affect how drainage is managed.
- 4.4.4. The National Environmental Standard regulations have recently come into force. The Regional Council will, in due course, be defining wetland areas within the district. Limited works will be permitted within these areas, and the ability to farm some of them, as has traditionally occurred, could be in doubt. Council may become involved in this issue as it unfolds.
- 4.4.5. Summary view of Opex and Capex compared to the last LTP. The 2021/22 peak is from the shovel ready flood prevention works in Kaiapoi



4.5. Solid Waste Future Challenges

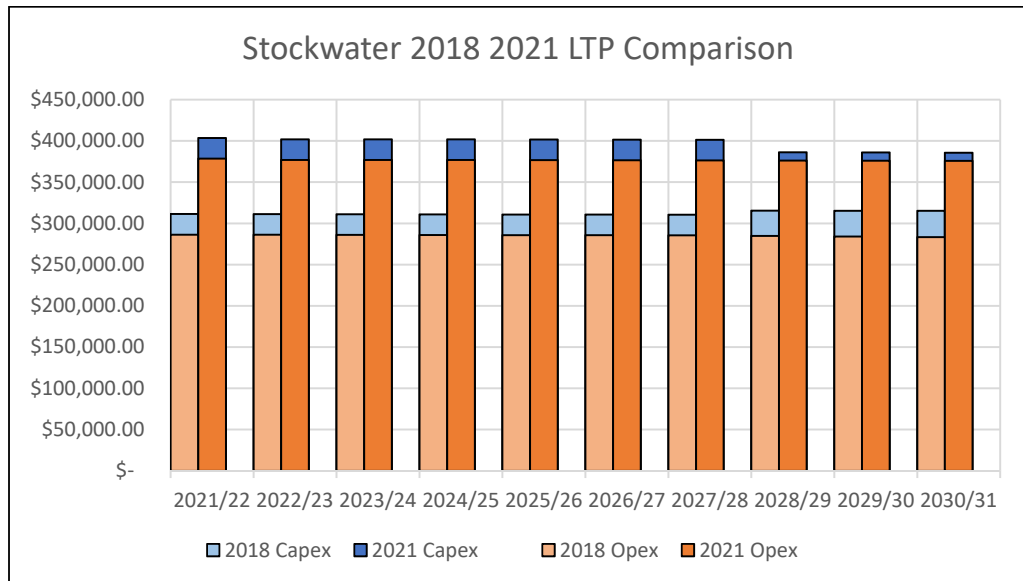
- 4.5.1. Responding to legislation changes and government initiatives under existing legislation may impact current processes and increase costs. These include changes to the waste levy, the upcoming review of the Waste Minimisation Act 2008, and implementation of Extended Producer Responsibility schemes.
- 4.5.2. Managing continuing low recycling market prices, tighter acceptance criteria and changes to the BASEL convention, which have all impacted on the financial viability of recycling.
- 4.5.3. In the face of the issues noted in 4.5.2, maintaining low recycling contamination rates becomes even more important. Achieving this will remain an ongoing issue.
- 4.5.4. Managing growth at the transfer facilities in an efficient manner.

4.6. Stockwater Future Challenges

- 4.6.1. Council has two consents from Environment Canterbury to take and use surface water. One for the Browns Rock intake and the second for the two intakes on the Cust River. Both consents will expire in May 2039, and will need renewal.
- 4.6.2. In 1999, Council made the water race system available to Waimakariri Irrigation Ltd to construct and operate an irrigation scheme. This licence will expire in November 2031. On expiry of this licence, all assets owned by WIL transfer to Council, unless the licence is re-negotiated.

4.6.3. The potential impacts of climate change and global warming to water supplies requires consideration. Weather patterns, ground water allocation and minimum river flows may impact demand for stockwater supplies.

4.6.4. Summary view of Opex and Capex compared to the last LTP



4.7. Roothing Future Challenges

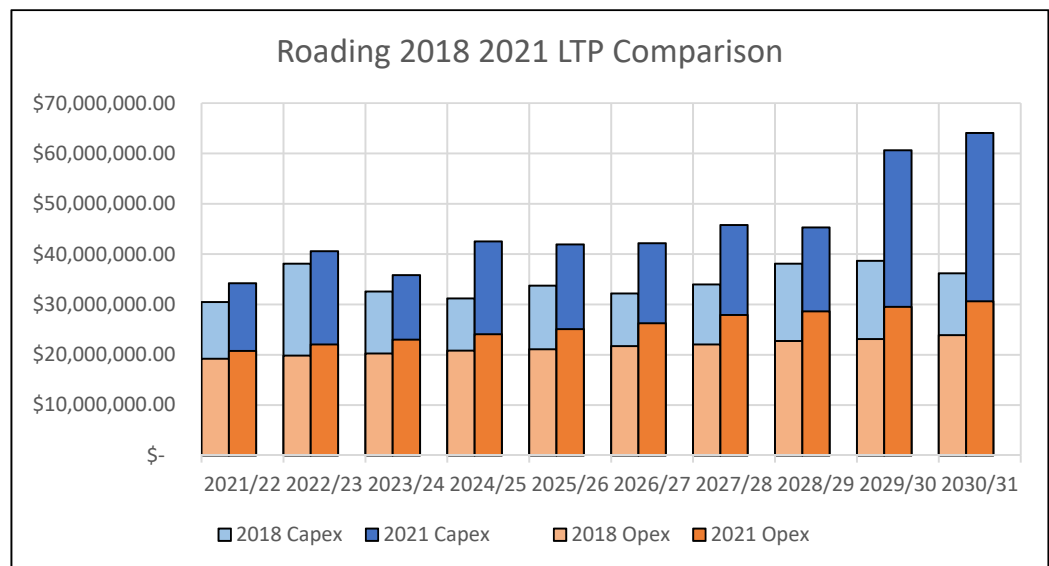
4.7.1. The following key issues have been determined as the most relevant to roading in the near future. While previous and current work has begun measures to offset the issues, they remain largely consistent with those of the previous AMP, except for climate change which is an emerging issue,. Congestion has been partially resolved by work on the State Highway Network and further route improvements to the eastern and western sides of Rangiora will reduce the demand on Southbrook Road, the main source of congestion.

- i. “Road users on our network have little room for error or recovery from mistakes, which has resulted in fatal and serious injuries when crashes occur.” Safety is and will continue to be a key focus in the District. A growing population, particularly one with a higher proportion of elderly, has a higher likelihood that collisions will occur and that they will be of a higher severity
- ii. “Population growth and changing land use is resulting in increased vehicle use, making it harder to maintain safe an appropriate levels of service.” The population of the District continues to grow and this leads directly to increased investment in new roads, and higher traffic volumes on existing roads. In addition, cost increases in the maintenance, operations and renewal activities also continue to place pressure on limited budgets. Both of these issues together mean it is increasingly difficult to maintain the agreed Levels of Service.
- iii. “Lack of mode choice leads to social disconnect, increased need for more roads, environmental impacts due to vehicle emissions and lack of opportunity for safe and healthy activity,” While the private car is still the mode of choice, more residents are looking for other means of travel, both

out of choice and necessity. Providing appropriate public transport and walking and cycling facilities will provide for those who otherwise are totally dependent on others to ferry them around

- iv. “Climate change is expected to result in increasing numbers of extreme weather events, rising groundwater and coastal inundation, resulting in disruption to transport and increasing damage to infrastructure.” More work is required to fully understand the implications for roading, as for the other utilities, and will be explored during the next few years.

- 4.7.2. Summary view of Opex and Capex compared to the last LTP. The spikes in years 2029/30 and 2030/31 are due to a number of large capital projects, including the Rangiora carparking facility and associated roading improvements, Skew Bridge replacement, Lehman's Road to River Road connection, Park and Ride facilities at Ravenswood, and intersection improvements at Robert Coup Drive and Ohoka Road, and Williams Street south.



- 4.8. The Management Team have reviewed this report and support the recommendations.

5. **COMMUNITY VIEWS**

5.1. **Groups and Organisations**

- 5.1.1. Where levels of service are being changed for specific schemes, for example upgrades to meet required standards, targeted and specific consultation is carried out. Typically options, costs and risks associated with each option under consideration will be presented to the affected community and their feedback taken into account in making a decision about which option to select.

5.2. **Wider Community**

- 5.2.1. The level of service component of the Activity Management Plans was consulted upon comprehensively as part of the 2005 review. While a comprehensive public

review has not been carried out since then, levels of service are tested with the public in the following ways:

- i. The three yearly customer satisfaction survey, which is now able to be analysed to provide scheme specific feedback.
- ii. Monitoring service requests.
- iii. The LTP and Annual Plan process.
- iv. Specific engagement when significant district wide LOS changes are proposed, e.g. kerbside collection services.
- v. As with 3 Waters, there has not been a significant review of LOS for Roading for a number of years, but there has been additional consultation with key users groups resulting in the Strategic Problem Statements which underpin roading forward works.

6. IMPLICATIONS AND RISKS

6.1. Financial Implications

- 6.1.1. Activity Management Plans are a core part of the Council's business and provide the key financial inputs into the LTP. These documents demonstrate that the Council is managing its assets and activities appropriately.
- 6.1.2. The financial implications of the Activity Management Plans are reflected in the draft budgets put forward for the LTP.
- 6.1.3. Prior to the government funding made available through the shovel ready and stimulus packages, activity specific rates for some small schemes would have risen quite sharply, driven by work needed to meet legislative standards. The central government funding has removed this pressure.
- 6.1.4. This pressure was one of the key triggers for the 2016 Council Working Party that comprehensively considered options for changing 3 Waters rating structures across the district. Council resolved at that time to include this issue in the draft 2021/31 LTP. However the 3 Waters Review makes it an inopportune time to pursue this initiative.
- 6.1.5. Proposed increases to landfill levy charges over the next four years will increase refuse disposal costs, with impacts on transfer station gate charges and targeted refuse collection rates. A subsequent increase in waste levy funding will need to be carefully managed, and the Council will have to consider how best to utilise these funds for minimising waste within this district, regionally and nationally.
- 6.1.6. Roading funding is very much dependent on the NZTA financial contribution, which provides 51% of the majority of Council work
- 6.1.7. Lack of revenue for the Agency during the lockdown period has meant less available funding for much of the country.
- 6.1.8. A very constrained maintenance, operations and renewals draft budget was presented to NZTA and is likely to be fully funded. Funding for new works will be closely reviewed against national criteria and there is a high chance that only some of the requested funding will be available. However this will not be confirmed until next year, Where this financial contributions from NZTA are not forthcoming,

some projects may need to be delayed or cancelled unless Council is prepared to construct them without the NZTA contribution

- 6.1.9. Continued growth in the community will compound this issue and the short term solution will require some careful management and thinking outside the box.

6.2. Community Implication

- 6.2.1. Comprehensive Activity Management Plans are the foundation to ensuring that agreed levels of service continue to be provided to the community, both now and into the future as assets age, and that appropriate infrastructure is in place to meet the demands of growth.

6.3. Risk Management

- 6.3.1. An inappropriate level of activity management would have significant financial and risk implications for the Council.
- 6.3.2. Risk is managed by having a representative sample of the AMPs peer reviewed, and through the feedback received from Audit NZ as part of its LTP process review to be carried out in January 2021.

6.4. Health and Safety

- 6.4.1. The AMPs consider the health and safety implications within each activity group, and allow for actions to be taken to reduce the risks associated with the activities.

7. CONTEXT

7.1. Policy

- 7.1.1. Approval of these draft AMPs is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Legislation

- 7.2.1. Local Government Act 2002 Schedule 10

7.3. Community Outcomes

- 7.4. AMPs contribute to the following Community outcomes, taken from the draft 2021 LTP.

- 7.4.1. There is a safe environment for all
- 7.4.2. Transport is accessible, convenient, reliable, and sustainable
- 7.4.3. Core utility services are sustainable, resilient, affordable; and provided in a timely, manner

7.5. Delegations

- 7.5.1. The full Council has the delegated authority to approve/adopt the final AMPs.



Activity Management Plan 2021

Utilities & Roading Introductory Chapter

3 Waters | July 2021





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Revision N°	Description	TRIM	Date
A	Draft for Presentation to U and R Committee	200716088682	18/12/2020
B	Draft for presentation to Council	200716088682	23/02/2021
C	Final for presentation to Council	200716088682	

Document Acceptance

Action	Name		Signed	Date
Prepared by	Simon Collin	Infrastructure Strategy Manager		04/02/2021
Approved by	Gerard Cleary	Manager Utilities and Roading		
Adopted by	Council			

Contents

1	INTRODUCTION	5
2	DOCUMENT HEIRARCHY.....	5
3	DESCRIPTION OF ACTIVITIES	5
	Rooding	5
	Water Supply	6
	Wastewater.....	6
	Drainage.....	6
	Stock Water.....	7
	Solid Waste	7
4	AMP PLANNING FRAMEWORK.....	8
5	LINKS TO COMMUNITY OUTCOMES.....	10
6	ORGANISATIONAL CONTEXT	10
7	ASSET MANAGEMENT MATURITY FOR UTILITIES AND ROADING.....	12
8	SUSTAINABILITY.....	13
	Sustainability under the Treaty of Waitangi.....	13
9	HOW DO WE REACH OPTIMAL DECISIONS?.....	13
9.1	Optimised Decision Making	13
9.2	An Optimisation Process	14
10	PROJECT DEVELOPMENT AND APPROVAL	17
	Public Engagement	17
	Financial Approval.....	17
	Major Project Consultation.....	17
11	AMP REVIEW AND AUDIT PROCESS	18
12	EARTHQUAKES.....	19
13	LOOKING FORWARD.....	19
14	APPENDIX A - List of AMP documents and their TRIM reference Numbers.....	20
	Rooding	20
	Water Supply	21

Wastewater.....	22
Drainage.....	23
Stock Water.....	23
Solid Waste	23

Figures

Figure 1: Activity Management Planning Framework.....	9
Figure 2: Utilities & Roading Organisational Chart	11
Figure 3: Tiered Approach to Optimised Decision Making	16

1 INTRODUCTION

This is the introductory chapter to the Waimakariri district council Utilities & Roothing (U&R) Activity Management Plans (AMPs). The council's activity management plans are key strategic documents that describe all aspects of the management of assets and services for an activity (including technical and financial) over the lifecycle of the asset in the most cost-effective manner to provide a specified level of service.

The specific activities covered by the U&R amps are:

- Roothing
- Water
- Sewer
- Drainage
- Stockwater
- Solid Waste

The chapter provides an overview of the activities and asset management practices and processes that are common to all of the activities.

2 DOCUMENT HEIRARCHY

The Transport, Solid Waste and Stockwater AMPs are stand-alone documents that (including appendices) provide a complete picture of the activity, its assets and how they are managed.

With the Council managing numerous different water and wastewater schemes, the AMPs have been structured so that two documents need to be referenced to get a complete picture for each scheme.

There are three Overview documents, one each for Water Supply, Wastewater and Drainage. They describe the processes and asset management practices that are common to all schemes, and include high level scheme descriptions, and a district wide view of levels of service, asset condition, risk, growth projections etc.

The individual scheme AMPs contain all the detail specific to each scheme, but need to read in conjunction with the Overview documents.

3 DESCRIPTION OF ACTIVITIES

Roothing

The Transport Activity Management Plan covers all of the rooding and transport activities in the Waimakariri District. The assets include approximately 970. km of sealed roads, 586 km of unsealed roads, 357 km of footpaths, 9 km of off road cycle ways, 288 bridges, along with signs, streetlights, and passenger transport infrastructure to support the public passenger transport system.

The rooding activity provides people with access to employment, services, education, and recreation, as well as providing for the movement of goods to support a thriving economy. The road corridor also provides access for critical services such as power, telecommunications, water supply and waste disposal. The Council considers that the provision of an effective and efficient rooding and transportation system is a key component to meeting Waimakariri Community Outcomes, and in meeting the Council goal of providing high quality living and productive environments.

Key strategies driving this activity are Ministry of Transport Outcomes Framework, the Government Policy Statement on Transport, Road to Zero Strategy, the Regional Land Transport Plan, and the Greater Christchurch Partnership. The key pieces of legislation governing this activity are the Local Government Act, the Land Transport Management Act, and the Resource Management Act.

Water Supply

The water supply activity involves the management, operation and maintenance of the District's water supplies in a way that protects and enhances the health and well-being of the community and minimises the effect on the environment.

The Council considers the supply of potable water to the community to be an essential service. The Council elects to perform this function in order to ensure that the community receives an affordable, safe and reliable supply. This ensures the public health of the community is protected and the impacts on the environment are minimised.

The water supply activity includes the operation of seven on-demand, three semi-restricted and five fully restricted water supplies. Between them these schemes supply water to approximately 79% of the properties in the district.

The key pieces of legislation governing this activity are the Health (Drinking Water) Amendment Act, the Local Government Act, the Resource Management Act, and the Water Services Act.

Wastewater

The wastewater activity involves the management, operation and maintenance of the District's wastewater schemes so that sewage is collected, conveyed, treated, and disposed of in a way that protects and enhances the health and well-being of the community and minimises the effect on the environment.

The Council considers the provision of a public sewer system to the community to be an essential service. The Council elects to perform this function in order to ensure that the community receives an affordable, safe and reliable service. This ensures the public health of the community is protected and the impacts on the environment are minimised.

The wastewater activity includes the Eastern District Wastewater Scheme (serving 9 distinct communities) plus three smaller, separate schemes elsewhere in the district. The schemes collectively provide a wastewater service to 60% of the properties in the district.

The key pieces of legislation governing this activity are the Local Government Act, the Resource Management Act, and the Water Services Act.

Drainage

The drainage activity involves the management, operation and maintenance of the District's drainage schemes within urban and selected rural areas of the Waimakariri District. The level of service in rural areas is largely restricted to maintaining the network of open drains.

The Council considers the carrying out of this work to be an essential service. The Council elects to perform this function to provide public safety, protect property and drain excess water from roads, and minimise adverse effects on the receiving environment.

There are seven rural drainage areas and five urban areas, but only 10% of the District is covered by a drainage area.

Drainage activities have reference to a number Acts but principally are concerned with the Land Drainage Act, the Local Government Act and the Resource Management Act, and various Regional Council documents. Recent legislation that will influence this activity includes the Aotearoa NZ Biodiversity Strategy and the Freshwater National Policy Statement/National Environmental Standards

Stock Water

The stock water race activity involves the management, operation and maintenance of the network of water races that delivers stock drinking water to approximately 44,000 hectares of land. The area supplied lies between the Waimakariri and Ashley rivers, and east of Burnt Hill and Oxford and west of Rangiora and Eyreton.

The Council carries out this activity to enable livestock farming on dry land.

The Irrigation scheme is owned by Waimakariri Irrigation Limited (WIL), although the races are owned by WDC. Both the stock water as well as the irrigation water system is managed by WIL. WIL is officially appointed as the Council's Agent for the management of the stock water races.

No specific legislation relates to the stock water race activity

Solid Waste

The Solid Waste activity involves the collection, transport, treatment, and disposal of solid and hazardous waste in a way that protects and enhances the health and well-being of the community and minimises the effect on the environment.

The Council provides a refuse and recycling collection service, refuse disposal facilities and hazardous waste and recycling facilities to help maintain the quality of life in the district and protect the environment.

The activity includes collection services to approximately 77% of District properties, the operation of two waste transfer/drop off facilities, the operation of a cleanfill, closed landfill aftercare, and a range of waste minimisation and education activities.

Strategies driving the Solid Waste activity are outlined in the Waste Management & Minimisation Plan (2017), the New Zealand Waste Strategy, and the Canterbury Hazardous Waste Management Strategy.

The key pieces of legislation governing this activity are the Waste Minimisation Act, the Local Government Act, and the Resource Management Act.

4 AMP PLANNING FRAMEWORK

The purpose of the Activity Management Plans (AMP) is to meet the required level of service, in the most cost effective manner, through the management of assets for present and future customers. Good asset management is about achieving best value through the right balance between cost, risk and performance.

There are a number of processes and documents that feed into the AMPs. The AMPs are critical documents that output as works and services via the LTP.

The strategic view for the infrastructural assets is provided via the Infrastructure Strategy, which considers the long term view (100+ yrs), and the amalgamated effect of the Utilities and Roading Activity Management Plans, as well from non-infrastructural assets such as the Council's property portfolio. It identifies significant infrastructure issues that will need addressing, and identifies the principal options for managing those issues and the implications of those options.

The Council has recently developed an Asset Management Policy (TRIM 170814087085), intended to provide clear direction as to the appropriate focus and level of asset management practice expected within the Waimakariri District Council. The Council has also convened an Asset Management Steering Group with the responsibility of overseeing the implementation of the policy. Terms of reference are detailed in TRIM 160816082392

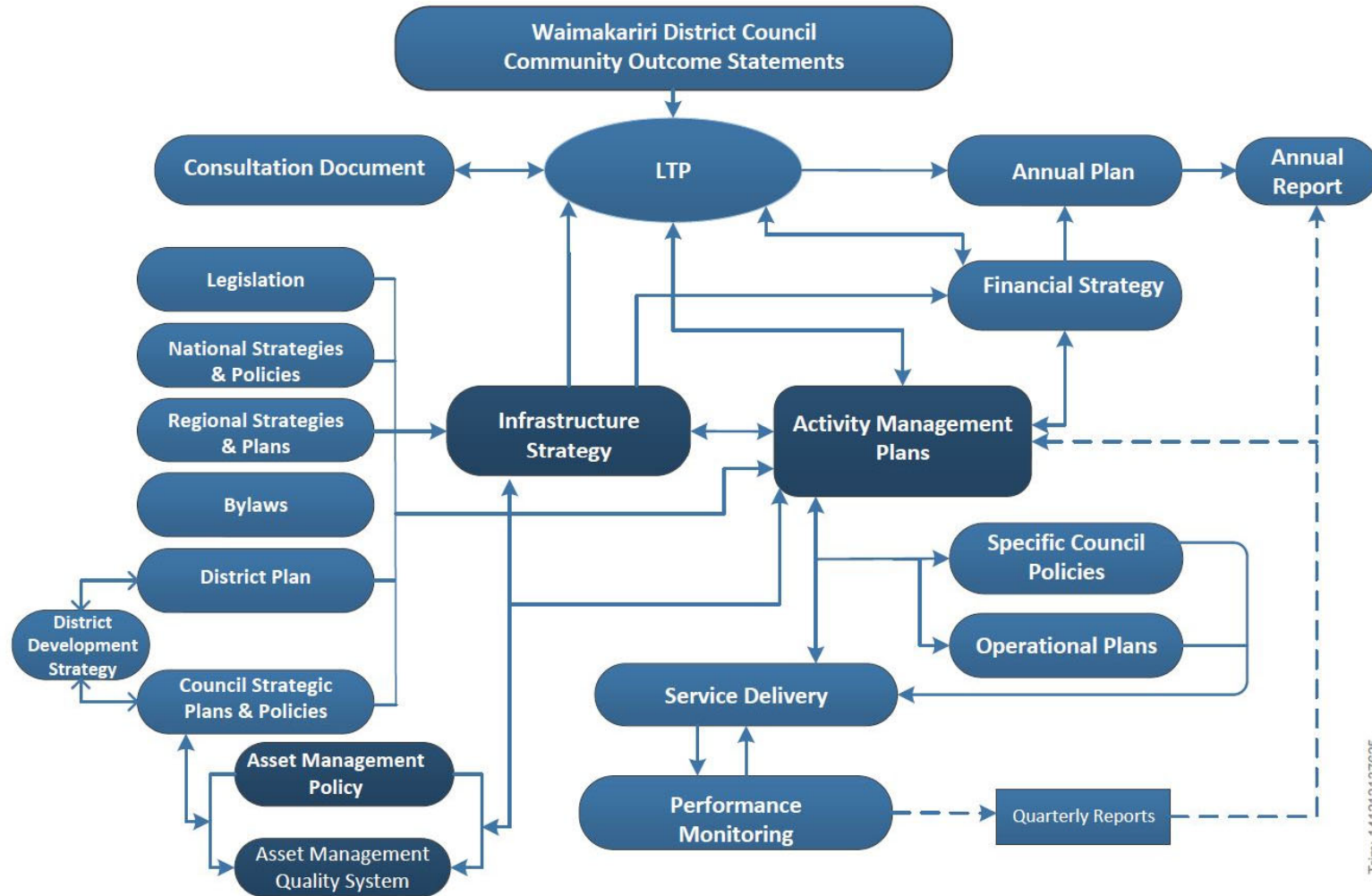
Council's Significance and Engagement Policy (TRIM 200730096903) is also relevant to the AMPs. It sets out the thresholds for significant proposals and decisions and provides the framework for engagement with the community on significant issues, and needs to be followed for all significant infrastructure decisions

Council carried out section 17A (LGA 2002) reviews of the way it delivers its 3 Waters asset management planning, and its roading maintenance activities in 2015 and 2016 respectively. The relevant documents are TRIM 150515077665 and 160412032391. Roading maintenance continues to be contracted out with a contract that covers only the Waimakariri District. At the time the 3 Waters review concluded that the existing in-house arrangements for asset management were appropriate. The current Water Reform work being carried out by central government will likely supersede those conclusions.

With the need for Council's to start engaging with climate change issues becoming more pressing, Council has developed, and on 4 August 2020 adopted, a Climate Change Policy. Climate change is a major theme of the 2021 Infrastructure Strategy. TRIM 200615071872

The diagram below shows the various inputs and outputs for the Roading, Water, Wastewater, Drainage, Stock Water and Solid Waste activities.

Figure 1: Activity Management Planning Framework



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5 LINKS TO COMMUNITY OUTCOMES

The AMPs describe the assets and services that contribute to the community's outcomes. The outcomes are the aspirations of the District's communities that show the kind of environment and lifestyle which people are seeking in the future.

The outcomes were developed by residents of the Waimakariri District, for the people who live here, through a widespread consultation process that was facilitated by the Council. These are reviewed in conjunction with each LTP. Further information about the outcomes and about how the Council's services and activities contribute to these outcomes is detailed in the Council's Ten Year Plan 2021-2031.

Some of the key outcomes that the Council's services contribute to are noted as follows:

- There is a safe environment for all
- Transport is accessible, convenient, reliable, and sustainable
- There is a healthy and sustainable environment for all
- Core utility services are sustainable, low emissions, resilient, affordable and provided in a timely manner

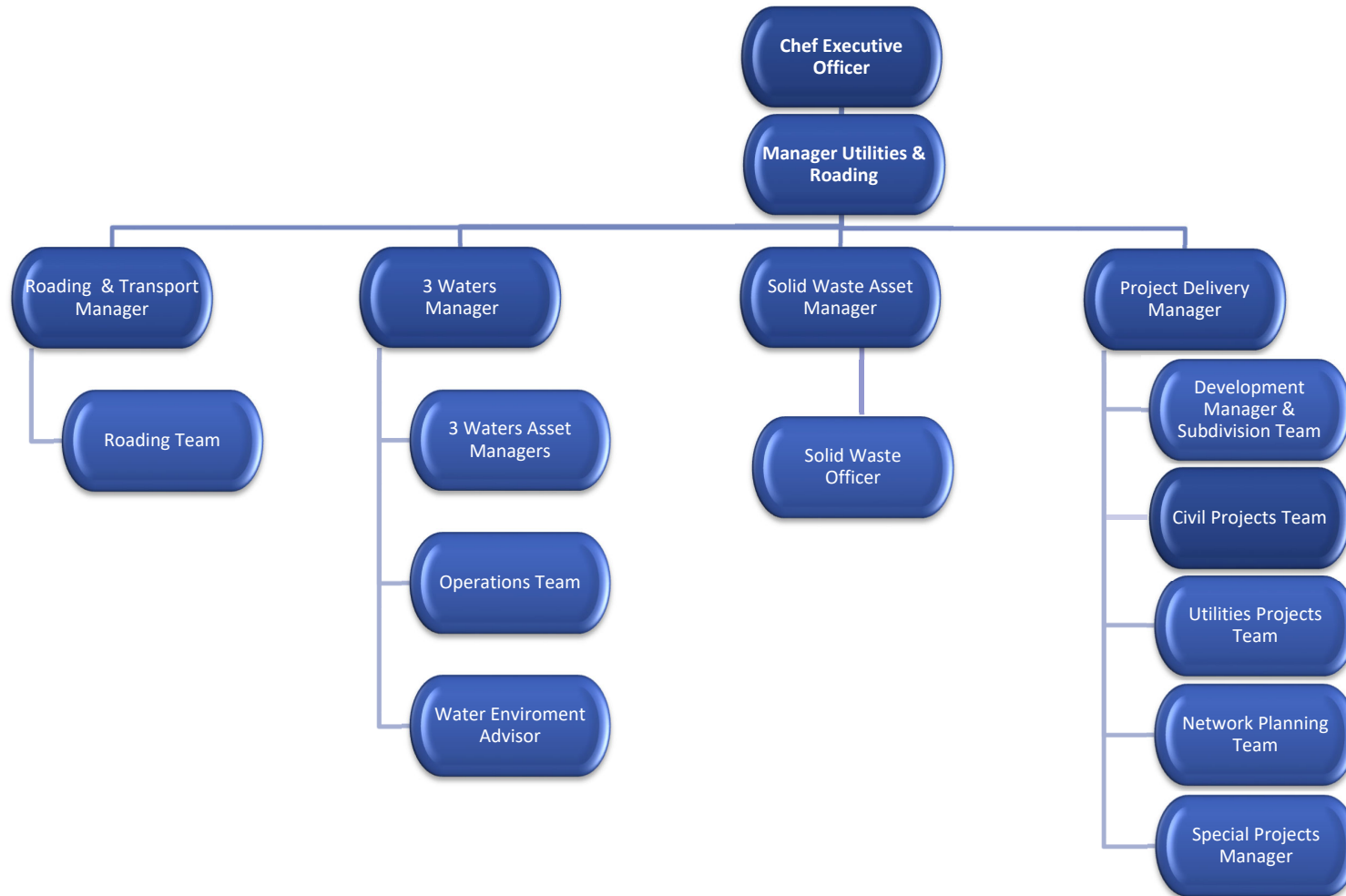
The Council's services progress the achievement of these outcomes by providing service levels that maintain community safety and public health, promote customer value for money and service efficiency, whilst protecting and enhancing the environment. These services provide the infrastructure that supports business development, population growth and healthy active lifestyles for residents.

6 ORGANISATIONAL CONTEXT

The Manager Utilities and Roading is responsible for developing, managing and maintaining Council infrastructural assets in accordance with sustainable asset management principals and plans.

The structure on the following page shows how the various responsibilities are delegated within the Utilities and Roading Department.

Figure 2: Utilities & Roding Organisational Chart



7 ASSET MANAGEMENT MATURITY FOR UTILITIES AND ROADING

The purpose of this section is to outline the process to determine the appropriate level of asset management to be adopted for the U&R activities.

The Council is replacing the legacy activity level based AM complexity assessment with the more updated Asset Management Maturity Assessment.

The AM Maturity Assessment methodology was developed by the NZ Treasury and National Infrastructure Unit in 2011 to help asset owners identify current and appropriate (target) levels of AM practice.

The assessment recognises that appropriate levels of AM practice can differ between AM practice areas and activities within an organisation.

The structured methodology considers 17 elements of AM practice for each activity and requires an assessment of current Asset Management practices against 5 defined levels of maturity:

- Aware
- Minimum
- Core
- Intermediate
- Advanced

The methodology also requires consideration, for each of the 17 elements, as to what level of maturity it is appropriate to try and achieve.

An AM Maturity Assessment has been carried out for the 3 Waters and Roading activity areas. For Roading the maturity level descriptions, outcome of the assessment, and the targets, are shown in section 8 (Asset management Practices) of the Roading AMP. For 3 Waters the descriptions, outcomes, and targets are appended to the Overview documents for each activity.

Outputs from regular maturity assessments will be used to focus improvement plan actions and update the AM Policy.

The existing 3-level AM complexity assessments will remain valid for the Stockwater and Solid Waste activities until an AM Maturity Assessment has been completed. For both of these activities Core has been assessed as the appropriate level of complexity to target in the 2015 AMP updates.

The characteristics of Core asset management are:

- Takes a lifecycle approach
- Is based on the best current information
- Includes a simple risk assessment
- Adopts existing levels of service
- Contrasts existing management with opportunities for improvement.
- Prioritises capital works
- Produces long term budgets for maintenance, rehabilitation and replacement.
- Provides performance measures for monitoring implementation

8 SUSTAINABILITY

The Council's approach to sustainability involves taking account of the needs of people and communities now, the reasonably foreseeable needs of future generations, and the need to maintain and enhance the quality of the environment.

This view, including the increasing public expectation for improving environmental outcomes is accommodated through the AMP and LTP review process. Budgets (long and short term) that estimate the costs of changing levels of service expectations are part of the AMP review process, and these are an input into the LTP budgets which then become available for public feedback.

Sustainability is by its nature an integral part of asset management. Its primary purpose is to maintain (and replace when necessary) infrastructural assets so as to ensure that a level of service that has been agreed with the community continues to be provided at least cost.

Economic sustainability is necessary for achieving intergenerational equity. By considering the whole lifecycle costs of assets and activities future costs and rates are projected. The value and life expectancy of all assets are determined and used to value annual depreciation. Depreciation is collected annually via rates which ensures that sufficient funding is available in the future to enable replacement of assets at the end of their useful lives. This mechanism ensures that current ratepayers are funding their portion of the use of an asset.

Details of the actions and approaches taken from a sustainability perspective for the different utility and roading activities, are set out in the Overview documents for water supply, wastewater and drainage, and in the individual AMPs, where appropriate, for roading, and solid waste.

Sustainability under the Treaty of Waitangi

The Council has a good working relationship with Te Ngai Tuahuriri Runanga which is sustained on a regular monthly basis with meetings with the Runanga at which any significant activities or issues are discussed.

The relationship between the Council and the Runanga is guided by a Memorandum of Understanding.

A good working relationship between the Council and the Runanga helps ensure that decisions of significance to Maori are made in a mutually agreed way following the principles of sustainability.

Meetings are held at staff level every two months with Ngai Tuahuriri, which allows the opportunity for either party to raise issues of interest or concern.

9 HOW DO WE REACH OPTIMAL DECISIONS?

9.1 Optimised Decision Making

This section outlines the Council's approach to optimised decision making, in particular relating to capital works expenditure. It outlines some of the processes the Council goes through to ensure that expenditure is optimised and discusses the different levels of optimisation that are applied to various projects.

For the purposes of this plan we have defined optimised decision making as a process to ensure efficiency and prioritise all potential solutions with consideration of financial viability, and meeting community outcomes.

The Council applies differing levels of optimisation to projects, depending on a number of factors, including the relative value (or effect on ratepayers) of a project, the risks, the degree of public interest, and when the works are planned.

The timing of a project is an important factor in selecting an appropriate level of optimisation. The reason for this being that as the length of time before the project is undertaken increases the likelihood of something changing increases substantially, such as the predicted growth, the project cost, or even the need for the solution.

For the reasons discussed above, the Council considers that developing a solution to a very high level of optimisation is generally only appropriate if that project is likely to be undertaken within the next three years (the life of an AMP version and the 10 Year Plan cycle).

To some extent, all works included in the Activity Management Plans have undergone a degree of optimisation. The reason for this being that the preparation of an Activity Management Plan is a structured and formal process involving consideration of levels of service, condition, risk, growth, performance and capacity. Therefore, it can generally be concluded that a project identified through the AMP process has undergone a robust assessment of the project need, which is one of the key steps in optimising a project. This has been reinforced more recently with the Council wide requirement to supply a Project Justification form for all projects of greater estimated value than \$250,000. This is in effect a mini BBC. Details of the components of the form are explained in the 3 Waters Overview documents.

For the Roding Activity, the optimisation (prioritisation) of projects is determined by Council strategies, plans and models, community consultation through the Long term Plan, and where appropriate NZTA requirements.

9.2 An Optimisation Process

The following gives an example of a typical process that the Council would apply to a project requiring a high level of optimisation. The example used to demonstrate the process is that of developing a new source for a water supply:

- 1) Define problem
- 2) Identify options
- 3) Assess and evaluate options, including the following assessments:
 - (a) Current and desired level of service
 - (b) Legislative requirements
 - (c) Growth projections
 - (d) Disaster resilience
 - (e) Lifecycle cost
 - (f) Impact on rates (short and long term)
 - (g) Likely effectiveness of the solution
 - (h) Environmental impact
 - (i) Ease of consenting
 - (j) Risks (including reliability of costs)
 - (k) Political and Public considerations (including public consultation)
- 4) Determine optimal solution

By including the political and public considerations in the optimised decision making process, it is acknowledged that there are both technical and non-technical drivers for an optimal solution.

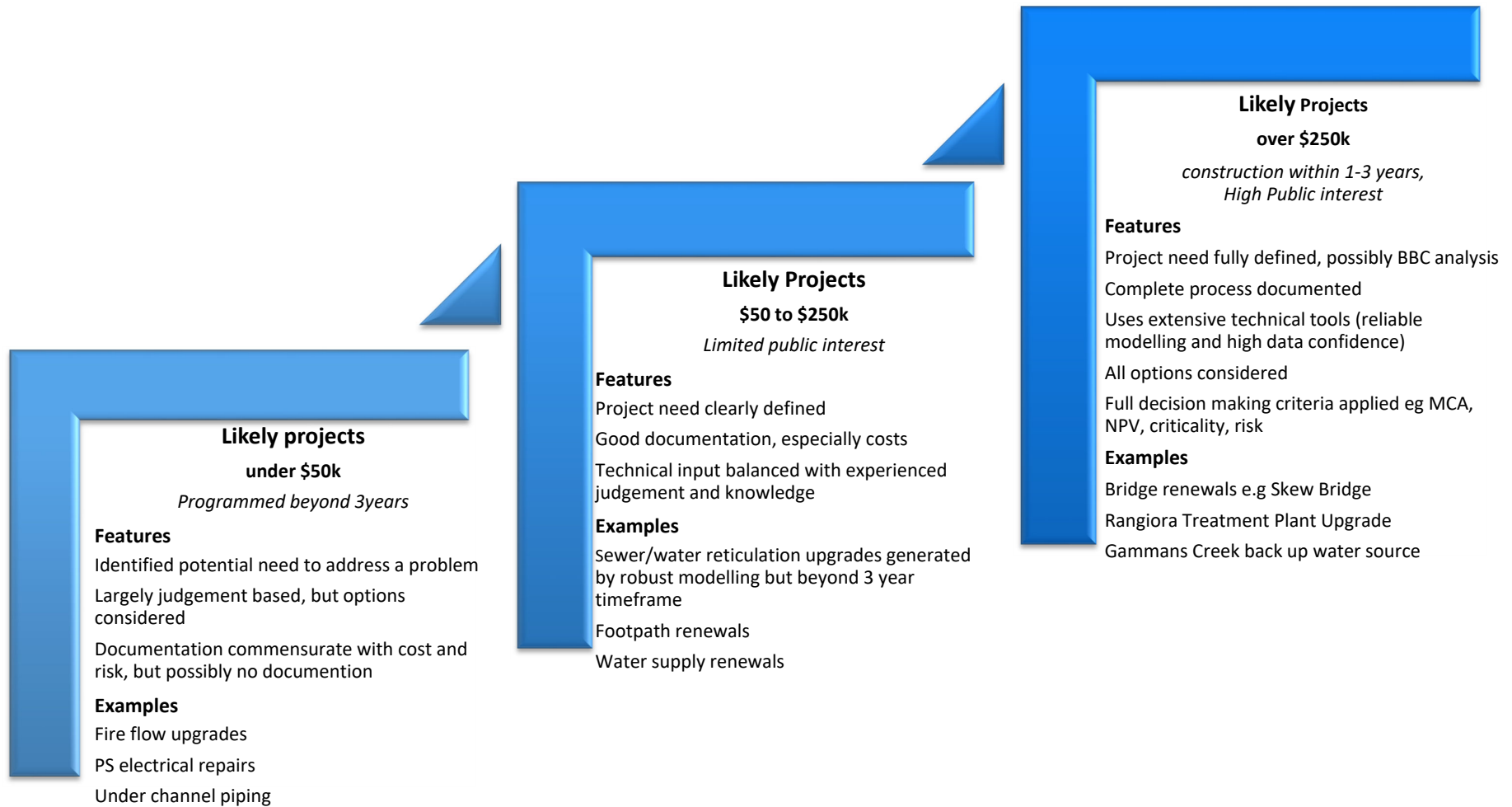
It should also be noted that the process of assessing and evaluating the options against the criteria in (a)-(k) above, helps to ensure that the Council is implementing sustainable solutions.

The above example highlights the process the Council would typically follow when a solution required a high level of optimisation. However, it is important to acknowledge that some projects or solutions are developed to a much higher level of optimisation than others.

The Council aims to be transparent about the level of optimisation applied to different projects. For this reason, the Water and Sewer AMPs include an assessment of the level of optimisation any capital works project has been developed to. This can be found in the table of future works in Section 4 (Future Works and Financial Projections) of each of the individual scheme AMPs.

The level of optimisation can be High, Medium, or Low. The work required to achieve each of these levels, and the situations when they may be appropriate, are summarised in Figure 3 below

Figure 3: Tiered Approach to Optimised Decision Making



10 PROJECT DEVELOPMENT AND APPROVAL

Public Engagement

Capital projects are developed in order to meet the needs of growth, renewal, or levels of service (LOS).

While LOS for each activity have not changed substantially since 2005, they are reviewed and updated as part of the three yearly AMP review process. Projects that are needed to ensure LOS are met are subsequently identified, and then included in long term capital and operational budgets. The key LOS and accompanying budgets form part of the LTP, which goes out for public consultation.

There is also a need to engage with the public on specific services and issues outside of the LTP process.

Examples include where upgrades have been undertaken for a number of water supplies, driven primarily by the need to meet the Drinking Water Standards for New Zealand. Where there have been options available to meet this requirement, with different costs and risks associated with each option, a specific detailed engagement programme is carried out to seek the views of those affected, with specific liaison groups being established. Recent examples of these consultative exercises include the Garrymere, Poyntzs Road, and Cust upgrade projects.

Financial Approval

The Council operates a thorough and robust approval process. The delegations from the Council to the Chief Executive are clearly defined in the Councils delegations Manual. These delegations also define the limits of authority for Department and Unit Managers.

Overall the Ten Year Plan (LTP) is the major vehicle for approval of expenditure. This document is revised and approved by Council every three years. Each other year the Annual Plan is the process whereby the Council approves the following year's expenditure.

Prior to inclusion in the Annual Plan or the Ten Year Plan, each substantial project will normally have been subject to approval by the Council's Utilities and Roading (U&R) Committee. The U&R committee will be briefed by Council staff on major issues and projects and they will make major decisions on these issues. Any projects that then require operational or capital expenditure will be recommended by the Utilities and Roading Committee for adoption by the Council in the next Annual Plan or Ten Year Plan.

Major Project Consultation

There are specific projects within each activity that have been or will be subject to major consultation and approval exercises. Examples of these, both short term and long term are:

- Upgrades to Southbrook Road
- Replacement of Skewbridge
- Confirming the need for the eastern arterial route
- Participation in Water Reform
- Management of rising coastal groundwater from sea level rise
- Kaiapoi wastewater network upgrade

11 AMP REVIEW AND AUDIT PROCESS

Council has an Asset Management Policy to guide and provide consistency to its asset management planning. An Asset Management Steering Group has also been set up, with representatives from all relevant Council departments included. The Steering Group objectives are:

- To coordinate a more consistent approach to asset management practice across Council departments.
- To support the application of the Asset Management Policy.
- To support continuous improvement of asset management practice.

The 2018 Utilities and Rooding AMPs were externally peer reviewed by Infrastructure Associates, but the timeframe to publishing was too short to enable incorporation of all suggested improvements. The recommendations from that peer review have been taken into account in the 2021 AMP review process.

For the water supply, wastewater, drainage, and stockwater AMPs, the documents have been updated by the respective activity Asset Managers, with support from the Council's Project Delivery Unit, and the Infrastructure Strategy Manager. The Rooding Activity Management Plan was prepared by the Rooding Asset Planning Engineer and reviewed by the Rooding Manager. The Solid Waste Activity Management Plan was prepared by the Solid Waste Asset Manager. These documents were then reviewed by the Manager Utilities and Rooding.

An overview of the Activity Management Plans was presented in a report to the Utilities and Rooding Committee in December, which provided an opportunity for Councillors to understand the context of asset management planning and what it expects to achieve. Plans were formally presented in a report to Council for approval to use as part of the consultation process on 23rd Feb 2021. Any changes in the AMPs resulting from the LTP consultation process, have been addressed in AMP's by the addition of an addendum where appropriate.

The draft 2021 AMP's have again be peer reviewed by Infrastructure Associates. The Introductory Chapter, the 3 Waters Overview documents, the Rooding AMP, Solid Waste AMP and a representative sampling of the 3 Waters AMP's have been peer reviewed. Where time permits, amendments in response to the peer review will be made prior to placement of the AMP's on Councils website in June 2021. Otherwise amendments will be made at the next AMP review.

The Rooding valuations that were revised in 2020 were prepared by Stantec and externally peer reviewed By Brian Smith, and were then reviewed by the Rooding Manager.

The other three yearly valuation of assets was carried out in 2020 and peer reviewed by WSP NZ Ltd. The construction rates used to derive the 2020 valuations of Council assets, are also used as the basis for the capital project estimates which form one of the more significant outputs from the AMP revision.

Under the Local Government Act 2002 Audit New Zealand are required to audit the Long Term Plan. This includes the underlying asset management plans. For this LTP Audit New Zealand took an overview level audit of the suite of 3 Waters Activity Management Plans, and the Rooding AMP.

12 EARTHQUAKES

Repairs to infrastructure damaged by the 2010/11 earthquake series are now complete. Any legacy issues which remain have been taken into account in the review of the AMP, and any projects identified to build resilience to any future earthquakes have been included in the revised AMPs as business-as-usual projects.

The overall planning for the infrastructure within the Kaiapoi Regeneration areas (formerly known as Residential Red Zone) is complete, and construction implementation has been underway for some time.

13 LOOKING FORWARD

As for the 2018 documents, the 2021 suite of AMPs are part of a process of continuing effort to improve Utilities and Roading AMPs. A component of the AMP review process is to identify shortcomings in processes and practices and scope out projects that will help to fill the gaps. Improvement Plans are an integral part of asset management and have been produced for all of the 2021 Utilities and Roading AMPs. In the case of 3 waters AMPs one combined Improvement Plan has been developed that covers all of the individual AMPs, with projects that affect or are specific to individual AMP's covered in each scheme AMP. The overall programme can be found here - [2021 3 Waters Improvement Programme](#)

For Roading, one chapter covers the proposed improvements. While previously improvements have been directly related to the AMP Sections, this year the Improvement Plan process follows the Road Efficiency Group Pillars approach, which is more focused on the activity through its lifecycle plus any supporting processes such as communication.

Progress has been steady on some of these projects, while for others progress has been slow.

For 3 Waters, in the last LTP period, phase 1 of implementing an asset management information system has been completed, which enables field recording of asset data direct into the asset register by Council's maintenance contractor. Phase 2, due for implementation in the coming LTP period, will permit facility maintenance scheduling to be managed through the system.

For Roading, considerable progress has been made on updating and correcting asset data. There will be more extensive reporting back on network and performance for the new physical works contracts. Greater use of spatial representation of data, both for coordination with other Utilities, such as 3 Waters, and for better analysis of influences on network condition has commenced and will be further utilised in the new AMP.

For Solid Waste, work will continue on identified shortcomings in the data, including asset valuation at component level, condition rating, criticality assessment, facility capacity and risk assessment. Current confidence is low, and will improve with this planned work.

14 APPENDIX A - List of AMP documents and their TRIM reference Numbers

Roading

Section/Appendix	Scheme / Document Reference	TRIM Number
Section 1	Executive Summary Waimakariri Transport AMP 2021	201208166991
Section 2	Introduction Waimakariri Transport AMP 2021	201208166992
Section 3	Levels Of Service Waimakariri Transport AMP 2021	201208166993
Section 4	Future Demand Waimakariri Transport AMP 2021	201208166995
Section 5	Risk Management Waimakariri Transport AMP 2021	201208167107
Section 6	Life Cycle Management Plan Waimakariri Transport AMP 2021	201208166996
Section 7	Financial Summary Waimakariri Transport AMP 2021	201208166997
Section 8	Asset Management Practices Waimakariri Transport AMP 2021	201208166998
Section 9	Plan Improvement And Monitoring Waimakariri Transport AMP 2021	201208166999
Appendix A	Glossary of Terms Waimakariri Transport AMP 2021	201208167000
Appendix B	Strategic Business Case Waimakariri Transport AMP 2021	201208167001
Appendix C	Maintenance Contract Level Of Services Waimakariri Transport AMP 2021	201208167002
Appendix D	Roading Valuation Report Waimakariri Transport AMP 2021	201208167003
Appendix E	Risk Management Waimakariri Transport AMP 2021	201215171784

Water Supply

Scheme / Document Reference	TRIM Number
Water Supply AMP Overview Document 2021	200120006283
Rangiora Water Supply Scheme AMP 2021	200120006291
Kaiapoi (including Pines/ Kairaki) AMP 2021	200120006318
Pegasus/Woodend Water Supply Scheme AMP 2021	200120006288
Oxford Urban & Oxford Rural No2 Scheme AMP 2021	200120006286
Oxford Rural No. 1 Water Supply Scheme AMP 2021	200120006298
Waikuku Beach Water Supply Scheme AMP 2021	200120006307
Cust Water Supply Scheme AMP 2021	200120006305
Mandeville/Fernside Water Supply Scheme AMP 2021	200120006303
Summerhill/West Eyreton Water Supply Scheme AMP 2021	200120006309
Ohoka Water Supply Scheme AMP 2021	200120006311
Poyntzs Road Water Supply Scheme AMP 2021	200120006292
Garrymere Water Supply Scheme AMP 2021	200120006317

Wastewater

Scheme / Document Reference	TRIM Number
Wastewater AMP Overview Document 2021	200120006527
Eastern District's Wastewater Scheme AMP 2021	200120006525
Rangiora Wastewater Scheme AMP 2021	200120006521
Kaiapoi Wastewater Scheme AMP 2021	200120006504
Woodend Wastewater Scheme AMP 2021	200120006520
Pegasus Wastewater Scheme AMP 2021	200120006515
Waikuku Beach Wastewater Scheme AMP 2021	200120006524
Mandeville Wastewater Scheme AMP 2021	200120006508
Pines/Kairaki Wastewater Scheme AMP 2021	200120006516
Tuahiwi Wastewater Scheme AMP 2021	200120006523
Woodend Beach Wastewater Scheme AMP 2021	200120006518
Oxford Wastewater Scheme AMP 2021	200120006513
Loburn Lea Wastewater Scheme AMP 2021	200120006506

Drainage

Scheme / Document Reference	TRIM Number
Drainage AMP Overview Document 2021	200120006602
Coastal Urban Drainage Scheme AMP 2021	200120006582
Pegasus Urban Drainage Scheme AMP 2021	200120006578
Oxford Rural Drainage Scheme AMP 2021	200120006595
Ohoka Rural Drainage Scheme AMP 2021	200120006593
Loburn Lea Rural Drainage Scheme AMP 2021	200120006590
Kaiapoi Urban Drainage Scheme AMP 2021	200120006577
Coastal Rural Drainage Scheme AMP 2021	200120006585
Clarkville Rural Drainage Scheme AMP 2021	200120006586
Oxford Urban Drainage Scheme AMP 2021	200120006576
Cust Rural Drainage Scheme AMP 2021	200120006587
Rangiora Urban Drainage Scheme AMP 2021	200120006574
Central Rural Drainage Scheme AMP 2021	200120006583

Stock Water

Scheme / Document Reference	TRIM Number
Stock Water Race AMP 2021	200819107116

Solid Waste

Scheme / Document Reference	TRIM Number
Solid Waste AMP 2021	201016139173

Waimakariri District Council

Desktop Review of the Water Supply Activity Management Plans

Prepared by David Jeffrey
Infrastructure Associates Ltd

January 2021

Contents

Executive Summary	1
Key Findings	1
1. Introduction	3
1.1 Background	3
1.2 Asset Management	3
1.3 Desktop Review	3
1.4 Weighting for Overall Score	4
2. Water Supply AMPs Results	5
2.1 Summary Results	5
2.2 Detailed Results	6

Tables

Table 1: Key to Scoring Crossbar for Overall Results	5
Table 2: Key to Scoring Crossbar for Process of Development	6
Table 3: Key to Scoring Crossbar for Links to Other Planning Documents	8
Table 4: Key to Scoring Crossbar for Growth and Demand Management	10
Table 5: Key to Scoring Crossbar for Levels of Service	12
Table 6: Key to Scoring Crossbar for Asset Systems and Data	14
Table 7: Key to Scoring Crossbar for Financial Information	16
Table 8: Key to Scoring Crossbar for Lifecycle Management Practices	18
Table 9: Key to Scoring Crossbar for Risk Management	20
Table 10: Key to Scoring Crossbar for ODM	22
Table 11: Key to Scoring Crossbar for Improvement Programme	24

Executive Summary

Waimakariri District Council (WDC) has requested a desktop review to be undertaken of the Water Supply Asset suite of Activity Management Plans (AMPs) to ensure legal requirements are met, to identify and prioritise any gaps in the AMP document and focus asset management efforts over the next period. WDC has an overall goal of improving asset management to an advanced level over time.

This review is of the Water Supply set of AMP documents prepared in 2020 for the LTP period commencing in July 2021. The reviewed documents were:

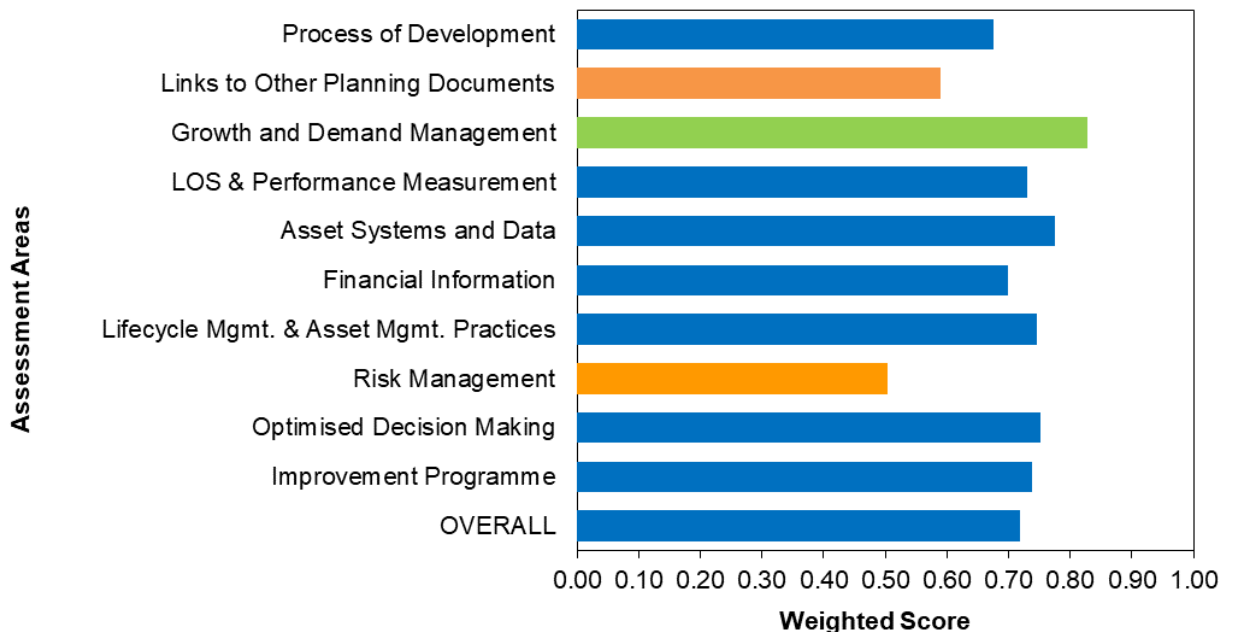
1. Activity Management Plan 2021 – Utilities & Roading Introductory Chapter
2. Activity Management Plan 2021 - Water Supply District Overview
3. Activity Management Plan 2021 - Rangiora Water Supply Scheme (one of fifteen scheme plans)

Key Findings

Ten assessment areas have been reviewed to assess the overall completeness and depth of the Water Supply AMPs. The overall score was **0.72 out of a maximum score of 1.00** which is at the intermediate level of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Water Supply activity of a score level of 0.70 (or better).

The AMP showed strengths and weaknesses in different assessment areas as demonstrated in Figure 1.

Figure 1: Overall Score



Overall, it is clear that Council has implemented a number of recommendations made in the 2018 AMP review. The suite of AMP documents are considered to be a clear demonstration of Waimakariri DC sound stewardship of the water assets.

The Introductory Chapter sets out the framework for the roading and utilities activity management plans. It is easy to follow, well-structured and the language is clear and concise.

The Water Supply AMP provides an overall framework and summarises the scheme plans. The Water Supply AMP on the whole is well written and links well with the scheme plans.

The scheme plans provide a more detailed view of the rationale for investment in the schemes and the way they are being managed. The analysis was clear and logical, and an Executive Summary highlighting the key points has been added. The scheme plans include good use of maps and tables, and set out the local issues clearly.

Two areas for the AMPs to focus on in the next generation are consideration of the options differing levels of service and the cost/risk implications, and secondly ensuring that the plans clearly show the linkage between analysis and capital and operational investment decisions. It is not always clear in the plans why particular projects are needed. The trend in asset management planning over the last five years has to develop plans that act as an overall business case for asset related expenditure. They should both provide the evidence base and the strategic case for investment, and complement the better business case process. Some more detail about the rationale for large capital projects and significant renewals would strengthen the case and provide decision makers more surety that investment is targeted in the right areas.

The suite of AMP documents related to Water Supply are strongest in the growth and demand management, levels of service, asset systems and data, lifecycle management and Improvement Programme areas. This report provides twelve high priority actions that WDC should review immediately. The remaining recommendations have been prioritised as medium or low and should be considered for implementation over a period of time.

1. Introduction

1.1 Background

Waimakariri District Council (WDC) engaged Infrastructure Associates Ltd to undertake a desktop review of the Water Supply Asset Management Plan (AMP). The objective of this assessment is to focus on the overall structure of the AMP and to highlight the improvements required to meet statutory and best practice requirements.

1.2 Asset Management

Asset Management is the means of planning at a strategic and tactical level for infrastructure. Traditional management of infrastructure has separated capital expenditure on new assets from operation, maintenance and renewal/rehabilitation of existing assets. This creates a situation where capital expenditure decisions are made with no consideration of “Consequential Opex”. This most often occurs in a reactive way with little regard to levels of service, working knowledge of what customers actually expect, and little knowledge of what assets exist, what condition they are in, or how they will fail.

One of the main challenges is to ensure that financial resources are available to adequately fund new works, whilst funding the appropriate level of maintenance on existing assets. The major tool to assist WDC is the AMP, which assists in forward planning so that informed decisions can be made in the face of these competing priorities.

The application of Asset Management principles encourages a holistic, integrated approach inevitably affecting where and how finances and resources are allocated. Most infrastructure organisations utilise guidance material produced by NAMS (in particular the International Infrastructure Management Manual 2015) which includes Local Government Act and Office of the Auditor General requirements. This review has used a checklist and scoring framework developed from good practice as outlined in the International Infrastructure Management Manual 2020.

1.3 Desktop Review

A desktop review was undertaken on the following AMP documents:

- Activity Management Plan 2021 – Utilities & Roading Introductory Chapter
- Activity Management Plan 2021 - Water Supply District Overview
- Activity Management Plan 2021 - Rangiora Water Supply Scheme (one of fifteen scheme plans)

1.4 Weighting for Overall Score

The AMP has been reviewed against a range of criteria under ten aspects of the asset management framework. Each of these aspects listed on the review form was used to assess and score the AMP with a weighting used to obtain the overall score.

Each asset management aspect is weighted as follows:

Assessment Areas	Weighting
Process of Development	5%
Links to Other Planning Documents	5%
Growth and Demand Management	15%
Levels of Service and Performance Measurement	15%
Asset Systems and Data	10%
Financial Information	10%
Life Cycle Management Practices	15%
Risk Management	10%
Optimised Decision Making	10%
Improvement Programme	5%

The following report sections outline the summary and detailed results for each assessment area noting strengths and areas for potential improvement. Key recommended improvement areas have been summarised in each section to assist WDC in focusing on those areas which will provide the greatest benefit.

2. Water Supply AMPs Results

2.1 Summary Results

The Water Supply AMPs has gained an **overall score of 0.72 out of a maximum score of 1.00**, which is at the **intermediate level** of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Water Supply activity of a score level of 0.70.

Ten assessment areas have been developed to assess the overall completeness and depth of the AMP and a summary of the results are illustrated in Figure 2 below.

Figure 2: Summary Results for Waimakariri District Council Water Supply AMPs

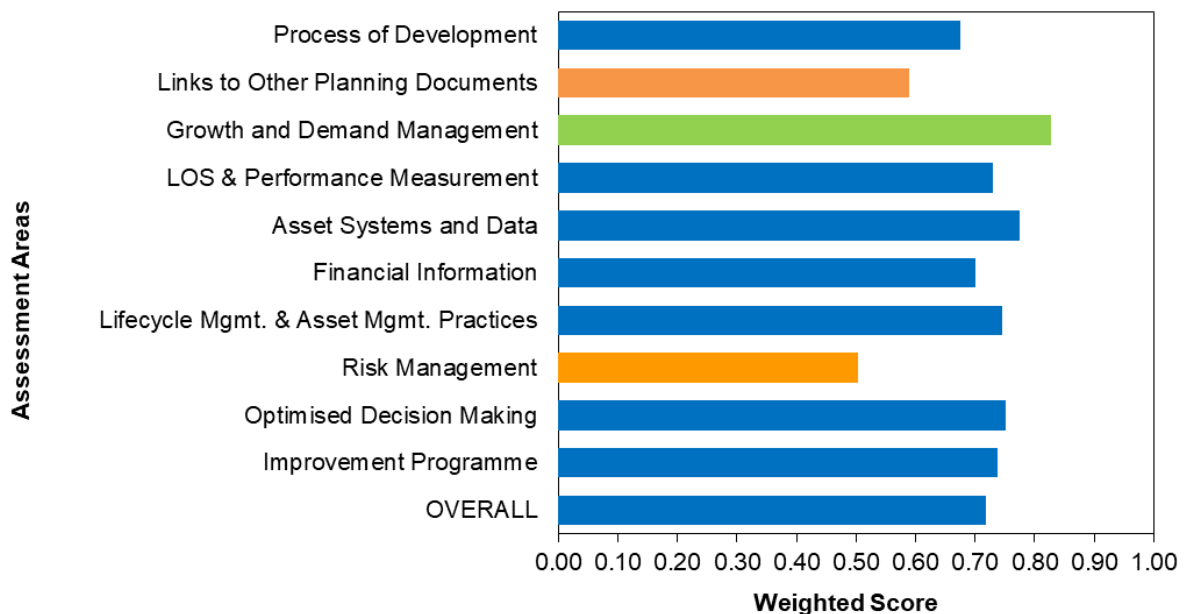


Table 1: Key to Scoring Crossbar for Overall Results

0.00 - 0.40	Minimum	AMP is considered to be poorly developed and at a Minimum level of maturity. The AMP doesn't outline the basic asset management practices, systems or information necessary to manage the assets.
0.41 - 0.60	Core	AMP is considered to be at a Core level. Although the AMP outlines asset management practice systems and information it does so in a perfunctory way indicating there is no depth to the analysis. There is limited confidence in the robustness of long term financial forecasts and the decision-making analysis.
0.61 - 0.80	Intermediate	AMP is considered to be at an Intermediate level. There is a clear articulation of most asset management practices. There is reasonable confidence that long term financial forecasts are robust and decision making is sound.
0.81 - 1.00	Advanced	AMP is considered to be Advanced. The AMP information is strong and convincing in all aspects. There is high confidence in long term financial forecasts and the way options are analysed and decisions made.

2.2 Detailed Results

Outlined below is a summary of each of the assessed areas of the AMP.

2.2.1 Process of Development

This aspect of the AMP review is to assess the process of development of the AMP.

Good practice around the AMP development includes:

- Multi-disciplinary involvement in preparing the plan (i.e. engineers, planners, finance personnel).
- Sound internal QA of the AMP development.
- Sound external QA of the AMP development.
- Approval of the AMP at executive management level and at council level.
- Regular refreshment of the AMP so that it is up to date, preferably at least annually.

Table 2: Key to Scoring Crossbar for Process of Development

Score Ranges	Score	Definition
0.00 - 0.40		Minimum process of AMP development. Ad hoc method of preparation with narrow input and little QA. AMP likely to be very old and not properly approved.
0.41 - 0.60		Core process used to develop AMP. Evidence of some QA and formality in planning. AMP has been approved.
0.61 - 0.80	0.68	Intermediate AMP development process. Sound processes used to prepare, QA and approve AMP. Involvement by a wide range of disciplines.
0.81 - 1.00		Advanced development process. Clear and convincing evidence of formal development, effective internal and external QA.

Process of Development Observations

- During the last review in 2018, a number of minor improvements were recommended that would give auditors assurance on the process of AMP development. These improvements have been largely implemented.
- The Water Supply set of AMP documents prepared in 2020 for the LTP period commencing in July 2021. **There were a number of elements of the AMP that have been promised to be refreshed since the last review, however some sections such as the disaster resilience assessment are still to be improved.**
- There are some minor changes required to align the structure of the Water Supply and scheme AMPs which will assist with the documents being read together. These changes are noted in the recommendations below.
- An AM Maturity Assessment has been carried out for the 3 Waters and Roding activity areas. The maturity assessment reviews the processes and practices that underlie good asset management planning practices. It would be expected that Waimakariri have intermediate level maturity for all

asset related activities. It is recommended that Waimakariri **undertake an externally peer reviewed maturity assessment every 3 years**, and an internal assessment annually to monitor progress.

- The Water Supply AMP documents adopt a standardised framework that provides consistency across the different WDC asset groups, and avoids repetition of common information.
- The AMP has not yet been approved by Council, but the documents reviewed are in draft and are yet to be presented to Council. The appropriate Waimakariri DC managers have approved the draft which is shown in the newly introduced document control page.
- There is little reference to external input into the AMP or any reference to current or previous LTP consultation processes. **It is not clear whether Water Supply Schemes have scheme representatives and whether they have any input into the plans. There is no specific reference in the AMP of the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan.** LGA 2002 Schedule 10 – 8
- The only reference to other involvement in the plan is the Planning Department providing growth information or reference to any other technical reports.
- The AMP is reviewed by external independent consultant.
- An Executive Summary has been added to the scheme plans that highlights the key points effectively.
- A new section on Resource Consents has been added to the Scheme Plans.

Process of Development Recommendations

Action	Priority
Provide greater assurance to the reader on the robustness of AMP development process by demonstrating how the plan utilised sound project management techniques (could add as an appendix so that it doesn't detract from the body of the plans)	Medium
Add references to any external input into the AMP or any reference to current or previous LTP consultation processes.	Medium
Document how stakeholders are engaged with during the LTP consultation process and note the involvement in the plans of Water Supply schemes representatives.	Medium
Add reference in the AMP to the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan.	Medium
List any contributors to the AMP (both internal and external) and representatives in the Asset Management Team to demonstrate that there is input from a wide cross-section of council staff.	Medium

2.2.2 Link to Other Planning Documents

This aspect of the review is to assess how well the AMP references and shows the connections with other plans. AMPs do not sit in a planning vacuum. There will be overarching plans (such as the Long-Term Plan (LTP) and District Plan) and other plans (e.g. Infrastructure Strategy, and Procurement Policies/Plans).

AMP good practice in this respect will include:

- Wiring diagrams of plan relationship and hierarchies.
- A brief description of the linked plans.
- The nature of the relationship or the major connection features.
- How those other plans can be accessed.
- What gaps or omissions need to be rectified in future plans.

Table 3: Key to Scoring Crossbar for Links to Other Planning Documents

Score Ranges	Score	Definition
0.00 - 0.40		Minimum links or non-identification of links for both external and internal plans. No perception given on relationships and the issues that arise from the various plans.
0.41 - 0.60	0.59	Core explanations of the various plans and their linkages, but not very clear, or the issues not explained.
0.61 - 0.80		Intermediate explanation of other plans, both external and internal and how they relate to the AMP. Linkage issues are explained.
0.81 - 1.00		Advanced narratives and wiring flowchart descriptions of all the plans connected with the AMP.

Link to Other Planning Documents Observations

- The set of AMP documents link well between the Introductory Chapter, the Water Supply AMP and the scheme plans. The Introductory Chapter outlines the key infrastructure AMPs and ties them together across the asset groups.
- The linkage of documents to the Scheme plans has been improved since the last review.
- The AMP documents demonstrate better linkages to other Council documents and other water related planning or technical documents. It is still recommended that a table or diagram of relevant documents be shown in the Water Supply Activity management Plan Overview.
- There are some references water safety plans, noting that projects have been generated from the plans. **More detail about the projects from the water safety Plans could be included in the AMP.**
- **It is difficult to determine the connection between the AMP documents and the District Plan**
- The funding section refers briefly to the Revenue and Funding Policy.
- Section 11 of the water Supply AMP notes that the growth scenario was supplied by Council's Development Planning Unit, and a reference to the growth document is supplied.

- The AMP should refer to, and **provide a summary of**, Councils Significance Policy in accordance with LGA 2002 Schedule 10 – 11, however there does appear to be mention of it in the Water Supply AMP documents.
- The Introductory Chapters note the Community Outcomes that are relevant to infrastructure assets as a whole. In the Water Supply AMP Community Outcomes are now included in the Performance Measures table, and council's response is included in Appendix 4.
- Section 21 of the Water Supply AMP outlines the significant negative effects of the activity on social, economic, environmental or cultural well-being of the local community as per LGA 2002 Schedule 10 – 2 (1) (c)"
- There is no mention of a Water and Sanitary Services Assessment (per Section 125 of the LGA). A long-term plan for a territorial authority must identify and explain any significant variation between the proposals outlined in the LTP and the territorial authority's (a) assessment of water and other sanitary services under Section 125; (b) waste management and minimisation plans adopted under Section 43 of the Waste Minimisation Act 2008. LGA 2002 Schedule 10, reprint 1 Jan 2014, 6 (b).

Link to Other Planning Documents Recommendations

This element has improved significantly from the previous review. The improvements are intended to satisfy auditors need to see linkages between council planning documents and also to provide the reader a greater level of confidence.

Action	Priority
Add diagram or table In Water Supply AMP to show how the documents relate to other planning or technical documents	Medium
Add information about projects from the Water Safety Plan into the AMP.	Medium
Reference the District Plan within relevant sections of Water Supply AMP.	Medium
Provide a summary of Council's Significance Policy in accordance with LGA 2002 Schedule 10 – 11 in the Water Supply AMP.	Medium
Explain any Water and Sanitary Services Assessments (per Section 125 of the LGA) undertaken by council.	Medium
Add a reference section to the documents or add footnotes with references.	Medium

2.2.3 Growth and Demand Management

Good practice in demand management for Water Supply AMPs will include:

- Comprehensively listing the factors that influence demand (demand drivers).
- Identifying the models & analysis used to assess the impact of the above factors on future demand.
- Demand management options via asset solutions (e.g. building or extending assets).
- Demand management options via non-asset solutions (e.g. shifting demand at peak times).
- Implementation of demand management strategies.

Table 4: Key to Scoring Crossbar for Growth and Demand Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum demand management information. Few factors listed, little in the way of analysis and no clear way ahead signalled as to how to handle future demand.
0.41 - 0.60		Core demand management information. Reasonable listing of demand factors. Some analysis. Potential asset/non-asset solutions identified but only in a general way.
0.61 - 0.80		Intermediate demand management information. Broad spectrum of factors listed with good basic analysis. Specific asset and non-asset solutions listed.
0.81 - 1.00	0.83	Advanced demand management. Thorough and convincing listing and analysis of demand factors and specific solutions are detailed.

Growth and Demand Observations

- The AMP documents contains a good discussion on demand implications of population growth that are specific to water supply. The AMP recognises that further analysis of other demand factors (such as industrial, agricultural and horticultural consumption trends, residential water consumption trends, and climatic influence) should be considered in future.
- The analysis of demand trends is very clearly articulated within the scheme plans, which follow a logical and structured analysis of demand, without sophisticated modelling processes. The growth projections are considered along with existing capacity to determine the timing and required capacity over the next 50 years. The scheme plans very clearly articulate the new asset requirements resulting from growth requirements.
- **There is little mention of non-asset solutions such as demand management or active leak control.** Water losses are a mandatory performance measure, but it is not clear whether WDC is planning to actively reduce losses.
- There appears to be a consistent approach between the AMP and LTP
- A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements, however this may not be achievable in time for the final plans.

Growth and Demand Recommendations

Action	Priority
There is little mention of non-asset solutions such as demand management or active leak control.	Medium
Add additional information about Council's approach to water loss.	Medium
A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements, however this may not be achievable in time for the final plans.	Medium

2.2.4 Levels of Service

Levels of Service (LoS) statements are defined as: “Levels of Service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.” (Source IIMM, International Edition 2011).

Service attributes (service criteria) often relate to: “Aspects or characteristics of a service such as accessibility, affordability/cost, efficiency, quality, quantity, reliability, responsiveness, safety”. (Source IIMM, International Edition 2011).

Good practice in relation to LoS include:

- Showing how LoS fit into WDC’s performance reporting.
- Indicating how LoS are developed and agreed with customers (users) and stakeholders e.g. critical customers such as hospitals.
- Categorising LoS into quality, safety, affordability, etc (Core Values in the IIMM).
- Ensuring there are current and future targets for each LoS category.
- Ensuring there are systems to measure, monitor and report actual LoS in comparison with targets.
- Analysing LoS targets into both customer language and technical management language.

Table 5: Key to Scoring Crossbar for Levels of Service

Score Ranges	Score	Definition
0.00 - 0.40		Minimum LoS information. No indication of how LoS arrived at. LoS characteristics lacking depth. Targets poorly stated with unclear measurement systems.
0.41 - 0.60		Core LoS information. LoS development is indicated in a general way. The LoS categories are reasonable but not well developed. Targets and measures are stated in a basic fashion.
0.61 - 0.80	0.73	Intermediate LoS information. AMP explains how LoS have been developed and how they fit into the LoS hierarchy. There is consistency between high level plans and AMP. Gaps in LoS information and process outlined with measures to close gaps.
0.81 - 1.00		Advanced LoS information. Clear and transparent framework. Targets and measures exist for all LoS categories and are well explained in both customer speak and technical speak.

Levels of Service Observations

- Section 4 of the Water Supply AMP describes the sources of the levels of service, and the changes since the last LTP. The linkage from council strategies and Community Outcomes to levels of service needs to be strengthened. There is brief reference to consultation through the LTP process but no analysis of outcomes from the consultation.
- Levels of service cover the broad spectrum of likely values, however they could be improved by including district measures on the surety of supply, fire service compliance and/or water flow measures.
- The levels of service are clear and well defined. However, it is recommended that actual performance be provided along with an explanation of variances, rather than a simple yes/no answer as to whether targets have been met.

- Customer measures are shown in the Water Supply AMP and technical measures in the scheme AMPs. The linkage between customer and technical measures could be improved. In addition, it is recommended that targets be shown in detail for the first 3 years and in outline for subsequent years.
- Table 4 in the Water Supply AMP shows whether the targets are being met. Further historic data could be shown to determine the trend.
- The gap between current and target levels of service is shown, but a list of the actions required to close the gap would improve section 5 of the Water Supply AMP.
- The levels of service in the AMP documents include all the mandatory performance measures.
- There is new section on the Water NZ benchmarking being done with water providers.
- There is little comparison across the schemes in the water Supply AMP which should highlight differences and areas for improvement.
- There is no reference to any consultation with customers other than through the LTP. The Customer Satisfaction Survey on the council website is not referenced in the AMP documents.
- There is little mention of stakeholders such as Environment Canterbury.

Levels of Service Recommendations

Action	Priority
Provide actual performance along with an explanation of variances, rather than a simple yes/no answer as to whether targets have been met in Table 8 of the Water Supply AMP. Further historic data could be shown to determine the trend.	High
Add a section to the Water AMP summarising the performance of different schemes, noting differences and areas for improvement.	Medium
Further document the outcomes and issues raised from consultation through the previous LTP process.	Medium
Show performance targets in detail for the first 3 years and in outline for subsequent years.	Medium
Describe the stakeholder engagement and how this and the customer feedback influences the capital and operating programmes. For example, the Customer Satisfaction Survey on the council website is not referenced in the AMP documents and stakeholders such as Environment Canterbury are not included.	Medium
Incorporate discussion into the document on options to increase or decrease service levels, and costs and risks associated with differing levels of investment.	Medium

2.2.5 Assets Systems and Data

An asset management information system is defined as:

“A combination of processes, data, software and hardware applied to provide the essential outputs for effective AM” (Source: IIMM International Edition 2011).

Good practice surrounding AM information systems include:

- The focus on meeting identified business needs.
- Integration of AM systems and corporate information systems.
- Knowing what the assets are, where they are, their condition and the financial values.
- Identifying the time costs of operation and maintenance.
- Predicting asset decay, and failure to meet desired LoS.
- Indicating the capital investment required to maintain, replace and upgrade assets.

Table 6: Key to Scoring Crossbar for Asset Systems and Data

Score Ranges	Score	Definition
0.00 - 0.40		Minimum. AMP does not clearly disclose the systems use or how they interrelate. Nor does it provide a good picture of the standard of data and the information gaps.
0.41 - 0.60		Core Information. The AMP provides reasonable information on AMP systems and the completeness / reliability of data.
0.61 - 0.80	0.78	Intermediate articulation of systems and data. The reader of the AMP can readily ascertain a snapshot of the quality of systems and data, the information 'gaps' and how they are being addressed.
0.81 - 1.00		Advanced information presented on all systems used, their interrelationships, weaknesses, strengths etc. A similar picture is provided for data.

Asset Systems and Data Observations

- Section 20 of the Water Supply AMP outlines the asset management systems being used. There is no comprehensive analysis in the AMP of the strengths and weaknesses of the existing systems. **It is recommended that the strengths and weaknesses be added to Section 20 of the Water Supply AMP.**
- Section 20 of the Water Supply AMP outlines briefly the GIS system and its use within council. Several other sections note the usage of GIS and the AMP contains some well-presented maps of assets, renewal projects criticality.
- The breadth of asset information appears sufficient. Section 19 shows the confidence in the asset data, and an explanation of the reasons for why some asset classes are lower has been provided.

Assets Systems and Data Recommendations

Action	Priority
Add some more commentary on the functionality of the AMS system to section 20 of the Water Supply AMP	Medium
Incorporate a discussion on the strengths and weaknesses of the asset management systems into Section 20 of the Water Supply AMP.	Medium

2.2.6 Financial Information

One of the most vital outputs of asset management is a robust financial forecast, over a long forecast period, for every recognised expenditure category (Operations, Maintenance, Renewals, Capital, Depreciation, and Funding etc.). Good practice in AMPs for financial management include:

- Robust long-term budgets in correct categories.
- Assumptions listed.
- Latest valuation information used in the AMP.
- Understanding of funding requirements.

Table 7: Key to Scoring Crossbar for Financial Information

Score Ranges	Score	Definition
0.00 - 0.40		Minimum financial information. Financial information not clearly set out. There are uncertainties as to basis of expenditure and fundamental questions about the funding.
0.41 - 0.60		Core financial information. Financial forecasts are clearly set out and reflect the management practices in the AMP. There are fewer uncertainties as to the basis of renewals, new capital forecasts and funding.
0.61 - 0.80	0.70	Intermediate financial information. Financial information is well analysed and uses graphs or other illustrations. Detailed assumptions and rationale provided. Few uncertainties as to basis of all expenditure categories or funding.
0.81 - 1.00		Advanced analysis and presentation of valuations, forecasts and assumptions. Provides the reader comfort and certainty.

Financial Information Observations

- Since the previous review the split between reactive and planned maintenance has been improved, and the AMIS provides enhanced functionality for maintenance reporting.
- The Water Supply AMP sections 14 - 18 provide a breakdown of expenditure for the district over the 50-year period, split into the expenditure categories. Figure 9 in the Water Supply AMP shows the split between level of service and growth expenditure over the next 50 years, as per LGA requirements.
- The Water Supply AMP shows the renewals requirements over the next 150-year period compared to funding sources.
- The 50-year long-term renewals programme incorporates the assessed remaining useful life estimates. **The base useful lives would be useful to include as an appendix to the Water Supply AMP.**
- The long term (50 year) forecasts in the Water Supply AMP cover a longer timeframe than is required for the Infrastructure Strategy (IS). It is a requirement in the IS to identify the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)). The AMP does not include analysis of options for managing assets.
- The Water Supply AMP provides assumptions made for expenditure estimates. The assumptions appear to be reasonable.

- The Water Supply AMP notes that the valuations are undertaken on a three-yearly basis and that the most recent was completed for June 2017. **The AMP now includes a summary of the valuation data, but does not note the date of the valuation.**
- Figure 10 in the scheme plans shows the projected renewals, level of service and growth expenditure over the next 50 years, and there is additional commentary explaining the spikes in expenditure during that period.
- Linkages to the Council Development Contributions Policy have been added to the scheme plans and AMP. It is recommended that the Water Supply AMP Financial Section **could include an analysis to show whether the expected level of development contributions over time will match the cost of growth.**

Financial Information Recommendations

Action	Priority
Include analysis of options for managing assets to support the IS which identifies the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)).	Medium
Show the date of the valuation below the table summarising the values.	Medium
Add to the Water Supply AMP Financial Section, analysis to show whether the expected level of development contributions over time will match the cost of growth.	Medium
Add a table of the base useful lives as an appendix to the Water Supply AMP.	Medium

2.2.7 Lifecycle Management

This aspect of the AMP review looks at how well the AMP describes the ongoing tasks of asset management. Does it present a convincing picture that WDC is proactively managing the Water Supply assets and doing so in an integrated 'far sighted' way?

The elements considered include:

- The breadth and depth of coverage of the network in the AMP.
- How condition and performance data is gathered and monitored.
- Maintenance strategies.
- Asset renewals and rehabilitation strategies.
- New capital works strategies.
- How services are delivered.

Table 8: Key to Scoring Crossbar for Lifecycle Management Practices

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of asset management strategies. No coherent overall approach. Tendency to dwell on past practices. AMP doesn't adequately cover all network Assets; condition assessments not robust.
0.41 - 0.60		Core lifecycle practices. Fairly general descriptions of strategies; reasonably reliable data and condition assessments that provide some basis for projecting future strategies.
0.61 - 0.80	0.75	Intermediate lifecycle practices. Indications of proactive and integrated approach based on solid data and monitoring. Answers the 'why' questions e.g. .why are future rehabilitations at this level?
0.81 - 1.00		Excellent and convincing strategies are articulated based on reliable data, regular monitoring and up skilled resources.

Lifecycle Management Observations

- A good level of asset information is presented to explain the assets within the scope of the Water Supply AMP. The scheme plans provide more detailed analysis, along with map of the scheme, the planned renewals and schematics.
- The Water Supply AMP summarises the overall asset performance in the Asset Condition section, and the scheme plans further analyse the condition and performance of the major asset groups. The analysis is well presented in a clear and logical format for the reader.
- The AMP provides good breadth of coverage for both lifecycle management and asset management practices, asset categories and sub-groups are clearly presented, and critical assets are clearly identified.
- WDC has undertaken a significant improvement to the condition information for the reticulated network to provide a more accurate estimate of renewals.
- **The AMP documents do not examine in much depth the impact of soil types, or geological features on the renewal programme.**

- The scheme AMPs provides good analysis and articulation of the performance data and implications for future investment.
- The AMP documents have improved the analysis of maintenance strategies. **Effect of growth on network maintenance budgets is not noted in the AMP**
- **No maintenance standards or specifications that relate to the maintenance of the water activity are shown in the AMP. Water quality related standards are covered via the levels of service and performance criteria. A list of applicable standards and guidelines should be listed in the Appendices.**
- The basis for the renewals programme is described well, and appears to be robust, **however there is no discussion on the levels of deferred maintenance or renewals.**
- The scheme AMPs outline the renewal prioritisation process through the renewals model and then consideration of other factors by the Asset Manager. The analysis of other factors such as risk and criticality is very well presented in the scheme AMPS
- The scheme AMPs summarise the capital works, showing projects over the next 50 years, along with confidence and splits into types of expenditure.
- There is now a prioritisation of projects and a more robust project decision making process in place due to limitations in funding through the LTP process.
- The linkage of capital projects to growth factors appears to be robust, however the inclusion of factors other than population growth needs to be considered.

Lifecycle Management Recommendations

Action	Priority
Determine the extent of deferred maintenance or renewals and describe any issues that may be causing.	High
Describe in greater detail the maintenance practices and strategies used. This should include the maintenance standards or specifications that relate to the maintenance of the water activity. A list of applicable standards and guidelines should be listed in the Appendices.	Medium
Add commentary on the impact of soil types, and geological features on the renewal programme.	Medium
Review the effect of new capital growth on network maintenance costs.	Medium

2.2.8 Risk Management

The purpose of Risk Management is to identify the risks associated with the water activity and assets. This requires approaching the risks from many perspectives including financial, operational, and organisational, as well as public health and safety. In general terms ISO31000:2009 provides the foundation for the risk framework.

The key elements included are:

- The framework that is in place.
- The level of analysis undertaken.
- Risk is a key component in the decision-making process.
- The identification and implementation of risk management strategies.

Table 9: Key to Scoring Crossbar for Risk Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of risk management strategies.
0.41 - 0.60	0.50	Core Risk Management practices. Fairly general descriptions of risks.
0.61 - 0.80		Intermediate Risk Management practices. Risk register is populated and risk levels are identified.
0.81 - 1.00		Advanced and convincing Risk Management strategies are provided based on robust weighting system with management strategies in place. Risk links to overall Corporate Policy and is integrated into the decision-making process.

Risk Management Observations

- The risk management section of the Water Supply AMP remains largely unchanged from the previous AMP.
- The AMPs outline the operational, health and corporate risks along with the disaster resilience assessment and vulnerability assessments. The breadth of risk presented is considered to be comprehensive. Risk is very well articulated and presented throughout the plan documents.
- The AMP risk matrix and processes are well defined, although a table showing the definitions of risk consequence levels would be useful. The risk assessment in the AMP appears to follow the overall Council process and links to the Council Risk Policy.
- A relatively comprehensive risk register is included in the plans, however the table on page 18 of the Rangiora scheme plan has some risks with no mitigation solution offered. The table could be improved by adding the level of risk, timeframes for completion, cost to mitigate and persons specifically responsible for each risk. It is not clear in the AMPs what the treatment projects are and whether they are included in financial forecasts.
- A risk action and monitoring programme is not detailed (to ensure implementation carried out and any changes in risk exposure identified).

- Critical assets are well defined and shown on scheme maps, however there is little commentary about the implications of having assets that have a large number of extremely critical assets.
- The Water Supply AMP discusses the health risk, but this is not mentioned at all in the scheme plans.

Risk Management Recommendations

Action	Priority
The risk tables should be improved by adding the level of risk, timeframes for completion, cost to mitigate and persons specifically responsible for each risk. Alternatively, a separate risk action plan could be included that shows the high priority risks, 'residual risk' after existing mitigation measures, future treatment actions required, costs, priorities and timelines for completion.	High
Ensure the mitigation actions are completed for all risks in the scheme plans (see table on page 10 of the Rangiora scheme plan which has some risks with no mitigation solution offered).	High
Add commentary on the implications of extremely critical assets into both the Water Supply AMP and the scheme plans.	High
Ensure that the AMPs show what the treatment projects are and whether they are included in financial forecasts.	Medium

2.2.9 Optimised Decision Making

There are two definitions given in the IIMM for Optimised Decision Making (ODM):

“Two definitions are: 1. A formal process to identify and prioritise all potential solutions with consideration of financial viability, social and environmental responsibility and cultural outcomes. 2. An optimisation process for considering and prioritising all options to rectify existing or potential performance failure of assets. The process encompasses NPV analysis and risk assessment.” (Source: IIMM International Edition 2011).

ODM can be seen as the end result or pinnacle of asset management practices i.e. does all the information on service levels, risks, finances and all practices lead to the ‘best’ decision. In reality, formal ODM processes in infrastructure management are more pronounced in the water area when compared to utilities or recreation assets. Good practice in ODM includes:

- Properly defining the problem, issues or opportunity.
- Identifying and short listing potential options.
- Assessing information requirements and using appropriate support tools.
- Identifying benefits and costs.
- Using the best evaluation techniques to determine the optimal solution.

Table 10: Key to Scoring Crossbar for ODM

Score Ranges	Score	Definition
0.00 - 0.40		Minimum ODM information. There is very little in the way of ODM tools analysis and techniques, and this does not appear to be applied in future treatment decisions little in the way of convincing analysis.
0.41 - 0.60		Core ODM information. Other equivalent tools but rather perfunctory and minimalist – doing what they have to do to get by.
0.61 - 0.80	0.75	Intermediate ODM information. An array of tools and techniques used, and these are well explained. Tools are balanced with ‘wise head’ experience.
0.81 - 1.00		Excellent ODM information. Sophisticated use of ODM tools and techniques. Augmented by excellent base data and analysis. “What if” scenario and sensitivity analysis used. Leads to convincing and robust future treatment decisions across all areas of network.

ODM Observations

- The optimised decision process is briefly described in the Introduction Chapter, but is not explicitly mentioned in the Water Supply AMP or the scheme AMPs. However, there is ample evidence of the consideration of multiple factors in the decision-making process.
- The over \$250k project based decision making processes incorporate better business case factors and allow prioritisation across activities.
- There appears to be an appropriate balance of experience and asset performance information.
- The AMP displays a good understanding of the assets and current practice, however the discussion of options is not explored.

- There is good use of renewal tools and consideration of other factors in decision making.
- The AMP clearly explains the growth and demand factors and their impact on service provision.

ODM Recommendations

Action	Priority
Explain the options considered in the development of optimal solutions. Explain how the favoured option was chosen, including any tools used in the process, in particular any cost-benefit or multi-criteria analysis.	High
Explain any processes in place to undertake cross-infrastructure planning within Council to improve operational efficiency.	Medium

2.2.10 Improvement Planning

An AMP is merely a snapshot of a particular point of the asset management practices being carried out. It is very important that each AMP contain an improvement section, which details the weak areas in asset planning, and what is intended to be done to improve asset management practices.

Good practice for AMP Improvement Programmes includes:

- Honestly stating the weak points in AM planning and AM practices.
- Tracking where AM is at now and where each aspect of the AM aspires to be (noting it may not be cost effective to be 'perfect' in everything).
- Stating what improvement projects need to be implemented, in what priority and when.
- Providing an indication of the resources (human and dollars) needed to implement improvements.
- Where possible, gaining approval for the spending of those resources.

Table 11: Key to Scoring Crossbar for Improvement Programme

Score Ranges	Score	Definition
0.00 - 0.40		Minimum improvement information. No detail. Little confidence that there is investing in better asset management.
0.41 - 0.60		Core improvement information. States existing weaknesses and has a generalised programme for addressing weaknesses – but lacking in detail.
0.61 - 0.80	0.74	Intermediate improvement information. All aspects of AM addressed as to weaknesses and what level of sophistication they want to achieve. Good detail on improvement projects, their priority, and the resources involved.
0.81 - 1.00		Excellent improvement information. Very comprehensive information on all aspects of existing AM weaknesses, not only the improvement projects listed in detail, they are prioritised and the interrelationships between projects noted. There is approval for the resources needed to improve AM.

Improvement Planning Observations

- The Introductory Chapter explains how the AM maturity assessment has been undertaken for the 3 waters and roading activity areas, and states that the outcomes and target are stated in the overview document. The results of the AM maturity review are shown in the Water Supply AMP. It is not clear if the improvement recommendations from the review are included in the Improvement Plan.
- Section 23 of the Water Supply AMP shows the 2021 Improvement Plan and the scheme plans show improvement actions specific to the scheme.
- The priorities are indicated for the improvement items, as well as status and estimated cost.
- **It is not clear whether budgetary approval has been secured for any or all of the improvement actions.**
- The response to the Audit NZ Questions has now been included in the Improvement Section.

Improvement Planning Recommendations

Action	Priority
Clearly show that the improvement actions from the maturity review are shown in the Improvement table.	Medium
Schedule three yearly externally peer reviewed asset management maturity reviews with annual internal reviews.	Medium

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Waimakariri District Council

Desktop Review of the Drainage Activity Management Plans

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January 2021

Contents

Executive Summary	3
Key Findings	3
1. Introduction	5
1.1 Background	5
1.2 Asset Management	5
1.3 Desktop Review	5
1.4 Weighting for Overall Score	6
2. Drainage AMPs Results	7
2.1 Summary Results	7
2.2 Detailed Results	8

Tables

Table 1: Key to Scoring Crossbar for Overall Results	7
Table 2: Key to Scoring Crossbar for Process of Development	8
Table 3: Key to Scoring Crossbar for Links to Other Planning Documents	10
Table 4: Key to Scoring Crossbar for Growth and Demand Management	12
Table 5: Key to Scoring Crossbar for Levels of Service	14
Table 6: Key to Scoring Crossbar for Asset Systems and Data	16
Table 7: Key to Scoring Crossbar for Financial Information	18
Table 8: Key to Scoring Crossbar for Lifecycle Management Practices	20
Table 9: Key to Scoring Crossbar for Risk Management	22
Table 10: Key to Scoring Crossbar for ODM	24
Table 11: Key to Scoring Crossbar for Improvement Programme	26

Executive Summary

Waimakariri District Council (WDC) has requested a desktop review to be undertaken of the Drainage suite of Activity Management Plans (AMPs) to ensure legal requirements are met, to identify and prioritise any gaps in the AMP document and focus asset management efforts over the next period. WDC has an overall goal of improving asset management to an advanced level over time.

This review is of the Drainage suite of AMP documents prepared in 2020 for the Long Term Plan (LTP) period commencing in July 2021. The reviewed documents were:

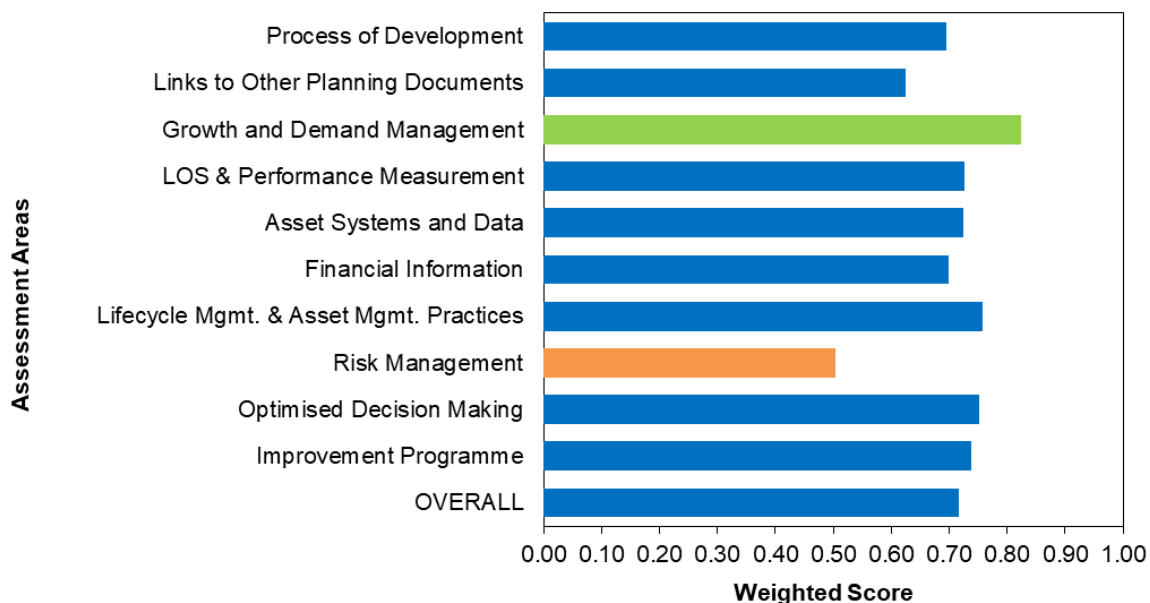
1. Activity Management Plan 2021 - Utilities & Roading Introductory Chapter
2. Activity Management Plan 2021 - Drainage District Overview
3. Activity Management Plan 2021 – Ohoka Rural Drainage Scheme (one of twelve scheme plans).
4. Activity Management Plan 2021 - Rangiora Drainage Scheme (one of twelve scheme plans).

Key Findings

Ten assessment areas have been reviewed to assess the overall completeness and depth of the Drainage AMPs. The overall score was **0.72 out of a maximum score of 1.00** which is at an intermediate level of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Drainage activity of a score level of 0.70 (intermediate level) or better. The quality of analysis appears robust and supports the LTP.

The AMP showed strengths and weaknesses in different assessment areas as demonstrated in Figure 1.

Figure 1: Overall Score



Many of the findings and recommendations in this report are similar to the Water Supply and Wastewater AMP reviews, as the activities both follow the same template and from the perspective of this desktop review, they both present a similar level of asset management maturity.

Overall, it is clear that Council has implemented a number of recommendations made in the 2018 AMP review. The suite of AMP documents are considered to be a clear demonstration of Waimakariri DC sound stewardship of the drainage assets. The AMP documents provide a robust analysis of the asset management issues both at a district and a scheme level. It is evident that Council intends to improve its capabilities with the introduction of a new asset management system and improvements in asset condition collection. The Drainage AMP and scheme plans provide assurance that the asset management issues have been analysed with an appropriate level of rigour, and that the operational activity programmes are well thought out.

The Introductory Chapter sets out the framework for the roading and utilities activity management plans. It is easy to follow, well-structured and the language is clear and concise.

The Drainage AMP provides an overall framework and summarises the scheme plans. The Drainage District Overview AMP on the whole is well written and links well with the scheme plans.

The scheme plans provide a more detailed view of the rationale for investment in the schemes and the way they are being managed. The analysis was clear and logical, and they now include an Executive Summary highlighting the key points. The scheme plans include good use of maps and tables, and set out the local issues clearly.

The suite of AMP documents related to Drainage are strongest in the growth and demand management, levels of service, asset systems and data, lifecycle management, optimised decision making and Improvement Plan areas. One key area of improvement is the risk management sections in both the Activity Management Plan and the Scheme Plans. This section has remained largely unchanged and is becoming increasingly out of date.

Two other areas for the AMPs to focus on in the next generation are consideration of the options differing levels of service and the cost/risk implications, and secondly ensuring that the plans clearly show the linkage between analysis and capital and operational investment decisions. It is not always clear in the plans why particular projects are needed. The trend in asset management planning over the last five years has to develop plans that act as an overall business case for asset related expenditure. They should both provide the evidence base and the strategic case for investment, and complement the better business case process. Some more detail about the rationale for large capital projects and significant renewals would strengthen the case and provide decision makers more surety that investment is targeted in the right areas.

This report provides six high priority actions that WDC should review immediately. The remaining recommendations have been prioritised as medium or low and should be considered for implementation over a period of time.

1. Introduction

1.1 Background

Waimakariri District Council (WDC) engaged Infrastructure Associates Ltd to undertake a desktop review of the Drainage Activity Management Plan (AMP). The objective of this assessment is to focus on the overall structure of the AMP and to highlight the improvements required to meet statutory and best practice requirements.

1.2 Asset Management

Asset Management is the means of planning at a strategic and tactical level for infrastructure. Traditional management of infrastructure has separated capital expenditure on new assets from operation, maintenance and renewal/rehabilitation of existing assets. This creates a situation where capital expenditure decisions are made with no consideration of “Consequential Opex”. This most often occurs in a reactive way with little regard to levels of service, working knowledge of what customers actually expect, and little knowledge of what assets exist, what condition they are in, or how they may fail.

One of the main challenges is to ensure that financial resources are available to adequately fund new works, whilst funding the appropriate level of maintenance on existing assets. The major tool to assist WDC is the AMP, which assists in forward planning so that informed decisions can be made in the face of these competing priorities.

The application of Asset Management principles encourages a holistic, integrated approach inevitably affecting where and how finances and resources are allocated. Most infrastructure organisations utilise guidance material produced by NAMS (in particular the International Infrastructure Management Manual 2020) which includes Local Government Act and Office of the Auditor General requirements. This review has used a checklist and scoring framework developed from good practice as outlined in the International Infrastructure Management Manual (IIMM).

1.3 Desktop Review

A desktop review was undertaken on the following AMP documents:

1. Activity Management Plan 2021 - Utilities & Roading Introductory Chapter
2. Activity Management Plan 2021 - Drainage District Overview
3. Activity Management Plan 2021 – Ohoka Rural Drainage Scheme (one of twelve scheme plans).
4. Activity Management Plan 2021 - Rangiora Drainage Scheme (one of twelve scheme plans).

1.4 Weighting for Overall Score

The AMP has been reviewed against a range of criteria under ten aspects of the asset management framework. Each of these aspects listed on the review form was used to assess and score the AMP with a weighting used to obtain the overall score.

Each asset management aspect is weighted as follows:

Assessment Areas	Weighting
Process of Development	5%
Links to Other Planning Documents	5%
Growth and Demand Management	15%
Levels of Service and Performance Measurement	15%
Asset Systems and Data	10%
Financial Information	10%
Life Cycle Management Practices	15%
Risk Management	10%
Optimised Decision Making	10%
Improvement Programme	5%

The following report sections outline the summary and detailed results for each assessment area noting strengths and areas for potential improvement. Key recommended improvement areas have been summarised in each section to assist WDC in focusing on those areas which will provide the greatest benefit.

2. Drainage AMPs Results

2.1 Summary Results

The Drainage AMPs have gained an **overall score of 0.72 out of a maximum score of 1.00**, which is at the **intermediate level** of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Drainage activity of a score level of 0.70 (intermediate).

Ten assessment areas have been developed to assess the overall completeness and depth of the AMPs and a summary of the results are illustrated in Figure 2 below.

Figure 2: Summary Results for Waimakariri District Council Drainage AMPs

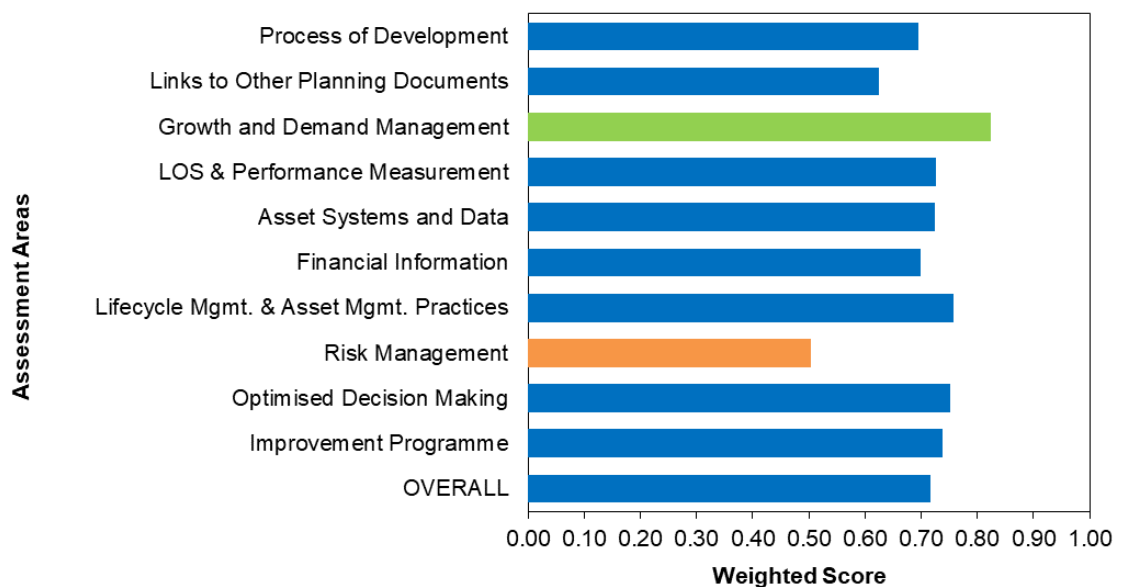


Table 1: Key to Scoring Crossbar for Overall Results

0.00 - 0.40	Minimum	AMP is considered to be poorly developed and at a Minimum level of maturity. The AMP doesn't outline the basic asset management practices, systems or information necessary to manage the assets.
0.41 - 0.60	Core	AMP is considered to be at a Core level. Although the AMP outlines asset management practice systems and information it does so in a perfunctory way indicating there is no depth to the analysis. There is limited confidence in the robustness of long term financial forecasts and the decision-making analysis.
0.61 - 0.80	Intermediate	AMP is considered to be at an Intermediate level. There is a clear articulation of most asset management practices. There is reasonable confidence that long term financial forecasts are robust and decision making is sound.
0.81 - 1.00	Advanced	AMP is considered to be Advanced. The AMP information is strong and convincing in all aspects. There is high confidence in long term financial forecasts and the way options are analysed and decisions made.

2.2 Detailed Results

Outlined below is a summary of each of the assessed areas of the AMPs.

2.2.1 Process of Development

This aspect of the AMP review is to assess the process of development of the AMP.

Good practice around the AMP development includes:

- Multi-disciplinary involvement in preparing the plan (i.e. engineers, planners, finance personnel).
- Sound internal QA of the AMP development.
- Sound external QA of the AMP development.
- Approval of the AMP at executive management level and at council level.
- Regular refreshment of the AMP so that it is up to date, preferably at least annually.

Table 2: Key to Scoring Crossbar for Process of Development

Score Ranges	Score	Definition
0.00 - 0.40		Minimum process of AMP development. Ad hoc method of preparation with narrow input and little QA. AMP likely to be very old and not properly approved.
0.41 - 0.60		Core process used to develop AMP. Evidence of some QA and formality in planning. AMP has been approved.
0.61 - 0.80	0.70	Intermediate AMP development process. Sound processes used to prepare, QA and approve AMP. Involvement by a wide range of disciplines.
0.81 - 1.00		Advanced development process. Clear and convincing evidence of formal development, effective internal and external QA.

Process of Development Observations

- The Activity Plan Overview has a similar layout to the previous version, with some reordering of the contents and improvement implemented from the previous review. These improvements provide greater assurance to auditors on the process of AMP development.
- The Drainage set of AMP documents were prepared in 2020 for the LTP period commencing in July 2021.
- An AM Maturity Assessment has been carried out for the 3 Waters and Roding activity areas. The maturity assessment reviews the processes and practices that underlie good asset management planning practices. It would be expected that Waimakariri have intermediate level maturity for all asset related activities. It is recommended that Waimakariri undertake an externally peer reviewed maturity assessment every 3 years, and an internal assessment annually to monitor progress.
- The Drainage AMP documents adopt a standardised framework that provides consistency across the different WDC asset groups and avoids repetition of common information.

- The AMP has not yet been approved by Council, but the documents reviewed are in draft and are yet to be presented to Council. The appropriate Waimakariri DC managers have approved the draft which is shown in the newly introduced document control page.
- The document review process gives the reader an outline of the internal process to develop the AMPs.
- There is reference to meetings of a Drainage Advisory Group three times a year with focus on operational maintenance. It is still not clear whether the drainage AMPS are consulted with or presented to the advisory group. It is not clear whether Drainage Schemes have scheme representatives and whether they have any input into the plans.
- There is no specific reference in the AMP of the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan. LGA 2002 Schedule 10 – 8.
- The document review process outlines the involvement of internal staff across Council. There is reference to a number of internal reports (with TRIM reference numbers)
- An Executive Summary has been added to the scheme plans that highlights the key points effectively.
- The AMP is reviewed by external independent consultant.

Process of Development Recommendations

Action	Priority
Consider the most effective means of engaging external stakeholders (such as the Drainage Advisory Group) and incorporating meaningful input into the plans.	High
Provide greater assurance to the reader on the robustness of AMP development process by demonstrating how the plan utilised sound project management techniques (could add as an appendix so that it doesn't detract from the body of the plans).	Medium
Add references to any external input into the AMP or any reference to current or previous LTP consultation processes.	Medium
Document how stakeholders are engaged with during the LTP consultation process. and note the involvement in the plans of the Drainage Advisory Group representatives.	Medium
Add reference in the AMP to the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan.	Medium

2.2.2 Link to Other Planning Documents

This aspect of the review is to assess how well the AMP references and shows the connections with other plans. AMPs do not sit in a planning vacuum. There will be overarching plans (such as the Long-Term Plan (LTP) and District Plan) and other plans (e.g. Infrastructure Strategy, and Procurement Policies/Plans).

AMP good practice in this respect will include:

- Wiring diagrams of plan relationship and hierarchies.
- A brief description of the linked plans.
- The nature of the relationship or the major connection features.
- How those other plans can be accessed.
- What gaps or omissions need to be rectified in future plans.

Table 3: Key to Scoring Crossbar for Links to Other Planning Documents

Score Ranges	Score	Definition
0.00 - 0.40		Minimum links or non-identification of links for both external and internal plans. No perception given on relationships and the issues that arise from the various plans.
0.41 - 0.60		Core explanations of the various plans and their linkages, but not very clear, or the issues not explained.
0.61 - 0.80	0.62	Intermediate explanation of other plans, both external and internal and how they relate to the AMP. Linkage issues are explained.
0.81 - 1.00		Advanced narratives and wiring flowchart descriptions of all the plans connected with the AMP.

Link to Other Planning Documents Observations

- The set of AMP documents link well between the Utilities & Roading Introductory Chapter, the Drainage District Overview and the scheme plans. The Introductory Chapter outlines the key infrastructure AMPs and ties them together across the asset groups.
- The AMP documents demonstrate better linkages to other Council documents or drainage related planning or technical documents. The scheme plans include a list of reference documents. It is still recommended that a table or diagram of relevant documents be shown in the Drainage Activity Management Plan Overview.
- The funding section refers only briefly to the Revenue and Funding Policy.
- The AMP should refer to, and provide a summary of, Councils Significance Policy in accordance with LGA 2002 Schedule 10 – 11, however there doesn't appear to be mention of it in the Drainage AMP documents.
- Section 21 of the Drainage AMP outlines the significant negative effects of the activity on social, economic, environmental or cultural well-being of the local community as per LGA 2002 Schedule 10 – 2 (1) (c)".

Link to Other Planning Documents Recommendations

Action	Priority
Add a diagram or table in the Drainage District Overview AMP to show how the documents relate to other planning or technical documents.	Medium
Provide a summary of Council's Significance Policy in accordance with LGA 2002 Schedule 10 – 11 in the Drainage AMP.	Medium

2.2.3 Growth and Demand Management

Good practice in demand management for Drainage AMPs will include:

- Comprehensively listing the factors that influence demand (demand drivers).
- Identifying the models & analysis used to assess the impact of the above factors on future demand.
- Demand management options via asset solutions (e.g. building or extending assets).
- Demand management options via non-asset solutions (e.g. shifting demand at peak times).
- Implementation of demand management strategies.

Table 4: Key to Scoring Crossbar for Growth and Demand Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum demand management information. Few factors listed, little in the way of analysis and no clear way ahead signalled as to how to handle future demand.
0.41 - 0.60		Core demand management information. Reasonable listing of demand factors. Some analysis. Potential asset/non-asset solutions identified but only in a general way.
0.61 - 0.80		Intermediate demand management information. Broad spectrum of factors listed with good basic analysis. Specific asset and non-asset solutions listed.
0.81 - 1.00	0.82	Advanced demand management. Thorough and convincing listing and analysis of demand factors and specific solutions are detailed.

Growth and Demand Observations

- The AMP documents contains good discussion on demand implications of population growth that are specific to drainage.
- The scheme plans consider local impacts as well as a status update on Covid impacts.
- The analysis of demand trends is very clearly articulated within the scheme plans. Sections 5.6 and 5.7 of the scheme plans follow a logical and structured analysis of demand and capacity. The growth projections are considered along with existing capacity to determine the timing and required capacity over the next 50 years. The scheme plans very clearly articulate the new asset requirements resulting from growth requirements.
- The differences between the figures reported in the LTP and the AMP are explained.
- A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements, however this may not be achievable in time for the final plans.
- The Drainage AMP now contains a section on managing uncertainty which was missing from the previous AMP.
- A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements.

Growth and Demand Recommendations

Action	Priority
A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements, however this may not be achievable in time for the final plans.	Medium
In Table 15 of the Drainage AMP, show the property figures for each scheme in percentage annual change as well as absolute figures.	Low

2.2.4 Levels of Service

Levels of Service (LoS) statements are defined as: “Levels of Service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.” (Source IIMM, International Edition 2011).

Service attributes (service criteria) often relate to: “Aspects or characteristics of a service such as accessibility, affordability/cost, efficiency, quality, quantity, reliability, responsiveness, safety”. (Source IIMM, International Edition 2011).

Good practice in relation to LoS include:

- Showing how LoS fit into WDC’s performance reporting.
- Indicating how LoS are developed and agreed with customers (users) and stakeholders e.g. critical customers such as hospitals.
- Categorising LoS into quality, safety, affordability, etc (Core Values in the IIMM).
- Ensuring there are current and future targets for each LoS category.
- Ensuring there are systems to measure, monitor and report actual LoS in comparison with targets.
- Analysing LoS targets into both customer language and technical management language.

Table 5: Key to Scoring Crossbar for Levels of Service

Score Ranges	Score	Definition
0.00 - 0.40		Minimum LoS information. No indication of how LoS arrived at. LoS characteristics lacking depth. Targets poorly stated with unclear measurement systems.
0.41 - 0.60		Core LoS information. LoS development is indicated in a general way. The LoS categories are reasonable but not well developed. Targets and measures are stated in a basic fashion.
0.61 - 0.80	0.73	Intermediate LoS information. AMP explains how LoS have been developed and how they fit into the LoS hierarchy. There is consistency between high level plans and AMP. Gaps in LoS information and process outlined with measures to close gaps.
0.81 - 1.00		Advanced LoS information. Clear and transparent framework. Targets and measures exist for all LoS categories and are well explained in both customer speak and technical speak.

Levels of Service Observations

- Section 4 of the Drainage District Overview AMP describes the sources of the levels of service, and the changes since the last LTP. There is brief reference to consultation through the LTP process but no analysis of outcomes from the consultation.
- Changes in level of service measures from previous AMPs are well documented.
- There were performance measures that were not met in 2019/20. The AMP does now explain how the council intends to close the gap between actual and target in future.
- The levels of service are clear and well defined. However, it is recommended that actual performance be provided in the activity and scheme plans along with an explanation of variances, rather than a simple yes/no answer as to whether targets have been met.

- There is mention of the National Performance Review benchmark, and a comparison against 2018/19 data is presented in the AMP. There is comparison across the schemes, and an explanation of variances.

Levels of Service Recommendations

Action	Priority
Provide actual performance along with an explanation of variances, rather than a simple yes/no answer as to whether targets have been met in Table 7 of the Drainage District Overview AMP. Further historic data could be shown to determine the trend.	High
Describe the stakeholder engagement and how this and the customer feedback influences the capital and operating programmes. For example, the Customer Satisfaction Survey on the council website is not referenced in the AMP documents and stakeholder analysis are not included.	Medium
Incorporate discussion into the document on options to increase or decrease service levels, and costs and risks associated with differing levels of investment.	Medium

2.2.5 Assets Systems and Data

An asset management information system is defined as:

“A combination of processes, data, software and hardware applied to provide the essential outputs for effective AM” (Source: IIMM International Edition 2011).

Good practice surrounding AM information systems include:

- The focus on meeting identified business needs.
- Integration of AM systems and corporate information systems.
- Knowing what the assets are, where they are, their condition and the financial values.
- Identifying the time costs of operation and maintenance.
- Predicting asset decay, and failure to meet desired LoS.
- Indicating the capital investment required to maintain, replace and upgrade assets.

Table 6: Key to Scoring Crossbar for Asset Systems and Data

Score Ranges	Score	Definition
0.00 - 0.40		Minimum. AMP does not clearly disclose the systems use or how they interrelate. Nor does it provide a good picture of the standard of data and the information gaps.
0.41 - 0.60		Core Information. The AMP provides reasonable information on AMP systems and the completeness / reliability of data.
0.61 - 0.80	0.73	Intermediate articulation of systems and data. The reader of the AMP can readily ascertain a snapshot of the quality of systems and data, the information 'gaps' and how they are being addressed.
0.81 - 1.00		Advanced information presented on all systems used, their interrelationships, weaknesses, strengths etc. A similar picture is provided for data.

Asset Systems and Data Observations

- Section 20 of the Drainage AMP outlines the asset management systems being used. Some more commentary on the functionality of the asset management information system would be useful.
- Section 20 of the Drainage AMP outlines briefly the GIS system and its use within council. Several other sections note the usage of GIS and the AMP contains some well-presented maps of assets, renewal projects criticality.
- There is no comprehensive analysis in the AMP of the strengths and weaknesses of the existing systems. It is recommended that the strengths and weaknesses be added to Section 20 of the Drainage AMP.
- The breadth of asset information appears sufficient. Section 19 shows the confidence in the asset data, and explains the reasons why some asset classes are lower.

Assets Systems and Data Recommendations

Action	Priority
Add some more commentary on the functionality of the asset management information system to Section 20 of the Drainage AMP	Medium
Incorporate a discussion on the strengths and weaknesses of the asset management systems into Section 20 of the Drainage AMP.	Medium

2.2.6 Financial Information

One of the most vital outputs of asset management is a robust financial forecast, over a long forecast period, for every recognised expenditure category (Operations, Maintenance, Renewals, Capital, Depreciation, and Funding etc.). Good practice in AMPs for financial management include:

- Robust long-term budgets in correct categories.
- Assumptions listed.
- Latest valuation information used in the AMP.
- Understanding of funding requirements.

Table 7: Key to Scoring Crossbar for Financial Information

Score Ranges	Score	Definition
0.00 - 0.40		Minimum financial information. Financial information not clearly set out. There are uncertainties as to basis of expenditure and fundamental questions about the funding.
0.41 - 0.60		Core financial information. Financial forecasts are clearly set out and reflect the management practices in the AMP. There are fewer uncertainties as to the basis of renewals, new capital forecasts and funding.
0.61 - 0.80	0.70	Intermediate financial information. Financial information is well analysed and uses graphs or other illustrations. Detailed assumptions and rationale provided. Few uncertainties as to basis of all expenditure categories or funding.
0.81 - 1.00		Advanced analysis and presentation of valuations, forecasts and assumptions. Provides the reader comfort and certainty.

Financial Information Observations

- The Drainage AMP section 18 provides a breakdown of expenditure for the district over the 30 year period, split into the expenditure categories.
- Figures 7 in the Drainage AMP shows the split between level of service and growth expenditure over the next 50 years, as per LGA requirements.
- The Drainage AMP shows the renewals requirements over the next 150-year period. The AMP notes that this is different to the amount in the LTP, and explains how budgets will be increased over time.
- The renewals programme incorporates the assessed remaining useful life estimates, which are explained in the asset condition section. The base useful lives would be useful to include as an appendix to the Drainage AMP.
- The long term (50 year) forecasts in the Drainage AMP cover a longer timeframe than is required for the Infrastructure Strategy (IS). It is a requirement in the IS to identify the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)). The AMP does not include analysis of options for managing assets.
- Section 18 of the Drainage AMP provides assumptions made for expenditure estimates. The assumptions appear to be reasonable.
- The Drainage AMP does not note the date of the last valuation. The AMP includes a table of the replacement cost, depreciated replacement cost and depreciation by asset class from the most recent valuation.

- The AMP provides a better level of understanding of funding, and recognises where there are funding limitations and discuss sources of funding.
- The linkages to the Council Development Contributions Policy have been improved, and there is a link to calculations schedules.

Financial Information Recommendations

Action	Priority
Include analysis of options for managing assets to support the IS which identifies the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)).	Medium
Show the date of the valuation below the table summarising the values.	Medium
Add a table of the base useful lives as an appendix to the Drainage AMP.	Medium

2.2.7 Lifecycle Management

This aspect of the AMP review looks at how well the AMP describes the ongoing tasks of asset management. Does it present a convincing picture that WDC is proactively managing the drainage assets and doing so in an integrated 'far sighted' way?

The elements considered include:

- The breadth and depth of coverage of the network in the AMP.
- How condition and performance data is gathered and monitored.
- Maintenance strategies.
- Asset renewals and rehabilitation strategies.
- New capital works strategies.
- How services are delivered.

Table 8: Key to Scoring Crossbar for Lifecycle Management Practices

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of asset management strategies. No coherent overall approach. Tendency to dwell on past practices. AMP doesn't adequately cover all network Assets; condition assessments not robust.
0.41 - 0.60		Core lifecycle practices. Fairly general descriptions of strategies; reasonably reliable data and condition assessments that provide some basis for projecting future strategies.
0.61 - 0.80	0.76	Intermediate lifecycle practices. Indications of proactive and integrated approach based on solid data and monitoring. Answers the 'why' questions e.g. .why are future rehabilitations at this level?
0.81 - 1.00		Excellent and convincing strategies are articulated based on reliable data, regular monitoring and up skilled resources.

Lifecycle Management Observations

- A good level of asset information is presented to explain the assets within the scope of the Drainage AMP. The scheme plans provide more detailed analysis, along with map of the scheme, the planned renewals and schematics.
- The Drainage District Overview AMP summarises the overall asset performance in the Asset Condition section, and the scheme plans further analyse the condition and performance of the major asset groups. The analysis is well presented in a clear and logical format for the reader.
- The AMP provides good breadth of coverage for both lifecycle management and asset management practices, asset categories and sub-groups are clearly presented, and critical assets are clearly identified.
- The AMP notes that limited condition data is available and is an area for improvement, along with the mobile collection of asset information.
- No maintenance standards or specifications that relate to the maintenance of the Drainage activity are shown in the AMP. A list of applicable standards and guidelines should be listed in the Appendices.

- The basis for the renewals programme is described well, and appears to be robust, however there is no discussion on the levels of deferred maintenance or renewals.
- The scheme AMPs outline the renewal prioritisation process through the renewals model and then consideration of other factors by the Asset Manager. The analysis of other factors such as risk and criticality are very well presented in the scheme AMPs.
- The scheme AMPs summarise the capital works in Table 12, showing projects over the next 50 years, along with confidence and splits into types of expenditure. There is no indication of the relative priority of these projects should funding be limited through the LTP process.
- The linkage of capital projects to growth factors appears to be robust, however the inclusion of factors other than population growth needs to be considered.

Lifecycle Management Recommendations

Action	Priority
Determine the extent of deferred maintenance or renewals and describe any issues that may be causing.	High
Describe in greater detail the maintenance practices and strategies used. This should include the maintenance standards or specifications that relate to the maintenance of the Drainage activity. A list of applicable standards and guidelines should be listed in the Appendices.	Medium
Add an indication of the relative priority of capital projects in the scheme plans	Medium

2.2.8 Risk Management

The purpose of Risk Management is to identify the risks associated with the Drainage activity and assets. This requires approaching the risks from many perspectives including financial, operational, and organisational, as well as public health and safety. In general terms ISO31000:2009 provides the foundation for the risk framework.

The key elements included are:

- The framework that is in place.
- The level of analysis undertaken.
- Risk is a key component in the decision-making process.
- The identification and implementation of risk management strategies.

Table 9: Key to Scoring Crossbar for Risk Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of risk management strategies.
0.41 - 0.60	0.50	Core Risk Management practices. Fairly general descriptions of risks.
0.61 - 0.80		Intermediate Risk Management practices. Risk register is populated and risk levels are identified.
0.81 - 1.00		Advanced and convincing Risk Management strategies are provided based on robust weighting system with management strategies in place. Risk links to overall Corporate Policy and is integrated into the decision-making process.

Risk Management Observations

- The risk management section of the Drainage AMP and scheme plans remains largely unchanged from the previous AMPs. Scheme plans show historic risk information up to 2014 which is now out of date.
- The AMPs outline the operational, health and corporate risks along with the disaster resilience assessment and vulnerability assessments. The breadth of risk presented is considered to be comprehensive. Risk is very well articulated and presented throughout the plan documents.
- The AMP risk matrix and processes are well defined, although a table showing the definitions of risk consequence levels would be useful. The risk assessment in the AMP appears to follow the overall Council process and links to the Council Risk Policy.
- A relatively comprehensive risk register is included in the plans. The risk tables could be improved by adding the level of risk, timeframes for completion, cost to mitigate and persons specifically responsible for each risk. It is not clear in the AMPs what the treatment projects are and whether they are included in financial forecasts.
- A risk action and monitoring programme is not detailed (to ensure implementation carried out and any changes in risk exposure identified).

- Critical assets are well defined and shown on scheme maps, however there is little commentary about the implications of having assets that have a large number of extremely critical assets.

Risk Management Recommendations

This section is mostly unchanged from the previous AMP and is becoming more out of date. It is the weakest section of the plans and needs some attention.

Action	Priority
The risk tables should be improved by adding the level of risk, timeframes for completion, cost to mitigate and persons specifically responsible for each risk. Alternatively, a separate risk action plan could be included that shows the high priority risks, 'residual risk' after existing mitigation measures, future treatment actions required, costs, priorities and timelines for completion.	High
Add commentary on the implications of extremely critical assets into both the Drainage AMP and the scheme plans.	High
Explain the WDC risk policy and framework including the definition of likelihood and consequences and overall risk priority.	Medium
Ensure that the AMPs show what the treatment projects are and whether they are included in financial forecasts.	Medium

2.2.9 Optimised Decision Making

There are two definitions given in the IIMM for Optimised Decision Making (ODM):

“Two definitions are: 1. A formal process to identify and prioritise all potential solutions with consideration of financial viability, social and environmental responsibility and cultural outcomes. 2. An optimisation process for considering and prioritising all options to rectify existing or potential performance failure of assets. The process encompasses NPV analysis and risk assessment.” (Source: IIMM International Edition 2011).

ODM can be seen as the end result or pinnacle of asset management practices i.e. does all the information on service levels, risks, finances and all practices lead to the ‘best’ decision. In reality, formal ODM processes in infrastructure management are more pronounced in the water area when compared to utilities or recreation assets. Good practice in ODM includes:

- Properly defining the problem, issues or opportunity.
- Identifying and short listing potential options.
- Assessing information requirements and using appropriate support tools.
- Identifying benefits and costs.
- Using the best evaluation techniques to determine the optimal solution.

Table 10: Key to Scoring Crossbar for ODM

Score Ranges	Score	Definition
0.00 - 0.40		Minimum ODM information. There is very little in the way of ODM tools analysis and techniques, and this does not appear to be applied in future treatment decisions little in the way of convincing analysis.
0.41 - 0.60		Core ODM information. Other equivalent tools but rather perfunctory and minimalist – doing what they have to do to get by.
0.61 - 0.80	0.75	Intermediate ODM information. An array of tools and techniques used, and these are well explained. Tools are balanced with ‘wise head’ experience.
0.81 - 1.00		Excellent ODM information. Sophisticated use of ODM tools and techniques. Augmented by excellent base data and analysis. “What if” scenario and sensitivity analysis used. Leads to convincing and robust future treatment decisions across all areas of network.

ODM Observations

- The optimised decision process is briefly described in the Introduction Chapter, but is not explicitly mentioned in the Drainage AMP or the scheme plans. However, there is ample evidence of the consideration of multiple factors in the decision-making process.
- The over \$250k project based decision making processes incorporate better business case factors and allow prioritisation across activities.
- There appears to be an appropriate balance of experience and asset performance information.
- The AMP displays a good understanding of the assets and current practice, however the discussion of options is not explored.

- There is good use of renewal tools and consideration of other factors in decision making.
- The AMP clearly explains the growth and demand factors and their impact on service provision.
- The AMPs very briefly indicates that consideration is given by the Asset Manager to other infrastructure works planning, but there is little acknowledgement of any cross-infrastructure planning across Council.

ODM Recommendations

Action	Priority
Explain the options considered in the development of optimal solutions. Explain how the favoured option was chosen, including any tools used in the process, in particular any cost-benefit or multi-criteria analysis.	High
Explain any processes in place to undertake cross-infrastructure planning within Council to improve operational efficiency.	Medium

2.2.10 Improvement Planning

An AMP is merely a snapshot of a particular point of the asset management practices being carried out. It is very important that each AMP contain an improvement section, which details the weak areas in asset planning, and what is intended to be done to improve asset management practices.

Good practice for AMP Improvement Programmes includes:

- Honestly stating the weak points in AM planning and AM practices.
- Tracking where AM is at now and where each aspect of the AM aspires to be (noting it may not be cost effective to be 'perfect' in everything).
- Stating what improvement projects need to be implemented, in what priority and when.
- Providing an indication of the resources (human and dollars) needed to implement improvements.
- Where possible, gaining approval for the spending of those resources.

Table 11: Key to Scoring Crossbar for Improvement Programme

Score Ranges	Score	Definition
0.00 - 0.40		Minimum improvement information. No detail. Little confidence that there is investing in better asset management.
0.41 - 0.60		Core improvement information. States existing weaknesses and has a generalised programme for addressing weaknesses – but lacking in detail.
0.61 - 0.80	0.74	Intermediate improvement information. All aspects of AM addressed as to weaknesses and what level of sophistication they want to achieve. Good detail on improvement projects, their priority, and the resources involved.
0.81 - 1.00		Excellent improvement information. Very comprehensive information on all aspects of existing AM weaknesses, not only the improvement projects listed in detail, they are prioritised and the interrelationships between projects noted. There is approval for the resources needed to improve AM.

Improvement Planning Observations

- The Introductory Chapter explains how the AM maturity assessment has been undertaken for the three waters and roading activity areas, and states that the outcomes and target are stated in the overview document. The results of the AM maturity review are shown in the Drainage AMP. It is not clear if the improvement recommendations from the review are included in the Improvement Plan.
- Section 23 of the Drainage AMP shows the 2021 Improvement Plan and the scheme plans show improvement actions specific to the scheme. There is no discussion of the options to address gaps in practice.
- The priorities are indicated for the improvement items, as well as status and estimated cost.
- It is not clear whether budgetary approval has been secured for any or all of the improvement actions.
- The response to the 10 key Audit NZ Questions has now been included in the Improvement Section.

Improvement Planning Recommendations

Action	Priority
Clearly show that the improvement actions from the maturity review are shown in the Improvement table.	Medium
Schedule three yearly externally peer reviewed asset management maturity reviews with annual internal reviews.	Medium
Add some discussion of the options to address gaps in practice.	Low

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Waimakariri District Council

Desktop Review of the Wastewater Activity Management Plans

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Contents

Executive Summary	3
Key Findings	3
1. Introduction	5
1.1 Background	5
1.2 Asset Management	5
1.3 Desktop Review	5
1.4 Weighting for Overall Score	5
2. Wastewater AMPs Results	7
2.1 Summary Results	7
2.2 Detailed Results	8

Tables

Table 1: Key to Scoring Crossbar for Overall Results	7
Table 2: Key to Scoring Crossbar for Process of Development	8
Table 3: Key to Scoring Crossbar for Links to Other Planning Documents	10
Table 4: Key to Scoring Crossbar for Growth and Demand Management	12
Table 5: Key to Scoring Crossbar for Levels of Service	14
Table 6: Key to Scoring Crossbar for Asset Systems and Data	16
Table 7: Key to Scoring Crossbar for Financial Information	18
Table 8: Key to Scoring Crossbar for Lifecycle Management Practices	20
Table 9: Key to Scoring Crossbar for Risk Management	22
Table 10: Key to Scoring Crossbar for ODM	24
Table 11: Key to Scoring Crossbar for Improvement Programme	26

Executive Summary

Waimakariri District Council (WDC) has requested a desktop review to be undertaken of the Wastewater suite of Activity Management Plans (AMPs) to ensure legal requirements are met, to identify and prioritise any gaps in the AMP document and focus asset management efforts over the next period. WDC has an overall goal of improving asset management to an advanced level over time.

This review is of the Wastewater suite of AMP documents prepared in 2020 for the Long Term Plan (LTP) period commencing in July 2021. The reviewed documents were:

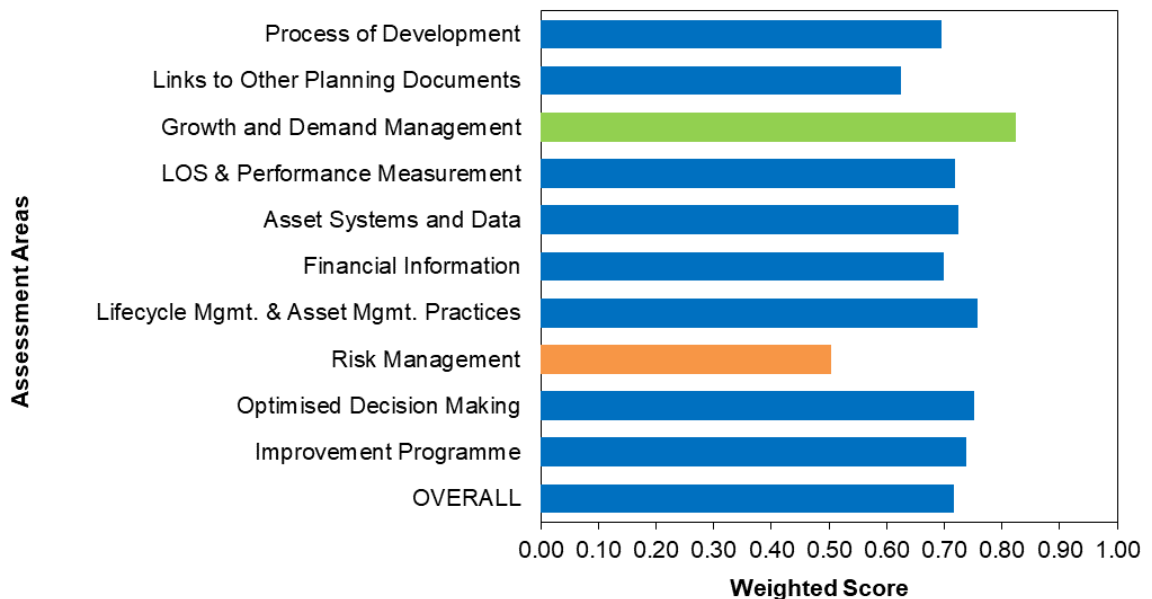
1. Activity Management Plan 2021 - Utilities & Roading Introductory Chapter
2. Activity Management Plan 2021 - Wastewater District Overview
3. Activity Management Plan 2021 - Oxford Wastewater Scheme (one of twelve scheme plans).
4. Activity Management Plan 2021 - Rangiora Wastewater Scheme (one of twelve scheme plans).

Key Findings

Ten assessment areas have been reviewed to assess the overall completeness and depth of the Wastewater AMPs. The overall score was **0.72 out of a maximum score of 1.00** which is at the intermediate level of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Wastewater activity of a score level of 0.70 (intermediate level) or better. The quality of analysis appears robust and supports the LTP.

The AMP showed strengths and weaknesses in different assessment areas as demonstrated in Figure 1.

Figure 1: Overall Score



Many of the findings and recommendations in this report are similar to the Water Supply AMP review, as the activities both follow the same template and from the perspective of this desktop review, they both present a similar level of asset management maturity.

Overall, it is clear that Council has implemented a number of recommendations made in the 2018 AMP review. The suite of AMP documents are considered to be a clear demonstration of Waimakariri DC sound stewardship of the wastewater assets.

The Introductory Chapter sets out the framework for the roading and utilities activity management plans. It is easy to follow, well-structured and the language is clear and concise.

The Wastewater AMP provides an overall framework and summarises the scheme plans. The Wastewater AMP on the whole is well written and links well with the scheme plans.

The scheme plans provide a more detailed view of the rationale for investment in the schemes and the way they are being managed. The analysis was clear and logical, and they now include an Executive Summary highlighting the key points. The scheme plans include good use of maps and tables, and set out the local issues clearly.

The suite of AMP documents related to Wastewater (and also Water Supply) are strongest in the growth and demand management, levels of service, asset systems and data, lifecycle management, optimised decision making areas and the improvement plan. One key area of improvement is the risk management sections in both the Activity Management Plan and the Scheme Plans. This section has remained largely unchanged and is becoming increasingly out of date.

Two other areas for the AMPs to focus on in the next generation are consideration of the options differing levels of service and the cost/risk implications, and secondly ensuring that the plans clearly show the linkage between analysis and capital and operational investment decisions. It is not always clear in the plans why particular projects are needed. The trend in asset management planning over the last five years has to develop plans that act as an overall business case for asset related expenditure. They should both provide the evidence base and the strategic case for investment, and complement the better business case process. Some more detail about the rationale for large capital projects and significant renewals would strengthen the case and provide decision makers more surety that investment is targeted in the right areas.

This report provides four high priority actions that WDC should review immediately. The remaining recommendations have been prioritised as medium or low and should be considered for implementation over a period of time.

1. Introduction

1.1 Background

Waimakariri District Council (WDC) engaged Infrastructure Associates Ltd to undertake a desktop review of the Wastewater Activity Management Plan (AMP). The objective of this assessment is to focus on the overall structure of the AMP and to highlight the improvements required to meet statutory and best practice requirements.

1.2 Asset Management

Asset Management is the means of planning at a strategic and tactical level for infrastructure. Traditional management of infrastructure has separated capital expenditure on new assets from operation, maintenance and renewal/rehabilitation of existing assets. This creates a situation where capital expenditure decisions are made with no consideration of “Consequential Opex”. This most often occurs in a reactive way with little regard to levels of service, working knowledge of what customers actually expect, and little knowledge of what assets exist, what condition they are in, or how they may fail.

One of the main challenges is to ensure that financial resources are available to adequately fund new works, whilst funding the appropriate level of maintenance on existing assets. The major tool to assist WDC is the AMP, which assists in forward planning so that informed decisions can be made in the face of these competing priorities.

The application of Asset Management principles encourages a holistic, integrated approach inevitably affecting where and how finances and resources are allocated. Most infrastructure organisations utilise guidance material produced by NAMS (in particular the International Infrastructure Management Manual 2020) which includes Local Government Act and Office of the Auditor General requirements. This review has used a checklist and scoring framework developed from good practice as outlined in the International Infrastructure Management Manual (IIMM).

1.3 Desktop Review

A desktop review was undertaken on the following AMP documents:

1. Activity Management Plan 2021 - Utilities & Roading Introductory Chapter
2. Activity Management Plan 2021 - Wastewater District Overview
3. Activity Management Plan 2021 - Oxford Wastewater Scheme (one of twelve scheme plans).
4. Activity Management Plan 2021 - Rangiora Wastewater Scheme (one of twelve scheme plans).

1.4 Weighting for Overall Score

The AMP has been reviewed against a range of criteria under ten aspects of the asset management framework. Each of these aspects listed on the review form was used to assess and score the AMP with a weighting used to obtain the overall score.

Each asset management aspect is weighted as follows:

Assessment Areas	Weighting
Process of Development	5%
Links to Other Planning Documents	5%
Growth and Demand Management	15%
Levels of Service and Performance Measurement	15%
Asset Systems and Data	10%
Financial Information	10%
Life Cycle Management Practices	15%
Risk Management	10%
Optimised Decision Making	10%
Improvement Programme	5%

The following report sections outline the summary and detailed results for each assessment area noting strengths and areas for potential improvement. Key recommended improvement areas have been summarised in each section to assist WDC in focusing on those areas which will provide the greatest benefit.

2. Wastewater AMPs Results

2.1 Summary Results

The Wastewater AMPs have gained an **overall score of 0.72 out of a maximum score of 1.00**, which is at the **intermediate level** of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Wastewater activity of a score level of 0.70 (intermediate).

Ten assessment areas have been developed to assess the overall completeness and depth of the AMPs and a summary of the results are illustrated in Figure 2 below.

Figure 2: Summary Results for Waimakariri District Council Wastewater AMPs

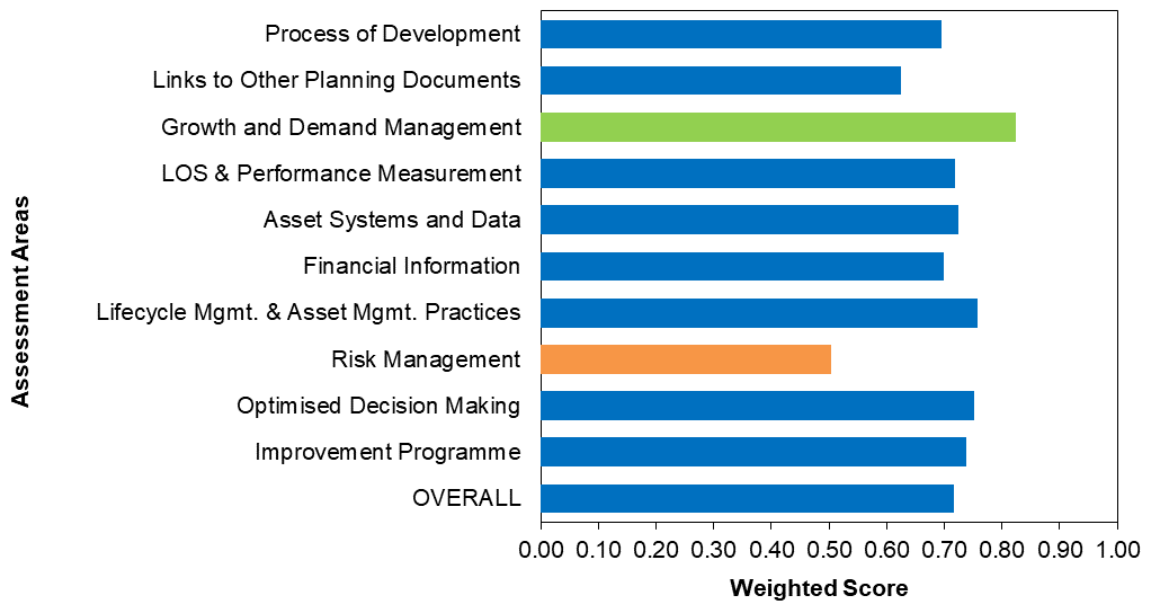


Table 1: Key to Scoring Crossbar for Overall Results

0.00 - 0.40	Minimum	AMP is considered to be poorly developed and at a Minimum level of maturity. The AMP doesn't outline the basic asset management practices, systems or information necessary to manage the assets.
0.41 - 0.60	Core	AMP is considered to be at a Core level. Although the AMP outlines asset management practice systems and information it does so in a perfunctory way indicating there is no depth to the analysis. There is limited confidence in the robustness of long term financial forecasts and the decision-making analysis.
0.61 - 0.80	Intermediate	AMP is considered to be at an Intermediate level. There is a clear articulation of most asset management practices. There is reasonable confidence that long term financial forecasts are robust and decision making is sound.
0.81 - 1.00	Advanced	AMP is considered to be Advanced. The AMP information is strong and convincing in all aspects. There is high confidence in long term financial forecasts and the way options are analysed and decisions made.

2.2 Detailed Results

Outlined below is a summary of each of the assessed areas of the AMPs.

2.2.1 Process of Development

This aspect of the AMP review is to assess the process of development of the AMP.

Good practice around the AMP development includes:

- Multi-disciplinary involvement in preparing the plan (i.e. engineers, planners, finance personnel).
- Sound internal QA of the AMP development.
- Sound external QA of the AMP development.
- Approval of the AMP at executive management level and at council level.
- Regular refreshment of the AMP so that it is up to date, preferably at least annually.

Table 2: Key to Scoring Crossbar for Process of Development

Score Ranges	Score	Definition
0.00 - 0.40		Minimum process of AMP development. Ad hoc method of preparation with narrow input and little QA. AMP likely to be very old and not properly approved.
0.41 - 0.60		Core process used to develop AMP. Evidence of some QA and formality in planning. AMP has been approved.
0.61 - 0.80	0.70	Intermediate AMP development process. Sound processes used to prepare, QA and approve AMP. Involvement by a wide range of disciplines.
0.81 - 1.00		Advanced development process. Clear and convincing evidence of formal development, effective internal and external QA.

Process of Development Observations

- The Activity Plan Overview has a similar layout to the previous version, with some reordering of the contents and improvement implemented from the previous review. These improvements provide greater assurance to auditors on the process of AMP development.
- The Wastewater set of AMP documents were prepared in 2020 for the LTP period commencing in July 2021.
- An AM Maturity Assessment has been carried out for the 3 Waters and Rooding activity areas. The maturity assessment reviews the processes and practices that underlie good asset management planning practices. It would be expected that Waimakariri have intermediate level maturity for all asset related activities. It is recommended that Waimakariri undertake an externally peer reviewed maturity assessment every 3 years, and an internal assessment annually to monitor progress.
- The Wastewater AMP documents adopt a standardised framework that provides consistency across the different WDC asset groups, and avoids repetition of common information.

- The AMP has not yet been approved by Council, but the documents reviewed are in draft and are yet to be presented to Council. The appropriate Waimakariri DC managers have approved the draft which is shown in the newly introduced document control page.
- There is little reference to any external input into the AMP or any reference to current or previous LTP consultation processes. It is not clear whether Wastewater Schemes have scheme representatives and whether they have any input into the plans. There is no specific reference in the AMP of the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan. LGA 2002 Schedule 10 – 8.
- The document review process outlines the involvement of internal staff across Council. There is reference to a number of internal reports (with TRIM reference numbers)
- An Executive Summary has been added to the scheme plans that highlights the key points effectively.
- The AMP is reviewed by external independent consultant.

Process of Development Recommendations

Action	Priority
Provide greater assurance to the reader on the robustness of AMP development process by demonstrating how the plan utilised sound project management techniques (could add as an appendix so that it doesn't detract from the body of the plans).	Medium
Add references to any external input into the AMP or any reference to current or previous LTP consultation processes.	Medium
Document how stakeholders are engaged with during the LTP consultation process and note the involvement in the plans of Wastewater schemes representatives.	Medium
Add reference in the AMP to the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan.	Medium

2.2.2 Link to Other Planning Documents

This aspect of the review is to assess how well the AMP references and shows the connections with other plans. AMPs do not sit in a planning vacuum. There will be overarching plans (such as the Long-Term Plan (LTP) and District Plan) and other plans (e.g. Infrastructure Strategy, and Procurement Policies/Plans).

AMP good practice in this respect will include:

- Wiring diagrams of plan relationship and hierarchies.
- A brief description of the linked plans.
- The nature of the relationship or the major connection features.
- How those other plans can be accessed.
- What gaps or omissions need to be rectified in future plans.

Table 3: Key to Scoring Crossbar for Links to Other Planning Documents

Score Ranges	Score	Definition
0.00 - 0.40		Minimum links or non-identification of links for both external and internal plans. No perception given on relationships and the issues that arise from the various plans.
0.41 - 0.60		Core explanations of the various plans and their linkages, but not very clear, or the issues not explained.
0.61 - 0.80	0.62	Intermediate explanation of other plans, both external and internal and how they relate to the AMP. Linkage issues are explained.
0.81 - 1.00		Advanced narratives and wiring flowchart descriptions of all the plans connected with the AMP.

Link to Other Planning Documents Observations

- The set of AMP documents link well between the Utilities & Roading Introductory Chapter, the Wastewater AMP and the scheme plans. The Introductory Chapter outlines the key infrastructure AMPs and ties them together across the asset groups.
- The AMP documents demonstrate better linkages to other Council documents or wastewater related planning or technical documents. The scheme plans include a list of reference documents. It is still recommended that a table or diagram of relevant documents be shown in the Wastewater Activity Management Plan Overview.
- It is difficult to determine whether there is any connection between the AMP documents and the District Plan.
- The funding section refers only briefly to the Revenue and Funding Policy.
- The AMP should refer to, and provide a summary of, Councils Significance Policy in accordance with LGA 2002 Schedule 10 – 11, however there doesn't appear to be mention of it in the Wastewater AMP documents.
- Section 21 of the Wastewater AMP outlines the significant negative effects of the activity on social, economic, environmental or cultural well-being of the local community as per LGA 2002 Schedule 10 – 2 (1) (c)".

Link to Other Planning Documents Recommendations

This element has improved significantly from the previous review. The improvements are intended to satisfy auditors need to see linkages between council planning documents and also to provide the reader a greater level of confidence.

Action	Priority
Add a diagram or table in the Wastewater AMP to show how the documents relate to other planning or technical documents.	Medium
Reference the District Plan within relevant sections of Wastewater AMP.	Medium
Provide a summary of Council's Significance Policy in accordance with LGA 2002 Schedule 10 – 11 in the Wastewater AMP.	Medium

2.2.3 Growth and Demand Management

Good practice in demand management for Wastewater AMPs will include:

- Comprehensively listing the factors that influence demand (demand drivers).
- Identifying the models & analysis used to assess the impact of the above factors on future demand.
- Demand management options via asset solutions (e.g. building or extending assets).
- Demand management options via non-asset solutions (e.g. shifting demand at peak times).
- Implementation of demand management strategies.

Table 4: Key to Scoring Crossbar for Growth and Demand Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum demand management information. Few factors listed, little in the way of analysis and no clear way ahead signalled as to how to handle future demand.
0.41 - 0.60		Core demand management information. Reasonable listing of demand factors. Some analysis. Potential asset/non-asset solutions identified but only in a general way.
0.61 - 0.80		Intermediate demand management information. Broad spectrum of factors listed with good basic analysis. Specific asset and non-asset solutions listed.
0.81 - 1.00	0.82	Advanced demand management. Thorough and convincing listing and analysis of demand factors and specific solutions are detailed.

Growth and Demand Observations

- The AMP documents contains good discussion on demand implications of population growth that are specific to Wastewater. The AMP recognises that further analysis of other demand factors should be considered in future.
- The analysis of demand trends is very clearly articulated within the scheme plans. Sections 5.6 and 5.7 of the scheme plans follow a logical and structured analysis of demand and capacity. The growth projections are considered along with existing capacity to determine the timing and required capacity over the next 50 years. The scheme plans very clearly articulate the new asset requirements resulting from growth requirements.
- The demand is expressed in numbers of new connections per scheme up to 50 years in advance. It is recommended that the connection figures be shown in percentages as well as absolute figures in the Activity Management Plan.
- The differences between the figures reported in the LTP and the AMP are explained.
- A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements, however this may not be achievable in time for the final plans.

Growth and Demand Recommendations

Action	Priority
A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements.	Medium
In Table 19 of the Wastewater AMP, show the connection figures for each scheme in percentages as well as absolute figures.	Low

2.2.4 Levels of Service

Levels of Service (LoS) statements are defined as: “Levels of Service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.” (Source IIMM, International Edition 2011).

Service attributes (service criteria) often relate to: “Aspects or characteristics of a service such as accessibility, affordability/cost, efficiency, quality, quantity, reliability, responsiveness, safety”. (Source IIMM, International Edition 2011).

Good practice in relation to LoS include:

- Showing how LoS fit into WDC’s performance reporting.
- Indicating how LoS are developed and agreed with customers (users) and stakeholders e.g. critical customers such as hospitals.
- Categorising LoS into quality, safety, affordability, etc (Core Values in the IIMM).
- Ensuring there are current and future targets for each LoS category.
- Ensuring there are systems to measure, monitor and report actual LoS in comparison with targets.
- Analysing LoS targets into both customer language and technical management language.

Table 5: Key to Scoring Crossbar for Levels of Service

Score Ranges	Score	Definition
0.00 - 0.40		Minimum LoS information. No indication of how LoS arrived at. LoS characteristics lacking depth. Targets poorly stated with unclear measurement systems.
0.41 - 0.60		Core LoS information. LoS development is indicated in a general way. The LoS categories are reasonable but not well developed. Targets and measures are stated in a basic fashion.
0.61 - 0.80	0.72	Intermediate LoS information. AMP explains how LoS have been developed and how they fit into the LoS hierarchy. There is consistency between high level plans and AMP. Gaps in LoS information and process outlined with measures to close gaps.
0.81 - 1.00		Advanced LoS information. Clear and transparent framework. Targets and measures exist for all LoS categories and are well explained in both customer speak and technical speak.

Levels of Service Observations

- Section 4 of the Wastewater AMP describes the sources of the levels of service, and the changes since the last LTP. There is brief reference to consultation through the LTP process but no analysis of outcomes from the consultation.
- Changes in level of service measures from previous AMPs are well documented.
- The levels of service are clear and well defined. However, it is recommended that actual performance be provided along with an explanation of variances, rather than a simple yes/no answer as to whether targets have been met.
- The levels of service in the AMP documents include all the mandatory and elective performance measures.

- There is mention of the National Performance Review benchmark, however comparison against 2018/19 data has not been presented in the AMP. There is comparison across the schemes, but no analysis of differences.
- There is little mention of stakeholders involvement in the plan.

Levels of Service Recommendations

Action	Priority
Provide actual performance along with an explanation of variances, rather than a simple yes/no answer as to whether targets have been met in Table 8 of the Wastewater AMP. Further historic data could be shown to determine the trend.	High
Present a comparison between WDC performance against the available National Performance Review benchmark (2018/19 data for this AMP).	Medium
Add a section to the Wastewater AMP summarising the performance of different schemes, noting differences and areas for improvement.	Medium
Describe the stakeholder engagement and how this and the customer feedback influences the capital and operating programmes. For example, the 2015 Customer Satisfaction Survey on the council website is not referenced in the AMP documents and stakeholders are not included.	Medium
Incorporate discussion into the document on options to increase or decrease service levels, and costs and risks associated with differing levels of investment.	Medium

2.2.5 Assets Systems and Data

An asset management information system is defined as:

“A combination of processes, data, software and hardware applied to provide the essential outputs for effective AM” (Source: IIMM International Edition 2011).

Good practice surrounding AM information systems include:

- The focus on meeting identified business needs.
- Integration of AM systems and corporate information systems.
- Knowing what the assets are, where they are, their condition and the financial values.
- Identifying the time costs of operation and maintenance.
- Predicting asset decay, and failure to meet desired LoS.
- Indicating the capital investment required to maintain, replace and upgrade assets.

Table 6: Key to Scoring Crossbar for Asset Systems and Data

Score Ranges	Score	Definition
0.00 - 0.40		Minimum. AMP does not clearly disclose the systems use or how they interrelate. Nor does it provide a good picture of the standard of data and the information gaps.
0.41 - 0.60		Core Information. The AMP provides reasonable information on AMP systems and the completeness / reliability of data.
0.61 - 0.80	0.73	Intermediate articulation of systems and data. The reader of the AMP can readily ascertain a snapshot of the quality of systems and data, the information 'gaps' and how they are being addressed.
0.81 - 1.00		Advanced information presented on all systems used, their interrelationships, weaknesses, strengths etc. A similar picture is provided for data.

Asset Systems and Data Observations

- Section 20 of the Wastewater AMP outlines the asset management systems being used. Some more commentary on the functionality of the asset management information system would be useful.
- Section 20 of the Wastewater AMP outlines briefly the GIS system and its use within council. Several other sections note the usage of GIS and the AMP contains some well-presented maps of assets, renewal projects criticality.
- Other information systems relevant to the wastewater activity are listed.
- There is no comprehensive analysis in the AMP of the strengths and weaknesses of the existing systems. It is recommended that the strengths and weaknesses be added to Section 20 of the Wastewater AMP.
- The breadth of asset information appears sufficient. Section 19 shows the confidence in the asset data, and does now provide an explanation of the reasons for why some asset classes are lower.

Assets Systems and Data Recommendations

Action	Priority
Add some more commentary on the functionality of the asset management information system to Section 19 of the Wastewater AMP	Medium
Incorporate a discussion on the strengths and weaknesses of the asset management systems into Section 19 of the Wastewater AMP.	Medium

2.2.6 Financial Information

One of the most vital outputs of asset management is a robust financial forecast, over a long forecast period, for every recognised expenditure category (Operations, Maintenance, Renewals, Capital, Depreciation, and Funding etc.). Good practice in AMPs for financial management include:

- Robust long-term budgets in correct categories.
- Assumptions listed.
- Latest valuation information used in the AMP.
- Understanding of funding requirements.

Table 7: Key to Scoring Crossbar for Financial Information

Score Ranges	Score	Definition
0.00 - 0.40		Minimum financial information. Financial information not clearly set out. There are uncertainties as to basis of expenditure and fundamental questions about the funding.
0.41 - 0.60		Core financial information. Financial forecasts are clearly set out and reflect the management practices in the AMP. There are fewer uncertainties as to the basis of renewals, new capital forecasts and funding.
0.61 - 0.80	0.70	Intermediate financial information. Financial information is well analysed and uses graphs or other illustrations. Detailed assumptions and rationale provided. Few uncertainties as to basis of all expenditure categories or funding.
0.81 - 1.00		Advanced analysis and presentation of valuations, forecasts and assumptions. Provides the reader comfort and certainty.

Financial Information Observations

- The Wastewater AMP section 18 provides a breakdown of expenditure for the district over the 30-year period, split into the expenditure categories. Figure 9 in the Wastewater AMP shows the split between level of service and growth expenditure over the next 50 years, as per LGA requirements.
- The Wastewater AMP shows the renewals requirements over the next 150-year period. The AMP notes that this is different to the amount in the LTP and explains how budgets will be increased over time.
- The 50-year long-term renewals programme incorporates the assessed remaining useful life estimates. The base useful lives would be useful to include as an appendix to the Wastewater AMP.
- The long term (50 year) forecasts in the Wastewater AMP cover a longer timeframe than is required for the Infrastructure Strategy (IS). It is a requirement in the IS to identify the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)). The AMP does not include analysis of options for managing assets.
- Section 18 of the Wastewater AMP provides assumptions made for expenditure estimates. The assumptions appear to be reasonable.
- The Wastewater AMP does not note the date of the last valuation. The AMP includes a table of the replacement cost, depreciated replacement cost and depreciation by asset class from the most recent valuation.

- The AMP provides a better level of understanding of funding, and recognises where there are funding limitations and discuss sources of funding.
- The linkages to the Council Development Contributions Policy have been improved, and there is a link to calculations schedules.

Financial Information Recommendations

Action	Priority
Include analysis of options for managing assets to support the IS which identifies the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)).	Medium
Show the date of the valuation below the table summarising the values.	Medium
Add a table of the base useful lives as an appendix to the Wastewater AMP.	Medium

2.2.7 Lifecycle Management

This aspect of the AMP review looks at how well the AMP describes the ongoing tasks of asset management. Does it present a convincing picture that WDC is proactively managing the Wastewater assets and doing so in an integrated 'far sighted' way?

The elements considered include:

- The breadth and depth of coverage of the network in the AMP.
- How condition and performance data is gathered and monitored.
- Maintenance strategies.
- Asset renewals and rehabilitation strategies.
- New capital works strategies.
- How services are delivered.

Table 8: Key to Scoring Crossbar for Lifecycle Management Practices

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of asset management strategies. No coherent overall approach. Tendency to dwell on past practices. AMP doesn't adequately cover all network Assets; condition assessments not robust.
0.41 - 0.60		Core lifecycle practices. Fairly general descriptions of strategies; reasonably reliable data and condition assessments that provide some basis for projecting future strategies.
0.61 - 0.80	0.76	Intermediate lifecycle practices. Indications of proactive and integrated approach based on solid data and monitoring. Answers the 'why' questions e.g. .why are future rehabilitations at this level?
0.81 - 1.00		Excellent and convincing strategies are articulated based on reliable data, regular monitoring and up skilled resources.

Lifecycle Management Observations

- The AMP now notes that there is no deferred maintenance or renewals.
- A good level of asset information is presented to explain the assets within the scope of the Wastewater AMP. The scheme plans provide more detailed analysis, along with map of the scheme, the planned renewals and schematics.
- The Wastewater AMP summarises the overall asset performance in the Asset Condition section, and the scheme plans further analyse the condition and performance of the major asset groups. The analysis is well presented in a clear and logical format for the reader.
- The AMP provides good breadth of coverage for both lifecycle management and asset management practices, asset categories and sub-groups are clearly presented, and critical assets are clearly identified.
- The AMP notes that limited condition data is available especially for headworks and is an area for improvement.

- The AMP documents do not examine in much depth the impact of soil types, geological features or pipe materials on the renewal programme.
- Further description of maintenance practices and strategies in this AMP has provided the reader with a greater level of confidence. Effect of growth on network maintenance budgets is also noted in the AMP.
- No maintenance standards or specifications that relate to the maintenance of the wastewater activity are shown in the AMP. A list of applicable standards and guidelines should be listed in the Appendices.
- The basis for the renewals programme is described well, and appears to be robust, and there is a note on the levels of deferred maintenance and renewals.
- The scheme AMPs outline the renewal prioritisation process through the renewals model and then consideration of other factors by the Asset Manager. The analysis of other factors such as risk and criticality is very well presented in the scheme AMPs.
- The scheme AMPs summarise the capital works, showing projects over the next 50 years, along with confidence and splits into types of expenditure. There is no indication of the relative priority of these projects should funding be limited through the LTP process.
- The linkage of capital projects to growth factors appears to be robust, however the inclusion of factors other than population growth needs to be considered.

Lifecycle Management Recommendations

Action	Priority
Describe in greater detail the maintenance practices and strategies used. This should include the maintenance standards or specifications that relate to the maintenance of the wastewater activity. A list of applicable standards and guidelines should be listed in the Appendices.	Medium
Add commentary on the impact of soil types, geological features or pipe materials on the renewal programme.	Medium
Show the relative priority of capital projects in the scheme plans	Medium

2.2.8 Risk Management

The purpose of Risk Management is to identify the risks associated with the wastewater activity and assets. This requires approaching the risks from many perspectives including financial, operational, and organisational, as well as public health and safety. In general terms ISO31000:2009 provides the foundation for the risk framework.

The key elements included are:

- The framework that is in place.
- The level of analysis undertaken.
- Risk is a key component in the decision-making process.
- The identification and implementation of risk management strategies.

Table 9: Key to Scoring Crossbar for Risk Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of risk management strategies.
0.41 - 0.60	0.50	Core Risk Management practices. Fairly general descriptions of risks.
0.61 - 0.80		Intermediate Risk Management practices. Risk register is populated and risk levels are identified.
0.81 - 1.00		Advanced and convincing Risk Management strategies are provided based on robust weighting system with management strategies in place. Risk links to overall Corporate Policy and is integrated into the decision-making process.

Risk Management Observations

- The risk management section of the Wastewater AMP and scheme plans remains largely unchanged from the previous AMPs. Scheme plans show historic risk information up to 2014 which is now out of date.
- The AMPs outline the operational, health and corporate risks along with the disaster resilience assessment and vulnerability assessments. The breadth of risk presented is considered to be comprehensive. Risk is very well articulated and presented throughout the plan documents.
- The AMP risk matrix and processes are well defined, although a table showing the definitions of risk consequence levels would be useful. The risk assessment in the AMP appears to follow the overall Council process and links to the Council Risk Policy.
- A relatively comprehensive risk register is included in the plans. The risk tables could be improved by adding the level of risk, timeframes for completion, cost to mitigate and persons specifically responsible for each risk. It is not clear in the AMPs what the treatment projects are and whether they are included in financial forecasts.
- A risk action and monitoring programme is not detailed (to ensure implementation carried out and any changes in risk exposure identified).

- Critical assets are well defined and shown on scheme maps, however there is little commentary about the implications of having assets that have a large number of extremely critical assets.

Risk Management Recommendations

This section is mostly unchanged from the previous AMP and is becoming more out of date. It is the weakest section of the plans and needs some attention.

Action	Priority
The risk tables should be improved by adding the level of risk, timeframes for completion, cost to mitigate and persons specifically responsible for each risk. Alternatively, a separate risk action plan could be included that shows the high priority risks, 'residual risk' after existing mitigation measures, future treatment actions required, costs, priorities and timelines for completion.	High
Add commentary on the implications of extremely critical assets into both the Wastewater AMP and the scheme plans.	High
Explain the WDC risk policy and framework including the definition of likelihood and consequences and overall risk priority.	Medium
Ensure that the AMPs show what the treatment projects are and whether they are included in financial forecasts.	Medium

2.2.9 Optimised Decision Making

There are two definitions given in the IIMM for Optimised Decision Making (ODM):

“Two definitions are: 1. A formal process to identify and prioritise all potential solutions with consideration of financial viability, social and environmental responsibility and cultural outcomes. 2. An optimisation process for considering and prioritising all options to rectify existing or potential performance failure of assets. The process encompasses NPV analysis and risk assessment.” (Source: IIMM International Edition 2011).

ODM can be seen as the end result or pinnacle of asset management practices i.e. does all the information on service levels, risks, finances and all practices lead to the ‘best’ decision. In reality, formal ODM processes in infrastructure management are more pronounced in the water area when compared to utilities or recreation assets. Good practice in ODM includes:

- Properly defining the problem, issues or opportunity.
- Identifying and short listing potential options.
- Assessing information requirements and using appropriate support tools.
- Identifying benefits and costs.
- Using the best evaluation techniques to determine the optimal solution.

Table 10: Key to Scoring Crossbar for ODM

Score Ranges	Score	Definition
0.00 - 0.40		Minimum ODM information. There is very little in the way of ODM tools analysis and techniques, and this does not appear to be applied in future treatment decisions little in the way of convincing analysis.
0.41 - 0.60		Core ODM information. Other equivalent tools but rather perfunctory and minimalist – doing what they have to do to get by.
0.61 - 0.80	0.75	Intermediate ODM information. An array of tools and techniques used, and these are well explained. Tools are balanced with ‘wise head’ experience.
0.81 - 1.00		Excellent ODM information. Sophisticated use of ODM tools and techniques. Augmented by excellent base data and analysis. “What if” scenario and sensitivity analysis used. Leads to convincing and robust future treatment decisions across all areas of network.

ODM Observations

- The optimised decision process is briefly described in the Introduction Chapter, but is not explicitly mentioned in the Wastewater AMP or the scheme plans. However, there is ample evidence of the consideration of multiple factors in the decision-making process.
- The over \$250k project based decision making processes incorporate better business case factors and allow prioritisation across activities.
- There appears to be an appropriate balance of experience and asset performance information.
- The AMP displays a good understanding of the assets and current practice, however the discussion of options is not explored.

- There is good use of renewal tools and consideration of other factors in decision making.
- The AMP clearly explains the growth and demand factors and their impact on service provision.
- The AMPs very briefly indicates that consideration is given by the Asset Manager to other infrastructure works planning, but there is little acknowledgement of any cross-infrastructure planning across Council.

ODM Recommendations

Action	Priority
Explain the options considered in the development of optimal solutions. Explain how the favoured option was chosen, including any tools used in the process, in particular any cost-benefit or multi-criteria analysis.	High
Explain any processes in place to undertake cross-infrastructure planning within Council to improve operational efficiency.	Medium

2.2.10 Improvement Planning

An AMP is merely a snapshot of a particular point of the asset management practices being carried out. It is very important that each AMP contain an improvement section, which details the weak areas in asset planning, and what is intended to be done to improve asset management practices.

Good practice for AMP Improvement Programmes includes:

- Honestly stating the weak points in AM planning and AM practices.
- Tracking where AM is at now and where each aspect of the AM aspires to be (noting it may not be cost effective to be 'perfect' in everything).
- Stating what improvement projects need to be implemented, in what priority and when.
- Providing an indication of the resources (human and dollars) needed to implement improvements.
- Where possible, gaining approval for the spending of those resources.

Table 11: Key to Scoring Crossbar for Improvement Programme

Score Ranges	Score	Definition
0.00 - 0.40		Minimum improvement information. No detail. Little confidence that there is investing in better asset management.
0.41 - 0.60		Core improvement information. States existing weaknesses and has a generalised programme for addressing weaknesses – but lacking in detail.
0.61 - 0.80	0.74	Intermediate improvement information. All aspects of AM addressed as to weaknesses and what level of sophistication they want to achieve. Good detail on improvement projects, their priority, and the resources involved.
0.81 - 1.00		Excellent improvement information. Very comprehensive information on all aspects of existing AM weaknesses, not only the improvement projects listed in detail, they are prioritised and the interrelationships between projects noted. There is approval for the resources needed to improve AM.

Improvement Planning Observations

- The Introductory Chapter explains how the AM maturity assessment has been undertaken for the 3 waters and roading activity areas, and states that the outcomes and target are stated in the overview document. The results of the AM maturity review are shown in the Wastewater AMP. It is not clear if the improvement recommendations from the review are included in the Improvement Plan.
- Section 24 of the Wastewater AMP shows the 2021 Improvement Plan and the scheme plans show improvement actions specific to the scheme. There is no discussion of the options to address gaps in practice.
- The priorities are indicated for the improvement items, as well as status and estimated cost.
- It is not clear whether budgetary approval has been secured for any or all of the improvement actions.
- The response to the Audit NZ Questions has now been included in the Improvement Section.

Improvement Planning Recommendations

Action	Priority
Clearly show that the improvement actions from the maturity review are shown in the Improvement table.	Medium
Schedule three yearly externally peer reviewed asset management maturity reviews with annual internal reviews.	Medium

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Waimakariri District Council

Desktop Review of the Solid Waste Services Activity Management Plan 2021

**Prepared by David Jeffrey
Infrastructure Associates Ltd**

January 2021

Contents

Executive Summary	3
Key Findings	3
1. Introduction	5
1.1 Background	5
1.2 Asset Management	5
1.3 Desktop Review	5
1.4 Weighting for Overall Score	6
2. Solid Waste Services AMP Results	7
2.1 Summary Results	7
2.2 Detailed Results	8

Tables

Table 1: Key to Scoring Crossbar for Overall Results	7
Table 2: Key to Scoring Crossbar for Process of Development	8
Table 3: Key to Scoring Crossbar for Links to Other Planning Documents	10
Table 4: Key to Scoring Crossbar for Growth and Demand Management	12
Table 5: Key to Scoring Crossbar for Levels of Service	14
Table 6: Key to Scoring Crossbar for Asset Systems and Data	16
Table 7: Key to Scoring Crossbar for Financial Information	18
Table 8: Key to Scoring Crossbar for Lifecycle Management Practices	20
Table 9: Key to Scoring Crossbar for Risk Management	22
Table 10: Key to Scoring Crossbar for ODM	24
Table 11: Key to Scoring Crossbar for Improvement Programme	26

Executive Summary

Waimakariri District Council (WDC) has requested a desktop review to be undertaken of the Solid Waste Services Activity Management Plans (AMP) to ensure legal requirements are met, to identify and prioritise any gaps in the AMP document and focus asset management efforts over the next period. WDC has an overall goal of improving asset management to an advanced level over time.

This review is of the Solid Waste Services AMP document prepared in 2020 for the Long Term Plan (LTP) period commencing in July 2021. The reviewed documents were:

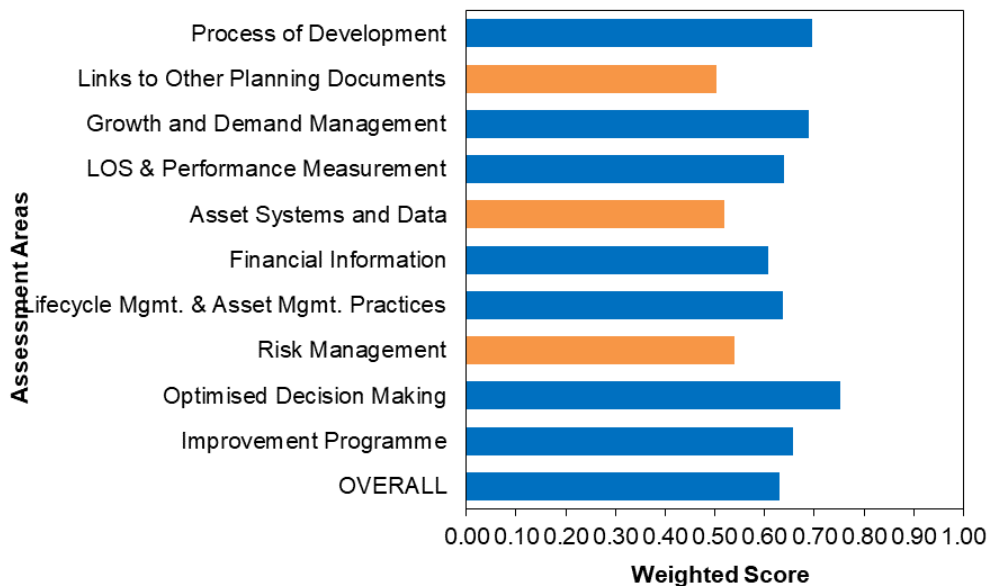
1. Activity Management Plan 2021 - Utilities & Roading Introductory Chapter
2. Activity Management Plan 2021 – Solid Waste Services

Key Findings

Ten assessment areas have been reviewed to assess the overall completeness and depth of the AMP. The overall score was **0.63 out of a maximum score of 1.00** which is at an intermediate level of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Solid Waste activity of a score level of 0.70 (intermediate level) or better. The quality of analysis appears robust and supports the LTP.

The AMP showed strengths and weaknesses in different assessment areas as demonstrated in Figure 1.

Figure 1: Overall Score



Many of the findings and recommendations in this report are similar to the Three Waters AMP reviews, as the activities both follow the same template. However there are some sections of the Three Waters AMPs that could be replicated in this AMP to add value.

This is the first review of the Solid Waste AMP by this reviewer. Overall the AMP is considered to be a clear demonstration of Waimakariri DC sound stewardship of the solid waste service assets. The AMP documents provide a robust analysis of the asset management issues both at a district level. It is evident that Council intends to improve its capabilities with the introduction of a new asset management system and improvements in asset condition collection. The AMP provides assurance that the asset management issues have been analysed with an appropriate level of rigour, and that the operational activity programmes are well thought out.

The AMP document is strongest in the process of development, growth and demand management, and optimised decision making areas. The areas of plan improvement should focus on links to other planning documents, asset systems and data, and risk management.

Two other areas for the AMPs to focus on in the next generation are consideration of the options differing levels of service and the cost/risk implications, and secondly ensuring that the plans clearly show the linkage between analysis and capital and operational investment decisions. It is not always clear in the plans why particular projects are needed. The trend in asset management planning over the last five years has to develop plans that act as an overall business case for asset related expenditure. They should both provide the evidence base and the strategic case for investment, and complement the better business case process. Some more detail about the rationale for large capital projects and significant renewals would strengthen the case and provide decision makers more surety that investment is targeted in the right areas.

This report provides nine high priority actions that WDC should review immediately. The remaining recommendations have been prioritised as medium or low and should be considered for implementation over a period of time.

1. Introduction

1.1 Background

Waimakariri District Council (WDC) engaged Infrastructure Associates Ltd to undertake a desktop review of the Solid Waste Services Activity Management Plan (AMP). The objective of this assessment is to focus on the overall structure of the AMP and to highlight the improvements required to meet statutory and best practice requirements.

1.2 Asset Management

Asset Management is the means of planning at a strategic and tactical level for infrastructure. Traditional management of infrastructure has separated capital expenditure on new assets from operation, maintenance and renewal/rehabilitation of existing assets. This creates a situation where capital expenditure decisions are made with no consideration of “Consequential Opex”. This most often occurs in a reactive way with little regard to levels of service, working knowledge of what customers actually expect, and little knowledge of what assets exist, what condition they are in, or how they may fail.

One of the main challenges is to ensure that financial resources are available to adequately fund new works, whilst funding the appropriate level of maintenance on existing assets. The major tool to assist WDC is the AMP, which assists in forward planning so that informed decisions can be made in the face of these competing priorities.

The application of Asset Management principles encourages a holistic, integrated approach inevitably affecting where and how finances and resources are allocated. Most infrastructure organisations utilise guidance material produced by NAMS (in particular the International Infrastructure Management Manual 2020) which includes Local Government Act and Office of the Auditor General requirements. This review has used a checklist and scoring framework developed from good practice as outlined in the International Infrastructure Management Manual (IIMM).

1.3 Desktop Review

A desktop review was undertaken on the following AMP documents:

1. Activity Management Plan 2021 - Utilities & Roading Introductory Chapter
2. Activity Management Plan 2021 - Solid Waste Services

1.4 Weighting for Overall Score

The AMP has been reviewed against a range of criteria under ten aspects of the asset management framework. Each of these aspects listed on the review form was used to assess and score the AMP with a weighting used to obtain the overall score.

Each asset management aspect is weighted as follows:

Assessment Areas	Weighting
Process of Development	5%
Links to Other Planning Documents	5%
Growth and Demand Management	15%
Levels of Service and Performance Measurement	15%
Asset Systems and Data	10%
Financial Information	10%
Life Cycle Management Practices	15%
Risk Management	10%
Optimised Decision Making	10%
Improvement Programme	5%

The following report sections outline the summary and detailed results for each assessment area noting strengths and areas for potential improvement. Key recommended improvement areas have been summarised in each section to assist WDC in focusing on those areas which will provide the greatest benefit.

2. Solid Waste Services AMP Results

2.1 Summary Results

The Solid Waste Services AMP has gained an **overall score of 0.63 out of a maximum score of 1.00**, which is at the **intermediate level** of AMP development. For an infrastructure-based organisation such as WDC, it would be reasonable to aim for an AMP for the Solid Waste Services activity of a score level of 0.70 (intermediate).

Ten assessment areas have been developed to assess the overall completeness and depth of the AMPs and a summary of the results are illustrated in Figure 2 below.

Figure 2: Summary Results for Waimakariri District Council Solid Waste Services AMPs

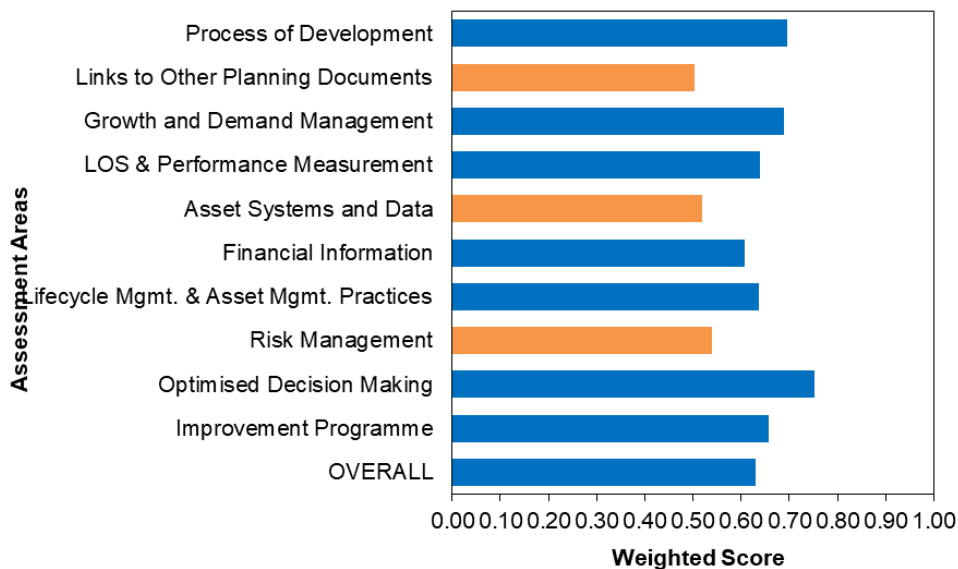


Table 1: Key to Scoring Crossbar for Overall Results

0.00 - 0.40	Minimum	AMP is considered to be poorly developed and at a Minimum level of maturity. The AMP doesn't outline the basic asset management practices, systems or information necessary to manage the assets.
0.41 - 0.60	Core	AMP is considered to be at a Core level. Although the AMP outlines asset management practice systems and information it does so in a perfunctory way indicating there is no depth to the analysis. There is limited confidence in the robustness of long term financial forecasts and the decision-making analysis.
0.61 - 0.80	Intermediate	AMP is considered to be at an Intermediate level. There is a clear articulation of most asset management practices. There is reasonable confidence that long term financial forecasts are robust and decision making is sound.
0.81 - 1.00	Advanced	AMP is considered to be Advanced. The AMP information is strong and convincing in all aspects. There is high confidence in long term financial forecasts and the way options are analysed and decisions made.

2.2 Detailed Results

Outlined below is a summary of each of the assessed areas of the AMPs.

2.2.1 Process of Development

This aspect of the AMP review is to assess the process of development of the AMP.

Good practice around the AMP development includes:

- Multi-disciplinary involvement in preparing the plan (i.e. engineers, planners, finance personnel).
- Sound internal QA of the AMP development.
- Sound external QA of the AMP development.
- Approval of the AMP at executive management level and at council level.
- Regular refreshment of the AMP so that it is up to date, preferably at least annually.

Table 2: Key to Scoring Crossbar for Process of Development

Score Ranges	Score	Definition
0.00 - 0.40		Minimum process of AMP development. Ad hoc method of preparation with narrow input and little QA. AMP likely to be very old and not properly approved.
0.41 - 0.60		Core process used to develop AMP. Evidence of some QA and formality in planning. AMP has been approved.
0.61 - 0.80	0.70	Intermediate AMP development process. Sound processes used to prepare, QA and approve AMP. Involvement by a wide range of disciplines.
0.81 - 1.00		Advanced development process. Clear and convincing evidence of formal development, effective internal and external QA.

Process of Development Observations

- The Activity Management Plan has a similar layout to the Three Waters AMPs. The AMP document adopt a standardised framework that provides consistency across the different WDC asset groups and avoids repetition of common information.
- Recommendations from the previous review of other AMPs have largely been implemented for this AMP. These improvements provide greater assurance to auditors on the process of AMP development.
- The Solid Waste Activity AMP document was prepared in 2020 for the LTP period commencing in July 2021.
- An AM Maturity Assessment has not been carried out for the Solid Waste Services activity areas. The maturity assessment reviews the processes and practices that underlie good asset management planning practices. It would be expected that Waimakariri have intermediate level maturity for all

asset related activities. It is recommended that Waimakariri undertake an externally peer reviewed maturity assessment every 3 years, and an internal assessment annually to monitor progress.

- The AMP has not yet been approved by Council, but the documents reviewed are in draft and are yet to be presented to Council. The appropriate Waimakariri DC managers have approved the draft which is shown in the newly introduced document control page.
- The document review process gives the reader an outline of the internal process to develop the AMPs.
- There is no specific reference in the AMP of the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan. LGA 2002 Schedule 10 – 8.
- The document review process outlines the involvement of internal staff across Council. There is reference to a number of internal reports (with TRIM reference numbers)
- An Executive Summary is included in the plan that highlights the key points effectively.
- The AMP is reviewed by external independent consultant.

Process of Development Recommendations

Action	Priority
Provide greater assurance to the reader on the robustness of AMP development process by demonstrating how the plan utilised sound project management techniques (could add as an appendix so that it doesn't detract from the body of the plans).	Medium
Add references to any external input into the AMP or any reference to current or previous LTP consultation processes.	Medium
Add reference in the AMP to the steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan.	Medium

2.2.2 Link to Other Planning Documents

This aspect of the review is to assess how well the AMP references and shows the connections with other plans. AMPs do not sit in a planning vacuum. There will be overarching plans (such as the Long-Term Plan (LTP) and District Plan) and other plans (e.g. Infrastructure Strategy, and Procurement Policies/Plans).

AMP good practice in this respect will include:

- Wiring diagrams of plan relationship and hierarchies.
- A brief description of the linked plans.
- The nature of the relationship or the major connection features.
- How those other plans can be accessed.
- What gaps or omissions need to be rectified in future plans.

Table 3: Key to Scoring Crossbar for Links to Other Planning Documents

Score Ranges	Score	Definition
0.00 - 0.40		Minimum links or non-identification of links for both external and internal plans. No perception given on relationships and the issues that arise from the various plans.
0.41 - 0.60	0.50	Core explanations of the various plans and their linkages, but not very clear, or the issues not explained.
0.61 - 0.80		Intermediate explanation of other plans, both external and internal and how they relate to the AMP. Linkage issues are explained.
0.81 - 1.00		Advanced narratives and wiring flowchart descriptions of all the plans connected with the AMP.

Link to Other Planning Documents Observations

- The set of AMP documents link well between the Utilities & Roading Introductory Chapter, and the Solid Waste Services AMP. The Introductory Chapter outlines the key infrastructure AMPs and ties them together across the asset groups.
- The AMP documents demonstrate linkages to other Council documents or solid waste related planning or technical documents. The plan includes a list of reference documents. It is recommended that a diagram of relevant strategic, tactical and operational documents be shown in the AMP, to demonstrate the flow of planning.
- The Waste Management Minimisation Plan (WMMP) is briefly mentioned in the AMP, but the AMP could be improved by stronger linkages particularly in the Demand and LoS sections to the WMP.
- There is no mention of the Revenue and Funding Policy.
- There appears to be no direct linkage or reference to Council Procurement Policies or Plans, other than a brief mention of competitive tendering in accordance with Council's procurement policy.
- The AMP should refer to, and provide a summary of, Council's Significance Policy in accordance with LGA 2002 Schedule 10 – 11, however there doesn't appear to be mention of it in the AMP.
- There is no mention of any significant negative effects of the activity on social, economic, environmental or cultural well-being of the local community as per LGA 2002 Schedule 10 – 2 (1) (c).

Link to Other Planning Documents Recommendations

Action	Priority
Strengthen the linkages between the Waste Management Minimisation Plan and the AMP, particularly in the demand and LoS sections.	High
Add a diagram or table in the AMP to show how the documents relate to other planning or technical documents.	Medium
Add in relevant reference to the Council Revenue and Financing Policy	Medium
Reference the Council Procurement Policies or Plans in the AMP.	Medium
Provide a summary of Council's Significance Policy in accordance with LGA 2002 Schedule 10 – 11 in the AMP.	Medium

2.2.3 Growth and Demand Management

Good practice in demand management for AMPs will include:

- Comprehensively listing the factors that influence demand (demand drivers).
- Identifying the models & analysis used to assess the impact of the above factors on future demand.
- Demand management options via asset solutions (e.g. building or extending assets).
- Demand management options via non-asset solutions (e.g. shifting demand at peak times).
- Implementation of demand management strategies.

Table 4: Key to Scoring Crossbar for Growth and Demand Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum demand management information. Few factors listed, little in the way of analysis and no clear way ahead signalled as to how to handle future demand.
0.41 - 0.60		Core demand management information. Reasonable listing of demand factors. Some analysis. Potential asset/non-asset solutions identified but only in a general way.
0.61 - 0.80	0.69	Intermediate demand management information. Broad spectrum of factors listed with good basic analysis. Specific asset and non-asset solutions listed.
0.81 - 1.00		Advanced demand management. Thorough and convincing listing and analysis of demand factors and specific solutions are detailed.

Growth and Demand Observations

- The AMP documents contains good discussion on demand implications of population growth that are specific to solid waste services, even though the 2018 Census figures were not available for use in this AMP.
- It is not clear from the AMP draft what the impact on assets is likely to be over the next ten years from the adoption of waste targets in the Waste Management Minimisation Plan to reduce annual per capita waste to landfill to 236kg per capita over a 10-year period and to increase the annual per capita quantity of materials diverted to 228kg per capita over a 10-year period.
- The growth projections are considered along with existing capacity to determine the timing and required capacity over the next 30 years for each activity.
- A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements.
- The Solid Waste AMP contains a section on managing uncertainty and acknowledges the low confidence ratings for waste and diversion forecasts.

Growth and Demand Recommendations

Action	Priority
Demonstrate how Council is intending to meet waste minimisation targets and the impact on assets.	High
A further improvement would be to undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding requirements.	Medium

2.2.4 Levels of Service

Levels of Service (LoS) statements are defined as: “Levels of Service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.” (Source IIMM, International Edition 2011).

Service attributes (service criteria) often relate to: “Aspects or characteristics of a service such as accessibility, affordability/cost, efficiency, quality, quantity, reliability, responsiveness, safety”. (Source IIMM, International Edition 2011).

Good practice in relation to LoS include:

- Showing how LoS fit into WDC’s performance reporting.
- Indicating how LoS are developed and agreed with customers (users) and stakeholders e.g. critical customers such as hospitals.
- Categorising LoS into quality, safety, affordability, etc (Core Values in the IIMM).
- Ensuring there are current and future targets for each LoS category.
- Ensuring there are systems to measure, monitor and report actual LoS in comparison with targets.
- Analysing LoS targets into both customer language and technical management language.

Table 5: Key to Scoring Crossbar for Levels of Service

Score Ranges	Score	Definition
0.00 - 0.40		Minimum LoS information. No indication of how LoS arrived at. LoS characteristics lacking depth. Targets poorly stated with unclear measurement systems.
0.41 - 0.60		Core LoS information. LoS development is indicated in a general way. The LoS categories are reasonable but not well developed. Targets and measures are stated in a basic fashion.
0.61 - 0.80	0.64	Intermediate LoS information. AMP explains how LoS have been developed and how they fit into the LoS hierarchy. There is consistency between high level plans and AMP. Gaps in LoS information and process outlined with measures to close gaps.
0.81 - 1.00		Advanced LoS information. Clear and transparent framework. Targets and measures exist for all LoS categories and are well explained in both customer speak and technical speak.

Levels of Service Observations

- The waste minimisation targets are included for the three year period but the ten year minimisation target is not shown and it is not clear what actions council intends to take to achieve the longer term target.
- Consider target levels of service measures that meet community outcomes attributes such as sustainable, resilient and affordable. Current measures focus on availability and provision of the services.
- The Three Waters AMPS clearly explain the changes to levels of service measures since the last LTP. The Solid Waste Services LoS section could be improved by showing the changes.
- The AMP makes good use of the Customer Satisfaction Survey data from 2019.
- There is brief reference to consultation through the LTP and WMMP process but no analysis of outcomes from the consultation.

- There is mention of the any benchmarking of services against similar sized councils.
- Note that the formatting of the Levels of Services Table 3 in the draft plan provided need correcting as currently spread over 28 pages.
- There is no mention of any options in the AMP to increase or decrease levels of service over the ten year period.

Levels of Service Recommendations

Action	Priority
Show performance targets in detail for the first 3 years and in outline for subsequent years, especially for waste minimisation and show any actions council is planning to achieve those targets.	High
Review the performance measures to ensure that they cover the range of agreed community outcomes. In particular consider measures for sustainability, resilience and affordability.	Medium
Describe any benchmarking undertaken with other solid waste services provided by councils.	Medium
Explain the changes to levels of service measures since the last LTP.	Medium
Incorporate discussion into the document on options to increase or decrease service levels, and costs and risks associated with differing levels of investment.	Medium
Improve the formatting of the LoS table to fit on 1-2 pages.	Low

2.2.5 Assets Systems and Data

An asset management information system is defined as:

“A combination of processes, data, software and hardware applied to provide the essential outputs for effective AM” (Source: IIMM International Edition 2011).

Good practice surrounding AM information systems include:

- The focus on meeting identified business needs.
- Integration of AM systems and corporate information systems.
- Knowing what the assets are, where they are, their condition and the financial values.
- Identifying the time costs of operation and maintenance.
- Predicting asset decay, and failure to meet desired LoS.
- Indicating the capital investment required to maintain, replace and upgrade assets.

Table 6: Key to Scoring Crossbar for Asset Systems and Data

Score Ranges	Score	Definition
0.00 - 0.40		Minimum. AMP does not clearly disclose the systems use or how they interrelate. Nor does it provide a good picture of the standard of data and the information gaps.
0.41 - 0.60	0.52	Core Information. The AMP provides reasonable information on AMP systems and the completeness / reliability of data.
0.61 - 0.80		Intermediate articulation of systems and data. The reader of the AMP can readily ascertain a snapshot of the quality of systems and data, the information 'gaps' and how they are being addressed.
0.81 - 1.00		Advanced information presented on all systems used, their interrelationships, weaknesses, strengths etc. A similar picture is provided for data.

Asset Systems and Data Observations

- In section 4, the AMP contains a good description of the assets and activities that support the solid waste services. Table 1 on pages 12-14 gives a good overview of the key statistics for the activities now compared to three years ago.
- Asset criticality has not been assessed yet for solid waste assets, but is recognised as an improvement action in the plan.
- The condition of solid waste services assets is unknown. The asset condition section presents condition information that is purely based on the age of assets. The reviewer is of the opinion that the condition graphs could be misconstrued as actual condition information, and that it would be clearer just to show age based graphs.
- A condition assessment programme has been given a high priority for 2021-23 in the Improvement Plan. WDC should consider the best process for collecting condition information and prioritise critical assets using contractors and/or staff resources. A suggested condition rating definition is provided below:

Condition Rating
1 Very Good - as new, no visible deterioration
2 Good - nearly new, some visible minor signs of aging
3 Moderate - worn appearance, but fully functional
4 Poor - nearing end of life, needs replacement in next 3 years
5 Very Poor - failure imminent, or has failed, or is obsolete. Needs replacement in next 12 months

- The AMP does not outline the asset management systems being used or explain the functionality of the asset management information systems. Consider adding a section similar to the Three Waters AMPs on Asset Management Systems.
- The AMP does not show the confidence in the asset data, other than a brief mention in Table 10 that confidence is low. Consider adding a section similar to the Three Waters AMPs on Data Confidence which rates the different asset classes and explains the reasons why some asset classes are lower.

Assets Systems and Data Recommendations

Action	Priority
Complete the assessment of asset criticality and use the information to prioritise the collection of condition information.	High
Complete the condition assessment programme scheduled for 2021-23.	High
Replace the current "condition" graphs in the AMP with asset age graphs, until actual condition information is collected.	Medium
Add a section to the AMP on Asset Management Systems similar to the Three Waters AMPs.	Medium
Add a section to the AMP on Data Confidence similar to the Three Waters AMPs.	Medium

2.2.6 Financial Information

One of the most vital outputs of asset management is a robust financial forecast, over a long forecast period, for every recognised expenditure category (Operations, Maintenance, Renewals, Capital, Depreciation, and Funding etc.). Good practice in AMPs for financial management include:

- Robust long-term budgets in correct categories.
- Assumptions listed.
- Latest valuation information used in the AMP.
- Understanding of funding requirements.

Table 7: Key to Scoring Crossbar for Financial Information

Score Ranges	Score	Definition
0.00 - 0.40		Minimum financial information. Financial information not clearly set out. There are uncertainties as to basis of expenditure and fundamental questions about the funding.
0.41 - 0.60		Core financial information. Financial forecasts are clearly set out and reflect the management practices in the AMP. There are fewer uncertainties as to the basis of renewals, new capital forecasts and funding.
0.61 - 0.80	0.61	Intermediate financial information. Financial information is well analysed and uses graphs or other illustrations. Detailed assumptions and rationale provided. Few uncertainties as to basis of all expenditure categories or funding.
0.81 - 1.00		Advanced analysis and presentation of valuations, forecasts and assumptions. Provides the reader comfort and certainty.

Financial Information Observations

- The AMP includes valuation figures from 30 June 2017. It notes that the next valuation was due 30 June 2020 but does not includes these figures.
- The confidence is noted as low for all the capital projects, even for those with expenditure in 2022.
- Figure 15 provides a breakdown of expenditure for the district over the 30 year period, split into the expenditure categories.
- Figure 14 in the AMP shows the split between renewal, level of service and growth capital expenditure over the next 50 years, as per LGA requirements.
- The AMP shows the renewals requirements over the next 150-year period. The AMP notes that this is different to the amount in the LTP, and explains how budgets change over time.
- The renewals programme incorporates the assessed remaining useful life estimates, which are explained in the asset condition section. The base useful lives would be useful to include as an appendix to the AMP.
- The long term (50 year) forecasts in the AMP covers a longer timeframe than is required for the Infrastructure Strategy (IS). It is a requirement in the IS to identify the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)). The AMP does not include analysis of options for managing assets.

- The AMP does not include the key assumptions made for expenditure estimates (see three waters AMP for an example).
- The AMP provides a good level of understanding of funding, and recognises where there are funding limitations and discuss sources of funding.

Financial Information Recommendations

Action	Priority
Include analysis of options for managing assets to support the IS which identifies the principal options for managing significant infrastructure issues (Local Government Act 2002 Amendment Bill (No 3)).	Medium
Update the AMP to include the 2020 valuation figures.	Medium
Add a table of the base useful lives as an appendix to the AMP.	Medium
Include a table of key assumptions used in the plan.	Medium
Review the confidence ratings for all capital projects.	Low

2.2.7 Lifecycle Management

This aspect of the AMP review looks at how well the AMP describes the ongoing tasks of asset management. Does it present a convincing picture that WDC is proactively managing the assets and doing so in an integrated 'far sighted' way?

The elements considered include:

- The breadth and depth of coverage of the network in the AMP.
- How condition and performance data is gathered and monitored.
- Maintenance strategies.
- Asset renewals and rehabilitation strategies.
- New capital works strategies.
- How services are delivered.

Table 8: Key to Scoring Crossbar for Lifecycle Management Practices

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of asset management strategies. No coherent overall approach. Tendency to dwell on past practices. AMP doesn't adequately cover all network Assets; condition assessments not robust.
0.41 - 0.60		Core lifecycle practices. Fairly general descriptions of strategies; reasonably reliable data and condition assessments that provide some basis for projecting future strategies.
0.61 - 0.80	0.64	Intermediate lifecycle practices. Indications of proactive and integrated approach based on solid data and monitoring. Answers the 'why' questions e.g. .why are future rehabilitations at this level?
0.81 - 1.00		Excellent and convincing strategies are articulated based on reliable data, regular monitoring and up skilled resources.

Lifecycle Management Observations

- The AMP contains a good description of the assets used to provide the solid waste services.
- The condition and criticality of assets is not known for the solid waste assets. The AMP notes that condition data and criticality information is not available and is an area for improvement, along with the mobile collection of asset information.
- The AMP provides good breadth of coverage for both lifecycle management and asset management practices, asset categories and sub-groups are clearly presented.
- No maintenance standards or specifications that relate to the maintenance of the activity are shown in the AMP. A list of applicable standards and guidelines should be listed in the Appendices.
- The basis for the renewals programme is described well, and appears to be robust, however there is no discussion on the levels of deferred maintenance or renewals.
- The scheme AMPs outline the renewal prioritisation process through the renewals model and then consideration of other factors by the Asset Manager. The analysis of other factors such as risk and criticality are very well presented in the scheme AMPs.

- There is no indication of the relative priority of capital projects should funding be limited through the LTP process.
- The linkage of capital projects to growth factors appears to be robust, however the inclusion of factors other than population growth needs to be considered.

Lifecycle Management Recommendations

Action	Priority
Determine the extent of deferred maintenance or renewals and describe any issues that may be causing.	High
Describe in greater detail the maintenance practices and strategies used. This should include the maintenance standards or specifications that relate to the maintenance of the solid waste activities. A list of applicable standards and guidelines should be listed in the Appendices.	Medium
Add an indication of the relative priority of capital projects in the scheme plans	Medium

2.2.8 Risk Management

The purpose of Risk Management is to identify the risks associated with the activity and assets. This requires approaching the risks from many perspectives including financial, operational, and organisational, as well as public health and safety. In general terms ISO31000:2009 provides the foundation for the risk framework.

The key elements included are:

- The framework that is in place.
- The level of analysis undertaken.
- Risk is a key component in the decision-making process.
- The identification and implementation of risk management strategies.

Table 9: Key to Scoring Crossbar for Risk Management

Score Ranges	Score	Definition
0.00 - 0.40		Minimum definition and description of risk management strategies.
0.41 - 0.60	0.54	Core Risk Management practices. Fairly general descriptions of risks.
0.61 - 0.80		Intermediate Risk Management practices. Risk register is populated and risk levels are identified.
0.81 - 1.00		Advanced and convincing Risk Management strategies are provided based on robust weighting system with management strategies in place. Risk links to overall Corporate Policy and is integrated into the decision-making process.

Risk Management Observations

- The risk management section of the AMP is reasonable and summarises the extreme and high risks. Section 12 clearly articulates the key risks facing the service. The risk assessment is better than Three Waters AMPs, but there is still room to improve, especially with linkages to the Improvement Plan. The risk tables should be improved by adding timeframes for completion, cost to mitigate and persons specifically responsible for each risk. The risk section across all WDC AMPs is noted as a weakness and there is an initiative underway to improve them.
- The criticality of assets has not yet been assessed. The AMP notes that criticality information is not available and is an area for improvement.
- The Operational Risk Assessment was last carried out in 2009, which is now out of date.
- The AMPs outline the operational, health and corporate risks along with the disaster resilience assessment and vulnerability assessments. The breadth of risk presented is considered to be comprehensive. Risk is very well articulated and presented throughout the plan documents.
- The risk assessment in the AMP appears to follow the overall Council process but does not link well to the Council Risk Policy.
- A risk action and monitoring programme is not detailed (to ensure implementation carried out and any changes in risk exposure identified).

Risk Management Recommendations

This section is the weakest section of the plans and needs some attention.

Action	Priority
The risk tables should be improved by adding the level of risk, timeframes for completion, cost to mitigate and persons specifically responsible for each risk. Alternatively, a separate risk action plan could be included that shows the high priority risks, 'residual risk' after existing mitigation measures, future treatment actions required, costs, priorities and timelines for completion.	High
Update the Operational Risk Assessment.	High
Explain the WDC risk policy and framework including the definition of likelihood and consequences and overall risk priority.	Medium
Ensure that the AMPs show what the treatment projects are and whether they are included in financial forecasts.	Medium

2.2.9 Optimised Decision Making

There are two definitions given in the IIMM for Optimised Decision Making (ODM):

“Two definitions are: 1. A formal process to identify and prioritise all potential solutions with consideration of financial viability, social and environmental responsibility and cultural outcomes. 2. An optimisation process for considering and prioritising all options to rectify existing or potential performance failure of assets. The process encompasses NPV analysis and risk assessment.” (Source: IIMM International Edition 2011).

ODM can be seen as the end result or pinnacle of asset management practices i.e. does all the information on service levels, risks, finances and all practices lead to the ‘best’ decision. In reality, formal ODM processes in infrastructure management are more pronounced in the water area when compared to utilities or recreation assets. Good practice in ODM includes:

- Properly defining the problem, issues or opportunity.
- Identifying and short listing potential options.
- Assessing information requirements and using appropriate support tools.
- Identifying benefits and costs.
- Using the best evaluation techniques to determine the optimal solution.

Table 10: Key to Scoring Crossbar for ODM

Score Ranges	Score	Definition
0.00 - 0.40		Minimum ODM information. There is very little in the way of ODM tools analysis and techniques, and this does not appear to be applied in future treatment decisions little in the way of convincing analysis.
0.41 - 0.60		Core ODM information. Other equivalent tools but rather perfunctory and minimalist – doing what they have to do to get by.
0.61 - 0.80	0.75	Intermediate ODM information. An array of tools and techniques used, and these are well explained. Tools are balanced with ‘wise head’ experience.
0.81 - 1.00		Excellent ODM information. Sophisticated use of ODM tools and techniques. Augmented by excellent base data and analysis. “What if” scenario and sensitivity analysis used. Leads to convincing and robust future treatment decisions across all areas of network.

ODM Observations

- The optimised decision process is briefly described in the Introduction Chapter, but is not explicitly mentioned in the AMP plans. However, there is ample evidence of the consideration of multiple factors in the decision-making process.
- The over \$250k project based decision making processes incorporate better business case factors and allow prioritisation across activities.
- There appears to be an appropriate balance of experience and asset performance information.
- The AMP displays a good understanding of the assets and current practice, however the discussion of options is not explored.

- There is good use of renewal tools and consideration of other factors in decision making.
- The AMP clearly explains the growth and demand factors and their impact on service provision.
- The AMPs very briefly indicates that consideration is given by the Asset Manager to other infrastructure works planning, but there is little acknowledgement of any cross-infrastructure planning across Council.

ODM Recommendations

Action	Priority
Explain the options considered in the development of optimal solutions. Explain how the favoured option was chosen, including any tools used in the process, in particular any cost-benefit or multi-criteria analysis.	High
Explain any processes in place to undertake cross-infrastructure planning within Council to improve operational efficiency.	Medium

2.2.10 Improvement Planning

An AMP is merely a snapshot of a particular point of the asset management practices being carried out. It is very important that each AMP contain an improvement section, which details the weak areas in asset planning, and what is intended to be done to improve asset management practices.

Good practice for AMP Improvement Programmes includes:

- Honestly stating the weak points in AM planning and AM practices.
- Tracking where AM is at now and where each aspect of the AM aspires to be (noting it may not be cost effective to be 'perfect' in everything).
- Stating what improvement projects need to be implemented, in what priority and when.
- Providing an indication of the resources (human and dollars) needed to implement improvements.
- Where possible, gaining approval for the spending of those resources.

Table 11: Key to Scoring Crossbar for Improvement Programme

Score Ranges	Score	Definition
0.00 - 0.40		Minimum improvement information. No detail. Little confidence that there is investing in better asset management.
0.41 - 0.60		Core improvement information. States existing weaknesses and has a generalised programme for addressing weaknesses – but lacking in detail.
0.61 - 0.80	0.66	Intermediate improvement information. All aspects of AM addressed as to weaknesses and what level of sophistication they want to achieve. Good detail on improvement projects, their priority, and the resources involved.
0.81 - 1.00		Excellent improvement information. Very comprehensive information on all aspects of existing AM weaknesses, not only the improvement projects listed in detail, they are prioritised and the interrelationships between projects noted. There is approval for the resources needed to improve AM.

Improvement Planning Observations

- The Introductory Chapter explains how the AM maturity assessment has been undertaken for the three waters and roading activity areas, however this does not appear to have been completed for solid waste.
- Section 18 of the AMP shows the 2021 Improvement Plan with actions described, priorities given and an estimated cost. There is no discussion of the options to address gaps in practice.
- It is not clear whether budgetary approval has been secured for any or all of the improvement actions.
- The response to the 10 key Audit NZ Questions has been included in the Improvement Section.

Improvement Planning Recommendations

Action	Priority
Schedule three yearly externally peer reviewed asset management maturity reviews with annual internal reviews.	Medium
Add some discussion of the options to address gaps in practice.	Low

Infrastructure Associates Ltd

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WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO: LTC 03-08 / 210201015238

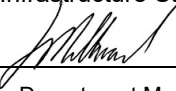
REPORT TO: Council


DATE OF MEETING: 23 February 2021

FROM: Jim Palmer – Chief Executive

SUBJECT: Draft Long Term Plan 2021-2031, draft Consultation Document, draft 30 Year Infrastructure Strategy and draft Financial Strategy

SIGNED BY:
(for Reports to Council or Committees)


Department Manager


Chief Executive

1. SUMMARY

1.1. The purpose of this report is to recommend to Council the adoption for consultation the Draft Long Term Plan 2021-2031 (LTP), draft Consultation Document, draft 30 Year Infrastructure Strategy and draft Financial Strategy. A proposed LTP Engagement Schedule is also provided for feedback.

Attachments:

- i. Draft Long Term Plan 2021-2031 (TRIM No. 201027143087) (*to be circulated separately*) containing:
 - a. Draft Financial Strategy
 - b. Draft Revenue & Financing Policy
- ii. Draft Consultation Document (TRIM No. 210205018703)
- iii. Draft 30 Year Infrastructure Strategy

2. RECOMMENDATION

2.1 **That the Council (items below to be taken separately, in the order as below):**

- (a) **Receives** report No. 201027143087;
- (b) **Receives** the Audit opinion from Audit New Zealand on the Consultation document;
- (c) **Adopts** the Financial Strategy, noting it is one of the principal documents relied on for the content of the Consultation Document and is included within the Draft Long Term Plan for adoption;
- (d) **Adopts** the Draft Revenue & Financing Policy that is included within the Draft Long Term Plan for adoption;
- (e) **Adopts** the 30 Year Infrastructure Strategy, noting it is one of the principal documents relied on for the content of the Consultation Document and is included within the Draft Long Term Plan for adoption;
- (f) **Adopts** the Draft Long Term Plan 2021-2031 (Trim 201027143087) as the principal document relied on for the content of the Consultation Document;
- (g) **Adopts** the Draft Consultation Document (Trim 210205018703) as the statement of proposal for public participation in decisions on the content of the draft LTP;

- (h) **Notes** the Draft LTP Engagement Schedule with the special consultative procedure to open on 5 March 2021 and close on 12 April 2021;
- (i) **Notes** the Draft LTP and the draft Consultation Document refers to further information and reports and this information will be provided on the Council website during the special consultative procedure from 5 March 2021 to 12 April 2021;
- (j) **Delegates** to the Mayor and Chief Executive authority to make changes to the Consultation Document following Audit opinion and Council comments.

3. **BACKGROUND**

- 3.1. The draft Long term Plan is a requirement of the Local Government Act 2002 and is a significant document that sets out the activities, services and investment planned for the Council over the next ten years and how council sets out how to fund its activities and services. A Long Term Plan is prepared every three years, with Annual Plans being prepared within the interim years.

Amendments to the Local Government Act 2002 in 2014 emphasise Council's discretion to decide what is appropriate to include in the Consultation Document, the document that fronts draft LTP. Section 93C of the Local Government Act 2002 prescribes certain content that must be in the Consultation Document.

- 3.2. Section 93B, states the purpose of the consultation document for the Long Term Plan is to provide effective basis for public participation in local authority decision-making processes relating to the content of a long term plan by

- (a) Providing a fair representation of the matters that are proposed for inclusion in the long-term plan, and presenting these in a way that
 - (i) Explains the overall objective of the proposals, how rates, debt and levels of service might be affected; and
 - (ii) Can be readily understood by interested or affected people; and
- (b) Identifying and explaining to people of the district or region significant and other important issues and choices facing the local authority and district or region, and the consequence of those choices; and
- (c) Informing discussions between the local authority and its communities about the matter in paragraph a & b above.

- 3.3. Section 93 C (4) states the Consultation Document must contain a report from the Auditor-General on:

- (a) Whether the consultation document gives effect to the purposes set out in section 93B; and
- (b) The quality of the information and assumptions underlying the information provided in the consultation document.

The information has been audited by Audit New Zealand and the Audit Report is to be included in the Consultation Document.

- 3.4. The Draft LTP, draft Financial Strategy and draft 30 Year Infrastructure Strategies are the primary documents that have been relied on for the content of the Consultation Document. The draft Financial Strategy and draft 30 Year Infrastructure Strategy a requirement since the 2014 amendments to the *Local Government Act 2002*, and are stand-alone documents and although appear within the draft LTP are to be adopted separately, prior to the draft Long Term Plan and Consultation Document.

- 3.5. The draft Engagement Schedule fulfils the Special Consultative Procedure requirements of the Act and provides opportunity for community engagement about the LTP at various times, locations and events.

In addition to these “in-person” opportunities to find out more about the key issues as set out in the Consultation Document and the full LTP, the key actions that have been undertaken or planned over the consultation are as follows:

- All information will be on the website including on-line submission forms, polls and other methods of engagement. This is encouraged and supported by Facebook and Twitter advertising which highlights and reinforces engagement opportunities
- Adverts are placed in newspaper outlets advertising the availability of the draft LTP from 5 March 2021
- Regular articles / advertorials on topics will be placed on the Council website and in the papers alerting the public to key issues provided within the draft LTP
- There are over eight drop-in sessions plans for across the District where residents will be able to discuss the draft document directly with Councillors and staff about the issues prior to making a submission. These range from Friday 5 March to Friday 9 April and are at locations across the District
- Targeted consultation is being provided to ratepayers e.g. the Garrymere water supply scheme explaining the increase to their water charges and seeking feedback.

4. ISSUES AND OPTIONS

- 4.1. The key issues are set out within the Consultation Document and the full LTP seeking the community view. Of the key matters requiring feedback, as required by legislation, the council must state its preferred option as a basis for consultation. The consultation period has been extended slightly longer than the mandatory period of a month required under the Act and in accordance with the schedule and timetable.
- 4.2. The following provides the key dates to the adoption of the LTP
- Consultation period closure – 5 March 2021 to 12 April 2021;
 - Council hearing of submissions – 5 May to 7 May 2021;
 - Council deliberations on submissions 25 May to 27 May 2021;
 - Adoption of the Long Term Plan 2021-2031 – 15 June 2018.
- 4.3. The management team have received this report and support the recommendations.

5. COMMUNITY VIEWS

- 5.1. Groups and Organisations

A number of matters have been pre-consulted with groups i.e. targeted rating areas. These and other matters also provide further opportunity as per the Consultation.

- 5.2. Wider Community

To be sought as per the Consultation.

6. IMPLICATIONS AND RISKS

- 6.1. Financial Implications

As set out in the Financial Strategy and Key Assumptions and Risks in the draft LTP.

- 6.2. Community Implication

As set out in the Consultation Document and full Long Term Plan.

6.3. Risk Management

The information is prepared within reference to the Assumptions and Risks section of the draft Long Term Plan.

6.4. Health and Safety

The plan is prepared with reference to the health and safety legislation and Council policies.

7. CONTEXT

7.1. Policy

This matter is a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Legislation

Local Government Act 2002

7.3. Community Outcomes

There are wide ranging opportunities for people to contribute to decision-making by national and regional organisations that affect the District.

**Draft Long Term Plan (LTP)
2021 - 2031**
Consultation Document





CONTENTS



WELCOME FROM THE MAYOR	3	OUR INFRASTRUCTURE STRATEGY	25
YOUR COUNCIL	5	Other Issues Contained within the LTP	25
LONG TERM PLAN OVERVIEW	6	Key Capital Projects	28
COMMUNITY OUTCOMES	7	Beyond the 10 Year Horizon	29
KEY ISSUES	11	BALANCING THE BUDGET	31
Ensuring our Infrastructure and Community Facilities Cater for our Growing District	12	WHAT MAKES UP RATES?	35
Providing Community Facilities at Pegasus and Woodend (Ravenswood)	13	WHERE THE MONEY GOES	37
Expand and Upgrade the Trevor Inch Memorial Library and Rangiora Civic Building	15	FEEDBACK FORM	38
Build a Car Park Building to Service Rangiora Town Centre by 2028-2030	17	AUDIT OPINION	40
Covid-19 Economic Recovery	19	LOOKING BEYOND OUR BOUNDARIES	41
Responding to Climate Change & Sustainability	21	FURTHER INFORMATION	42
Government-led Water Infrastructure Review	23		



Leaving a positive print on the future of our district.

Our district, our place, our plan. Our job is to look after our district, not just for this generation, but for many more to come. Never before have our actions and decisions around the sustainability of our community been so important. Our 'thumbprint' represents the mark we leave on the Waimakariri District.





Welcome from THE MAYOR

I am pleased to introduce you to this draft Long Term Plan (LTP).

Every three years we have an opportunity to look at where we want to be as a District and how the Council's proposed work programmes and budgets can help achieve these goals.

The draft LTP sets out our priorities for the next 10 years, including what we propose to do, how much it would cost and how we would fund it.

It's reviewed every three years to make sure it's relevant and accurate. In the intervening years, an Annual Plan is developed to reflect any changes to the LTP that are required for the year ahead.

The draft LTP is your chance to have your say on the key issues the District and the Council is facing, what we should focus on and how you think we should prioritise what we do for the community, while balancing the desire to 'do more' with what is necessary and affordable.

Simply put, your input into shaping this document helps shape how Waimakariri can be made a better place through the Council's actions.

We are particularly proud of the strong partnership and relationship we have with Ngāi Tūāhuriri, how well we work together with central and local government (especially our Greater Christchurch partners), as well as listen and respond to the aspirations and needs of all our residents.

Simply, people are at the centre of everything we do as a Council. This is why we want to hear your thoughts and aspirations for the District.

We have said previously that the big challenge facing Waimakariri is balancing a growing population – we expect to have around 77,700 (or 13,000 more residents) in ten years' time and around 95,000 to 100,000 by 2050 – while making sure we have a healthy environment, supportive community, resilient infrastructure, and welcoming conditions for business and new residents.

A key role of the Council is providing good infrastructure (especially our roads and transport infrastructure), community facilities, green spaces, business land and town centres which will meet a growing community's needs and expectations.

The creation of this LTP takes place following global Covid-19 border lockdowns, at a time of heightened economic uncertainty and with possibly changing central government regulation that could alter how services the Council delivers for you (like reticulated wastewater and drinking water) are owned and funded.

Because of this we have re-prioritised our capital programme and focused on critical work that will help recovery and minimise operating costs.

Based on the Council's preferred option going into this draft LTP, for the next three years we are projecting rates to increase by 3.95 percent in 2021/22, 4.15 percent in 2022/23 and 4.20 percent in 2023/24.

Our financial management is some of the best in the country. Credit rating agency Standard and Poor's recently confirmed its AA long-term and A-1+ short-term credit rating with a stable outlook for Council.

The AA rating equates the Council with New Zealand's national credit

rating – the 'sovereign rating'. Standard and Poor's does not rate any individual Council higher than the sovereign rating. You can find out more information about our financials and how rates are set on page 35 of this consultation document as well as a table which gives you an idea of what this will mean for each part of the District.

Despite the impacts of Covid-19 and uncertainty associated with the potential government-led Three Waters Review, we anticipate Waimakariri continuing to develop. The rate of new building consents continued to surprise following the lockdown and forecasts show our population continuing to grow in line with pre-Covid projections.

That said, we believe the focus for the coming 10 years should be on economic recovery, climate change and sustainability, and the provision of community facilities and core infrastructure to meet our growing community's needs.

Because of this the four key issues the Council will need to focus on during the next ten years include:

1. Ensuring infrastructure and community facilities are in place to meet the needs of our growing community. We are keen to hear your views on whether our proposed investments align with your thinking. In particular:
 - The location and timing of community facilities provided in the north-eastern part of the District - Pegasus and north Woodend (Ravenswood)
 - The timing of the extension to the Trevor Inch Memorial Library in Rangiora and the proposed extension to the Rangiora Civic Precinct.
 - Increasing the number of car parks in Rangiora's central business area, including provision of a car parking building.
2. Helping the community in its Covid-19 Economic Recovery
3. Responding to Climate Change and Sustainability
4. Assessing the impact of the government-led Water Infrastructure Review.



In this document we have outlined our proposed approach, including options where applicable, and we welcome your feedback.

Before we decide whether to include these in our final LTP, we want to check that we are on the right path, balancing community support with affordability considerations.

Full information is available in the full draft LTP document that will give you a good insight of the opportunities and issues facing the District and how we propose to respond to them (this can be found at waimakariri.govt.nz/letstalk).

Your input into this process is how you can help shape this Plan which manages the Council's contribution to the great place we live.

We look forward to hearing from you. Please provide your feedback by 12 April 2021.

Ngā mihi,

Dan Gordon
Mayor



Your COUNCIL

From left to right:
 Councillor Wendy Doody; Councillor Philip Redmond; Councillor Sandra Stewart; Councillor Al Blackie; Mayor Dan Gordon; Councillor Niki Mealings; Councillor Paul Williams; Councillor Kirstyn Barnett; Councillor Robbie Brine; Deputy Mayor Neville Atkinson; Councillor Joan Ward.

Long Term Plan OVERVIEW

In addition to making sure Council continues to deliver its 'business as usual' services, we are proposing four key initiatives as part of this LTP which we see as important when planning for the future.

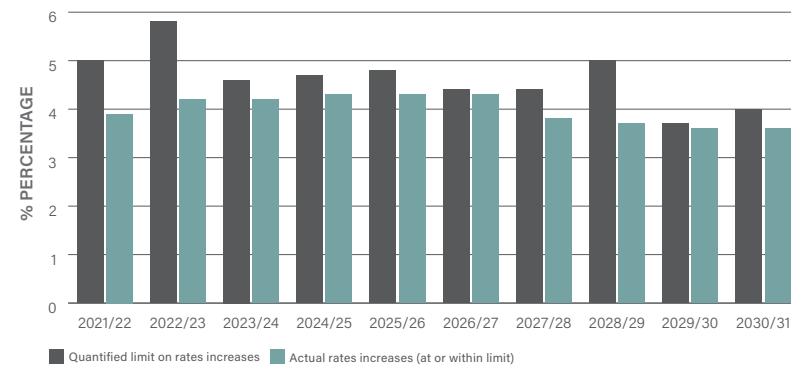
These are:

1. Ensuring infrastructure and community facilities are in place to meet the needs of our growing community. We are keen to hear your views on whether our proposed investments align with your thinking, in particular:
 - The location and timing of community facilities provided in the north-eastern part of the District - Pegasus and north Woodend (Ravenswood)

- The timing of the extension to the Trevor Inch Memorial Library in Rangiora and the proposed extension to the Rangiora Civic Precinct.
 - Increasing the number of car parks in Rangiora's central business area including provision of a car parking building.
2. Helping the community in its Covid-19 Economic Recovery
 3. Responding to Climate Change and Sustainability
 4. Assessing the impact of the government-led Water Infrastructure Review.



RATES INCREASES OVER THE PERIOD OF THIS LTP



The graph above shows average rate increases over the ten-year period of this LTP per property. In this document when we refer to rates paid by ratepayers this amount is GST inclusive. Otherwise, other figures are GST exclusive.

Council has a self-imposed limit available through our Financial Strategy (this is shown through the left column). Our limit includes the Local Government Cost Index, the Earthquake Recovery rate and allows for future growth in levels of service.



Community OUTCOMES

Community Outcomes describe how Waimakariri District Council aims to achieve meeting the current and future needs of our communities with good-quality local infrastructure, providing local public services and performance of regulatory functions. Community outcomes set the direction for our Long Term Plan (LTP) and all activities included in the LTP that the Council undertakes contribute towards achieving these outcomes. The key groups of activities that contribute to each outcome are displayed.

KEY

-  U.N Sustainable Development Goals
-  Social Wellbeing
-  Economic Wellbeing
-  Environmental Wellbeing
-  Cultural Wellbeing

PTO for more detail on the U.N Sustainable Development Goals



Public spaces and facilities are plentiful, accessible and high quality

- People enjoy clean water at our beaches, rivers and lakes
- There is a wide variety of public places and spaces to meet people's needs
- There are wide-ranging opportunities for people to enjoy the outdoors
- The accessibility of community and recreation facilities meets the changing needs of our community.

 SDG 3, 11 



People are friendly and caring, creating a strong sense of community in our District

- There are wide-ranging opportunities for people of different ages, abilities and cultures to participate in community life and recreational activities.

 SDG 3, 16 



There are areas of significant indigenous vegetation and habitats that support indigenous fauna

- Conservation, restoration and development of significant areas of vegetation and/or habitats is actively promoted.

 SDG 15 



There are wide ranging opportunities for people to contribute to the decision making that affects our District

- The Council makes information about its plans and activities readily available
- The Council takes account of the views across the community including mana whenua
- The Council makes known its views on significant proposals by others affecting the District's wellbeing
- Opportunities for collaboration and partnerships are actively pursued.

 SDG 16 



Core utility services are sustainable, resilient, affordable; and provided in a timely-manner

- Harm to the environment from sewage and stormwater discharges is minimised
- Council sewerage and water supply schemes, and drainage and waste collection services are provided to a high standard
- Waste recycling and re-use of solid waste is encouraged and residues are managed so that they minimise harm to the environment
- Renewable energy technologies and their efficient use is encouraged
- High-speed telecommunications services are readily available across the District
- Climate change considerations are incorporated into all infrastructure decision-making processes
- Good procurement practice and effective long-term planning ensures services are sustainable, affordable and value for money for the community
- Infrastructure services are managed in a way that reduces emissions over time.

 SDG 6, 7, 9, 11, 12, 13, 15 



There is a healthy and sustainable environment for all

- Harm to the environment from the impacts of land use, use of water resources and air emissions is minimised
- Cultural values relating to water are acknowledged and respected
- The demand for water is kept to a sustainable level
- Harm to the environment from the spread of contaminants into ground water and surface water is minimised
- The impacts from land use activities are usually only short term and/or seasonal
- Soils are protected from erosion and unsustainable land use practices
- Low carbon, climate-resilient development is promoted.

 SDG 6, 11, 12, 13, 15 



The community's cultures, arts and heritage are conserved and celebrated

- Mana whenua are acknowledged and respected
- All cultures are acknowledged, respected and welcomed in the District
- Heritage buildings and sites are protected and the cultural heritage links with our past are preserved
- There are wide-ranging opportunities to participate in arts and cultural activities.

UN SDG 3, 16.



People's needs for mental and physical health and social services are met

- Our people are supported by a wide range of health services that are available and accessible in our District
- Participation in community-based support and services is acknowledged and encouraged
- Housing is available to match the changing needs and aspirations of our community
- There are wide ranging opportunities to support people's physical health.

UN SDG 3.



Businesses in the District are diverse, adaptable and growing

- There are growing numbers of businesses and employment opportunities in our District

UN SDG 8



There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised
- Our District has the capacity and resilience to quickly recover from natural disasters and adapt to the effects of climate change
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised
- Climate change challenges are addressed in an appropriate, timely, cost-effective and equitable manner
- Our District is well served by emergency services and volunteers are encouraged.

UN SDG 3, 13.



People have wide ranging opportunities for learning and being informed

- Our educational facilities and libraries are well resourced and have the capacity to manage and respond to changing demographics
- Our people are easily able to get the information they need.

UN SDG 4, 3



The distinctive character of our tākiwa – towns, villages and rural areas is maintained

- The centres of our towns are safe, convenient and attractive places to visit and do business
- Our rural areas retain their amenity and character.

UN SDG 11



Transport is accessible, convenient, reliable and sustainable

- The standard of our District's roads is keeping pace with increasing traffic numbers
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes
- Public transport serves our District effectively
- Opportunities to increase the occupancy of commuter vehicles is actively encouraged.

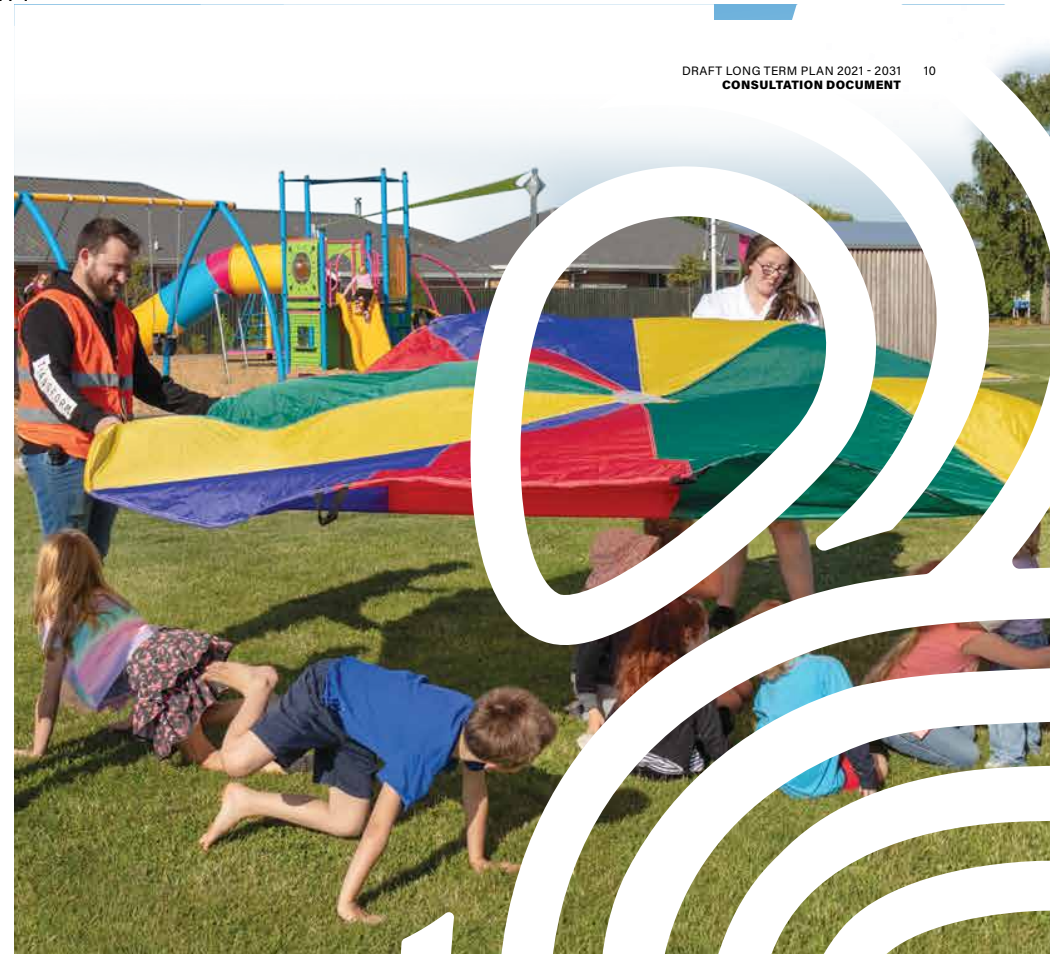
UN SDG 9, 11, 12



Effect is given to the principles of the Treaty of Waitangi

- The Council in partnership with Te Ngāi Tūāhuriri Rūnanga, continue to build our relationship through mutual understanding and shared responsibilities.

UN SDG 10, 16



KEY

UN U.N Sustainable Development Goals

Social Wellbeing

Economic Wellbeing

Environmental Wellbeing

Cultural Wellbeing

SUSTAINABLE DEVELOPMENT GOALS

The U.N Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges including those related to poverty, inequality, climate change, environmental degradation, peace and justice.



Learn more about each U.N goal at: un.org/sustainabledevelopment/sustainable-development-goals/

Key ISSUES

Ensuring our Infrastructure and Community Facilities Cater FOR OUR GROWING DISTRICT

Through our Infrastructure Strategy and other long term planning the Council is anticipating the future needs of our community. Our Long Term Plan outlines how we expect to meet the needs of a growing community.

The Waimakariri District has a current population of 64,700. More than 80 percent of the population is concentrated in the eastern part of the District with its largest towns being Rangiora, Kaiapoi and Woodend/Pegasus. Oxford is the largest town in the western part of the District.

We forecast the District's population to be approximately 77,700 by the end of the 2021-2031 LTP period and approaching 95,000 - 100,000 people by 2050.

Our infrastructure and community facilities are of a very good standard. However, with our population expected to grow by 50 percent over the next thirty years we will need to plan, invest and build in advance.

For this LTP, in addition to the ongoing upgrades to our core infrastructure of transport and Three Water networks to cater for growth, there are three new initiatives that we would be interested in your views on.

Providing Community Facilities at PEGASUS AND WOODEND (RAVENSWOOD)



The growing communities of Pegasus and nearby Ravenswood subdivision of Woodend will see the Woodend-Pegasus community double in population to about 12,000 in 30 years' time.

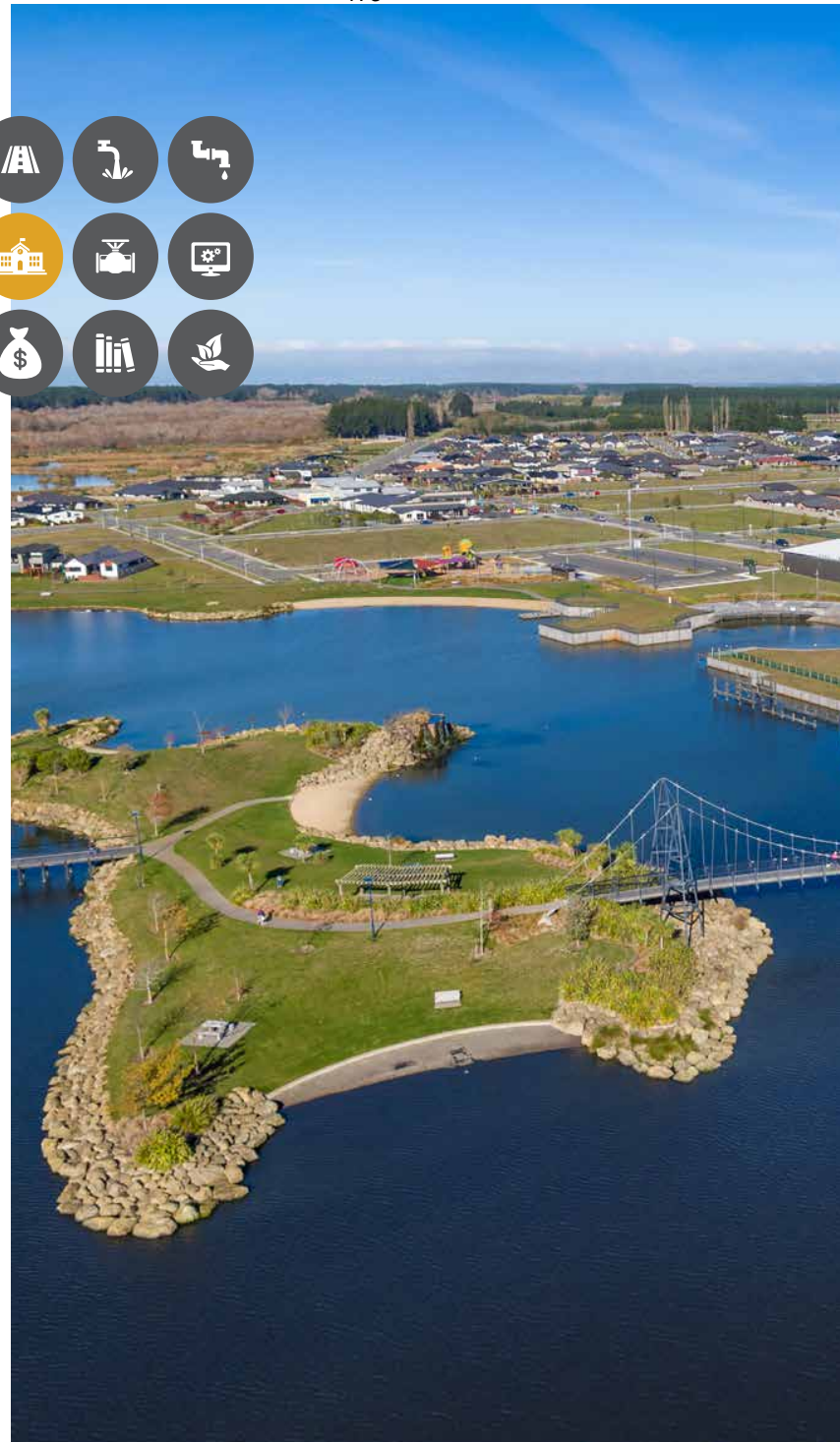
The Council currently rents space at Pegasus for community activities but it is too small to cater for the north-east part of the District. The Council has undertaken a review of the needs in the area and concluded additional and permanent facilities are required.

We propose building a new community centre in each of these areas with land purchase for both facilities proposed to begin in 2021.

The development of the Pegasus facility is planned for the following year and the north Woodend (Ravenswood) facility within the next ten years.

The proposed investment is:

- For Pegasus this includes allocating a total of \$4.7 million for land, which will be purchased in 2021/22, and building a community centre of about 400m2 in the 2023 – 25 period
- For north Woodend (Ravenswood) this includes allocating up to \$4.3 million for land in 2021/22 - sufficient land will be acquired should facilities like an aquatic centre be needed in the future. The construction of a community facility of about 800m2 would take place in 2029/30 with a provision made for \$6 million.



OPTIONS:

A: Council's preference

The proposal to budget for and develop new facilities at Pegasus and north Woodend in the timeframes signalled.

Project Completed	Total Spend \$	Rate Per Property Per Year
Pegasus Community Centre – 2024/2025	4.7m	\$15.99 (from 2025/2026)*
Ravenswood Community Centre – 2029/2030	10.3m	\$32.09 (from 2030/2031)*

B: Advance construction of the north Woodend facility so that it is built by 2025/26.

This would result in an increase in debt levels earlier than currently signalled and increase rates by about \$32 more per property than currently signalled. The Council does not recommend this at this time.

Project Completed	Total Spend \$	Rate Per Property Per Year
Pegasus Community Centre – 2024/2025	4.7m	\$15.99 (from 2025/2026)*
Ravenswood Community Centre – 2025/2026	9.6m	\$32.22 (from 2026/2027)*

C: Build one combined facility at either Pegasus or north Woodend.

While this would see a larger facility built, based on a survey of community needs it is felt that the distance between Pegasus and Woodend would lessen its use. Accordingly this is not the preferred approach.

Project Completed	Total Spend \$	Rate Per Property Per Year
Combined Community Centre – 2024/25	12.4m	\$43.98 (from 2025/2026)*

*Cost - The rate includes construction/operation costs and debt servicing.

Expand and Upgrade the TREVOR INCH MEMORIAL LIBRARY AND RANGIORA CIVIC BUILDING



With our population projected to be between 95,000 and 100,000 by 2050 we need to think about the capacity of the Trevor Inch Memorial Library in Rangiora and Council's accommodation needs to serve a growing community.

There is a unique opportunity in Rangiora specifically for the land we call the 'Civic Precinct' - the Rangiora town centre area between High St and Victoria Park which includes the Rangiora Service Centre, car park and the Trevor Inch Memorial Library.

During the last LTP the community supported a planned expansion of the Trevor Inch Memorial Library and recognised the need to ensure the accommodation requirements for the Council were fit for purpose now and into the future. Currently, Council staff are accommodated across six buildings in Rangiora.

The planned library expansion was scheduled to take place between 2022 and 2024 to meet the needs of our current population and we have \$7.2 million aside in our last LTP accordingly. However, we also have the nearby Rangiora Service Centre that requires updating and have started considering how we might merge these projects to achieve the most cost-efficient solution.

Investigations into how best to accommodate these needs have led to considering the appropriate

planning for and timing of implementing these projects in an integrated way, as key elements of the Civic Precinct part of the recently approved Rangiora Town Centre Strategy.

There is a synergy and an opportunity to combine the library extension with an expanded Council service centre while creating more welcoming green areas and open spaces, building facilities for community groups and private businesses, and improving parking while making more efficient use of the budget (turning this into one project vs multiple projects).

This would best utilise space across the entire Civic Precinct area and pull several different projects into one work-stream.

Due to Covid-19, through the 20/21 Annual Plan we have scaled back needed upgrades to the existing service centre to the minimum to make it serviceable for the next few years.

Through deliberations on the draft LTP we have carefully considered the scope and timing of the larger scale, longer term Civic Precinct project against other more immediate economic recovery priorities, uncertainty due to possible local government reform (which may change our required staff numbers) as well as overall affordability. The results of the

reform activity may influence the size and scale of building required by the Council which supports the rationale for a delay.

For this draft LTP we have retained the \$7.2m set aside for the Library extension but pushed the overall project out in our programme to 2027-2029 to be coordinated with a provision of \$22m for an extension and upgrade for the Rangiora Service Centre. The shift of the library project to later years means the project costs will increase to \$8.3m due to inflation. This will enable the Council to focus on our role in Covid-19 related economic recovery and better achieve economies of scale in the larger project in the long term.

We expect to revisit this in the lead up to the 2024-34 LTP in three years' time and make the best of what we've got meantime.



OPTIONS:

A: Council's preference

The proposal to financially reflect the Civic Precinct Project in the LTP is supported. But the timing is deferred to 2028 with this being revisited through the 2024-34 LTP process.

This is currently budgeted for so would have no additional costs per property per year. The rate increase would take effect from 2029/2030.

Project Completed	Total Spend \$	Rate Per Property Per Year
Rangiora Civic Precinct - 2029/2030	22.0m	\$72.25 (from 2030/2031)*
Trevor Inch Memorial Library - 2028/2029	8.3m	\$29.51 (from 2029/2030)*

B: Bring forward funding provisions and timing. Projects would be completed by 2025/26.

This would see financial provision brought forward with consequential increases in debt and rating to pay off loans sooner. There are a range of possibilities here, but for the reasons set out above the Council does not recommend this at this time.

Project Completed	Total Spend \$	Rate Per Property Per Year
Rangiora Civic Precinct - 2025/2026	19.8m	\$69.07 (from 2026/2027)*
Trevor Inch Memorial Library - 2024/2025	7.4m	\$28.29 (from 2025/2026)*

C: The proposal overall is declined

We do not meet the community needs for library services and Council operational requirements as part of the Civic Precinct in line with our growing population. The library extension would defer to as planned in the previous LTP.

Other alternate options for provision of community and Council service delivery will need to be investigated at costs yet to be determined.

There are no additional costs per property as the proposal would be declined.

*Cost - The rate includes construction/operation costs and debt servicing.

Build a Car Park Building to Service RANGIORA TOWN CENTRE BY 2028-2030

There has been increased pressure on parking in the Rangiora town centre as our population grows and more people work in the District.

Transport studies undertaken as part of our Rangiora Town Centre Plan identified that, should parking behaviour remain constant, and projected growth continue, Rangiora's town centre would require up to an additional 800 car parking spaces within the next 30 years.

To date we have secured land in Blake Street, have a lease on land in Durham Street, and are working to make sure residents utilise all the current parks we have. However, this will not meet our needs in the long term.

The Council's previous LTP included a provision of \$6.3 million for the purchase of additional land and facilities for additional car parking, but this is considered insufficient to meet the forecast demand.

Because of this the Council proposes to retain the \$6.3 million already allocated to secure more land for car parking over the next five years, but add a further \$11.3 million in 2028-2030 to enable a car park building to be built that would provide for between 180 and 280 additional car parks.

We see 25 percent of the car park building project cost being defined as growth related (therefore funded by development contributions). The remaining 75 percent of costs (\$8.5m - level of service improvements) would need to be funded by rates.

It is possible that by 2040 a second car park building may be required, but this is outside the current 10 year LTP timeframe.



OPTIONS

A: Council's preference

Retain the \$6.3 million already allocated to secure more land for car parking over the next five years, but add a further 11.3 million (75 percent or \$8.5m will be rate funded, the remaining 25 percent will be funded by development contributions) in 2028-2030 to enable a car park building to be built. The timing of construction will be reviewed during the next LTP to check in and see if that's still appropriate.

Project Completed	Total Spend \$	Rate Per Property Per Year
Rangiora Car Park Building – 2030/2031	8.5m (level of service only)	\$26.85 (from 2031/2032)*

B: Advance the construction of the car park building and finish the project by 2025/26.

This would likely provide more car parks than Rangiora currently needs right now and would require financial provision brought forward with consequential increases in debt and rates to pay off loans sooner. There are a range of possibilities here, but for the reasons set out above the Council does not recommend this at this time.

Project Completed	Total Spend \$	Rate Per Property Per Year
Rangiora Car Park Building – 2025/2026	7.4m (level of service only)	\$25.33 (from 2026/2027)*

C: Defer consideration of a car park building. Instead utilise technology to show available off-street parking and increase enforcement to defer the need for additional car parks.

Providing sufficient parking is important for businesses and town centre visitors. Using technology will be considered in conjunction with providing more car parks. This would see the provision for a car park building pushed out beyond the 10 year timeframe.

This is not the preferred option as the Council thinks it is best to signal the anticipated need for this facility as part of this LTP.

There are no additional costs per property involved with this option.

*Cost - The rate includes construction and debt servicing.

Covid-19 ECONOMIC RECOVERY

This LTP is being prepared in a world still reeling from the impacts of Covid-19 - including global border closures, economic recession, a challenging job environment, and overall uncertainty.

We appreciate this is a difficult time for many people who live here.

Fortunately, so far it appears the Waimakariri District is finding itself not as negatively affected by the economic effects of Covid-19 as early estimates suggested and is faring a lot better than many other districts. Our growth momentum is continuing and we are seeing new residential building consents (a good gauge of economic activity) remaining steady.

This is partly due to our proximity to a major population centre in Christchurch, a strong primary industry sector, as well as not being as reliant on tourism as other areas in New Zealand.

However, we are under no illusion that as a community we are out of the woods and the effects of the pandemic could persist through 2021 and beyond.



In June last year we engaged with the community on a draft recovery plan called 'Waimakariri: Better than Before' which identified six main programmes of focus:

1. Playing a role in leadership, advocacy and providing support for businesses which are facing a downturn
2. Preparing strategies to further improve our town centres and business areas while accelerating the 'green economy' (sustainable economic activity)
3. Supporting investment from the development and building sector
4. Bringing forward planned capital projects that could stimulate the economy and provide jobs
5. Ensuring the wellbeing of all residents through an increased programme of community development and support
6. Maximising business survival and enabling new business development in conjunction with Enterprise North Canterbury.

We have since refined this programme and our direction with the aid of an Economic Recovery Advisory Group made up of local business people.

Now we are looking to refocus our attention on tasks which will help the Waimakariri community best recover.

The refined areas of focus include:

- Keeping rates as low as possible
- Business support and economic development - supporting current and attracting new businesses as well as marketing Waimakariri to domestic visitors by leveraging our attractive and affordable lifestyle and great environment
- Increasing psycho-social monitoring and support for residents most affected by the pandemic
- Accelerating Council's capital works programme to play a bigger role in the coming years of recovery, taking advantage of the Government's 'shovel ready' and 'stimulus' funding
- Continuing to advocate for and seek central government support and funding assistance.



Responding to CLIMATE CHANGE & SUSTAINABILITY



Climate change is causing the earth to warm, sea levels to rise and weather patterns to become disturbed. A 2019 Waimakariri community survey showed over 70 percent of our community are either concerned or very concerned about climate change.

In Waimakariri, apart from coastal inundation, the effects of climate change will mean over time we experience more extreme weather more frequently. Reducing greenhouse gas emissions to the atmosphere – mitigation – and dealing with rising sea levels – adaptation – will become increasingly important matters before the Council during the 2020s.

Longer hot and dry summers, milder winters with less snowfall, less annual rainfall, higher winds, and a gradual warming between 0.7 degrees and 3 degrees by 2090 causing sea level rise will become the norm.

These changes will put core infrastructure at risk, change how we plan for development, require a rethink about where and how we build, what goods we consume and overall, how we act and contribute to the issue.

As an organisation the Council wants to and will likely be directed more by the Government to work with the community in becoming more sustainable, improving our environment, and in climate change mitigation and adaptation.

Late last year we sought community comment on a draft Climate Change Policy which committed the Council to consider climate change in all decision-making and work programmes, and regularly measure corporate emissions. It has been finalised as our 'statement of intent' in this area.

The Council has committed to prepare an Organisational Sustainability Strategy and Climate Change Response Strategy and work is underway on this. At the start of the Council term a new Council portfolio was established – Climate Change and Sustainability – to signal the importance of this issue.

This Strategy will become the guiding document for how Waimakariri tackles climate change and shape how we work together to reduce our greenhouse gas emissions to minimise future harm, and adapt to the ongoing effects of climate change.

It will also look at how we both mitigate effects and adapt – specifically around core assets like water supply, storm and wastewater services, flood protection; and wider community issues such as biodiversity loss, tackling longer term managed retreat as well as addressing the social and economic impacts of climate change - which may hit coastal communities and our primary sector the hardest.

As our national economy and businesses shift towards a low-emissions future by 2050 the focus of the Council needs to support this and more Government direction in this area is anticipated.

The cost of acting; investing in a sustainable future for the Council as an organisation and the community overall, is over the long term demonstrably less than the cost of taking no action.

For the LTP this will affect the decisions we make and where we focus our attention.

For example, this could include making business decisions that lower Council's emissions, as well as advancing projects that enable climate-friendly behaviour such as additional Park & Ride facilities, or providing more bike racks around town centres and Council facilities so as to encourage alternatives to single-occupant car trips.

We have developed a programme of work called Arohata te awa (Cherish the river) where we have allocated over \$1 million in this LTP to enhance the habitat of our waterways and provide connections along our waterways for the community to access and care for our lowland streams and rivers.

We also have a role to play in working with businesses to encourage climate-friendly

infrastructure (such as partnering with Meridian Energy to install charging stations) in our town centres as well as helping our communities act more sustainably.

The issue of climate change is a global one in nature but one that will be addressed through small changes to our individual daily routines through the decisions we make. The Council wants to play our part.



Government-led WATER INFRASTRUCTURE REVIEW



Effective water infrastructure is a necessity for a healthy community – it provides clean water to your taps, removes wastewater from homes and businesses, and protects our assets from floods by managing storm water.

It is the often-unseen infrastructure that plays a vital role in the overall health of our community and wellbeing of our environment.

In July 2020, the Government announced a funding package of \$761 million to provide Covid-19 stimulus to councils nationwide to maintain and improve Three Waters infrastructure, on the proviso they support further consideration of local government water services delivery arrangements.

The Government funding package is part of a series of actions in response to many councils across NZ struggling to meet the water regulatory framework that was put in place after the Government inquiry into the 2016 campylobacter outbreak in Havelock North that was caused by contamination of the town's drinking water supply.

Waimakariri District Council, along with all councils nationwide, signed a Memorandum of Understanding (MoU) with the Government in August 2020, committing it to the first stage of the water reform programme to access an \$8m share of the stimulus package.

While the Waimakariri District Three Waters infrastructure is in very good condition, this funding has allowed the Council to further improve fresh and wastewater infrastructure across the District with a lower impact on ratepayers than previously possible.

The MoU with central Government states the Waimakariri District Council is:

1. Willing to explore different ways of delivering water services - drinking water, wastewater, and stormwater
2. Willing to share information on our network and services with neighbouring councils and central Government and that we are open to discussions about how we might be able to work together in the future.

The second stage of the Government water reforms proposes councils consider joining together to set up a small number of large entities to deliver water services on a regional or multi-regional scale. The entities would be publicly owned, with councils as shareholders but the Council would no longer be directly responsible for these services and they would be separately billed to you.

It is important to note that signing the stage one MoU does not commit Waimakariri District Council to anything beyond stage one or to

change the way it delivers Three Waters services, and there is an 'opt out' clause available.

It is not clear yet if signing up to the second stage of reforms would be in the best interest of Waimakariri ratepayers – our Three Waters infrastructure is high quality, compliant and well maintained when compared to other Councils.

The earliest a decision on this is likely to be made is mid-to-late 2021 and the timeline will be driven by central Government.

Before any decision regarding the second stage is made by Waimakariri District Council we will be seeking to understand how the new entity would be funded, what compensation for Council's Three Waters assets would look like, the impact this would have financially on rate payers, and how the wider community's voice and the voice of Te Ngāi Tūāhuriri Rūnanga have been taken into account.

Council expects to engage on the opt out decision in late 2021, and that any decision to participate is likely to be given effect to at some point in the 2023/4 financial year.

Regardless of who supplies Three Waters services they will always be needed by the community. Fuller implications of the reform proposal are shown in the assumptions and disclosures section of the full Draft LTP.



Our Infrastructure STRATEGY

Other Issues WITHIN THE LTP



The District Plan REVIEW

At the same time as we are seeking feedback on the LTP, we are also updating Waimakariri's proposed District Plan.

The 'planning rulebook', the District Plan, is a statutory document that provides the rules for how people can build on or develop land - whether it is residential, business, or rural.

Its main goal is to sustainably manage the District's natural and physical resources to meet the needs of current and future generations.

The draft District Plan will be out for feedback later this year. This will be advertised and you will be able to have your say by visiting waimakariri.govt.nz/letstalk



Elderly HOUSING

As our population ages there is likely to be increased demand on housing for the elderly.

The Council is responsible for 112 housing units for the elderly.

In 2021 we will develop and consult on a strategy to look at our role in this space and whether the Council should become more or less involved in elderly community housing.



Wastewater PIPELINE CAPACITY

Over several years the Council has invested in upgrading the trunk sewer pipeline in Rangiora and the \$23 million programme of work is well underway.

In Kaiapoi a review of sewer pipeline condition and capacity has been undertaken and a planned renewal programme of \$20.5 million has been provided for in the LTP between 2025 and 2030.

These programmes of work will ensure both towns' sewer pipelines are fit to cater for future growth and are of a good quality.



Transport ADVOCACY

The Council continues to advocate for central government to fund a Woodend Bypass. We're playing our part and have designated land for this to take place.

We also continue to work well with our partners Environment Canterbury in providing infrastructure for public transport as well as enabling and encouraging more transport cycling across the District through the ongoing provision of cycleways.

We are investigating options to address traffic congestion through Southbrook. This area sees 26,000 vehicle movements per day and a priority this year is providing a safer crossing for school students.



Stormwater and WATERWAY UPGRADES

New National Environmental Standards relating to the quality of stormwater discharges for rural and urban areas have been introduced. These standards are going to require improvements to the quality of stormwater entering our waterways.

The Council is responsible for the quality of discharges from urban communities and it will be required to take a number of initiatives and projects to improve stormwater quality. In the current LTP, excluding the \$18.1 million of shovel-ready projects already mentioned, there is over \$31 million put aside to improve waterways and drainage.



Western Rangiora ROAD IMPROVEMENTS

The Council is planning to build a new roundabout at the intersection of Flaxton Road and Fernside Road in 2021 to replace the existing 'T' intersection. This \$1.5 million project is to improve safety at the intersection, as well as cater for increased volumes of traffic utilising the western route.

The roundabout is the first stage of a programme of work over the next ten years to increase the capacity of the route between the State Highway and west Rangiora that will see intersection improvements, some road widening and replacement of the narrow Skewbridge.

In the LTP a total of \$26 million has been provided for upgrading the route, including \$14 million for the Skewbridge replacement in 2028-2030. The Council anticipates that NZTA funding of 51 percent will be available to help fund this work.



Ashley WATER RATES

Waimakariri District Council plans to take over collection of Ashley water rates from 1 July 2021 for properties in the Waimakariri District that are connected to the Ashley Water Supply. Collection to date has been undertaken by Hurunui District Council - which will continue to manage the operation of the scheme. The rate has been forecasted at \$874.24 per unit in the 2021/22 year.



Kaiapoi COMMUNITY HUB

The proposed hub site is on regeneration land on the corners of Charters Street and Courtenay Drive in Kaiapoi South. Community hubs are flexible spaces that can be used for different recreation, arts and hobby activities, and social and cultural activities.

There is a similar and popular community hub in operation at Northbrook Studios in Rangiora.

Council will be engaging directly with neighbours and the wider Kaiapoi community once a concept is developed. Submissions can also be made through the other comments section of the draft LTP feedback form.



Natural Hazards and CLIMATE CHANGE

While the gently-sloping Canterbury Plains make infrastructure provision less challenging than in other parts of the country, the District is susceptible to flooding and tsunami, the threat from an alpine fault rupture or a local earthquake, especially in liquefaction-prone areas along the Canterbury coastline.

The Council has adopted a risk-based approach if replacing critical infrastructure in the event of a major earthquake and has made sure all its buildings have been strengthened to a minimum of least 67 percent of the current New Building Standard.

The particular effects of climate change are likely to impact sea levels, ground water levels, rainfall and temperatures within the District, among other things.

Our engineering practices ensure all new and replaced assets are built to standards that take account of known risk factors and are designed for resilience.

The Council is factoring the effects of climate change into infrastructure sizing, particularly new stormwater pipes to take account of intense rainfall events.

Future work will include modelling and understanding the impacts of increasing groundwater levels due to sea level rise.

Key CAPITAL

THIS MAP SHOWS SOME OF THE KEY CAPITAL PROJECTS PLANNED WITHIN THE NEXT TEN YEARS. SOME HAVE PREVIOUSLY BEEN CONSULTED ON, SOME ARE UNDERWAY, AND OTHERS ARE INCLUDED IN THIS DRAFT LTP.





Our Infrastructure STRATEGY

Beyond the 10 YEAR HORIZON

This LTP focuses on what the Council's priorities are for the next ten years.

However, the Council's planning horizon extends well beyond this. To best plan ahead it prepared an Infrastructure Strategy that looks out for more than 30 years.

Beyond the current LTP there are a number of issues and projects that Council is aware of that it will need to address in future Long Term Plans.

Currently, the major issues that we are aware of include:



Review of Aquatic and INDOOR FACILITIES

A review of our Aquatic Facilities shows that as our population increases additional capacity will be required. This may require extensions to the existing indoor facilities at Rangiora and Kaiapo and possibly a new facility in the north-east part of the District to cater for the growing Woodend/ Pegasus community.

It's likely this will be considered and included in future LTPs and budget provisions may need to be put aside between 2030 and 2040.

While no detailed costing has been completed, it is possible that up \$30 - 40 million may need to be spent.

In a similar vein it is possible an extension of MainPower Stadium may be needed before 2040.

The \$28 million stadium due for completion in mid-2021 has been designed to enable an additional two indoor courts to be added in the future. This could cost up to \$10 million, although again no detailed costing has been undertaken.



Road UPGRADES

There are a number of transport upgrades planned to cater for a growing community.

Major issues arising are the potential need for a new arterial to the east of Rangiora linking Lineside Road and Kippenberger Avenue. While the route has been planned for and land identified and secured, it is possible the link may be required between 2035 and 2040. It is currently estimated to cost in excess of \$20 million.

The other major transport project we expected is the replacement of the Old Waimakariri Bridge. The Council owns half of the bridge with Christchurch City Council responsible for the other half. It is projected for renewal in 2042 and Council's share could exceed \$10 million.

We are also looking to realign the heavy vehicle bypass to the north west of Rangiora following the direction of power pylons and have already secured the land.

These projects will be needed to cater for a growing population. Specific projects are likely to become future topics of engagement in the coming years outside of this Draft Long Term Plan.



Stormwater and WATERWAY UPGRADES

As mentioned earlier new National Standards will require the Council to undertake work to improve the quality of stormwater entering waterways.

While the draft LTP includes over \$31 million to improve waterway and drainage services, it is likely over the next couple of decades further sums of at least this amount will be required to retrofit the older parts of urban stormwater systems, to ensure stormwater discharged to lowland waterways meets standards.

Over the next five years the Council will be undertaking further work to understand the nature and extent of work required.



Mixed Use BUSINESS AREA IN KAIAPOI

The Council owns eight hectares of land in central Kaiapo for mixed uses. Of this 2.9 ha is adjacent to the Kaiapo River, between Williams Street, Raven Quay, Bowler Street, and Hilton Street.

Last year we ran a process seeking a Developer with a proven track record and appropriate level of experience, to purchase the land, or a significant part of it, and develop it in a way that provides an attractive mixed use development - which could include residential, business, car-parking, and public amenities.

We had two viable proposals submitted and will be working with these and potential other parties on concepts for the future of this area over the coming years.

Balancing the BUDGET

The Financial Strategy guides Council decisions on prudent long-term funding and the Infrastructure Strategy identifies the significant issues the Council faces within the next 10 to 30 years, and how it intends to manage assets.

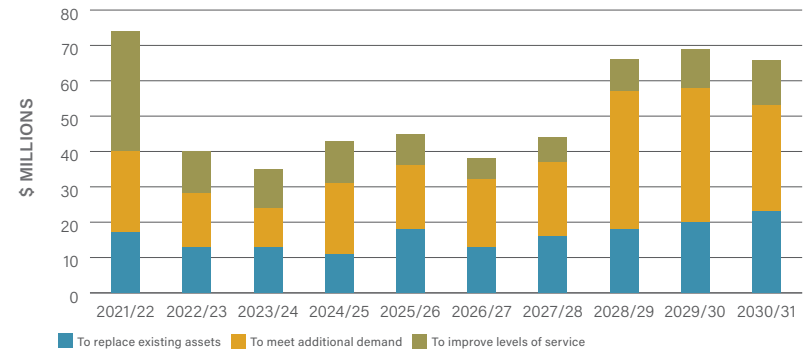
How Council Funds Its Operational Activities

Operating income every year is set to meet that year's operating expenses so the Council has a balanced budget. It is expected operating expenditure will increase from \$108m to \$145m due to population growth, increases in service levels and inflation adjustments.

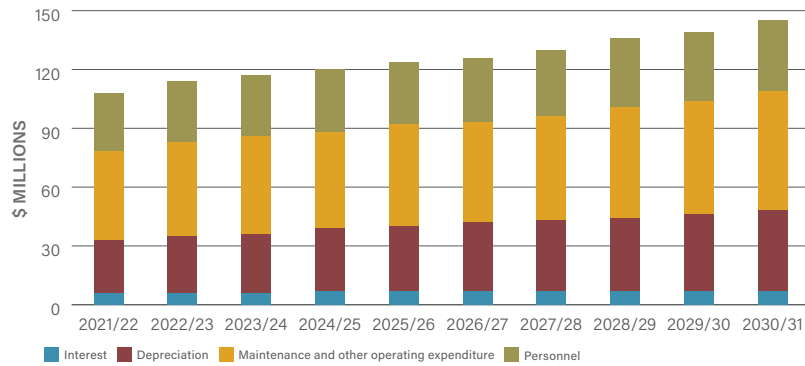
Council Capital EXPENDITURE PROGRAMME

Over the next 10 years the Council will spend approximately \$523m on infrastructure renewals, improved levels of service and accommodating growth.

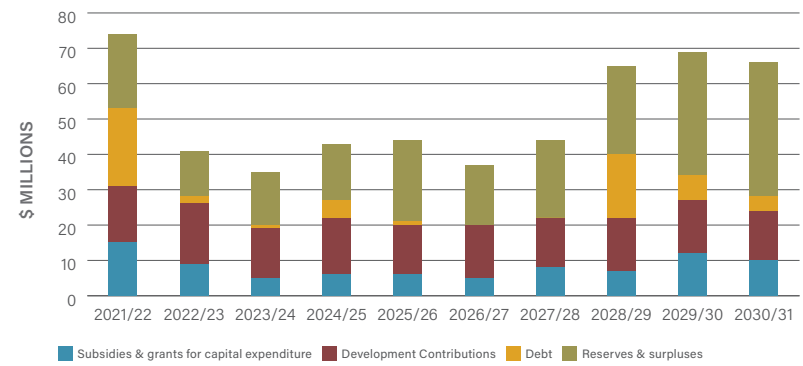
PROPOSED CAPITAL EXPENDITURE



OPERATING EXPENDITURE



PROPOSED FUNDING OF CAPITAL EXPENDITURE



The draft Long Term Plan 2021 – 2031 Funding Impact Statement (FIS) provides a more complete picture of what we're spending money on and how it's funded.

Balancing the BUDGET CONTINUED

Debt LEVELS

Total external debt is forecast to reach \$227m in 2030/2031.

Debt levels remain within the Local Government Funding Agency (LGFA) policy limit agreements, including the allowance for financial capacity or 'headroom' to pay for a

rebuild should another significant earthquake or other natural disaster occur within the 10-year plan.

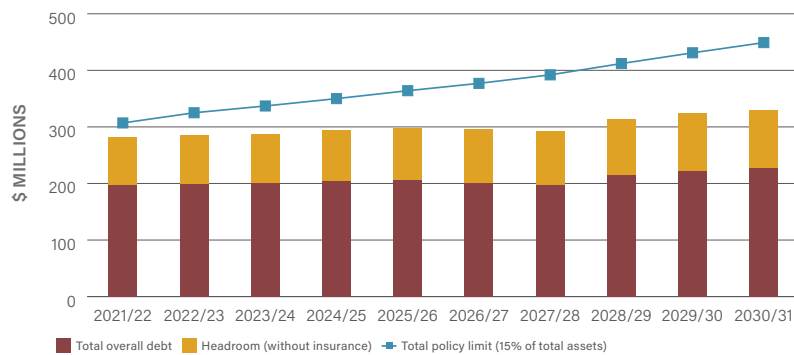
If such an event occurred, we would reprioritise the work programme in this LTP to ensure it remained within the policy limit.

As a member of the LGFA, and with a credit rating of AA/A-1+ from Standard and Poor's, we achieve a lower cost of borrowing than through conventional lending institutions.

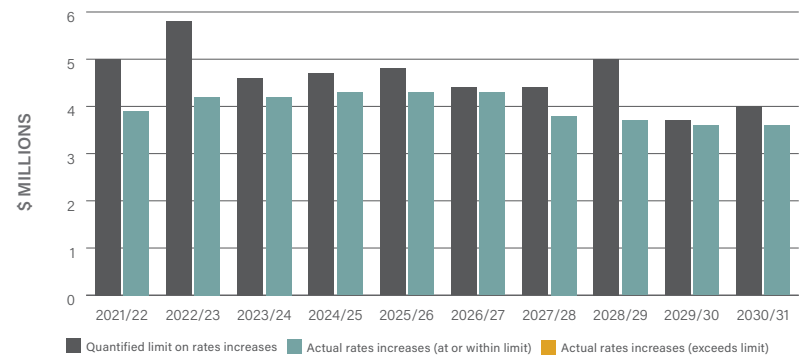
Rates AFFORDABILITY

This graph compares our actual rate increases beside the self-imposed limit available through our Financial Strategy. Our limit includes the Local Government Cost Index, the Earthquake Recovery rate and allows for future growth in levels of service.

TOTAL DEBT



RATES INCREASES



What makes up RATES?

Rates are a property-based tax to pay for public services.

How much you pay varies depending on where you live, what services you access and the value of your property.

There are two main types of rates. A general rate based on the capital value of your property, and targeted rates for services and facilities that benefit particular groups of residents (such as rural water supply).

An average property in Waimakariri pays about \$3,152 in 2021/22. The Council proposes to increase rates over the 10-year period of this Long Term Plan by an average of 3.9 percent annually (This is the 10 year average). The rates increase planned for 2021/22 is 3.95 percent.

The increase covers the nearly 40 services the Council provides, from maintaining roads, providing clean drinking water, storm and waste water management, town halls, public toilets, swimming pools, libraries, picking up rubbish and recycling, regulatory services like district planning and building services, to providing safe playgrounds and pensioner housing, among many others. Other charges are made to users of facilities to reflect a user charge and lower the cost in rates.

While continuing to provide this wide range of services, Council has maintained its overall credit rating of AA/A-1+ stable with Standard and Poor's.

Why are rates higher than CPI?

One of the most frequent questions we get about rates is 'why do rates increase faster than general inflation?'

This difference comes down to the types of goods and services councils buy when compared to a household.

Costs for road seal, culverts, water infrastructure and the costs of maintaining large facilities like parks, libraries and swimming pools have increased at a higher level than consumer and household goods like clothing, food and beverage and personal transportation.

In a nutshell that's why rate increases are often higher than the consumer price index.

What makes up the increase?

While 3.9 percent per annum on average over ten years seems like a lot, when broken down it is much more understandable. Local Government Cost Index is currently 2.9 percent which is confirmed by Business and Economic Research (BERL).

The balance of the increase is made up of 0.6 percent to progressively fund the earthquake and regeneration costs. The balance is to fund, MainPower Stadium and other targeted services such as water, sewer and drainage.

What's happening WITH MY RATES?

The table shows indicative rates for the first three years of the LTP. They are based on 2020 property valuations.

The below amounts exclude optional greenwaste and recycling bin rates as well as Environment Canterbury rates.

AREA	AVERAGE CAPITAL VALUE \$	ACTUAL RATES 2020/21 \$	PROPOSED RATES 2021/22 \$	PROPOSED RATES 2022/23 \$	PROPOSED RATES 2023/24 \$	MOVEMENT 2021/22 compared to 2020/21
Ashley/Sefton	438,335	1,659	2,568	2,683	2,810	54.80%*
Cust	547,438	2,898	2,983	3,121	3,324	2.90%
Fernside	755,012	5,346	4,442	4,582	4,665	-16.90%
Garrymere	721,488	3,916	4,058	4,165	4,425	3.60%
Kaiapoi Central Business Area	1,181,757	4,639	4,762	4,998	5,246	2.60%
Kaiapoi Urban	429,120	2,847	2,950	3,101	3,252	3.60%
Large Farm	4,715,048	6,538	6,696	6,854	7,245	2.40%
Mandeville	792,214	3,318	3,407	3,545	3,674	2.70%
Ohoka	713,941	3,907	3,989	4,123	3,989	2.10%
Oxford Rural No.1	1,468,583	5,011	4,993	5,059	5,249	-0.40%
Oxford Rural No.2	843,590	3,348	3,344	3,429	3,485	-0.10%
Oxford Urban	397,974	3,383	3,529	3,685	3,815	4.30%
Pegasus	424,666	3,028	3,111	3,218	3,319	2.70%
Pines & Kairaki	317,941	2,500	2,589	2,697	2,819	3.60%
Poyntz Road	566,186	3,073	3,493	3,838	4,026	13.70%
Rangiora Central Business Area	1,580,861	5,077	5,302	5,488	5,685	4.40%
Rangiora Rural	850,941	2,129	2,175	2,258	2,377	2.20%
Rangiora Urban	467,998	2,900	3,006	3,129	3,238	3.70%
Small Farm	1,169,341	2,499	2,554	2,644	2,785	2.20%
Summerhill	973,852	3,746	3,657	3,765	3,914	-2.40%
Tuahivi	441,000	2,748	2,819	2,932	3,015	2.60%
Waikuku	397,535	2,836	2,944	3,066	3,199	3.80%
West Eyreton	659,838	2,971	2,980	3,109	3,245	0.30%
Woodend Urban	452,821	2,932	3,048	3,164	3,253	4.00%

*This change in rate is due to Waimakariri District Council taking over collection of Ashley water rates from 1 July 2021 for properties in the Waimakariri District that are connected to the Ashley Water Supply. Collection to date has been undertaken by Hurunui District Council - which will continue to manage the operation of the scheme.

Where the MONEY GOES

In 2021/22 we're anticipating total rates revenue of \$72.2 million (excluding GST), with an average rate for the year of \$3.152 per rateable property and an expected average rate per day of \$8.64.



Feedback FORM

Tell us what YOU THINK

There are three proposals the Council would like your feedback on:

1. Providing Community Facilities at Pegasus and Woodend (Ravenswood) Page 13

Please tick the option you prefer and tell us why.

- A: Council's preference - The proposal to budget for and develop new facilities at Pegasus and north Woodend in the timeframes signalled is supported by the community**
- B: Advance construction of the north Woodend facility so that it is built within the next five years (by 2025/26)**
This would result in an increase in debt levels earlier than currently signalled and increase rates by about \$32 per property than currently signalled.
- C: Build one combined facility at either Pegasus or north Woodend by 2024/25**
While this would see a larger facility built, based on a survey of community needs it is felt that the distance between Pegasus and Woodend would lessen its use. Accordingly this is not the preferred approach.

Comments: _____

2. Expand and Upgrade the Trevor Inch Memorial Library and Rangiora Civic Building Page 15

Please tick the option you prefer and tell us why.

- A: Council's preference**
The proposal to financially reflect the Civic Precinct Project in the LTP is supported, but the timing is deferred to 2028 with this being revisited through the 2024-34 LTP process. This is currently budgeted for so would have no additional costs per property per year.
- B: Bring forward funding provisions and timing (projects to be completed by 2025/26)**
This would see financial provision brought forward with consequential increases in debt and rating to pay off loans sooner. There are a range of possibilities here, but the Council does not recommend this at this time.
- C: The proposal overall is declined**
This will mean we do not meet the community needs for library services and Council operational requirements as part of the Civic Precinct in line with our growing population - service levels would decrease accordingly. Other alternate options for provision of community and Council service delivery will need to be investigated at costs yet to be determined. There are no additional costs per property as the proposal would be declined.

Comments: _____

3. Build a Car Park Building to Service Rangiora Town Centre by 2028-2030 Page 17

Please tick the option you prefer and tell us why.

- A: Council's preference**
Retain the \$6.3 million already allocated to secure more land for car parking over the next five years, but add a further \$11.3 million in 2028-2030 to enable a car park building be built. The timing of construction will be reviewed during the next LTP to check if that is still appropriate.
- B: Advance the construction of the car park building and finish the project by 2025/26**
This would likely provide more car parks than Rangiora currently needs right now and would require financial provision brought forward with consequential increases in debt and rates to pay off loans sooner. There are a range of possibilities here, but the Council does not recommend this at this time.
- C: Defer consideration of a car park building. Instead utilise technology to show available off-street parking and increase enforcement to defer the need for additional car parks**
Providing sufficient parking is important for businesses and town centre visitors. Using technology will be considered in conjunction with providing more car parks. This would see the provision for a car park building pushed out beyond the 10 year timeframe. This is not the preferred option as the Council thinks it is best to signal the anticipated need for this facility as part of this LTP. There are no additional costs per property involved with this proposal.

Comments: _____

Any other comments?



Please provide your feedback by 12 APRIL 2021.

ONLINE:

waimakariri.govt.nz/letstalk

BY EMAIL:

longtermplan@wmk.govt.nz

BY POST:

Draft Long Term Plan Consultation Document
Waimakariri District Council
Private Bag 1005, Rangiora 7440

IN PERSON:

Drop at any Council Service Centre or Library in Kaiapoi, Oxford and Rangiora

Follow us on Facebook WaimakaririDistrictCouncil

Public HEARINGS

Please tick one of the boxes below if you would like to present feedback at public hearings either in person or online.

Wednesday 5 May 2021
Kaiapoi 1pm – 6pm I want to provide feedback in person I want to present feedback online

Thursday 6 May 2021
Rangiora 9am – 12pm
(Zoom session only) I want to present feedback online

Thursday 6 May 2021
Rangiora 1pm – 9pm I want to provide feedback in person I want to present feedback online

Friday 7 May 2021
Oxford 9am – 1pm I want to provide feedback in person I want to present feedback online

Please note: We require your contact details as part of your submission – it also means we can keep you updated throughout the project. Your submission, name and address are given to decision-makers (Community Board, Committee/Council) to help them make their decision. Submissions, with names only, go online when the decision meeting agenda is available on our website.
If requested, submissions, name and contact details are made available to the public, as required by the Local Government Official Information and Meetings Act 1987.
If there are good reasons why your details and/or submissions should be kept confidential, please contact our Engagement Manager on 0800 965 468 (0800 WMK GOV).



Draft Long Term Plan 2021-2031 Consultation Document
Waimakariri District Council
Private Bag 1005
Rangiora 7440

Audit OPINION

DRAFT LONG TERM PLAN 2021 - 2031
CONSULTATION DOCUMENT 40

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

Independent auditor's report on Waimakariri District Council's Consultation Document for its proposed 2018-28 Long-Term Plan

I am the Auditor-General's appointed auditor for Waimakariri District Council (the Council), Section 93C of the Local Government Act 2002 (the Act) requires an audit report on the Council's consultation document. We have done the work for this report using the staff and resources of Audit New Zealand. We completed our report on 20 February 2018.

Opinion

In my opinion:

the consultation document provides an effective basis for public participation in the Council's decisions about the proposed content of its 2018-28 long-term plan, because it:

fairly represents the matters proposed for inclusion in the long-term plan; and

identifies and explains the main issues and choices facing the Council and district, and the consequences of those choices; and

the information and assumptions underlying the information in the consultation document are reasonable.

Basis of opinion

We carried out our work in accordance with the International Standard on Assurance Engagements (New Zealand) 3000 (Revised): Assurance Engagements Other Than Audits or Reviews of Historical Financial Information. In meeting the requirements of this standard, we took into account

particular elements of the Auditor-General's Auditing Standards and the International Standard on Assurance Engagements 3400: The Examination of Prospective Financial Information that were consistent with those requirements.

We assessed the evidence the Council has to support the information and disclosures in the consultation document. To select appropriate procedures, we assessed the risk of material misstatement and the Council's systems and processes applying to the preparation of the consultation document.

We did not evaluate the quality and controls over the application of the consultation document.

Key committees of the Council and auditors.

The Council is responsible for: meeting all legal requirements relating to its procedures, decisions, consultation, disclosures, and other actions associated with preparing and publishing the consultation document and long-term plan, whether in printed or electronic form;

having systems and processes in place to provide the supporting information and analysis the Council needs to be able to prepare a consultation document and long-term plan that meet the purposes set out in the Act; and

ensuring that any forecast financial information being presented has been prepared in accordance with generally accepted accounting

practice in New Zealand.

I am responsible for reporting on the consultation document, as required by section 93C of the Act. I do not express an opinion on the merits of any policy content of the consultation document.

Independence

In carrying out our work, we complied with the Auditor-General's

independence requirements, which incorporate the requirements of Professional and Ethical Standard 1 (Revised); and

quality control requirements, which incorporate the quality control requirements of Professional and Ethical Standard 3 (Amended).

In addition to this report on the Council's consultation document and all legally required external audits, we have provided an assurance report on certain matters in respect of the Council's Debenture Trust Deed. These assignments are compatible with those independence requirements. We have no relationship with or interests in the Council.

John Mackey

Audit New Zealand

On behalf of the Auditor-General, Christchurch, New Zealand

Name/Organisation: _____
Address: _____

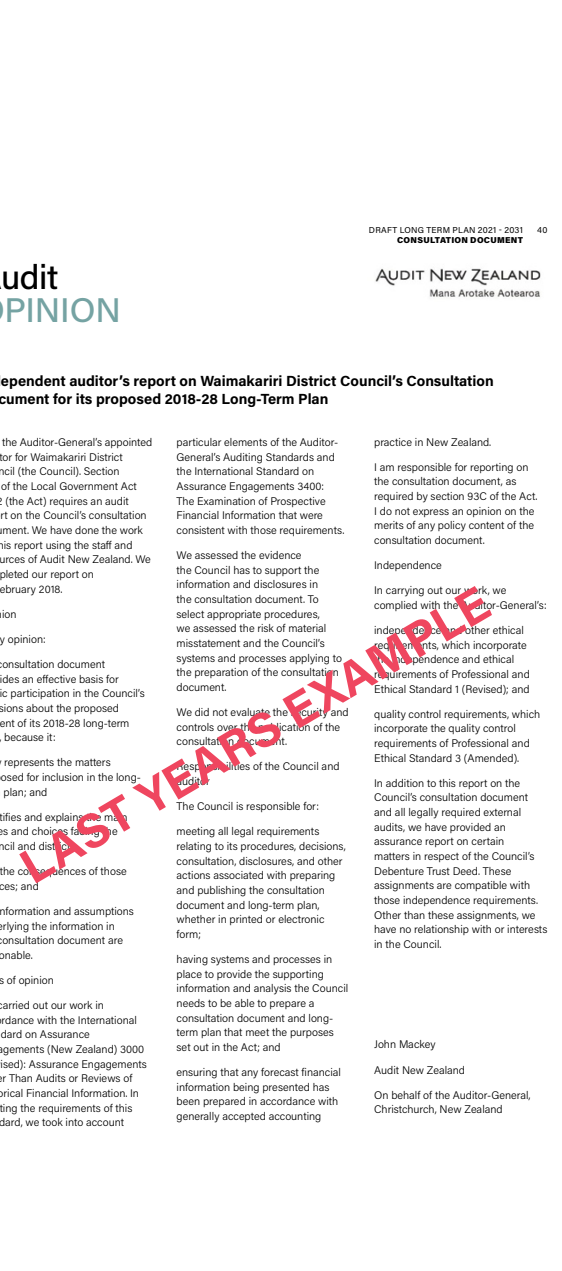
Postcode: _____
Email: _____ **Phone:** _____

Please tick the box if you want your contact details to be confidential

If you have any questions regarding the Draft Long Term Plan 2021-2031 Consultation Document please contact:

Helene Street
Corporate Planner
Waimakariri District Council
Phone: 0800 965 468
Email: longtermplan@wmk.govt.nz

Return this feedback form (no stamp required) to us by Monday 12 April 2021.



Looking beyond OUR BOUNDARIES

While our focus is on Waimakariri, we also need to be thinking beyond our boundaries. We are part of Greater Christchurch - which includes Waimakariri, Christchurch City and Selwyn.

Our Greater Christchurch partners are our neighbouring councils - Selwyn and Christchurch - along with Environment Canterbury, Te Rūnanga o Ngāi Tahu, Canterbury District Health Board, Waka Kotahi (New Zealand Transport Agency) and the Department of Prime Minister and Cabinet.

Greater Christchurch is the second biggest urban centre in this country - 10 per cent of New Zealand call this place home.

By 2048 Greater Christchurch is expected to grow to about 640,000 - around 150,000 more people than today. We're also becoming more diverse. More than 20 percent of our current population was born overseas, and a quarter identify as non-European.

We have space to grow, but we need to work together to make the most of our strengths and attract and retain people, business and investment.

For the past year, the Partnership has focused on setting a new strategic direction for Greater Christchurch. Greater Christchurch 2050 is the project established by the Partnership to develop a clear, shared view of our future, and a plan for how we get there.

During October and November 2020, the Partnership asked people

about their priorities and concerns for Greater Christchurch in 2050.

We heard that people want Greater Christchurch to be sustainable, green, safe and affordable - a place where it's easy to get around using public transport, walking or cycling, and where nature is protected and respected.

People were most concerned about not enough being done to offset the impacts of climate change, that we will have pollution and waste management issues, that traffic congestion will be worse, that our natural ecosystems and indigenous biodiversity will be threatened, and that there will be a lack of affordable and quality housing.

Our ability to maintain the lifestyle many of us love and to afford the services, technologies and infrastructure that will provide the future we aspire to, requires a strong economic foundation. We need meaningful employment opportunities, ongoing private sector investment, and a solid rating base to fund public infrastructure and services.

What we've heard will help the Partnership develop a plan for what we need to do, collectively and individually, to achieve the future we want for our future generations.

As a Council, we're committing through this Long Term Plan to take some initial steps to help address the issues identified through Greater Christchurch 2050, and move us towards our shared aspiration for the future.



Further INFORMATION

Find out more about the Council's proposals, the impact they have on Council spending and the rates you may pay by viewing the full draft LTP.

This document can be viewed online, or a hard copy is available for public viewing at each of our service centres and libraries in Kaiapoi, Oxford and Rangiora.

VISIT [WAIMAKARIRI.GOV.T.NZ/LETSTALK](https://www.waimakariri.govt.nz/letstalk)
FOR MORE INFORMATION



**Leaving a positive
print on the future
of our district.**



WAIMAKARIRI
DISTRICT COUNCIL



Draft, February 2021



Infrastructure Strategy 2021 – 2051

Leaving a positive print on the future of our district.

Contents

Executive Summary	1	4.2 Wastewater	63
1 Introduction	4	4.2.1 Wastewater capital works programme.....	64
1.1 Purpose and scope	4	4.2.2 Wastewater replacement programme.....	67
1.2 A vision for Waimakariri.....	5	4.3 Stormwater	68
1.3 Infrastructure strategy relationships and influences	7	4.3.1 Stormwater capital works programme.....	69
2 Our District	8	4.3.2 Stormwater replacement programme.....	72
2.1 Location and character	8	4.4 Roads and footpaths	73
2.2 The land and people	10	4.4.1 Roads and Footpaths capital works programme	74
3 Thirty Year Strategy	12	4.4.2 Roads and Footpaths replacement programme.....	84
3.1 Strategic vision	12	4.5 Solid Waste	85
3.2 Providing appropriately for a fast growing District	14	4.5.1 Solid Waste capital works programme	86
3.3 Responding nimbly to a changing operation environment	24	4.5.2 Solid Waste replacement programme.....	90
3.3.1 Covid-19.....	24	4.6 Green Space	91
3.3.2 Changing government priorities and legislative environment.....	25	4.6.1 Green Space capital works programme.....	92
3.3.3 New technology	29	4.6.2 Green Space replacement programme	97
3.4 Meeting levels of service and community expectations	30	4.7 Aquatic Facilities	98
3.5 Planning for natural hazards and climate change	34	4.7.1 Aquatic Facilities capital works programme.....	99
3.5.1 Natural hazards.....	34	4.7.2 Aquatic Facilities replacement programme	102
3.5.2 Climate change	36	4.8 Property	103
3.6 Transitioning to a sustainable future	40	4.8.1 Property capital works programme.....	104
3.7 Renewing infrastructure in a timely manner	44	4.8.2 Property replacement programme.....	107
3.8 Service delivery	47	4.9 Libraries	109
3.9 Financial implications of the Infrastructure Strategy	48	4.9.1 Libraries capital works programme	110
3.10 Summary of significant infrastructure projects	50	4.9.2 Libraries replacement programme	111
3.11 Significant decisions	54	4.10 Other significant projects	112
4 Significant Infrastructure Projects	55	5 Appendices	116
4.1 Water Supply	56	5.1 Asset condition and performance	116
4.1.1 Water Supply capital works programme	57	5.2 Identifying and managing risk by activity	120
4.1.2 Water Supply replacement programme	62	5.3 Other relevant legislation.....	123
		5.4 Community Outcomes	126

Executive Summary

This Strategy summarises the current state of Council’s infrastructure and importantly outlines the key strategic issues facing the Council and its proposed response.

The Infrastructure Strategy has been prepared in accordance with the requirements of section 101B of the *Local Government Act 2002* and includes the mandatory 3 Waters and Roading and Footpath activities as well as Solid Waste, Green Space, Aquatic Centres, Libraries, and Property.

Current state of Council infrastructure

The Waimakariri District’s infrastructure is in very good condition. There are four key reasons for this:

Young infrastructure

As a fast growing District a large proportion of the infrastructure has been installed within the last 30 years. The majority of it is therefore relatively new with the average age of 3 Water systems being less than 25 years old. As most of this infrastructure is expected to last for between 80 and 100 years, much of the renewals do not fall due until the 21st century and the first part of the next century.

Ongoing Investment

For more than twenty years the Council has invested heavily in ensuring it is planning adequately for growth. Accordingly, essential systems to support a growing community are in place. Examples include building the Eastern District Sewerage Scheme with sufficient capacity until about 2070, upgrading all Council water supplies to meet current standards, constructing

Rangiora’s water supply to support a community double the town’s current population, building key new recreation facilities such as the Dudley Park Aquatic Centre and Stadium Waimakariri, and working with strategic partners to realise the construction of the Western Bypass and Northern Corridor thereby improving transport connections with Christchurch.

Building back better

When the Canterbury earthquake series caused major damage and disruption to the community and the Council’s infrastructure, the Council decided to take the opportunity to ‘build back better’. It strengthened all of its buildings to at least 67% of the new building standard, and where rebuilds were required it wisely invested in buildings that are fit for the future, including the Ruataniwha - Kaiapoi Library, Rangiora and Oxford Town Halls, Kaiapoi Aquatic Centre and the Oxford Service Centre. It also took the opportunity to replace underground infrastructure with more resilient solutions.

Focusing on resilience

Reinforced by its experience of the Canterbury earthquake series, the Council has invested heavily in understanding the condition and performance of its assets, with modelling of flooding and 3 Water networks providing a high degree of information and knowledge about potential risks and how its assets perform. In conjunction with this, the Council uses a risk-based renewal strategy that enables it to assess the critically, vulnerability, performance and condition of its infrastructure. This allows investment to be prioritised in a

way that protects the most critical infrastructure and minimises asset failure. Council has also ensured sufficient financial resources are set aside to allow it to fully recover from a major natural disaster.

Key Strategic Issues and Council's Response

The Council's vision is *'to provide well maintained infrastructure that meets the needs of today's community and caters for the projected growth in the District's population in a manner that is sustainable and anticipates a changing environment.'* Strategies for continuing to achieve this are divided into the following six key themes:



Providing appropriately for a fast growing district

For more than twenty years the District has been one of the fastest growing districts in the country and this trend is set to continue. Within the next ten years the population is expected to grow from its current level of nearly 65,000 to about 78,000 by 2031 and 100,000 by 2051. Ensuring there is an overall strategy to support the growing population with appropriate infrastructure and community facilities is critical.

Key strategies are to ensure main transport and roading routes provide multi-modal choices to support community expectations, 3 Waters infrastructure is available when new developments commence, town centres are vibrant, and community facilities are developed and sized to cater appropriately. The major projects anticipated in the next 30 years include new community facilities in the Pegasus/Woodend area to accommodate a likely doubling of population, improving transport routes into and around Rangiora and increasing car parking in central Rangiora, revitalising and expanding the Trevor Inch Memorial Library in Rangiora and Rangiora Civic Centre, and possibly extending the District's aquatic facilities and MainPower Stadium approaching 2040.



Responding nimbly to changing operating environments

A number of factors are influencing delivery of services including the Covid-19 pandemic, new government introduced legislation and policy statements, and a proposed reform of the delivery of 3 Water services. All of these challenges provide a level of uncertainty in the manner in which the Council manages its business.

Increasing standards, particularly in terms of improving the quality of drinking water and the quality of stormwater discharged into lowland streams and waterways, is requiring the Council to invest significantly in understanding the implications and provide for any capital works required to ensure those standards are met. In respect of improving waterways, substantial investment is likely to be needed over the next two decades.

Later in 2021 more will be known about the Government's intention to reform 3 Waters service delivery. Until that time the Council will continue to discharge its stewardship responsibilities on the presumption that it will be the continuing owner and operator of those services.



Meeting levels of service and community expectations

The Council continues to survey the community to understand its needs, and respond accordingly. Continuing to deliver current levels of service remains a high priority for the Council. Renewal and maintenance programmes are in place to ensure service levels are consistently met.

Rates affordability is a key factor Council takes into account when deciding on its programme of new capital works.



Planning for natural hazards and climate change

The Council continues to invest in making its infrastructure resilient to significant natural hazards risks, especially from major earthquakes and floods.

Reducing and mitigating greenhouse gases will increasingly be of concern as the Government strives to achieve its target of zero emissions of all domestic greenhouse gases, other than biogenic methane, by 2050 under the 'Climate Change Response (Zero Carbon) Amendment Act 2019'. The Council has a number of initiatives underway to understand the implications of climate change and further work is intended to develop adaptation measures that take account of these.



Transitioning to a sustainable future

The Council has developed plans and is implementing actions to improve its sustainability and in its planning for the community is seeking to embed sustainability principles into its decision making and procurement practices. In addition to lowering its carbon footprint, Council seeks to improve environmental outcomes by enhancing waterways through its 'Arohata te Awa (cherish the river)' programme of work, by providing more transport modes options, particularly for walking and cycling, and by encouraging greater use of public transport through provision of park and ride facilities.



Renewing infrastructure in a timely manner

Maintaining the infrastructure the Council owns is its first priority. The Council has developed a renewals programme for the whole of life of its assets for the next 150 years. Revenue levels are set to ensure sufficient funds are available for when the renewal needs to occur. When combined with a risk-based renewal policy, where the condition, performance, criticality and vulnerability of the assets are factored in, infrastructure is able to be maintained to the appropriate standards to meet the current and long-term needs of the community.

Conclusion

In developing its programme of significant works for this Infrastructure Strategy, the Council aims to maintain appropriate levels of service as the District continues to grow, and plan responsibly for future asset renewals, while keeping rates affordable for an increasingly aging population.

Considering how Council can transition itself and the community it serves to a carbon zero economy by 2050, and adapt to the effects of climate change, while continuing to promote community and environmental wellbeing will also need to be key focus areas for the next few years.

1 Introduction

1.1 Purpose and scope

The Infrastructure Strategy (IS) is part of a suite of documents and policies that form the 2021 Long Term Plan (LTP). There is a strong relationship between the Infrastructure Strategy and the Financial Strategy (FS) contained within the LTP, with the IS describing the key infrastructure issues the Council needs to face over the next thirty years, along with principal options for addressing these, and the FS identifying the key financial parameters and limits the Council plans to operate within.

The activity areas of water supply, wastewater and drainage have 13 activity management plans (AMP's) each, one for each rated scheme. Roading and Footpaths, Community Facilities, Green Space/Aquatic Facilities, Stockwater, Solid Waste and Property have one each. The relationship between the IS and the AMP's is iterative with the IS informing Asset Managers of the organisation's strategic priorities and the AMP's identifying major infrastructure decisions and future challenges.

While section 101B of the Local Government Act 2002 requires the core activity areas of 3 Waters, Roads and Footpaths, and Flood Protection and Control works to be included in an infrastructure strategy, other assets can be included at the discretion of the local authority. The Waimakariri District Council has also included the activity areas of Solid Waste, Property, Library Services, Green Space and Aquatics in this Strategy because they are a group of infrastructure assets, significant either in terms of number of assets, level of expenditure, or community expectations for service delivery. The Council also considers it to be valuable for the strategic planning of these discretionary activity areas to be extended to a 30 year time frame. Major river flood control works and assets located within the District are managed by Environment Canterbury, and therefore not included in this document but the Council-owned and managed localised stormwater mitigation assets are.

In accordance with the Local Government Act 2002 this strategy outlines how the Council intends to manage its assets including:

- The need to renew or replace assets
- Responding to growth or declines in demand for services reliant on these assets
- Allowing for planned increases or decreases in levels of service
- Maintaining or improving public health and environmental outcomes or mitigating any adverse affects on these; and
- Increasing the resilience of assets by identifying and managing natural hazard risks and providing appropriate funding for these.

A table outlining the key assumptions and risks that underpin this document can be found in the LTP proper.

Capital works for years one to three of this Strategy are projects the Council is seeking specific feedback on through the LTP process. Projects from years' four to ten are signalling budgets that will be subject to further consultation either as part of the next LTP process or earlier. The risks regarding the accuracy of the underlying assumptions for these projects increase over time. Projects identified in years eleven onwards should be considered to be fluid due to the greater degree of uncertainty about the operating environment and underlying assumptions. These are also subject to the three yearly LTP consultation process, but generally will only be highlighted in the LTP Consultation Document in the LTP period just prior to their detailed project planning and implementation. All figures in this document are not inflation adjusted unless otherwise stated.

The Council's Infrastructure Strategy has been developed based on the best information available to it and the Council has used assumptions based on

what it reasonably considers could occur over the next 30 years. Undoubtedly, the actual outcomes will vary to those contained within this Infrastructure Strategy as better information comes to hand.

The Council will continue to monitor and review the information available to it and will refine and update its Infrastructure Strategy every three years to reflect any significant changes.

The task of building, operating and maintaining infrastructure assets in an affordable manner is influenced by external factors; the most significant of these being population growth, community expectations for service, the legislative environment the Council operates within and mitigation of natural hazards, climate change and environmental degradation. Emerging technologies may have more of an impact in the future, particularly with regard to roading.

1.2 A vision for Waimakariri

Waimakariri District Council's Vision is:

To make Waimakariri a great place to be, in partnership with our communities

Consultations carried out to develop strategies, policies and plans, regular community surveys, and ongoing feedback to staff, community boards and politicians help to define what residents think 'a great place to be' is. This is reflected in the Community Outcomes which guide Council's decision-making in implementing the 2021-2031 LTP and 30 Year Infrastructure Strategy.



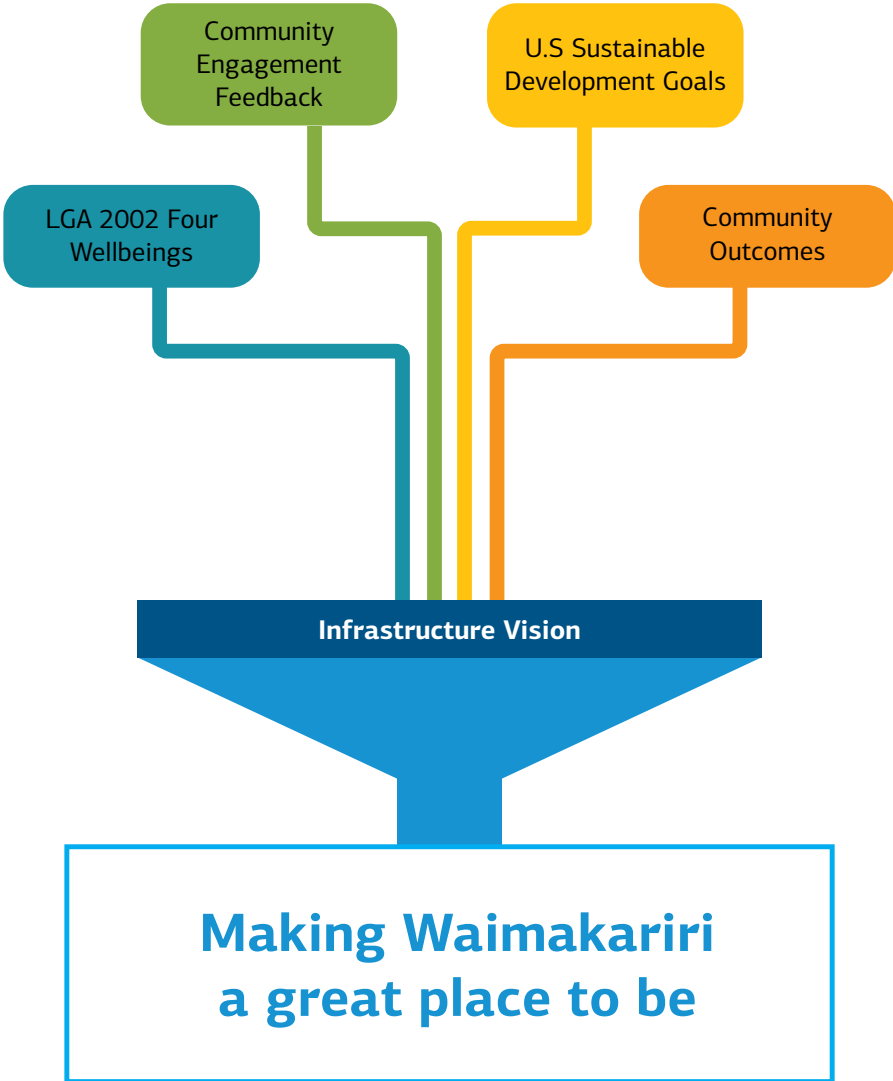
Each community outcome is associated with one or more of four wellbeings - social, economic, environmental, and cultural, which the *Local Government Act 2002* requires Council to promote.

As each infrastructural activity is aligned to specific community outcomes, the contribution it makes to community wellbeing can now be more easily seen. In 2020 the Council subscribed to the SOLGM Community Wellbeing Service which will enable it to track progress against a comprehensive set of wellbeing indicators.



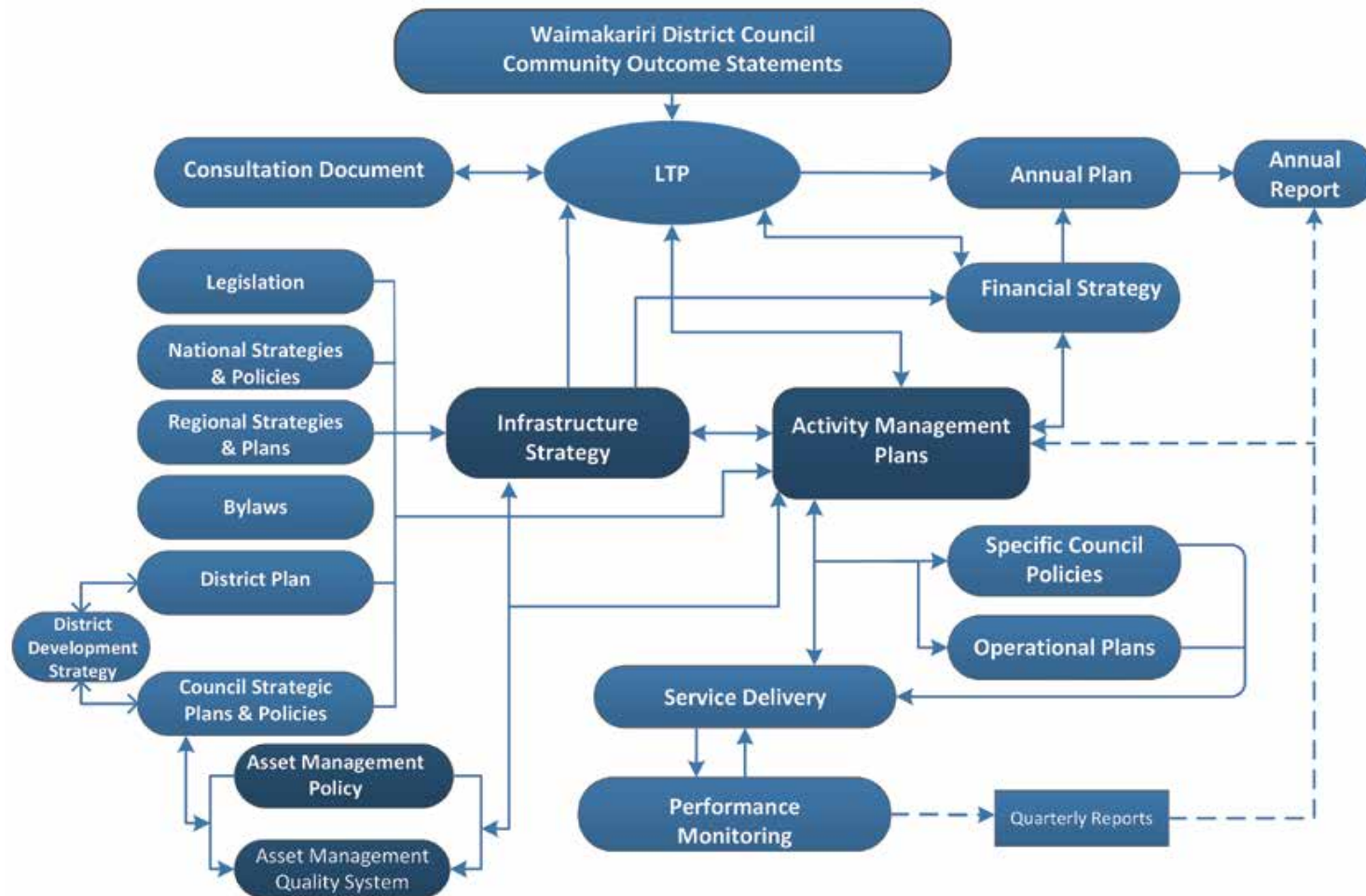
The community outcomes also broadly align to the United Nations Sustainable Development Goals (SDG). These are a blueprint for providing a better and more sustainable future for all by 2030 and have been incorporated into the Council's 2021 LTP for the first time.

Wellbeing Defined
 Our quality of life, including: civic and human rights, culture and identity, housing, knowledge and skills, leisure and recreation, material standard of living, employment status and job satisfaction, the physical and natural environment, safety and security, health and social connectedness.



1.3 Infrastructure Strategy relationships and influences

The following diagram shows the pathways for external and internal influences on the Infrastructure Strategy and how this in turn influences other aspects of Council business.



2 Our District

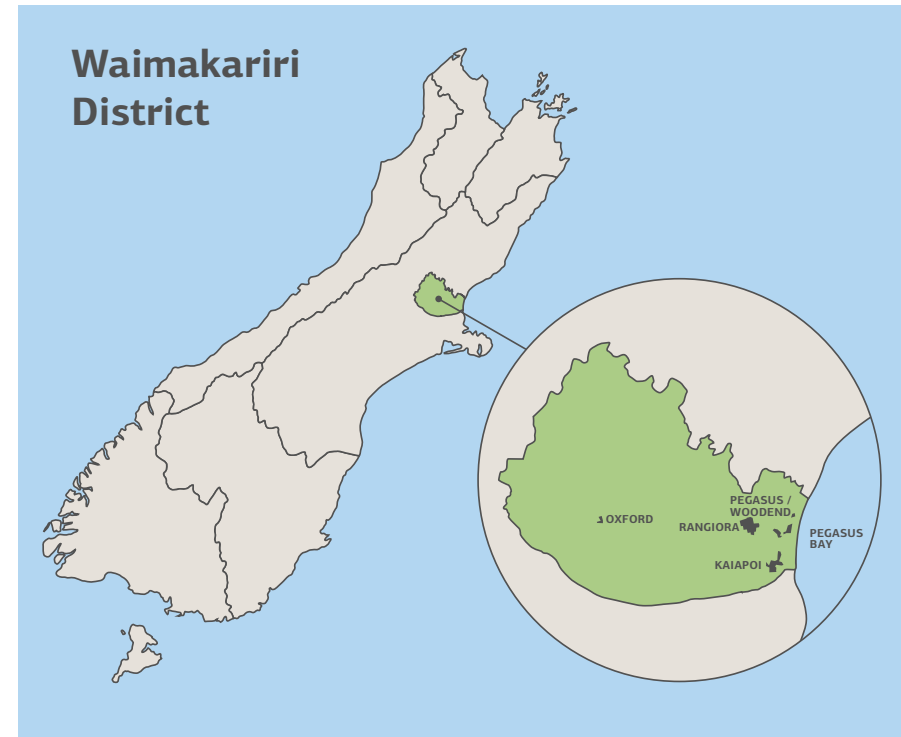
Waimakariri (meaning river of cold rushing water or cold river)

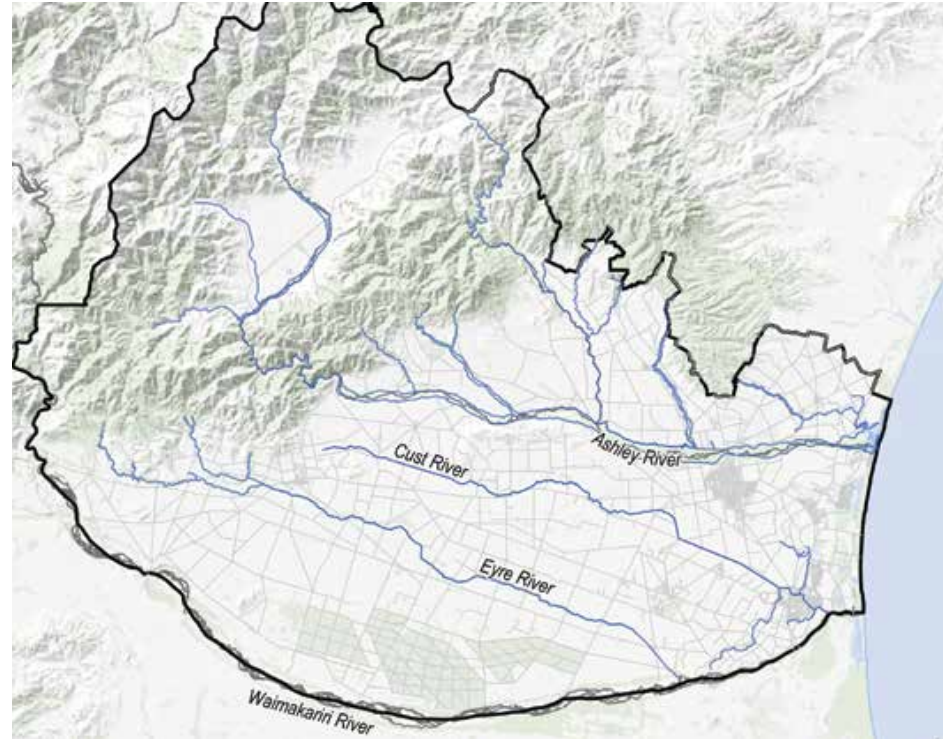
2.1 Location and character

The Waimakariri District lies to the north of Christchurch on the Canterbury Plains, extending from the Waimakariri River to the South, Pegasus Bay in the east and the Puketeraki Range in the west. It is bounded to the north by Hurunui District.

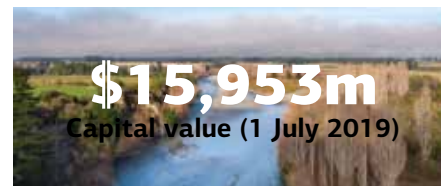
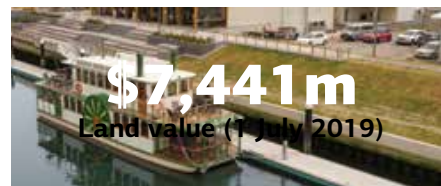
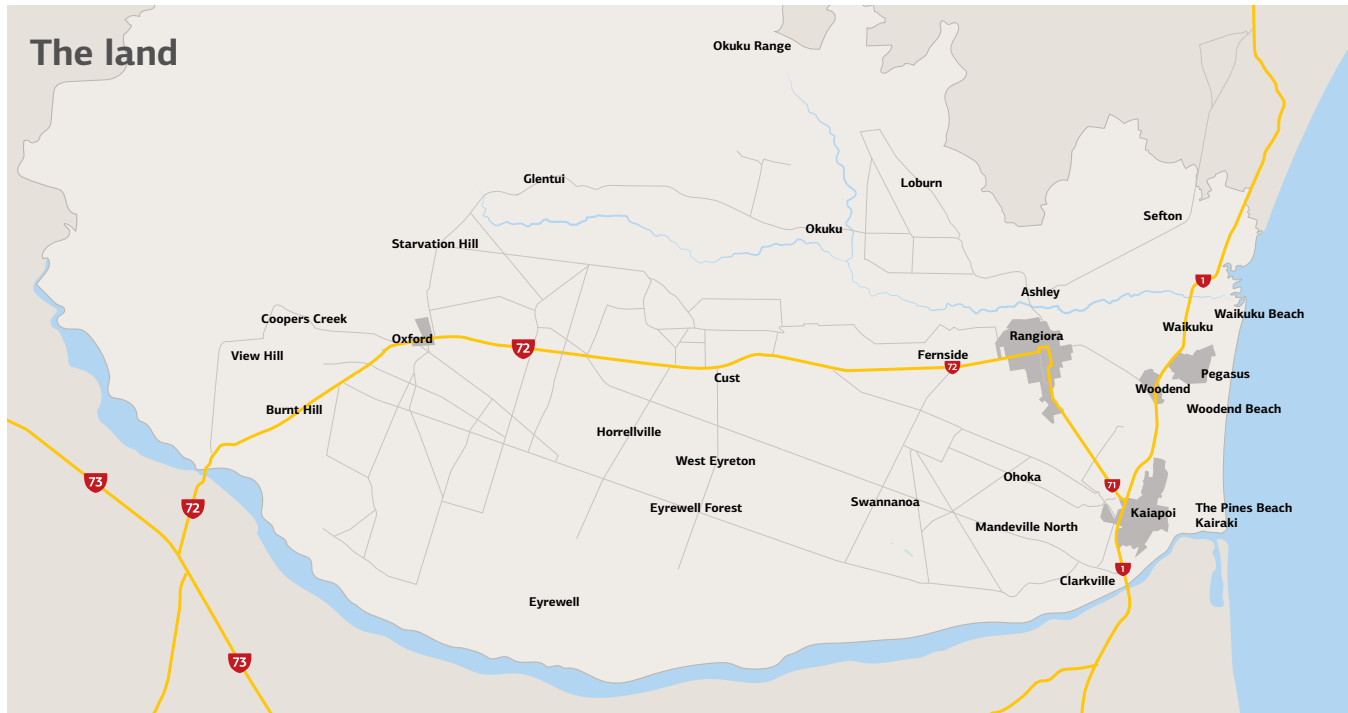
More than 80% of the population is concentrated in the eastern part of the District in the main urban areas of Rangiora, Kaiapoi, and Woodend/Pegasus. Oxford is the largest town in the western part of the District. These larger towns are supplemented by smaller rural villages and four beach settlements. The District also has a large number of people living on small holdings in the rural areas with approximately 3,500 households living on lots of between 0.5 and 4 hectares. Many of these properties have their own sewerage system and some have their own water supply systems.

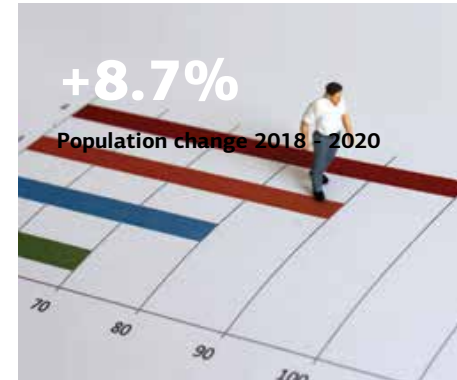
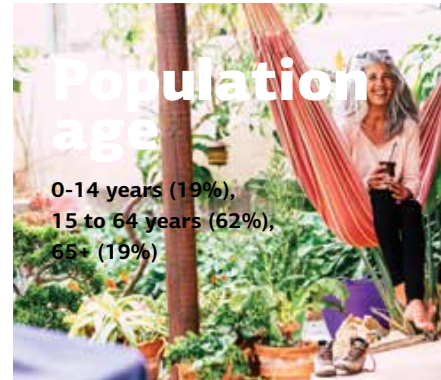
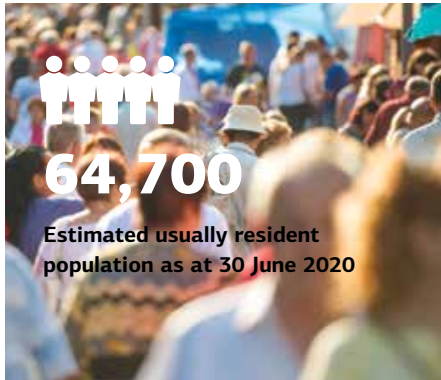
Most people live within a 30 minute drive from one another and all of these areas are within commuting distance of Christchurch City. Despite rapid population growth, Waimakariri has retained its small town/rural character and the District's close proximity to Christchurch makes it an attractive location for those wanting to live near a city but enjoy the country environment.



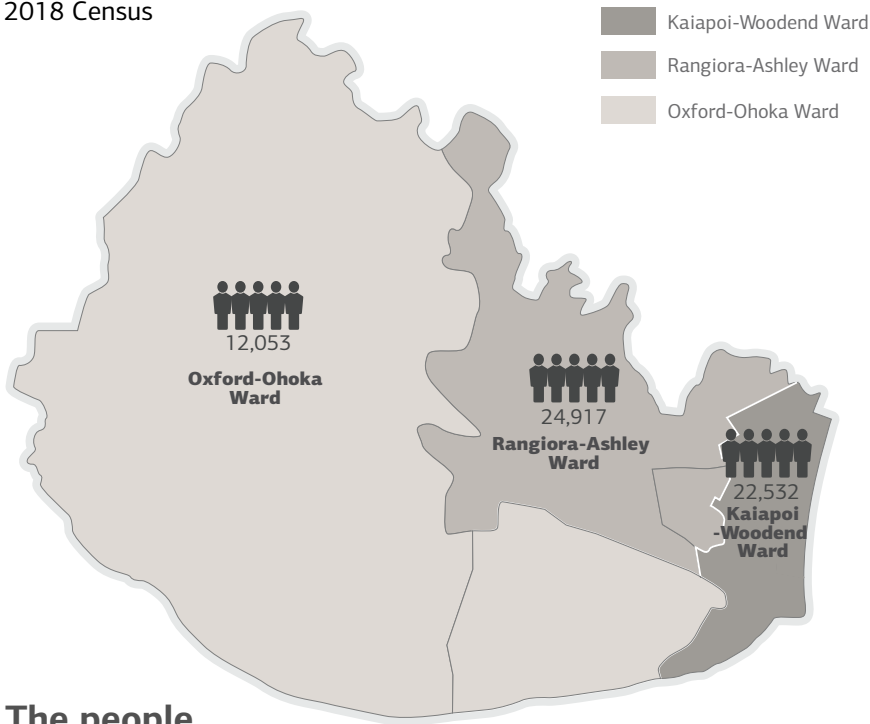


2.2 The land and people

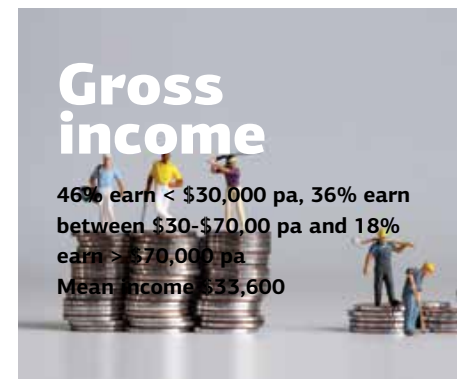
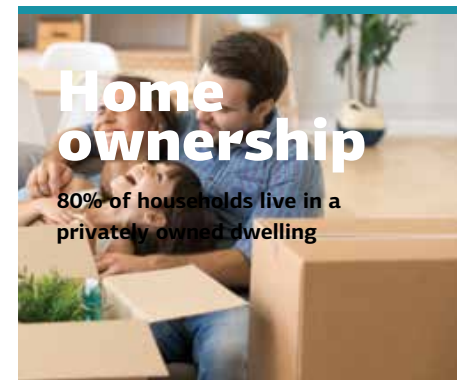
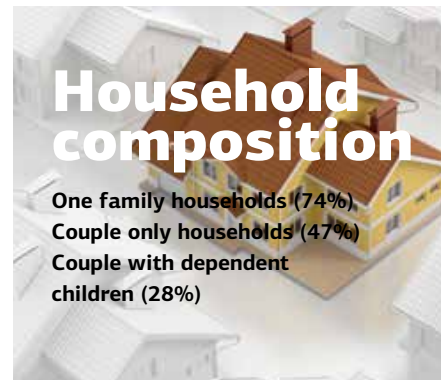




Data source: Statistics NZ
2018 Census



The people



3 Thirty Year Strategy

3.1 Strategic vision

In the 2018 Infrastructure Strategy, the Council's main focus for the next 30 years was on catering for growth, ensuring the renewal of assets was supported by an appropriate funding strategy, and addressing increasing community expectations for service provision. These aspects continue to be a major part of the Council's strategic focus, however the context within which growth happens is much more at the fore. In this Strategy the Council acknowledges the need to make development more holistic and sustainable, to ensure ongoing community wellbeing, prevent and mitigate negative effects on the climate and natural environment, and enhance the resilience of communities and the infrastructure they rely on.

The Council's external operating environment is more uncertain in 2021 than in 2018 with the *Resource Management Act 1990 Review*, *3 Waters Review*, and *Future of Local Government Review* all initiated by Central Government over the past year or so. The financial impacts of Covid-19 also create uncertainty and while the half-yearly economic and fiscal update released in December 2020 by the NZ Treasury indicates New Zealand is recovering faster than expected, the full extent of the pandemic's impact on the international markets we rely on is not yet known.

Figure 3.1 sets out the Council's vision for infrastructure provision and management. The vision supports the Council's community outcomes outlined in appendix 5.4.

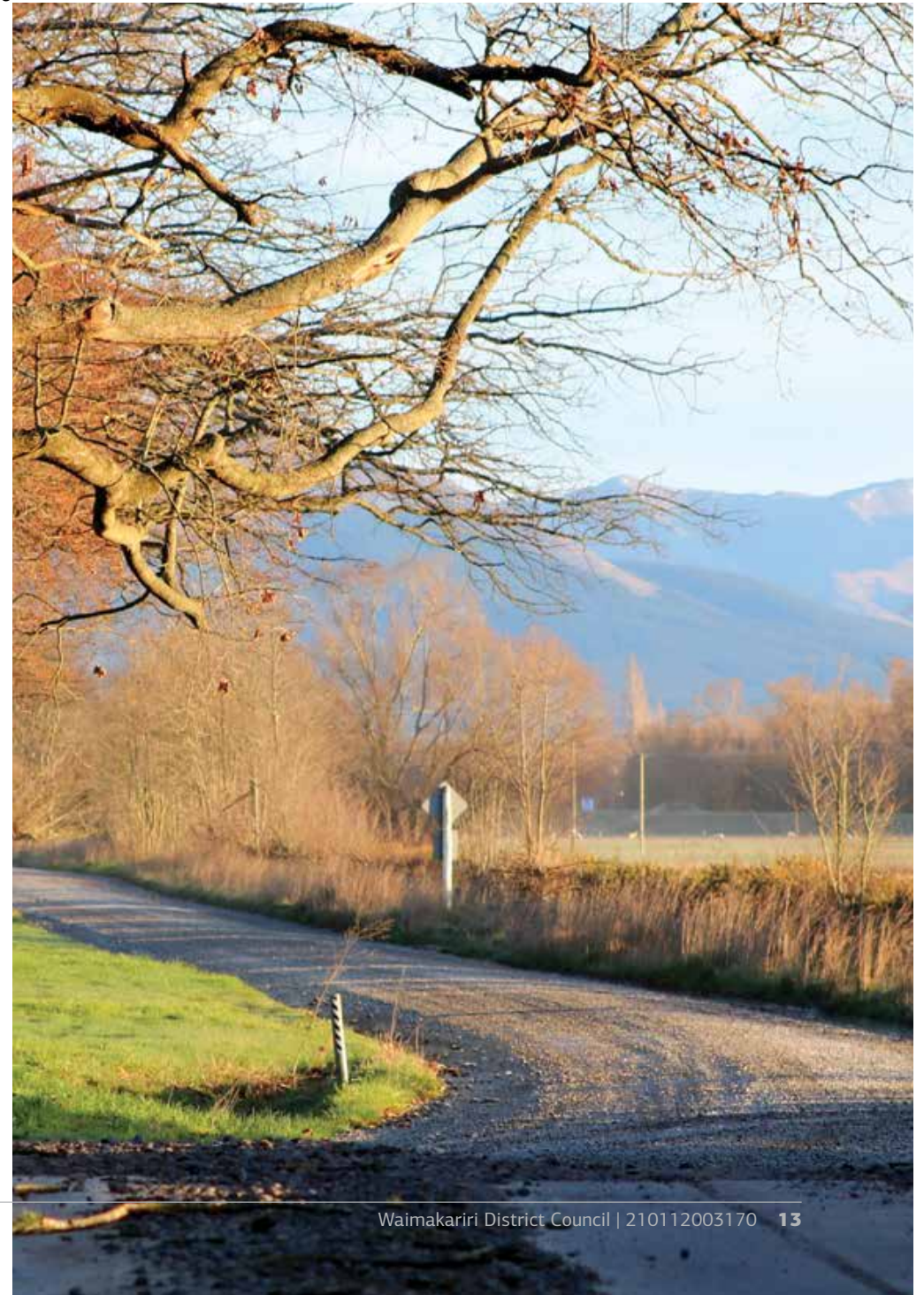
The Council's first priority is to maintain the infrastructure it already owns. The six key themes provide a focus for Council's infrastructure planning and within this framework specific priorities, in no particular order, are to:

- Complete infrastructure expansion/ improvements required to cater for population growth

- Complete the assessment of climate change risk for the District and develop a Council Response Strategy in consultation with the community
- Continue to allow borrowing headroom for natural disaster mitigation
- Transition firstly the organisation and then the District to a more sustainable way of operating
- Continue to manage flooding risk
- Improve the quality of stormwater network discharges
- Carry out indigenous biodiversity enhancement and ecological improvement of waterways
- Make safety improvements to the roading network and improve transport options
- Ensure town centres continue to be vital spaces for commercial and community activity
- Continue to provide for a range of community and recreation spaces and facilities.

Key projects that give effect to the above are included in section 4 of this Strategy.

Figure 3.1 Infrastructure vision and key themes





3.2 Providing appropriately for a fast growing district

Key Issue

The strong ongoing population growth in the District affects the demand for infrastructure and services. The aging of the population is also predicted to have an influence on the services provided. Ensuring the right infrastructure is provided at the right time and in the right location to cater for an expected population of 100,000 by 2051 is a key issue for the Council's infrastructure planning.

Description

Population growth

The population assumptions used in this Strategy are based on a Corporate Population Scenario first developed by the Council for the 2015 LTP called the WDC medium/high variant. This is based on Statistics New Zealand population projections, which are ground-truthed by development activity, and falls between their medium and high population projections. Over time the Council's population projections have proved to be reliable, with annual adjustments made for infrastructure planning purposes as necessary.

Unfortunately a low turnout for the 2018 Census required Statistics NZ to initiate a large scale census mitigation project, utilising alternative administrative data to fill the gaps. This has delayed the release of the next population projections until 2021 meaning they are unable to be used to inform this Strategy. As an alternative the Council reviewed the following assumptions contained within the WDC medium/high variant and found them still to be valid.

- Building consents continuing at approximately 450 per annum, decreasing over time to 350 to reflect demographic trends
- Steady internal/ international migration
- A net decrease in natural population (deaths exceeding births) which is forecast to occur between 2043 and 2048.

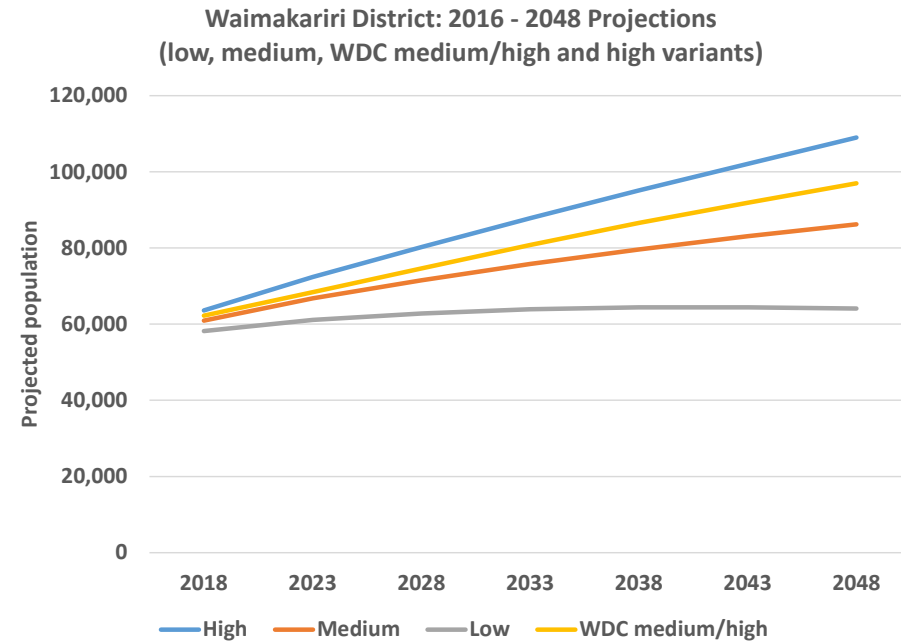
The District's population grew by 3.0% in the 2019/20 year, and the previous four years new dwelling building consents remained well above the 465 per annum average required for the Council's medium/high projections. For the above reasons the Council determined the WDC Corporate Population Scenario - medium/high variant is still fit for purpose.

The high level of growth is likely to continue, particularly if a number of New Zealanders living overseas choose to resettle in this District for at least the short term in response to the Covid-19 pandemic, but also possibly the longer term. Rising house prices could also incentivise people to move into the District from elsewhere.

The Council acknowledges changes in geopolitical landscapes and national migration policies may affect these growth estimates. Statistics New Zealand also requires users to cite they have produced their projections according to a set of agreed assumptions and advise that extending the projections beyond 2031 may result in the population becoming unrealistically high or low by 2051. The Council intends to closely monitor its Corporate Population Scenario - medium/high variant projections and revise these accordingly.



Figure 3.2 Population projection scenarios



(Source: Statistics New Zealand and WDC scenario projections. All data is for the five years ended 30 June. The projections have as a base the estimated resident population of the area at 30 June 2017.)

In just about 25 years the District's population has almost doubled, from 33,000 in 1996 to approximately 64,700 as at 30 June 2020. Under the Council's Corporate Population Scenario the District's population is expected to increase from 64,700 to 77,700 by the end of the 2021-2031 LTP period. By the end of the thirty year planning period covered by this Strategy, the District's population is projected to be 100,000, with the effects of the structural aging of the population (where deaths could start to exceed births) being seen after about 2043. This could signal the start of a decline in the population if migration settings remain similar to those at present.



Table 3.1 2020 to 2051 population projections

Waimakariri District Projected Population 2021 - 2051					
	30 June 2020 Stats NZ estimate	30 June 2031 population projection	Forecast population increase to 2031	30 June 2051 population projection	Forecast population increase to 2051
WDC medium/high variant	64,700	77,700	13,000	100,000	35,300
Stats NZ medium variant	64,700	74,000	9,300	87,900	23,200

Aging population

The medium age of those living in the District at 43.6 years is slightly older than the national average of 37.5 years; and the number of residents aged over 65 is expected to more than double from 11,241 in 2018 to 23,300 in 2038.

In addition to this the population of the Waimakariri District is structurally aging. The following table shows the proportion of children under 15 years old living in the District at the 2018 Census (Statistics NZ) slightly exceeded the proportion of the population over the age of 65 years.

Table 3.2 Proportion of children and older people in District population

Age Groups	2018 Census		30 June 2020 Population Estimate	
	Number in District	Proportion of population	Number in District	Proportion of population
Children (0-14 years)	11,415	19.1%	12,000	18.6%
People over 65 years	11,241	19.0%	12,800	19.8%

The Waimakariri population estimate at 30 June 2020 shows this situation has reversed. Professor Natalie Jackson, in her paper to the Community Board Conference in 2019, suggests that “once a population has more older people than children it is a short step, of around one decade, to more deaths than births and the end of natural increase”. Professor Jackson goes on to suggest that once a population gets into a situation of natural decrease, growth can only occur through migration.

Of the 14,745 people who moved into the District in the last five years 2,412 (16.4%) were aged under 15 years and 2,097 (14.2%) were aged over 65 years.*

**(2018 Census, Place of Usual Residence 5 years ago, Statistics NZ)*

The biggest change expected in household family type projections is an increase in two and one person households. Infrastructure planning is currently based on 2.5 persons per household.

This change in demographic composition is likely to see demand shifts for types and locations of housing, transportation and recreation activities. Changes in demand will also need to be carefully considered when planning future expansions of waste transfer stations and landfill sites, and their associated consenting requirements.



An aging population could increase the demand for alternative forms of transport, transport services within towns, more bus stops, wider footpaths to accommodate more mobility devices, more accessible parking, and improved footpath surfaces. Peak-hour travel could also reduce and off-peak travel increase.



Changing age demographics have varying effects for solid waste. Aged residents and smaller housing units produce less waste but this could be offset by an increase in home-medical waste, such as dialysis bags/ tubing and adult incontinence products, and higher density housing. Aged care facilities and retirement complexes may manage their waste without subscribing to Council kerbside services, resulting in a decrease in Councils rating base and a change in waste flows through the Southbrook Resource Recovery Park (SRRP).



An older population, combined with new technology such as E-bikes, is expected to increase the demand for walking and cycling facilities. Other infrastructure requested by older people is more public toilets, additional seating along popular routes and better pathway surfaces in reserves and walkways.



There is a need for housing stock to be intentionally planned to ensure it is appropriate to meet changing demographics. In 2019 Council carried out a survey to inform its Age Friendly Plan. Respondents to this wanted to see a mix of housing types provided to accommodate older people including 'life mark' housing, housing with a mix of shared facilities and private space, more community housing and additional retirement villages in the east of the District.

A substantial assessment was undertaken by Council in 2020 to predict the likely future demand for housing within the District over the next 30 years. This concluded that it was highly likely Council's current modest waiting lists for Housing for the Elderly would increase significantly over time due to increased demand for affordable 1 to 2 bedroom housing units.

The rents for the current units adequately cover the long term cost of owning, operating and replacing the existing stock. The cost of debt servicing the construction of new units, along with operational costs, have in the past made it uneconomic to build new units. However, the current low interest rates go some way to improve the viability of doing this. Funds generated from the sale of seven houses, associated with a historic Rata Foundation grant, are also available for re-investment in a targeted housing activity.

Further work is being progressed in early 2021 to inform Council's future strategy for this service. Strategic questions include 'where should the funds mentioned above be invested, should the Housing for the Elderly stock be expanded or should alternate housing services be developed; should the current housing activity be retained by Council or should alternative models such as transferring ownership or management to a community housing provider be considered?'

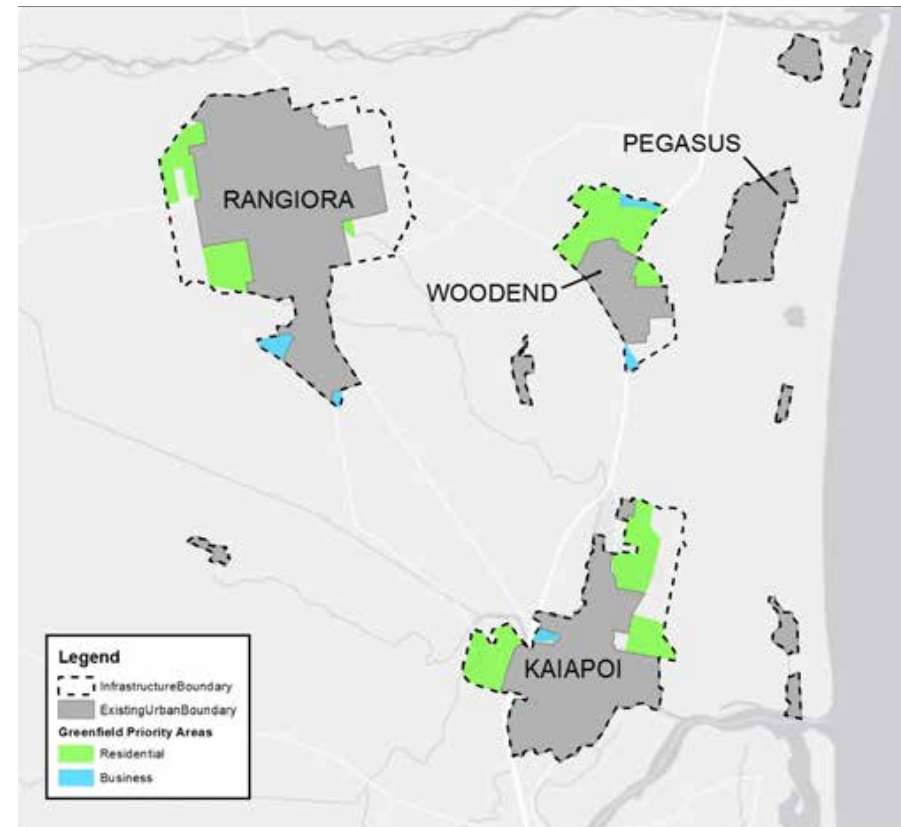
Population distribution

Since the mid to late 1990s, the Council has signalled in its District Plan where the District should expand to cater for growth and in the next thirty years residential and commercial growth is expected to occur predominantly in the priority growth areas depicted in figure 3.3. Infrastructure boundaries have been established around the main towns, and these are set out in the Canterbury Regional Policy Statement 2013.

The areas proposed to grow have been identified and planned for collaboratively in conjunction with Environment Canterbury, Christchurch City, Selwyn District, Ngāi Tahu, the New Zealand Transport Agency and the Canterbury District Health Board through the Greater Christchurch Partnership. This has helped ensure there is a co-ordinated and equitable approach to providing for growth, and has provided more certainty to each council about their infrastructure investment decisions. The Council continues to actively work as part of the Greater Christchurch Partnership, most recently addressing changed planning requirements collaboratively to identify sufficient future housing and business capacity. Council is also working with its partners on the Greater Christchurch 2050 project which looks to reset the vision for greater Christchurch, taking into account a range of factors facing current and future generations.

The priority growth areas, together with existing zoned undeveloped land, provide sufficient capacity to provide for the anticipated population increase over the 30 year planning period. The priority areas may be seen as the first to be 'filled up' but not all land within this boundary is easily serviceable and/or of market appeal and other areas may be more attractive to develop before these.

Figure 3.3 Priority growth areas



In the past 20 years most growth has occurred in Rangiora, Kaiapoi and Woodend and with the building of the new town Pegasus. In the last two years there has been substantial additional urban development in the east of the District at Ravenswood. Recent land use changes also include considerable rural residential development, an increase in the number of small holdings in the rural zone and increased dairying across the District.

During 2016/17 the Council embarked on a phased District Plan Review. This review replaced the rolling review that has been ongoing since the first generation District Plan was made operative in 2005, and is due to be notified in the first quarter of 2021.

As part of this review the *'Our District, Our Future - Waimakariri 2048, District Development Strategy'* adopted by Council in 2018 provides strategic directions and a spatial framework to guide the anticipated growth in the District over the next 30 years. The Strategy confirmed that residential growth is expected to continue to occur predominantly in Rangiora, Woodend/Pegasus, and to the north and west of Kaiapoi over the next 30 years, but recognises constraints to some of these locations.

The proximity of the District to Christchurch City suggests that demand for some form of large block residential properties is likely to continue. The District Development Strategy considered ways to best meet this demand and identified a need to better manage small holdings. Following on from this, in 2019 the Council adopted a Rural Residential Development Strategy that identifies locations for rural residential development, and considers options for rural subdivision. These will be consulted upon as part of the District Plan Review notification process.

Commercial growth is centred in Southbrook with about another 60 hectares of zoned land yet to be developed. Further commercial development is expected in the town centres of Rangiora, Kaiapoi and Pegasus along with new areas to be developed in north Woodend and Kaiapoi adjacent to State Highway 1. These areas are also depicted in figure 3.3 and have been planned for in the Kaiapoi Town Centre Plan and the Rangiora Town Centre Strategy.



Kaiapoi Maori Reserve 873

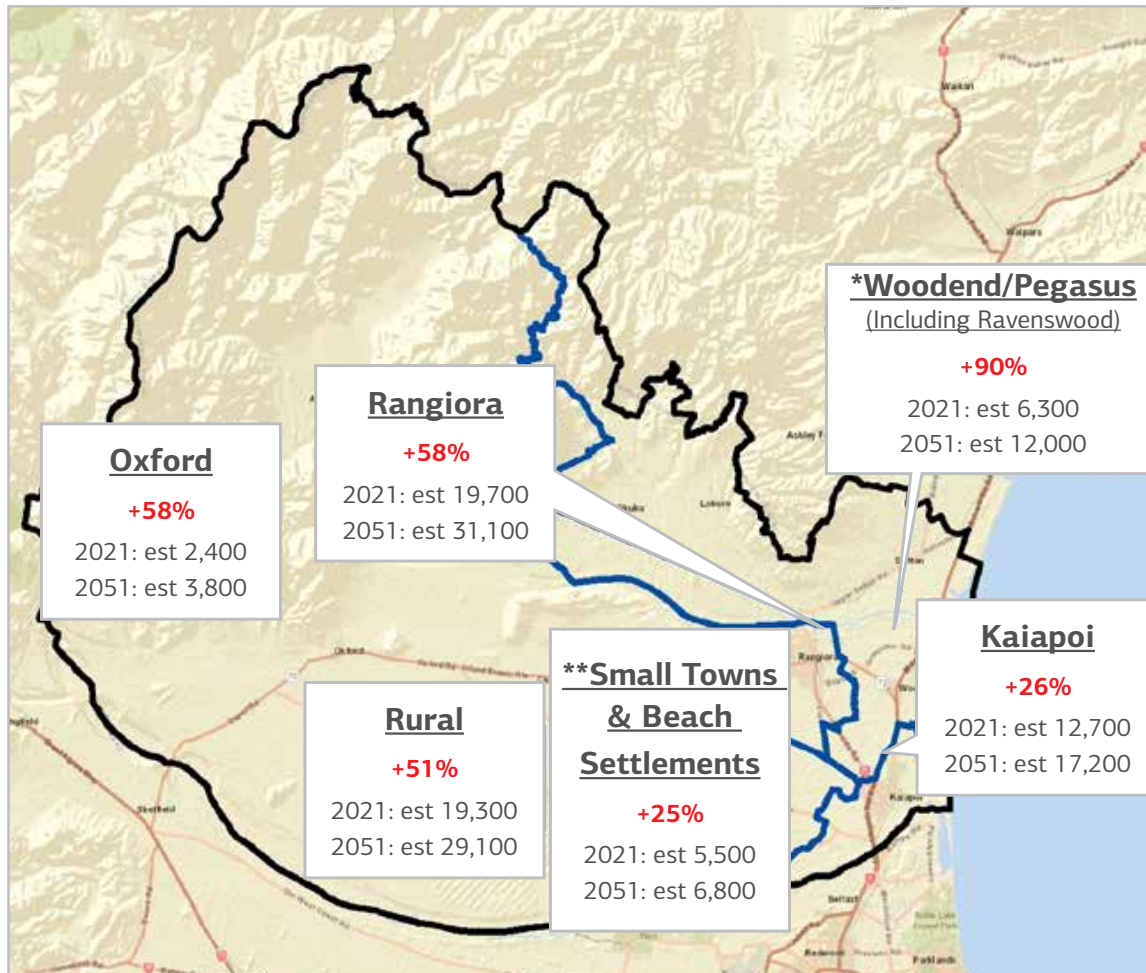
The Tuahiwi Village area, known as Kaiapoi Maori Reserve 873 (MR873) was a Crown Grant to the Ngāi Tūāhuriri people in 1848, following from the Kemps Deed. Today the reserve land totalling 1,056ha is mainly farm land, with Tuahiwi village and the important Tuahiwi Marae at its centre. The land is held in a combination of both Māori and freehold property titles and most of it has been alienated through the acts and omissions of government agencies over more than 150 years.

In recent years the Council has sought to recognise and provide for development rights held by descendants of the original grantees of the land through its District Plan. More housing is a consequence of this along with the associated increase in demand for services and facilities.

Recently the water supply network in the reserve area was extended and its supply made more resilient. Now, aided by \$3.6m of 'stimulus funding', Council has agreed to a further extension of the water supply and a significant upgrade and extension to wastewater services to support additional housing.

Figure 3.4 shows the projected population increase for the District from 30 June 2021 (65,900) to 30 June 2051 (100,000) divided into the areas where growth is anticipated.

Figure 3.4 Distribution by town of projected population increase



* Includes Ravenswood

** Includes Cust, Ohaka, Mandeville, Waikuku Beach, Woodend Beach, Tuahiwi and Pines Kairaki

Planning ahead

Confirming where growth should occur has given the Council confidence for major infrastructure investment decisions. In the past 15 years two significant infrastructure projects have exemplified this:

- The construction of the \$36m Eastern Districts Sewerage Scheme that connects and treats wastewater from nine eastern towns and communities and disposes of the effluent through a 1.5km long ocean outfall discharge. The Eastern Districts Sewerage Scheme not only has capacity for future growth until 2069, but has also improved the environment by replacing discharges to lowland rivers and streams or disposal onto land.
- A \$16m major upgrade of the Rangiora water supply, which includes a new deep artesian water source and in-ground infrastructure.

The Council's commitment over the past 20 years to investing in infrastructure to cater for growth means that for the next thirty years the backbone of the major infrastructure is in place. Future work therefore focuses on 'plugging-in' new growth areas to existing systems.

The Council's infrastructure planning to accommodate future growth has been based on the WDC Corporate Population Scenario - medium/high variant and the projections for the towns are shown in figure 3.4. Modelling has been carried out to identify new works or upgrades that will be required in the future to service this growth, while continuing to meet the agreed levels of service, and these have been incorporated into capital project budgets.

The inherent uncertainty underlying the rate of growth will be managed by carrying out annual reviews. This will enable short term capital planning adjustments to be made in response to changing market requirements, avoiding unnecessary expenditure on growth works before they are actually needed. It will also highlight projects that need to be accelerated because growth is occurring faster than anticipated.



The Council works closely with Environment Canterbury, the regulatory authority for protecting both the availability of water and its quality, to protect the quality of the aquifers that supply water to the majority of the District's inhabitants.

Water source supply is from ample and secure artesian aquifers for Kaiapoi, and deep secure sources for Woodend and Pegasus towns. Kaiapoi source wells are also used to supply Rangiora, via a pressure main from Kaiapoi. Finding additional water to cater for growth for these communities is therefore not seen as a significant issue, although there will be ongoing projects to extend existing well fields.

The adoption and implementation of a revised Water Conservation Strategy in 2020 is aimed at helping Council meet peak water demands. This Strategy includes;

- Incorporation of performance measures for water loss from the system and actual peak day usage
- Establishment of specific protocols to measure leakage
- Establishment of a specific methodology to determine 'reasonable water use'.



A review of the of the Ocean Outfall wastewater network in 2020 concluded sufficient capacity was available until at least 2069. There are also opportunities to extend this with better management of storage and pumping control. Consideration needs to be given to consent renewal before the consent expiry date of 2039.

Four significant wastewater upgrade projects will ensure there is sufficient capacity for growth in both the reticulation and treatment plants until 2038. The Rangiora network upgrade is currently underway and the Kaiapoi network upgrade is planned for 2024. Treatment plant upgrades are planned for Rangiora in 2024 and Woodend in 2029.



The growth modelling included establishing projected increases in the number of properties expected to receive drainage services. However, growth-related works are minimal as nearly all the costs for these fall directly to the developer. This is because infrastructure is required to be constructed in new development areas in a way that ensures any discharge

is treated to the quality standards required by the Regional Council's Land and Water Regional Plan. The discharge rate can also not be greater than what existed before the development.



While car use is declining internationally there is no evidence of this in the Waimakariri District, and any future reduction is likely to be accompanied by a corresponding increase in walking, cycling and use of public transport.

The completion of the Western Belfast By-pass Motorway and the Northern Arterial ensures the District will remain well connected to Christchurch for the duration of this Infrastructure Strategy. These physical works will be complemented by improved modal options such as enhanced public passenger transport infrastructure and services, travel behaviour change programmes and better walking and cycling facilities, both in the District and within Greater Christchurch. A programme of work is also underway to provide alternative route and travel options around the District's key activity centres and better connections to the State Highway network.

Generally, the District's roads and intersections are far from their ultimate capacities and many are unlikely to reach those points in the near future. However, there are some parts of the network that are having difficulty meeting the demand and where growth will put them under strain with longer delays at peak times being more likely in future, or where significant deterioration of the road will be likely to occur. This deterioration is particularly the case where the roads carry a higher than usual proportion of heavy traffic. Reducing congestion on existing roads no longer fit for purpose because of growth will help to ensure safer travel and a number of network improvements are included in this Strategy.



Generally solid waste assets are performing well and meeting the identified levels of service, however, it is anticipated that the expected population growth throughout the District over the coming years will put pressure on existing facilities

particularly over peak periods. Two upgrades are planned to ensure there is sufficient capacity for growth in both the SRRP transfer station site and reuse and recycling area until 2039, with the upgrades to the resource recovery park planned for the first three years of the LTP and the pit upgrade planned in two stages between 2021 and 2025. A further expansion of the SRRP is provided for in 2037 through to 2039.



Due to the rebuilding and strengthening of community infrastructure following the 2010-2011 Canterbury earthquakes, the District is very well served with community facilities, apart from in the new eastern growth areas of Pegasus and nearby Ravenswood subdivision. A new community centre is proposed in each of these areas with land purchase for both facilities proposed to begin in 2021. The development of the Pegasus facility is planned for 2024 and the north Woodend facility within the next ten years.

Allowance has also been made in 2040 for a possible expansion of the available indoor court space at the new Mainpower Stadium in Rangiora. Some of the sporting codes planning to use the stadium when it opens in 2021 have already indicated to Council that the four courts provided in the facility will be at capacity and therefore will not be sufficient to cater for population growth or unrelated growth in the sports. Usage levels will be monitored and a review carried out after the first three years of operation.



The Aquatics Facility Strategy has identified a need for a new pool to be developed in the eastern part of the District within the next 15 years to cater for growth. While the Kaiapoi and Rangiora pools were built or rebuilt within the last 15 years, major upgrades are planned for these pools within the next ten and twenty years respectively, both to cater for growth and to ensure the facilities continue to meet community expectations.



The Council recognises that it needs to continually invest in amenity areas within the town centres if they are to remain vibrant and attractive spaces to visit. In this Infrastructure Strategy \$21.6m has been set aside to implement the refreshed Rangiora and Kaiapoi town centre strategies, and another \$6m to address parking issues in the Rangiora town centre in the first three years of the LTP. This has been topped up by an additional \$10m in 2035.



Council's planning contemplates the employment of between 50 and 150 additional office based staff in Rangiora by 2050 to cater for growth in the District and the subsequent increased demand for services. An extension or rebuild of the Council's headquarters is planned for 2028 when the lease of the Farmers building expires.

Summary of Council's Strategic Response

Issue	Council's Response
Predicting level and distribution of growth and using this to inform infrastructure planning	<p>Adopting a corporate growth model, including changing demographic projections, that informs Council decision making</p> <p>Adopting strategies, such as the District Development Strategy, that signal directions for growth and implementing these through the District Plan review</p> <p>Integrating land-use planning and infrastructure provision, especially for transport services, by adopting a multi-modal approach to deliver sustainable solutions</p> <p>Modelling key 3 Water infrastructure networks and implementing water conservation/management strategies to ensure sufficient capacity is available</p> <p>Designing infrastructure on a minimum 50 year planning horizon</p> <p>Preparing/refreshing strategies for community facilities, aquatics, walking and cycling, sportsfields, access and Age Friendly to determine future requirements</p>





3.3 Responding nimbly to a changing operating environment

3.3.1 Covid-19

Key Issue

Continuing to progress the District in an uncertain domestic and international financial environment.

Description

The World Health Organisation declared a pandemic on 11 March 2020 in response to the outbreak of a virus, commonly referred to as Covid-19. The New Zealand Government declared a State of National Emergency on 25 March 2020 and the country was put into lockdown the next day for four weeks. Alert levels were then progressively reduced until they went to level 1 on 9 June 2020. Since then there has been lesser outbreaks requiring changes of alert levels impacting some areas more than others, particularly Auckland. Recent vaccine trials look promising but are some way off being able to be delivered to New Zealand's population as a whole, and in the meantime border restrictions look to remain in place until the end of 2021.

Economists predicted the pandemic would trigger a global recession of a scale not seen since the Great Depression in the 1930's. In response to the high level of financial uncertainty at the time Council revised the draft Annual Plan 2020/21 from a proposed rates increase of 4% to 1.5%, reducing costs, deferring a few capital works in the short term and taking out a loan to cover shortfalls. This short term effect has been addressed in the LTP.

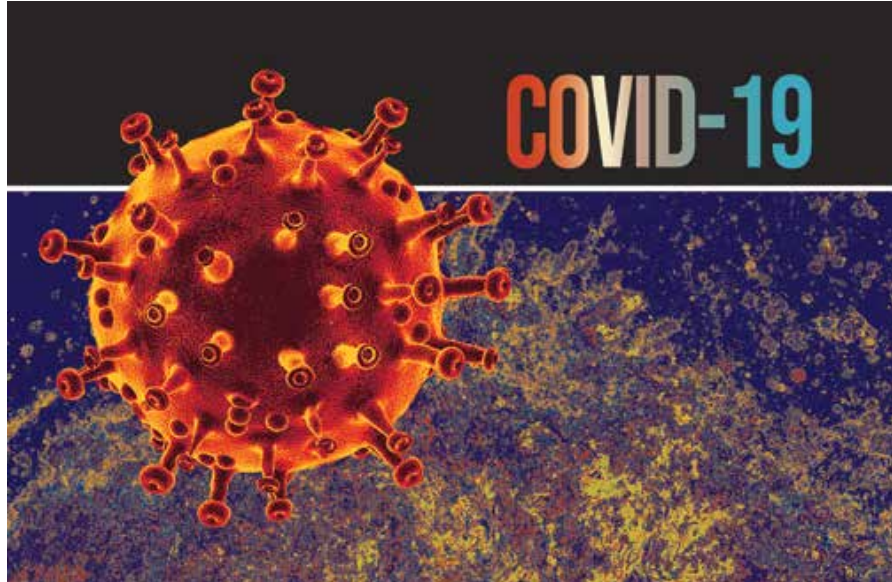
New Zealand's economy is currently stable due in large part to the Government's successful containment of the pandemic within the country to date and its Covid-19 stimulus package. Unemployment in the District at 3.0%¹ has remained similar to pre-Covid-19 levels and other economic predictors such as property sales, and LIM requests have increased. Overall the decline in spending has been much less in Canterbury than some other areas.

¹Infometrics Quarterly Monitoring Report

New Zealand's economy is however vulnerable to changes in international markets and the full extent of the pandemic's impact on these is not yet known. Council is concerned the potential future impacts of Covid-19 could negatively impact residents' ability to pay rates and has signalled it wants to keep rates increases as low as possible in the first three years of its 2021-2031 LTP.

In the 2020/21 Annual Plan some of the capital works in the previous LTP were pushed out to later years to reduce the forecast rates. These deferrals have been re-evaluated during the development of the 2021-2031 LTP. Maintaining affordable rates in the face of Covid-19 has remained a priority, but other factors, such as the Government's stimulus and shovel ready funding, updated population forecasts and the normal evaluation of project priorities associated with LTP development have also been considered.

Table 3.3 shows the capital works in the 2018 IS which are now being carried out at later timeframes but none of these changes are expected to make



a material difference to Council achieving its strategic objectives over the longer term. Participation in the Government's Covid-19 response packages has also enabled some stormwater and wastewater projects to be bought forward. While Covid-19 has been a factor in these changes, other reasons are more dominant as outlined in the table.

Table 3.3 Project changes 2018-2021 IS

Projects	2018 IS	2021 IS	Reason for Deferral
UV treatment of water supplies	2018-2023	2021-2025	No clarity on legislative changes yet
Woodend wastewater treatment plant upgrade	2025-2027	2029-2031	Latest growth projections have shown this can be delayed and LOS still be maintained
SRRP reuse & recycling area expansion	2018-2023	2021-2023	More realistic delivery timing
Skew Bridge realignment/replacement	2018-2025	2028-2031	Uncertainty over NZTA funding
Rangiora Library extension	2022-2024	2027-2029	Library pushed out to same timeframe as the Rangiora Service Centre upgrade, for synergies/efficiency of a single build programme
NW bypass connecting River and Lehman's Roads	2024-2026	2030-2031	Part of a route upgrade for which other projects have been re-prioritised earlier

Summary of Council's Strategic Response

Issue	Council's Response
Responding to community need arising from the Covid-19 pandemic	Implementing Council's Covid-19 Recovery Plan
Helping to stimulate the District's economy	Participating in Government shovel ready and stimulus programmes
Addressing rates affordability	Keeping rates increases to a minimum by smoothing rates via a combination of loan funding, implementing austerity measures and deferring some infrastructure projects to later years

3.3.2 Changing government priorities and legislative environment

Key Issue

Ensuring infrastructure planning is able to anticipate and respond agilely to external change.

Description

With the change of Government in 2020 comes changes in policy and priorities, including changes to government expectations, requirements and priorities for the delivery of infrastructure. While a number of potential changes have been signalled, the full extent and outcome of these is as yet unknown. Council therefore bases its current planning on known priorities and legislation, but continues to engage in discussions and consultations regarding future options at both a regional and national level. Looking ahead the most likely scenario will require Council to be agile enough to be able to adapt to fast-paced legislative change. This Infrastructure Strategy may need to be reviewed once the full impacts of the following proposed changes are known. Other relevant legislative and regulatory changes that could impact on the provision or management of Council's infrastructure are described in appendix 5.3.

3 Waters Review

In 2019 the Government announced the creation of Taumata Arowai, a new Crown agency to be responsible for regulating drinking water, and providing oversight of, and advice on, the regulation, management and environmental performance of waste water and storm water networks across the country. This agency is expected to commence these responsibilities in 2021 and release a stricter version of the Drinking-water Standards. While financial provision has been made for treatment upgrades in anticipation of changes, the nature of these is subject to confirmation once the new standards are in place, and transition to the new environment is still likely to provide some challenges. The Council intends to continue investing in improvements until Taumata Arowai makes the new requirements clear, but only when there is a regulatory requirement to do so.

The Government has also signalled an intent to broaden the scope of the Water Services Regulator Bill with a further set of reforms. In 2021 all

New Zealand local authorities signed a MOU with Central Government to consider the delivery of drinking water and wastewater services by large publicly-owned water entities. The approach to be taken with stormwater services is still being determined. The Government is expecting to make substantive policy decisions relating to the proposed reforms by mid-2021, followed by legislative changes. It is anticipated the Council will need to make a decision about whether it will participate in the new delivery system by the end of the year, after carrying out community consultation. Any transfer of responsibilities and assets from Council to the new water entity is likely to occur from about 2023/24. At the moment the Council is providing detailed information about its assets to the Department of Internal Affairs to help inform the initial discussions. While this brings some opportunities in terms of the funding that has been made available to participate in the first stage of the reforms, it also brings some challenges and uncertainty about the future provision of these services, and where this responsibility will ultimately lie.

One possible outcome of the 3 Waters Reform is that the need for Council office space is reduced to the lower end of the forecast and the project scaled down. Alternatively this could be offset by more rapid population growth than forecast.

The National Policy Statement for Freshwater Management 2020

Changes to the National Policy Statement for Freshwater Management were proposed in 2019 to introduce more stringent freshwater quality standards. This Policy Statement directs regional councils, in consultation with their communities, to set objectives for the state of fresh water bodies in their regions and to set limits on resource use to meet these objectives.

Proposed new requirements would:

- Strengthen Te Mana o Te Wai as the framework for freshwater management
- Better provide for ecosystem health (water, fish and plant life)
- Better protect wetlands and estuaries
- Better manage stormwater and wastewater, and protect sources of drinking water

- Control high-risk farming activities and limit agricultural intensification
- Improve farm management practices.

The requirement for all urban stormwater discharges to be treated before entering any waterway has major implications for the Council as all its urban stormwater discharges flow into streams and rivers. While more recently developed areas of the District have appropriate stormwater treatment and retention ponds in place, all of the areas developed before about 2000 are subject to the new standards.

National Environmental Standard

The National Environmental Standard regulations have recently come into force. This requires the Canterbury Regional Council to define wetland areas within the District. It is expected that limited works will be permitted within these areas, and the ability to farm some of them, as has traditionally occurred, could be in doubt. Council will inevitably be involved in this process however it unfolds.

Canterbury Land and Water Regional Plan



Environment Canterbury's Land and Water Regional Plan requires the Council to take responsibility for the quality of the stormwater discharge from its urban stormwater systems. To this end discharge consents from the Regional Council are required for all of the Councils urban drainage networks. These have been applied for, with the outcome pending, and provisional budgets have been included in each of the relevant scheme budgets totalling \$21m.

Consent application draft conditions propose that by 2025 Council will have developed and costed a strategy for meeting water quality standards that will be implemented in the 2025 to 2040 period. Council is partnering with Environment Canterbury, the University of Canterbury, Te Rūnanga O Ngāi Tahu and other Canterbury territorial local authorities to test new technologies to improve water quality in existing urban areas. Some are currently being field trialled with other desk top assessments expected to be trialled before 2025.



Council has also recently obtained a global consent for the ongoing maintenance work it carries out on its rural open drainage network. The global consent takes account of the new regulations in the National Environmental Standards for Freshwater that are associated with the National Policy Statement for Freshwater Management 2020. The Drainage Maintenance Management Plan 2020 associated with the consent signals a more ecological approach to open drain management within the District. Accordingly, drain maintenance practices will increasingly include ecological improvement works such as drain re-shaping, riparian planting, creation of low flow channelling and meanders, and installation of sediment traps. Trials of lower levels of intervention are also planned. Additional funding for these enhancements has been included in the 2021-2031 LTP for projects that were developed under the guidance of the Waimakariri Water Zone Committee.

The Council has a resource consent to discharge effluent from its Eastern District Sewerage Scheme (EDSS) ocean outfall to mid-2039. The process to renew the consent will need to begin well in advance and there is likely to be opposition to the continued discharge to sea. Any changes to consent conditions related to effluent quality may have a significant impact on existing treatment plants. Other than providing additional treatment capacity within the EDSS to cater for growth, this Infrastructure Strategy has not made any provision for increased levels of treatment to effluent, although consideration of this will occur in the lead-up to the consent renewal.

Four treatment plants at Rangiora, Kaiapoi, Woodend and Waikuku Beach discharge treated effluent into the Ocean Outfall pipe. Oxford, Fernside and Loburn Lea communities each have their own treatment plant, and all three discharge to land. As part of the Government's stimulus grant, the Loburn Lea and Fernside schemes will be connected to the Rangiora network and their treatment plants decommissioned.

The Oxford WWTP discharge consent expires in 2031. Possible changes to future discharge consent conditions may necessitate increases in individual sewer rates but no allowance has been made for possible changes.

The Rangiora and Kaiapoi reticulation network upgrades will ensure levels of service are able to be met, particularly with respect to overflow frequency.

The Waste Minimisation Act 2008 Waste Levy



The Ministry for the Environment is proposing an increase to the landfill levy to better reflect the environmental, social and economic costs of waste disposal. The proposed levy will incrementally increase from \$10/tonne to \$60/tonne by 2023. This will impact Council's solid waste charges as the increased costs will need to be passed onto customers. Proposed new reporting requirements may necessitate some capital works and operational changes at the Oxford Transfer Station and the cleanfill sites in order to capture the required waste data. It is likely that any capital expenditure could be funded from the increased levy funding Council receives. This could also be used to invest in local and regional waste minimisation infrastructure and expanding waste minimisation services in the medium to long term.

Summary of Council's Strategic Response

Issue	Council's Response
Achieving NZ Drinking Water Standards	Completing in 2021 the upgrade of the Poyntz Road Water Supply thereby ensuring full compliance with the current standards
Making allowance for increasing drinking water standards arising from proposed legislative changes	Making provision in the draft 2021-2031 LTP for upgrades such as UV treatment and chlorination of drinking water supplies as required

Issue	Council's Response
Meeting Land and Water Regional Plan requirements for urban stormwater discharge standards by 2025	<p>Securing consents for all urban discharges</p> <p>Assessing the improvement programme (capital, operational, educational) required to improve discharges to waterways and enhance the receiving environment</p> <p>Developing and consulting on a long term plan of work and associated budget provision to give effect to the programme</p> <p>Monitoring and evaluating network and system performance and condition</p> <p>Continuing to work collaboratively with partners, particularly mana whenua, to develop affordable and viable solutions to meet the consent conditions</p>
Meeting expectations that lowland stream environments and groundwater will be protected and enhanced	<p>Working in partnership with the Waimakariri Water Zone Committee to implement the Zone Implementation Programme Addendum (ZIPA) aimed at improving water efficiency and environmental sustainability</p> <p>Including funding in the LTP to support this work</p>
Expectations that higher standards of flood protection will be provided in high rainfall events	<p>Extensive flood modelling work has been completed, and will continue to be refined, to identify at-risk areas, influence where further network upgrades should occur, and inform decisions about future development and building proposals</p> <p>Implementing an ongoing programme of flood improvement works in Ohoka and Rangiora in response to 2014 and 2017 storm events</p> <p>Carrying out a major upgrade of Kaiapoi stormwater systems, utilising shovel-ready funding from the Government</p>

3.3.3 New technology

Key Issue

Identifying the impact changes in technology will have on the way infrastructure is used, and being nimble in adapting management and provision of assets and services in response to this.

Description

Technology can have a large impact on the type and timing of infrastructure required and can assist in delivering services differently. It can be used to increase the effective capacity of infrastructure, reduce maintenance and operating costs, and improve reliability and safety. There can also be big gains in wellbeing when new technology is used to mitigate carbon emissions and improve environmental outcomes.

New technology may create a demand for new infrastructure or redefine how existing infrastructure is used. An example of this is the increasing demand



for footpaths to be shared with E scooters and for electric charging stations to be provided for vehicles. In some cases increased access to technology may decrease demand for certain types of infrastructure. The Covid-19 pandemic, for example, fast forwarded Council's flexible working programme and this may change the amount and nature of office space required in the future.

New technology has the potential to change how human settlements look and function in the future, particularly with regard to transport and the viability of town centres. Council makes its plans for infrastructure years ahead and new assets usually plug into existing fixed systems. The challenge is being able to anticipate the changes ahead and proactively adapt to these.

Significant improvements have been made in the last three years in the development of new asset information management systems. An example is the AMIS project that went live in November 2020, achieving an outstanding level of integration and functionality in the Council's Technology One business software. A key benefit of AMIS is that much better asset management information will be able to be collected, enabling smarter long term decisions about assets to be made, and ultimately saving money and improving levels of service. The full benefits are unlikely to be seen until sufficient data has come into the system to allow it to be analysed (in approximately 3 years time).

RFID tags were introduced on waste collection bins in 2018/19 resulting in better management of bins by the contractor, optimised cash flow for the Council, and more equitable levels of service. Solid Waste is moving towards infrastructure as a service (IT) with the SRRP transfer station weighbridge information now being held on a cloud-based database. There are plans to extend this to other sites to enable waste data to be more easily tracked for the Waste Levy.

Consideration is also being given as to how improvements in technology can be used to reduce carbon emissions, for example, replacing some corporate and waste collection fleet vehicles with electric vehicles and installing electric charging stations at the Rangiora Service Centre.

Summary of Council's Strategic Response

Council will continue to keep a watchful eye on changes in technology that improve infrastructure provision and management and utilise these as appropriate.



3.4 Meeting levels of service and community expectations

Key Issue

Continuing to respond to changing community needs and expectations as the population grows, ages and becomes more diverse. This includes the need for services to be affordable for residents 'as a whole'.

Description

While surveys generally show wide spread satisfaction with the services Council provides, levels of service are constantly under pressure from continued growth and increases in community expectations for infrastructure provision. Changing climatic conditions and higher regulatory standards also add to this pressure.

Balancing community expectations and affordability

The Council has capital works, renewal and maintenance programmes in place to ensure agreed levels of service are consistently met and there is no deferred or back log of planned works or maintenance which could impact these.

In recent years the expected standard to which services are provided has increased, particularly in rural residential areas where there is now an expectation that services will be provided to effectively an urban standard. An example of this is the provision of kerbside rubbish collection services to rural residential areas in Ohoka/Mandeville as a result of levels of service consultation carried out for the 2018 Waste Management & Minimisation Plan and Long Term Plan.

There is a need to balance the demand for upgraded services with affordability. In some cases the Council engages with specific communities to ascertain an acceptable balance between providing a higher level of service and the cost of doing so. An example of this is the decision made by Council not to provide an organics collection service in the Ohoka/Mandeville rural residential area, as requested by a small number of residents, as it was not considered to be economically viable.



The employment data in the 2018 Census showed that just under half of the District's residents over 15 years of age were employed full time and nearly half of those who were employed earned less than \$30,000pa before tax. At least 44% of Waimakariri households had an annual income of less than \$70,000. Affordability could increasingly become an issue in the short term if Covid-19 has more of a negative impact on the economic wellbeing of the District than it has at present, and in the longer term as the population ages and more people end up on fixed incomes.

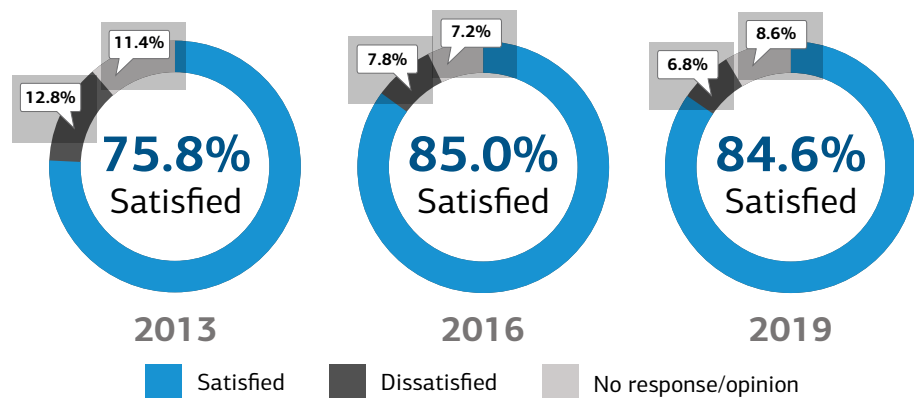
The Council carries out technical investigations and uses a wide range of engagement techniques to ascertain satisfaction with the services it provides and predict future demand. In addition to public feedback and service specific customer surveys, general satisfaction is primarily measured by the Council's Customer Satisfaction Survey. This survey has been run on a triannual basis since 1996, and many of the results have been relatively consistent over time.

Customer Satisfaction Survey

In 2019 the Council surveyed 600 randomly selected households to determine residents' satisfaction with its services and ask what changes, if any, they wanted to see. The methodology used and response rate of 76% ensured the results were statistically representative of the District's population as a whole.

Satisfaction with the Council's overall performance has been consistent over the last two surveys and improved from the 2013 rating when the question was first introduced. Overall dissatisfaction is low. Key messages from the qualitative data about overall performance were about the amount being paid in rates and the need to ensure value for money.

Figure 3.5 2019 Customer Satisfaction Survey - satisfaction with Council's overall performance



Services that stood out for having satisfaction ratings over 90% were Waste Management, Water Supply and Library Services. Other activity areas to receive very high ratings for aspects of the service provided were Wastewater, Roads and Footpaths and Green Space. Lower ratings for services were on the whole associated with a higher non-response rate.

Table 3.4 2019 Customer Satisfaction Survey - satisfaction ratings by activity areas

Activity area	Range of satisfaction	Range of dissatisfaction	Range of no opinion/no response	Aspects of service measured
Solid Waste	98% to 71%	8% to 0.6%	37% to 2%	11
Library Services	94% to 52%	3% to 0.9%	47% to 4%	9
Water Supply	90% to 84%	7% to 1%	12% to 7%	5
Wastewater	85%	1%	14%	1
Roads and Footpaths	84% to 35%	35% to 11%	48% to 5%	12
Green Space	82% to 29%	7% to 0.7%	69% to 16%	8
Stormwater Drainage	76%	12	12	1
Property - Elderly Persons Housing	24.1%	6.8%	69.1%	1

The issues highlighted in the surveys are usually ones the Council is already aware of, and in many cases planning improvements for. Increased satisfaction in subsequent surveys reflects the investments made by Council in these improvements. An example is satisfaction with provision for cycling that has improved by 45% since 2013. This may well be a reflection of the significant capital works programme implemented after the adoption of the Council's Walking & Cycling Strategies in 2011 and 2017. A number of the changes requested by respondents in the 2019 Customer Satisfaction Survey are included in this document as significant capital works.



Proposed changes to levels of service

No major changes to existing levels of service are proposed for the 2021 LTP although water supply levels of service could change as a result of pending legislation as described in this section.



A review of levels of service for water supply was approved by Council in 2020 for inclusion in the Long Term Plan, with changes mostly clarifying and strengthening existing levels of service. Historically, the primary level of service driver has been an ongoing programme of upgrades to achieve compliance with the Drinking-water Standards for New Zealand (DWSNZ)

but these projects have now been completed, apart from the Poyntz Road upgrade which is due for completion in 2021. Reducing leakage to enable Council to achieve its target level of less than 22% is now a key focus.

Uncertainties about future levels of service and requirements arise from the Three Waters Review and new drinking-water regulator due to come into force in 2021. To prepare for these potential changes, budget provision has been made to install UV treatment on all deep bore water supplies, and chlorination equipment for all supplies not currently chlorinated. The nature of the upgrades required is subject to confirmation once the new regulator and standards are in place.



A District-wide review of waste transfer/recycling services is planned for 2021/22, and the outcomes may well feed into the WMMP review in 2022/23. This may be a catalyst for changes to levels of service at the Oxford Transfer Station. If approved by Council, the Cust recycling drop-off facility may be made a permanent site from July 2021, and the establishment of similar facilities in other areas where people don't have access to kerbside recycling investigated.



Levels of service were also reviewed for stormwater drainage in 2020 for inclusion in the Long Term Plan and five changes were made to non-mandatory measures. Three were changes made to clarify the level of service and two reduced the targets for stormwater response times to be consistent with road maintenance targets.



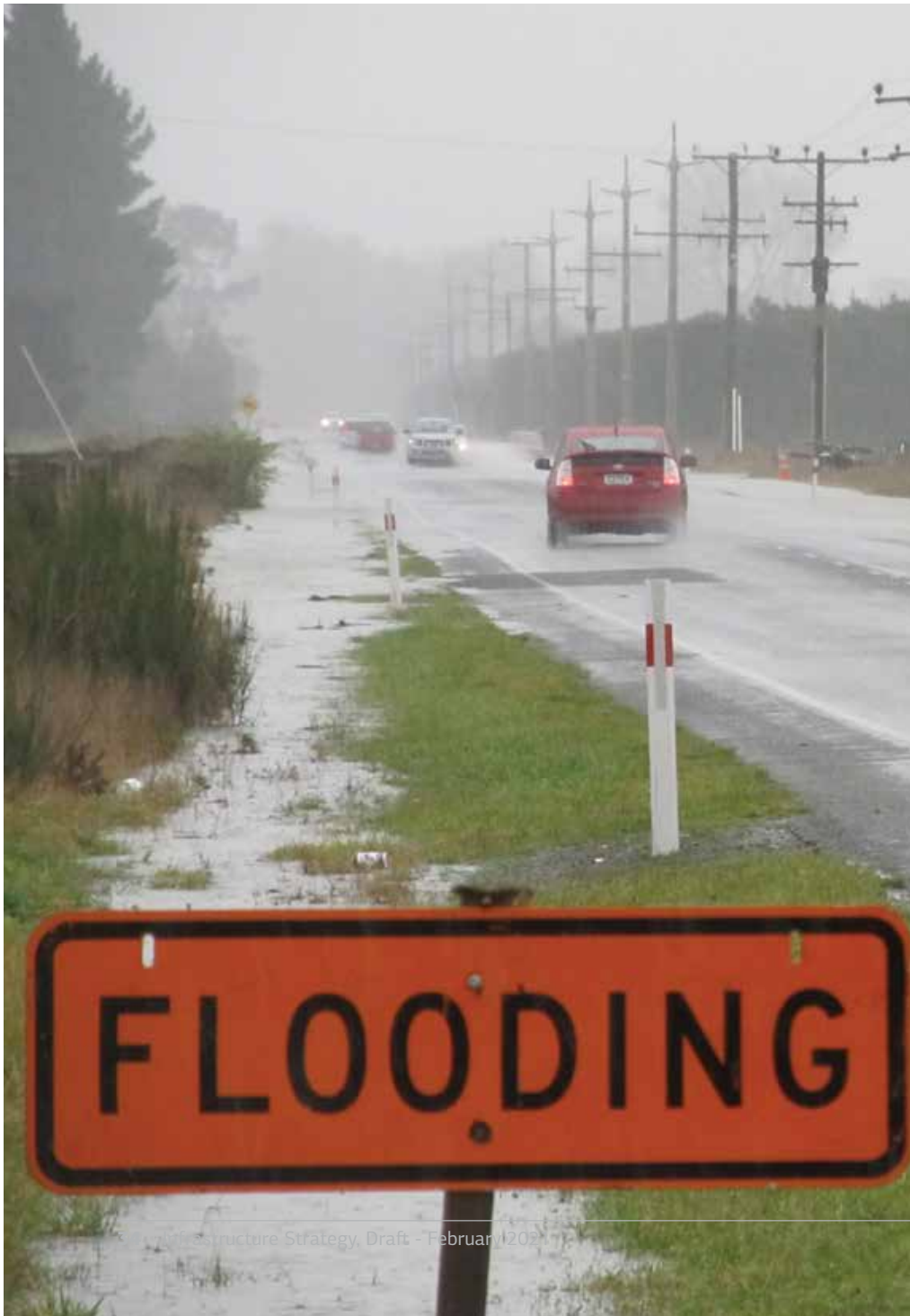
Two changes were proposed for wastewater levels of service in the 2020 review. One was a point of clarification but the other was to modify the level of service to exclude issues caused by third parties.



No changes have been made to levels of service for Green Space, Aquatic Centres, Property, Libraries or Roads and Footpaths. However, in 2021 Council plans to consider its future role in providing social housing.

Summary of Council's Strategic Response

Issue	Council's Response
Identifying customer satisfaction with services provided	<p>Carrying out a Customer Satisfaction Survey every 3 years in conjunction with the LTP cycle and feeding results into AMP's</p> <p>Carrying out service specific surveys as required</p> <p>Regularly assessing any gaps between community expectations and services delivered and considering any changes required</p>
Ensuring a whole of life renewal and investment programme is developed and implemented for all infrastructure	<p>Adopting a risk-based renewals policy in conjunction with a 150 year renewal programme that ensures renewal investment occurs when assets are due for renewal</p> <p>Developing a funding strategy to ensure revenues are set at appropriate levels and funding is available to enable the timely renewal of infrastructure, as required.</p> <p>Implementing a risk-based renewal programme taking account of asset condition, performance, criticality and vulnerability of the infrastructure</p> <p>Anticipating potential changes to levels of service arising from legislative changes and making budget provision for these, for example, UV treatment of water supply</p> <p>Delivering annual capital works and renewal programmes as planned</p> <p>Reporting quarterly to Council on performance achieved in meeting agreed levels of service</p>



3.5 Planning for natural hazards and climate change

3.5.1 Natural hazards

Key Issue

Increasing the resilience of Council infrastructure to natural disasters, including the effects of climate change.

Description

Like many places in New Zealand, the Waimakariri District is geographically diverse, reaching from the mountain ranges to the ocean. This makes the District susceptible to a number of possible natural hazards including flooding in lower lying areas, local earthquake faults, and tsunami and liquefaction in areas along the Pegasus Bay coastline. The Alpine Fault poses a major risk for Canterbury and GNS Science assumes there is more than a 30% probability of a magnitude 8.0 rupture occurring within the next 50 years. If this occurs the effects on the region's infrastructure is likely to be significant.

While floods or a tsunami could cause significant damage to Council assets, risk assessments have identified that the greatest damage would be caused by either an Alpine Fault rupture or a major local earthquake. The Council's Risk Assessment and Financing Strategy has therefore been based on the expected worst-case scenario of a major earthquake.

The Council estimates the loss or damage to Council assets, along with the costs to recover from a major earthquake, to be about \$218m. As well as incurring a share of the cost, and having prudent insurance arrangements in place, the Council will need to rely on continuing Crown and NZTA funding support. Any Council share of the recovery costs will need to be funded by borrowing, as in the short to medium term, the Council does not anticipate having any significant cash or investment assets available to realise and contribute to a recovery. Accordingly, since 2015 the Council has allowed \$84m borrowing head-room in its LTP to cater for a significant natural

hazard event. This amount still allows Council to live within its Treasury and Borrowing Policy limits although debt comes close to the self-imposed limits during the first four years of the LTP. If a significant disaster occurs within this period the Council could cancel and postpone programmes to later years when the repayment programme brings debts back to well within the limits.

The Risk Assessment and Financing Strategy considers the unlikely, but possible, scenario where because of another major natural disaster in the country, or insurance region, insurance cover may not be in place when a major earthquake event occurs that seriously impacts the District. In this instance the Council's share of recovery costs would be about \$104m. The shortfall between borrowing headroom and recovery costs means the Council will need to undertake a prioritisation process for recovery. Council's current strategy is to restore most infrastructure assets and all its highest priority community facilities, such as town halls, libraries and aquatic facilities, but assess the repair of lower priority assets against the funds available, desired levels of service, and the District's future needs.

The 2010/2011 Canterbury earthquake series has enabled the Council to have a good understanding of how its assets will perform in a major earthquake event. Much of the \$139m recovery spend has been invested into strengthening buildings to higher standards and improving the resilience of assets in any future events. It is expected that all pipes at risk from earthquake in liquefiable ground will have been replaced by 2030.

While damage to infrastructure and buildings poses huge public and private costs, the impact on wellbeing can have the most profound effect. Some of the flow-on effects from the Canterbury earthquakes, for example, were disruption to business and employment, psychological trauma, dislocation of communities, creation or exacerbation of social issues, disruption to normal lives, and uncertainty in the future.

Many of the risks the District faces now and into the future can be readily identified. However, some such as those posed by climate change are becoming increasingly complex and uncertain. Resilience is a key factor in successfully negotiating this uncertain future environment.

Resilience Defined

The ability to anticipate and resist the effects of a disruptive event, minimise adverse impacts, respond effectively post-event, maintain or recover functionality, and adapt in a way that allows for learning and thriving.

The 2019 National Disaster Resilience Strategy sets out the following three priorities to improve New Zealand's resilience to disasters:

- Managing risks
- Effective response to and recovery from emergencies
- Enabling, empowering, and supporting community resilience

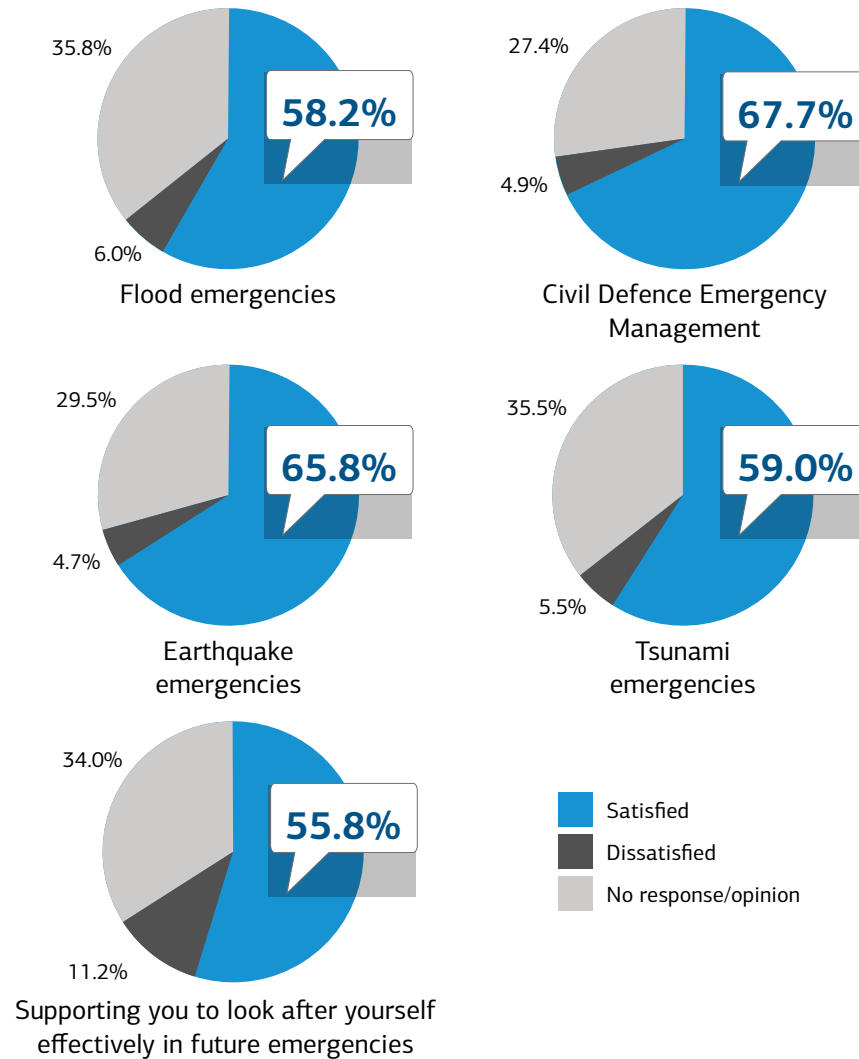
The Council's Civil Defence Emergency Management Unit is responsible for responding to emergencies. This Strategy is primarily concerned about managing risks by identifying and minimising these and limiting the impacts on infrastructure if hazards occur. Enabling, empowering, and supporting community resilience is a cross-Council function.

Figure 3.6 shows there is very little community dissatisfaction with the Council's Civil Defence Emergency Management and natural hazards planning, although there is room for improvement in raising community awareness. The Council appointed a Communications and Engagement Advisor in 2020 in anticipation of the need to further engage with the public about natural hazards and climate change in 2021.

Risks specific to activity areas are outlined in appendix 5.2.



Figure 3.6 2019 Customer Satisfaction Survey - satisfaction with CDEM and natural hazards planning



3.5.2 Climate change

Key Issue

Responding to climate change challenges in a way that ensures the long-term wellbeing, sustainability and resilience of the District’s communities and businesses.

Description

Greenhouse gas emissions are causing significant changes to the Earth’s oceans, atmosphere and climate which are expected to be very long-lasting and in some cases, irreversible. These changes have wide-ranging consequences for New Zealand’s culture, economy, infrastructure, coasts and indigenous biodiversity. The scale and impact of both adaptation and mitigation on people and business has little precedent; and while climate change affects everyone, the most vulnerable people are the most exposed.

Climate Change Defined
 Climate is a statistical description of weather in terms of the mean and variability of relevant quantities over a period of time. A change in these patterns that persists for an extended period, typically decades or longer, is referred to as climate change.

Climate change effects for New Zealand for the next 100 years have been predicted by NIWI with some degree of certainty. However, good information about the cumulative and cascading effects of climate change is lacking. Further to this, the Intergovernmental Panel on Climate Change (IPCC) states that ‘continued emissions of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks.’

Both the World Bank and the New Zealand Treasury have warned that the longer reducing emissions is delayed, the harder and more expensive it will be to mitigate and adapt, and that while mitigation involves risks, those risks are not as great as those from a changing climate.

In 2015 New Zealand was one of 200 countries which signed up to the Paris Agreement to limit global warming this century to between 1.5 and 2 degrees Celsius above pre-industrial levels. Following this the government passed the *Climate Change Response (Zero Carbon) Amendment Act 2019* which set into law a new 2050 domestic target of net zero emissions of all greenhouse gases other than biogenic methane by 2050. A Managed Retreat and Climate Change Adaptation Act is proposed in 2022 which is expected to empower local authorities to deal with managed retreat, including the ability to change established land use; provide funding mechanisms for adaptation and options for transition and compensation; and clarify issues of risk and insurance.

A Canterbury Regional Climate Change Steering Group was established in 2019, under the Mayoral Forum. Environment Canterbury supports the Regional Climate Change Working Group which co-ordinates the region's climate change response and reports to the Steering Group. The Regional Natural Hazards Working Group, which reports to the Policy Forum, also has a role to play in co-ordinating climate change adaptation efforts. The Waimakariri District Council is represented on all three of these groups. Through the Canterbury Mayoral Forum all Canterbury Councils have contributed to an initial climate change risk screening to enable the climate change risks and opportunities for Canterbury to be better understood and this is being followed up with a more in-depth risk assessment due mid-2021. During 2021 a Canterbury-wide engagement programme will be run to raise community awareness of climate change.

Since 2018 Council has prepared an annual stocktake of its corporate climate change response. The Council's District-wide flood model, incorporating the effects of a 1m sea level rise, has also been updated.

In 2020 the Council adopted a Climate Change Policy as an initial statement to inform Council's role in climate change mitigation and adaptation and this will be implemented through actions contained within a Climate Change Response Strategy to be developed in early 2021. Policy objectives are to:

- Enhance the Council's preparedness to respond to climate change challenges in an appropriate, co-ordinated, timely, cost-effective, and equitable way.
- Enable the Council to provide transformational leadership that will ensure the long-term wellbeing, sustainability and resilience of the District's communities and businesses.
- Provide for a planned approach to mitigating and reducing emissions, including minimising activities, that contribute to climate change.
- Work collaboratively with the community and other organisations to adaptively plan for, and increase resilience to, climate change effects on the District's social, cultural, environmental and economic wellbeing.

A Waimakariri Climate Change Scenario is currently being prepared to inform the Climate Change Response Strategy. This scenario is based on a 2020 NIWI report commissioned by Environment Canterbury called "*Climate Change projections for the Canterbury Region' and the Intergovernmental Panel on Climate*

General Effects of Climate Change

Coastal changes - sea level rise and associated ground water rises, increased frequency and intensity of storm surges and wave impacts, and changes in the dominant direction of waves

Temperature - increased temperatures, particularly during winter, fewer frost days, increased frequency and intensity of heat waves, and extended periods of drought

Rainfall, flooding and snow - more intense rain falling less frequently, more frequent very heavy rainfall events, significant decreases in seasonal snows, increased flows in the large alpine-fed rivers such as the Waimakariri River and more severe winter flooding events, particularly in these rivers. Less rain falling in the east affecting groundwater recharge and foothills-fed rivers such as the Ashley-Rakahuri River

Winds - increased frequency of extreme winds in winter and dry westerly winds and greater frequency and intensity of storms

Change (IPCC) RCP8.5 business as usual scenario”, which the IPCC reports is currently tracking as the most likely scenario. As climatic conditions vary so widely across the Canterbury region, climate maps contained within the NIWI report have been extrapolated for the District and once analysed will allow Council to more clearly identify likely climate change effects.

All infrastructure planning and reviewed District Plan rules are based on the IPCC 8.5 RCP scenario and NIWI’s sea level rise predictions of 0.5m in 50 years and 1 metre in 100 years and it is unlikely that the Waimakariri Climate Change Scenario will impact on this. More detailed knowledge of local effects will however, allow a more targeted approach to be taken in the Response Strategy.

A large part of the District’s built-up environment is located on flood plain and this makes it vulnerable to significant flood events. Climate change is likely to impact sea levels, ground water levels, rainfall, temperatures and biodiversity within the District, among other things. In particular, rain events significant enough to cause flooding are likely to increase in intensity and frequency, making drainage systems near the coast problematic. Detailed flood modelling has been undertaken in the past three years to help inform where future development should occur and identify the potential effects of large flood events on Council infrastructure.

The Council’s engineering practices now ensure all new and replaced assets are built to standards that take account of known risk factors, and are designed for resilience. Climate change effects have been factored into infrastructure sizing, particularly new stormwater pipes, to take account of intense rainfall events.

Flood mitigation works were carried out across the District following the 2014 flood event and the Government’s stimulus package has enabled earlier progress to be made on resolving stormwater issues in Kaiapoi than previously planned. Once completed, the reticulation upgrades in Rangiora and Kaiapoi will also reduce the frequency of wastewater overflows in wet weather events. These measures, along with proposed new District Plan rules for floor levels and hazard zones will help to increase resilience to flood events.

Summary of Council’s Strategic Response

Issue	Council’s Response
Maintaining financial capacity to recover from a major natural disaster	<p>Adopting a Risk Assessment and Financing Strategy estimating the financial impact of a major natural disaster and determining how recovery can be funded</p> <p>Providing financial ‘head-room’ in the Council’s borrowing policy so that the Council can fund recovery, even in the unlikely event insurance is not available, and still live within borrowing limits</p> <p>Maintaining comprehensive insurance arrangements</p>
Adopting a risk-based renewals and investment strategy	<p>Ensuring renewals investment is prioritised to the most vulnerable and critical infrastructure so that the overall resilience of the infrastructure networks is continually enhanced</p> <p>Ensuring all council-owned buildings are maintained to a minimum of 67% of the New Building Standard for earthquake resilience</p>
Identifying climate change and natural hazard risks	<p>Preparing an annual stocktake of Council’s climate change issues and response</p> <p>Refining comprehensive flooding modelling carried out to assess potential flood impacts and where further land development should occur</p> <p>Incorporating results from flood and reticulation network modelling into AMP’s and the District Plan Review</p> <p>Completing and consulting on natural hazards risk assessment in 2020 as part of the District Plan review</p> <p>Carrying out risk assessments for essential infrastructure</p>
Setting a strategic framework in place for climate change mitigation and adaptation	<p>Adopting a Sustainability Strategy in 2020</p> <p>Adopting a Climate Change Policy in 2020</p> <p>Developing a WDC Climate Change Scenario in 2020/21</p> <p>Developing a Climate Change Response Strategy in 2021</p> <p>Developing a community based sustainability strategy in 2021/22</p>

Issue	Council's Response
Mitigating climate change	(Covered in section 3.6)
Increasing the resilience of Council infrastructure and the wider community to natural disasters and climate change	<p>Adopting design and modelling standards for infrastructure that reflect the latest climate change predictions, such as rainfall patterns, and enable infrastructure to be built using resilient materials and best-practice technologies</p> <p>Allowing for the implications of sea level rise and changing weather patterns in asset management planning</p> <p>Making appropriate District Plan provisions in relation to known active faults, flooding and sea level rise</p>
Increasing governance and collaboration	<p>Participating in national and regional climate change forums to influence and ensure best-practice is developed and implemented</p> <p>Participating in the Regional Natural Hazards Working Group</p> <p>Utilising a Climate Change Coordination Group to ensure climate change response efforts are co-ordinated across Council</p>





3.6 Transitioning to a sustainable future

Key Issue

Ensuring infrastructure provision, replacement and management is a key part of creating a sustainable and resilient future for the District.

Description

Community wellbeing and the environment are intrinsically linked, for in order for people to prosper the environment must prosper. Loss of biodiversity and environmental degradation is occurring at such an extent that the life-supporting capacity of ecosystems has now become threatened.



Sustainability Defined

Sustainability refers to the quality of a state or process that allows it to be maintained indefinitely. In the context of this Strategy it is about achieving wellbeing in the present while living within the carrying capacity of supporting ecosystems, and not compromising the ability of future generations to meet their own needs

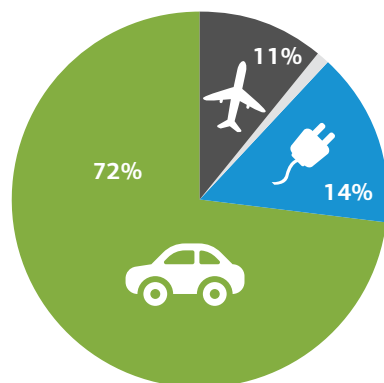
Caring for natural resources and putting the environment at the heart of decision making is an essential part of mitigating climate change. As the national economy and businesses shift towards a low-emissions future by 2050, an emissions-rich business-as-usual culture is becoming increasingly undesirable. The United Nations has highlighted the need for urgent

investments in climate action as part of Covid-19 recovery, stating that “a truly green recovery from the pandemic can take a huge slice out of greenhouse gas emissions and slow climate change. Recognising that nature is at the heart of our economy and the way we do business will be key to our successful recovery.”

Corporate Emissions

In the 2017/18 financial year the Council carried out a greenhouse gas emissions inventory in order to understand its corporate emissions profile, and to provide a base year for tracking future emissions. The total corporate emissions for that year were calculated as being 507 tonnes of CO₂-e. The major contributing sources were vehicle travel (363 tonnes), electricity (73 tonnes) and air travel (56 tonnes).

Figure 3.7 Corporate emissions by source



Emissions reduction targets will be developed in 2021 and a dashboard system will be used to allow real-time (monthly) in-house and District emissions data, plus energy, water and waste data, to be recorded and reported.

Sustainability Strategy

In 2019 the Council adopted a 2018-2048 Corporate Sustainability Strategy and in doing so, made a commitment to reducing its environmental impact by finding practical and innovative solutions to mitigating emissions, managing waste and developing a culture which embraces sustainability ‘as something we just do’.

Council’s Vision for Sustainability

‘Investing in a sustainable and resilient future for our people, our businesses, our infrastructure and our environment by taking responsibility and showing leadership.’

The Strategy’s broad statement of intent was followed up in 2020 by an Organisational Sustainability Strategy and Action Plan. This plan considered existing practices for a wider range of Council business including wastewater treatment plants, libraries, swimming pools and forestry and included 33 actions to be implemented. Progress on these is monitored on a quarterly basis.

The Council’s 2019 Sustainability Strategy and 2020 Action Plan broadly align with the 2030 United Nations Sustainable Development Goals which have been incorporated into the 2021-2031 LTP. They also complement parallel work streams within the organisation including climate change mitigation and adaptation, natural hazards, biodiversity enhancement, procurement and wellbeing.

In the 2021/22 financial year the Council plans to develop a community-based sustainability strategy.

Procurement Strategy

In 2019 the Council adopted a Procurement Policy and Strategy after a review of its procurement practice. These documents include sustainable procurement principles that require Council to assess whole of life social, economic and environmental impacts of the goods and services it procures.

Further work needs to be done to identify how Council’s carbon footprint can be reduced in the procurement, construction and management of infrastructure. This includes giving Asset Managers the tools to measure the carbon footprints of proposed projects prior to procurement. Going forward new infrastructure needs to be as efficient and sustainable as possible, utilising low-energy solutions and minimising the amount of embodied carbon in the materials used.

The Procurement Strategy is expected to take three years to implement with the following tasks aimed at improving the sustainability of the supply chain to be completed within the next two years:

- Develop Supply Chain Sustainability Policy
- Review procurement processes and policies to ensure supply chain sustainability is reflected
- Review Council's operating expenditure to understand opportunities for improvements in sustainability
- Amend sourcing documentation to encourage sustainability within the supply chain.

In the interim sustainability is being considered on a case-by-case basis in the tenders being released by Council. The Council's new Climate Change Policy will also help to drive changes in the way infrastructure is procured and managed in the future.

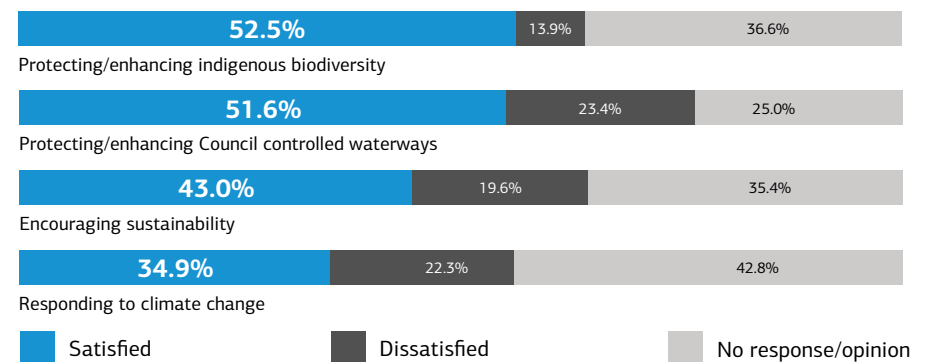


Environment Strategy

Green infrastructure solutions such as swales, stormwater retention basins and naturalised drainage systems are increasingly being used to manage flooding better and have the added benefit of helping to reduce greenhouse gases. The District's reserves, street trees, forestry, wetlands and waterways also have a significant role to play in providing a more sustainable environment.

Figure 3.8 shows a higher level of dissatisfaction with Council's environmental management than many other services and a cross-Council approach is being taken to improve efforts in this area.

Figure 3.8 2019 Customer Satisfaction Survey - satisfaction with environmental management



An Environment Strategy is being developed in 2021 to provide strategic vision and direction for Council's environmental enhancement and biodiversity efforts. New biodiversity projects are also included in this Infrastructure Strategy, such as the provision of \$1.1m over the next ten years for the Arohata te Awa programme of works to enhance the Cam River, and an additional \$5m over 30 years for waterway enhancement projects identified in the Zone Implementation Programme Addendum (ZIPA).

Summary of Council's Strategic Response

Issue	Council's Response
Measuring and monitoring greenhouse gas emissions	Undertaking regular emission assessments, utilising the 2017/18 base-line assessment to enable the Council to set emissions targets and assess progress
Reducing the organisation's carbon footprint	<p>Reviewing the adopted Corporate Sustainability Strategy and ensuring action plans are implemented</p> <p>Implementing initiatives to embed sustainability practices in the organisation such as sustainable purchasing policies and practices, flexible working policies and investigating sustainable energy efficiency opportunities</p> <p>Investigating opportunities for turning low-return forestry areas into natural habitats and carbon sinks</p>
Developing a more sustainable District	<p>Developing a community-based sustainability strategy in 2021/22</p> <p>Introducing and maintaining sustainable solutions such as kerbside recycling, electric vehicle charging stations, and enabling and encouraging alternative transport modes such as public transport, cycling and walking</p> <p>Implementing education programmes for schools and the community that increase awareness and promote opportunities to be more sustainable</p>

Issue	Council's Response
Addressing environmental degradation	<p>Developing an Environment Strategy</p> <p>Maintaining specialist biodiversity capacity to advise on best practice and lead environmentally focused projects</p> <p>Ensuring adequate funding is provided for biodiversity and waterway enhancement</p>
Improving the health and capacity of waterways	<p>Committing funding to support the Arohata te Awa programme of work</p> <p>Partnering with Ngāi Tūāhuriri to ensure cultural values are understood and respected in managing and improving District waterways</p> <p>Working closely with Environment Canterbury and mana whenua regarding the allocation of groundwater to ensure there is adequate resource</p> <p>Investigating and addressing risks to 3 Waters infrastructure from climate change and natural hazards</p> <p>Improving stormwater discharges</p> <p>Taking a long term view of the risks associated with wastewater treatment plant discharge consents</p>





3.7 Renewing infrastructure in a timely manner

Key Issue

Ensuring replacements are able to be fully funded with no deferred maintenance issues.

Description

As a fast growing District a large proportion of the infrastructure has been installed within the last thirty years. The majority of it is therefore relatively new with the average age of 3 Water systems being less than 25 years old. As most of this infrastructure is expected to last for between 80 and 100 years, much of the renewals do not fall due until the 21st century and the first part of the next century. A key exception is the roading and footpaths activity which requires ongoing comprehensive maintenance such as resurfacing and rehabilitation which has been planned for in LTP budgets.

The Council has modelled its infrastructure and developed a renewal programme that stretches over the next 150 years. A risk-based model is used to inform these renewal investment decisions. This model incorporates the following criteria to establish a relative likelihood and consequence of failure:

- Condition rating (includes CCTV survey data)
- Burst and blockage history
- Seismic vulnerability to liquefaction
- Asset criticality.

Improvements have been made to the Council's risk-based renewals model, so that different levels of acceptable risk can be applied to the various categories of criticality. While the model allows for highly critical assets to be renewed before 85% of their expected life, the lowest criticality assets may not be replaced until 120% of their expected life. Based on these risk profiles the model provides a prioritised list of pipe renewals needed across

the District, identified by scheme, which Asset Managers assess and adjust to factor in any operational benefits of renewal, including co-ordinating with other works planned in the same corridor to limit disruption.

The model provides an annual expenditure profile and identifies the annual revenue required to enable this renewals expenditure to be made without the renewals fund falling into debt. The implementation of InfoAsset Manager to manage and analysis CCTV pipe inspection data will improve the modelling of pipe renewals by allowing the remaining life of the assets to be adjusted.

Figure 3.9 Combined 150 year replacement cost forecast (in 2020 \$)

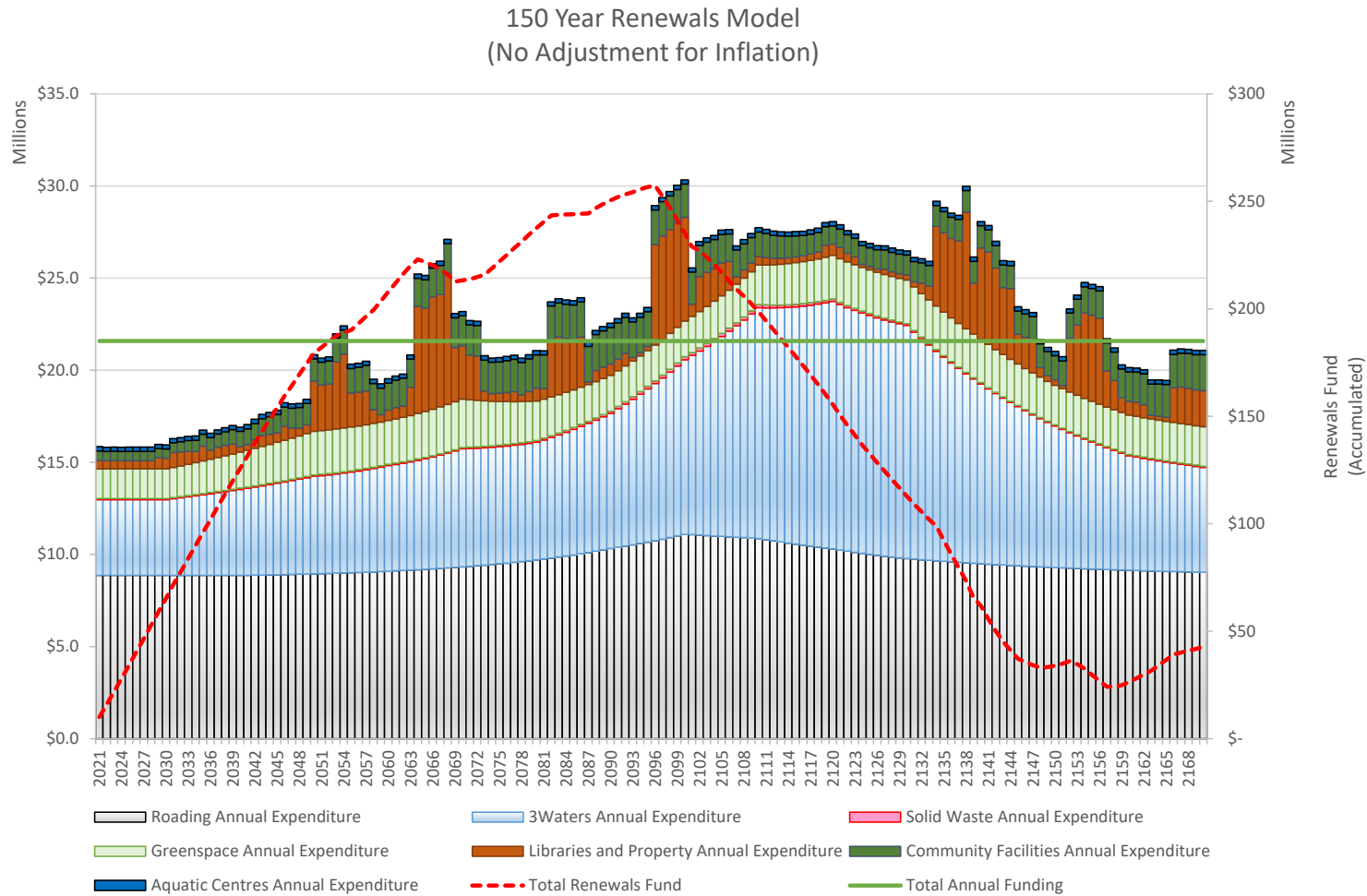


Figure 3.9 shows the annual expenditure required for the next 150 years to replace the assets covered by this Strategy in relation to the accumulated renewals fund. The vertical bars show the expected combined annual renewals expenditure through to 2166. The renewal programme starts to significantly accelerate from 2050 and then there is a steady rise until about 2123. This is because most of the below ground assets in the District have been built over a relatively short space of time and will therefore reach the end of their lives over a similarly short space of time, in about 100 years' time.

The amount of annual expenditure, which has been smoothed, can be read against the left hand axis of the graph. The green line is also read against the left hand axis. This represents the recommended average annual amount of funding that needs to be put away into a dedicated fund to ensure that money is available to meet the demands of the peak expenditure, without the fund going into debt or maintenance being deferred. The red line is read against the right hand axis and shows the total value of the fund over the 150 year period.

The graph demonstrates how the renewal programme is able to be financed from depreciation reserves, built up in early years. The reserve fund in the outer years from 2050 will be required to fund \$25-\$30m per annum of the replacement programme. Peak expenditure is forecast to be nearly 2.3 times the current renewals expenditure. At its lowest point the accumulated reserve fund will be about \$25m. This graph displays the importance of establishing sufficient depreciation replacement funds now to ensure current levels of service are still affordable enough to continue to be provided for future generations.

Table 3.5 shows the renewals expenditure included in the 2021 LTP for the next ten years. Community facilities renewal expenditure has increased from \$515,000 over ten years to \$3m, and Aquatics from \$500,000 over ten years to \$2.1m. This is in response to deficiencies identified in the improved asset capture and condition assessment recently carried out for Green Space and Aquatics.

Table 3.5 2021–2031 LTP renewal expenditure

Activity Area	Renewal Expenditure 2021-2031
Water Supply	\$16m
Wastewater	\$20.5m
Stormwater	\$0.5m
Roading and Footpaths	\$65m
Solid Waste	\$0.9m
Green Space	
Reserves	\$11.5m
Community Facilities	\$3m
Public Toilets	\$1.5m
Aquatics	\$2.1m
Property	\$4.5m

Significant projects with renewals components in the first three years of the LTP are the stimulus package of works, Eastern District wastewater network upgrades, Southbrook Resource Recovery Park pit and access upgrades, Rangiora town centre parking and Kaiapoi town centre improvements.

Significant renewals projects programmed for the latter half of the LTP period are the Skew Bridge replacement, general town centre development and Kaiapoi Aquatic Centre upgrade.

Further implementation of town centre strategies is planned for 2035, and in 2040 the Dudley Park Aquatic Centre in Rangiora is programmed for an upgrade and the Old Waimakariri Bridge is due for replacement.

Detailed information about activity specific asset condition and performance is included in section 5.1 of this document.

3.8 Service delivery

S17A Reviews

The Council maintains a schedule of S17A reviews to ensure the cost-effectiveness of its infrastructure service delivery and carries out these reviews in accordance with the requirements of the *Local Government Act 2002* (section 17A).

Capital works

Delivery of most capital works is via competitive tendering practice in accordance with the Council's Procurement Policy. Design is usually carried out in-house, or where resources are insufficient, via external consultants, again engaged in accordance with the Procurement Policy.

Maintenance



Routine maintenance for water supply and wastewater is carried out by the Council's in-house Water Unit and a service level agreement (SLA) has recently been signed to better define the relationship between 3 Waters Asset Managers and the Water Unit, and provide a mechanism for measuring performance. An SLA is also planned between the 3 Waters Unit and the Asset Information Management Team.



Routine maintenance of the rural drainage network is carried out via a long term contract, competitively tendered at the end of its term. The contract is included as a component of the district-wide roading maintenance contract to allow more emphasis to be placed on planned maintenance.

Urban drainage is divided between roading and drainage assets according to a set of ownership rules. The drainage assets are maintained under the Green Space maintenance contract, and the roading assets under the roading maintenance contract.



Solid Waste contracts for the provision of kerbside collection services and facilities operations and maintenance are carried out via a long term contract, competitively tendered at the end of its term. These contracts were tendered in 2018 and commenced in July 2019. Maintenance of the kerbside bins is the responsibility of the collection contractor, who will own the bins until the end of the contract term. The service to supply and deliver Council-branded rubbish bags to retail outlets, including Council service centres, will be competitively tendered in 2021.

Routine site maintenance at the two waste transfer facilities is generally carried out by Council's Solid Waste Contractors as specified in the Solid Waste Contracts, with infrastructure maintenance undertaken by contractors from the Council's Trades Supplier Panel. Maintenance at other sites is carried out by the Council's road maintenance contractors, contractors from the Council's Trades Supplier Panel, or lessees (where applicable).



Maintenance of roading assets is carried out through two competitively tendered contracts, both of which were let for a three year period, with two further one year extensions subject to suitable performance (5 years in total).

Road maintenance activities are delivered under the new road maintenance contract which commenced in November 2020. This contractor also carries out some renewal and

improvement works as specified in their contract, while the remainder is competitively tendered.

Carriageway lighting maintenance and all associated renewal and improvement works are carried out by another contractor under a contract that started in April 2019.



Maintenance of the Greenspace parks and reserves and trees is carried out under two separate contracts which are competitively tendered at the end of each term. These contracts include both planned and reactive maintenance to ensure levels of service are maintained across the District.

Cleaning of community facilities and exterior building maintenance is included within Council-wide contracts for these services which are competitively tendered at the end of each term.



While routine minor plant maintenance is carried out in house, contractors from the Council's Trades Supplier Panel carry out larger complicated plant and site maintenance tasks at the four aquatic facilities.



Routine and annual maintenance of library facilities is carried out via approved Council contractors. The contract for the most recent capital improvement (new HVAC system in the Rangiora Library) was project managed by an approved Council contractor.



All maintenance of property assets is carried out by external contractors.

Programmes and services

Most infrastructure-related Council programmes and services are designed and delivered in-house. Exceptions are the delivery of the library KidsFest programme and the Enviroschools education programme; the latter being facilitated by Environment Canterbury under a long-standing Memorandum of Understanding. The Waste Minimisation and Water Conservation

education programme, which is delivered to schools, preschools and the wider community, is also carried out under a competitively tendered contract. A Section 17A review which is currently being undertaken will determine how this service will continue to be delivered in the future.

3.9 Financial impacts of the Infrastructure Strategy

The Council's 2021 Financial Strategy reflects the directions contained in the LTP and IS, and models the financial effects on the Council and the District.

The Financial Strategy is aimed at responding to the needs of the community in an affordable way, while funding long term projects, so that future generations who benefit from community infrastructure, pay their share. The Council has invested \$422m into renewing, extending and improving core infrastructure in the past 10 years. Within the next ten years of the LTP the Council is forecasting another \$523m investment into core infrastructure.

As the District's population grows, the demands for increased levels of service grow, as do the requirements of new legislation and national standards. These cost drivers are a constant pressure on increases in rates. In addition, an ageing population means there is an increasing proportion of ratepayers who are on fixed incomes, placing greater pressure on the affordability of annual rates increases. In 2021 Council is also seeing an increase in the number of people applying for rates relief due to the impact of Covid-19.

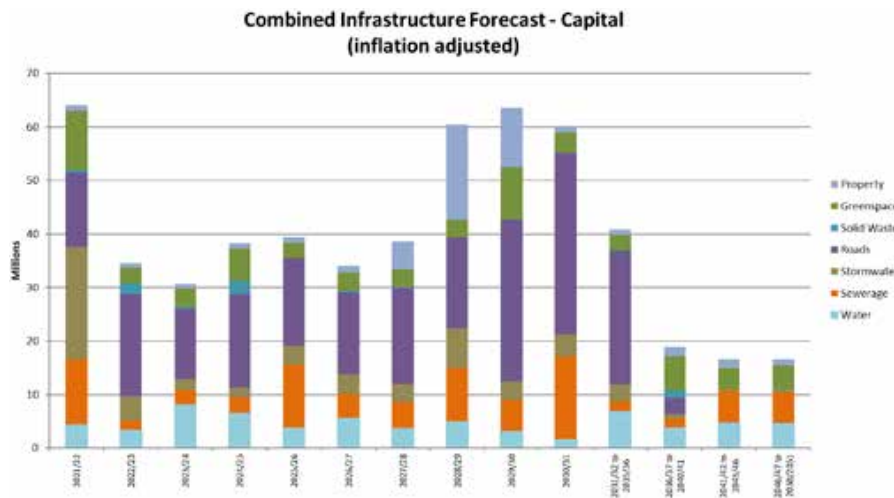
The key components of the Council's strategic direction are to:

- Restrict operating expenditure movements to the rate of Local Government Cost Inflation (LGCI), excluding catering for population growth and improved levels of service
- Continue to progressively fund the cost of reinstating the Council's community assets relating to the 2010 and 2011 earthquakes at levels that keep rates increases to a minimum and affordable
- Maintain debt within policy limits, while maintaining headroom to recover from a significant natural disaster
- Maintain the current prudent financial management while still providing high quality levels of service to both current and future generations.

Total Expenditure

The projected capital expenditure associated with the significant infrastructure assets is graphically represented in figure 3.10. The projected operational and maintenance expenditure is shown in figure 3.11. The figures shown in the graphs for each of the five year blocks between 2031/36 to 2046/51 are the average annual expenditure over that period.

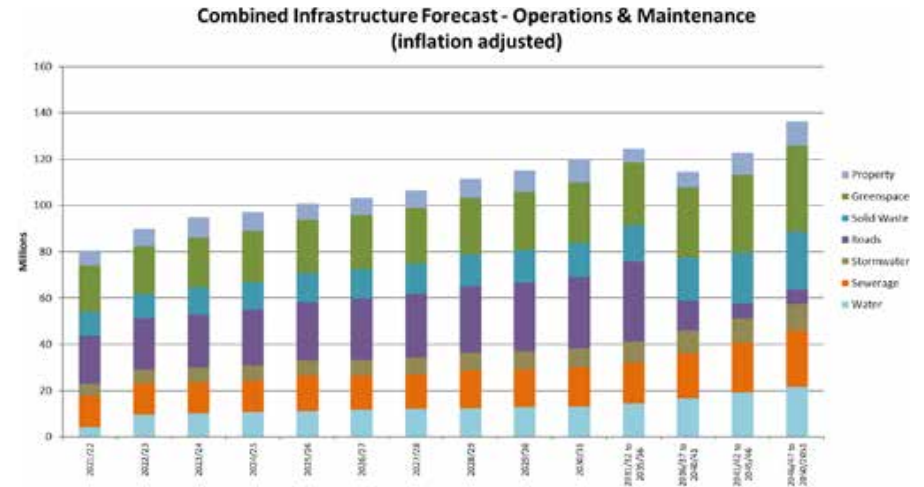
Figure 3.10 Projected capital expenditure for combined infrastructure assets



The above graph shows that over the next 30 years the Council expects spending of approximately \$60m in the first year mainly due to stimulus and shovel ready funded projects. This drops to approximately \$40m in year two of the LTP and less than \$30m in year three. Later years have a relatively consistent level of capital expenditure of between \$35 and \$40m until the period 2028 to 2031 when expenditure rises to approximately \$60m again to accommodate the proposed civic precinct development. After this the normal capital works programme expenditure resumes of between \$30 and \$40m per annum. The early to mid years of the programme have been smoothed to ensure the programme is achievable.

The balance of capital expenditure will be funded by development contributions, where it is growth-related, and the remainder by way of subsidies and grants, asset sales, depreciation funding and reserves, loans and rates.

Figure 3.11 Projected operational and maintenance expenditure for combined infrastructure assets



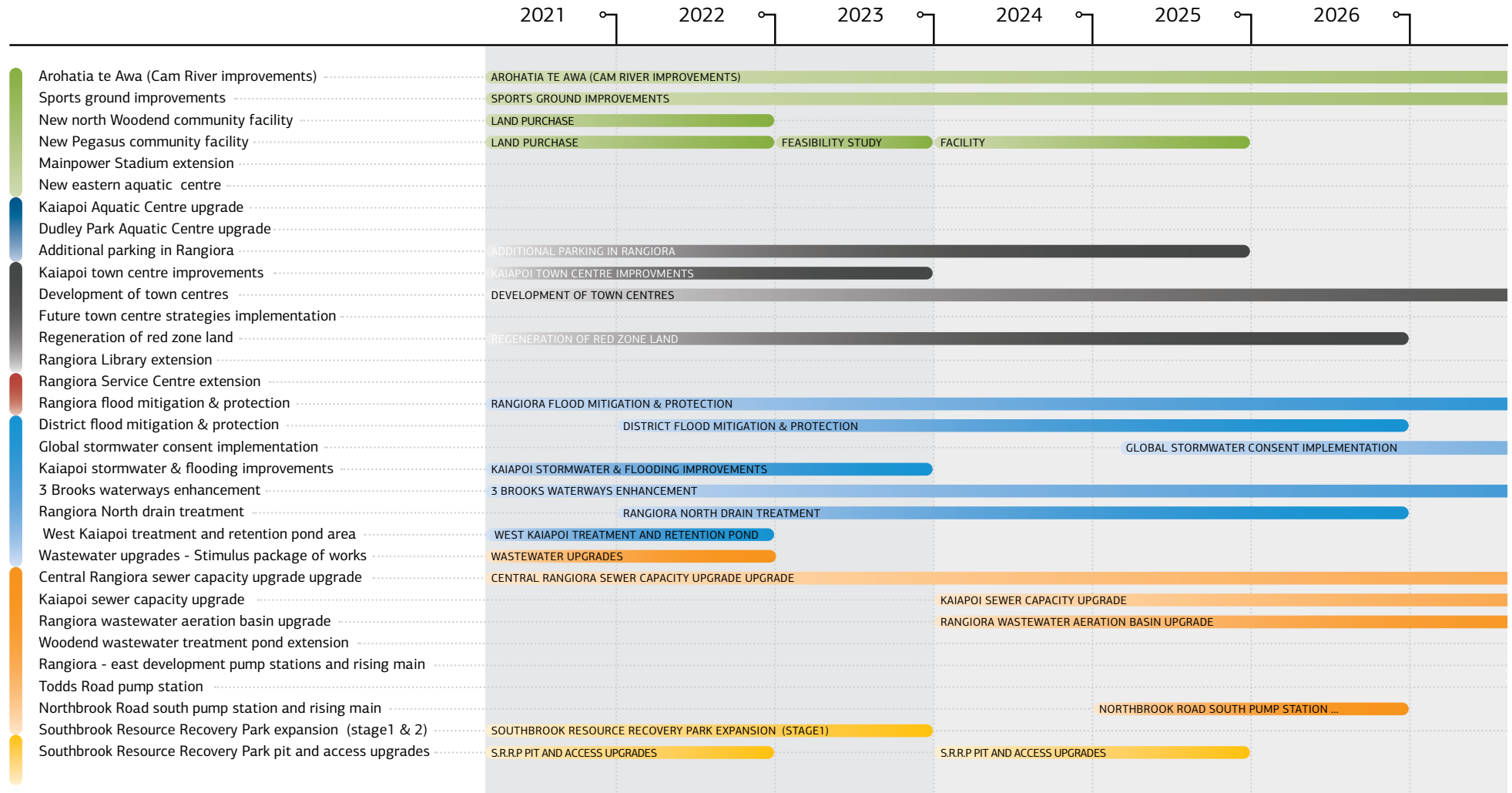
Funding Depreciation

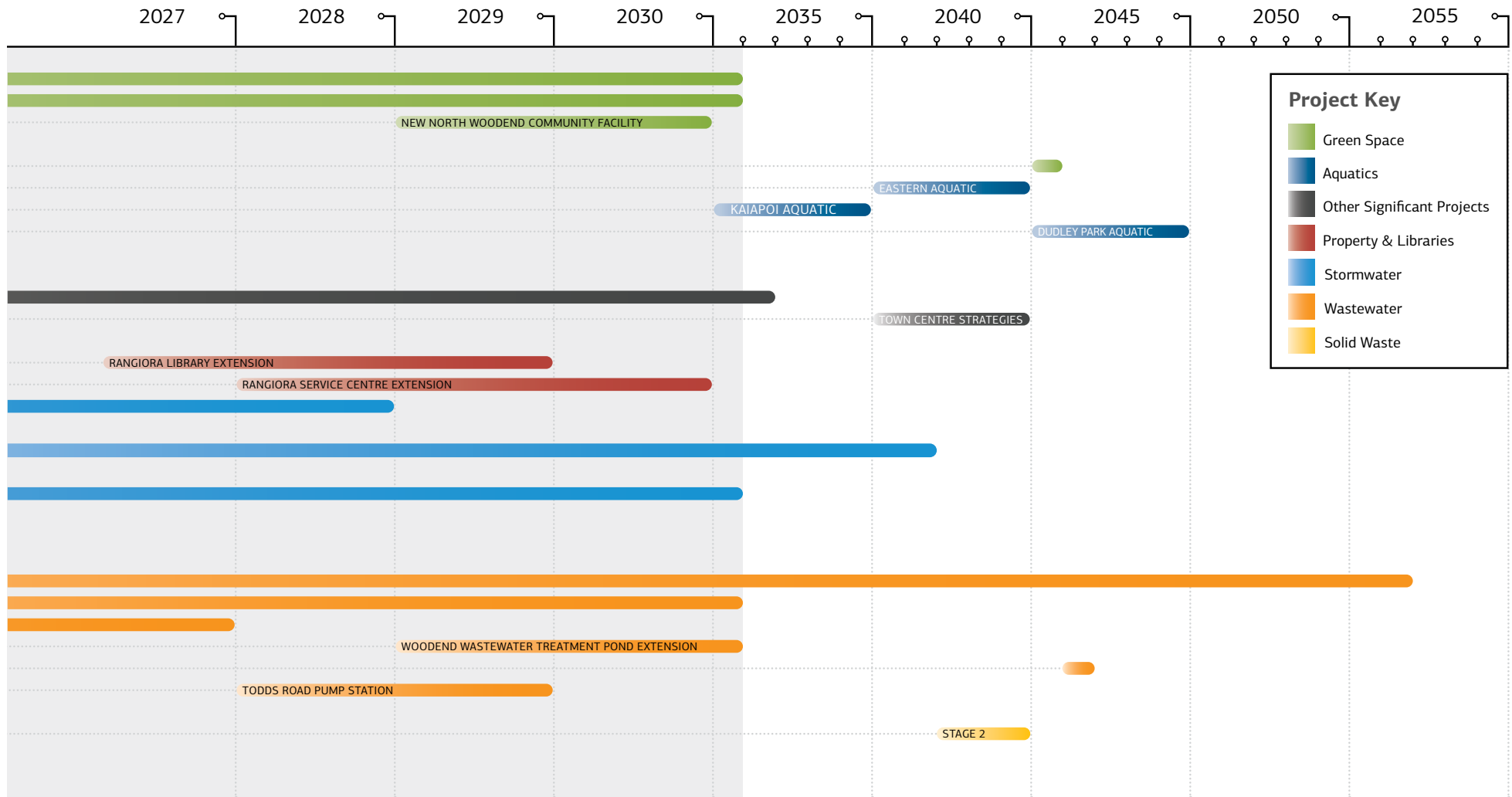
As shown in figure 3.9 in section 3.7 the Council has a significant asset renewal programme forecast to occur later in the 21st Century.

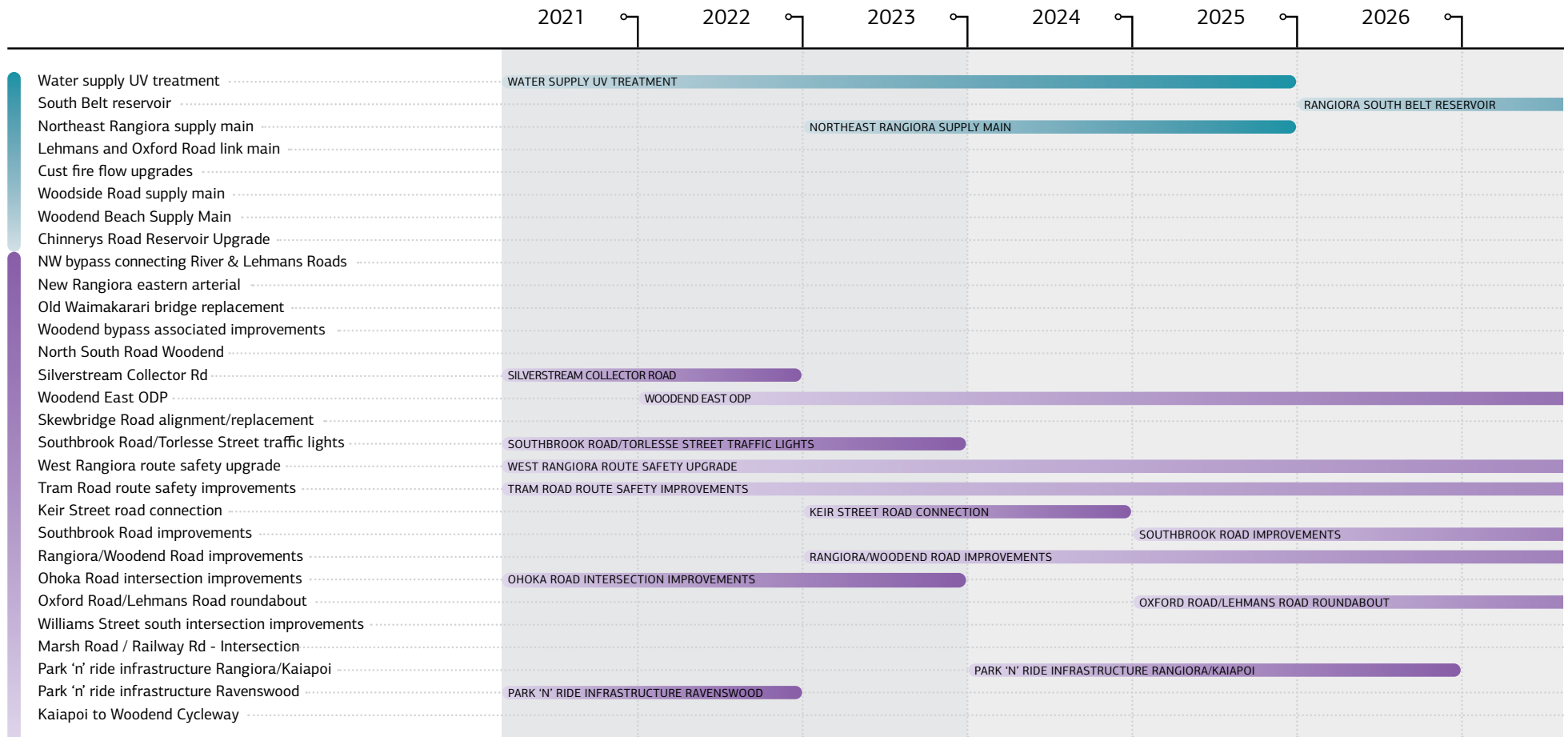
The Council’s policy is to ring fence funding of depreciation into separate accounts so that the funds can only be applied to the renewal of infrastructure. This policy takes into consideration the inflationary effect on the assets replacement cost and investment rate that is applied to any depreciation funds. Modelling shows that this approach will enable renewals to be comfortably funded from accumulated depreciation funds.

Renewal expenditure over the 30 year period averages approximately \$13m per annum in total (in 2020 \$) and will be funded from accumulated depreciation reserves and NZTA roading subsidies.

3.10 Summary of significant infrastructure projects









3.11 Key decisions

Managing infrastructure over the long term in a way that allows significant issues, such as growth, climate change and community expectations, to be adequately addressed requires Council to make key decisions in a timely manner. Table 3.6 identifies the key decisions that need to be made prior to the proposed project implementation date indicated in parenthesis.

Table 3.6 Indicative timeframe for key decisions

Key Decision	Indicative Timeframe
Within the first three years	
Confirming the funding and timing decisions needed to implement the Rangiora Town Centre Strategy	Within a year (2021)
Adopting a strategy to direct Council's biodiversity expenditure	Within a year (2021)
Reviewing Council's future role in providing social housing	Within a year (2021)
Determining the location of a new community facility at north Woodend	Within 1 to 2 years (2021/2)
Determining the location and scope of a new community facility at Pegasus	Within 1 to 2 years (2021/2)
Making a decision about the best 3 Waters reform option for the District	Within 1 to 2 years (2021/2)
Identifying and communicating an appropriate climate change response for low lying coastal areas	Within 1 to 2 years
Within four to ten years	
Adopting a strategy for ensuring water quality standards are met for urban stormwater discharges	Within 4 years (2025)
Confirming whether the Rangiora Library extension will be standalone or be carried out in conjunction with a wider civic precinct	Within 6 years (2027)
Determining when Skew bridge realignment/replacement should proceed if NZTA funding is not available	Within 7 years (2028)
Reviewing whether additional Council office accommodation is still needed and if so, what the nature of this is	Within 7 years (2028)
Determining the scope of a new community facility to service north Woodend	Within 8 years (2029)

Key Decision	Indicative Timeframe
Confirming the nature of the upgrades to the Kaiapoi Aquatic Centre	Within 9 years (2030)
Identifying the route for the Kaiapoi to Woodend cycleway	Within 10 years (2031)
Within eleven to thirty years	
Confirming the need to provide full firefighting flows for Cust	Within 13 years (2033)
Confirming if there is a demand for reticulated water at Woodend Beach	Within 13 years (2033)
Confirming the need for the eastern arterial route	Within 14 years (2035)
Deciding on the nature of the expansion of the Southbrook Resource Recovery Park	Within 16 years (2037)
Renewing the Ocean outfall consent	Within 18 years (2039)
Confirming the nature of the upgrades to the Dudley Park Aquatic Centre	Within 19 years (2040)
Deciding on the replacement of the old Waimakariri Bridge	Within 19 years (2040)
Confirming the expansion of the Mainpower Stadium	Within 19 years (2040)

The decisions that are shaded are considered to be significant decisions under the Council's Significance and Engagement Policy as they alter the Long Term Plan by more than 5% of the total budgeted rating revenue (>\$3.6m in 2021).

4 Significant Infrastructure Projects

The significant infrastructure issues the Council anticipates facing over the next 30 years, the options for addressing these, and the benefits and costs of the Council's preferred option are outlined in this section of the strategy.

The criterion applied to determine whether projects were significant is as follows:

- High expenditure (\$1m or more)
- High risk
- Strategic priority
- High public interest.

In some cases the significant projects are an amalgamation of a number of smaller projects which individually cost less than the \$1m trigger point. An example is a roading project which consists of improvements along a whole route instead of a single street.

The projects that are shaded are considered to be significant in terms of the Council's Significance and Engagement Policy.

All of the inflation adjusted graphs are created out of the same data used for the LTP which include the corporate inflation assumptions.

Council management has taken into account staff resources, procurement capacity, consenting issues and the availability of contractors when determining the capital works programme. Expenditure spikes for the Utilities and Roading Department in the initial draft budgets have been smoothed by adjusting the timing of projects to ensure the programmes are able to be delivered. A greater focus has been put into delivering the capital programme recently and for the 2020/21 financial year the Council is on track to deliver its full programme.





4.1 Water Supply



Principal goal: To provide community water supplies that are affordable, sustainable, and reliable, and that provide capacity for anticipated growth, and meet all required drinking water quality standards. Services are to be delivered in accordance with Council’s Drinking-water Commitment Statement.

To provide stockwater to enable farming on dry land.



There is a healthy and sustainable environment for all

UN SDG 6, 11, 12, 13, 15



Core utility services are sustainable, resilient, affordable; and provided in a timely-manner

UN SDG 6, 7, 9, 11, 12, 13, 15



Extent	Asset
Water	
3	Intakes
38	Pump stations and treatment plants
68	Reservoirs and tanks
42	wells
935km	Water mains
Stockwater	
6,570m	Culverts
1	Intake tunnel (Browns Rock)
34km	Main race channel
796km	Open water races
61	Other structures (weirs, gates and bridges)
1,750m	Siphons
2	Small takes on the Cust River

The Council owns and operates 12 separate water supplies, which provide water to approximately 80% of the population, or about 50,000 people, involving approximately 20,000 connections. Schemes are either ‘on-demand’ (unrestricted), ‘restricted’ (a specific amount of water per day is made available), or ‘semi restricted’ (connections are allocated 19m³ per day which is close to an on-demand supply).

The stock water race system is provided to a large portion of farmed land in the District. The 1,650 properties or so that it services are generally located west of Rangiora, east of Oxford and between the Waimakariri and Ashley-Rakahuri Rivers.

Total value of assets: \$193.9m (Depreciated replacement cost - 30 June 2020)

4.1.1 Water Supply capital works programme

Figure 4.1 shows replacements make up the majority of the capital expenditure over the next 30 years associated with the water supply infrastructure assets.

Figure 4.2 shows the projected capital expenditure each year for the first 10 years, followed by five year blocks to cover the following 20 years. The figures shown for each of the five year blocks between 2031/32 and 2046/51 are the average annual expenditure over that period.

In the third year (2023/24) there is higher expenditure than other years. This is primarily due to the ultra-violet (UV) treatment projects ramping up this year. It is assumed that the new drinking water standards will be worked through in 2021/22 with the regulator, and UV treatment is confirmed as being satisfactory to meet future requirements. Installation for the majority of plants without UV can then commence.

In general, the initial years include a number of level of service projects, and later years are dominated by renewals works, along with some growth. This is because works are required to address existing or expected deficiencies, and once all level of service measures are met, future projects should either be to accommodate growth, or renew existing assets. Growth is expected to occur at a faster rate in the LTP period and then slow in later years and this is reflected in the higher number of growth-related works in the first 10 years.

Figure 4.1 Type of Capital Expenditure - Water Supply

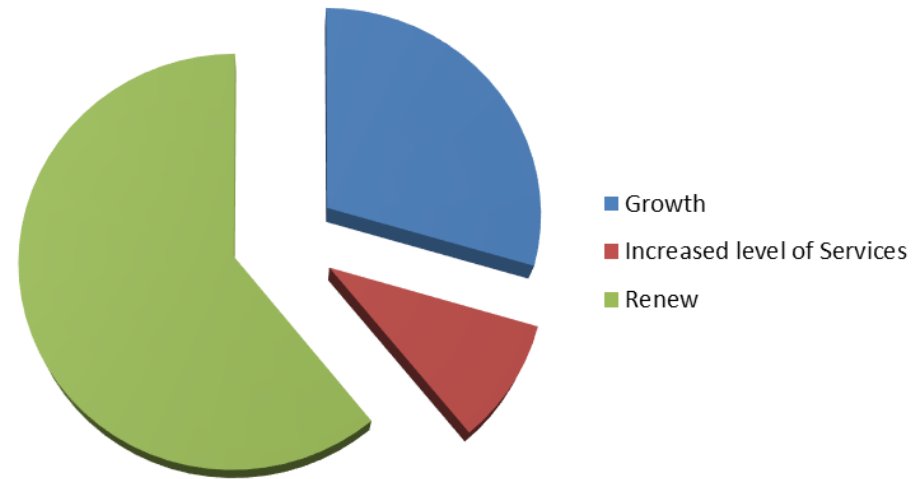


Figure 4.2 Projected Capital Expenditure - Water Supply

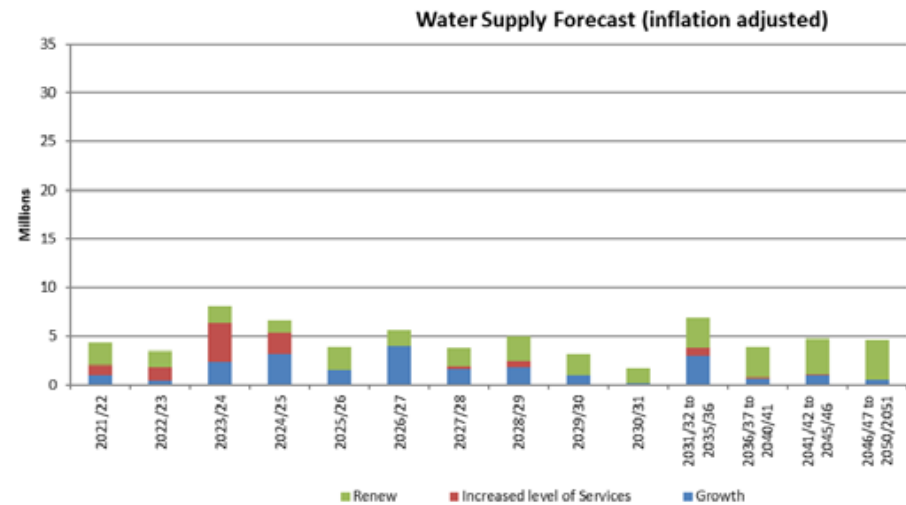

























Table 4.1 Significant Water Supply capital projects

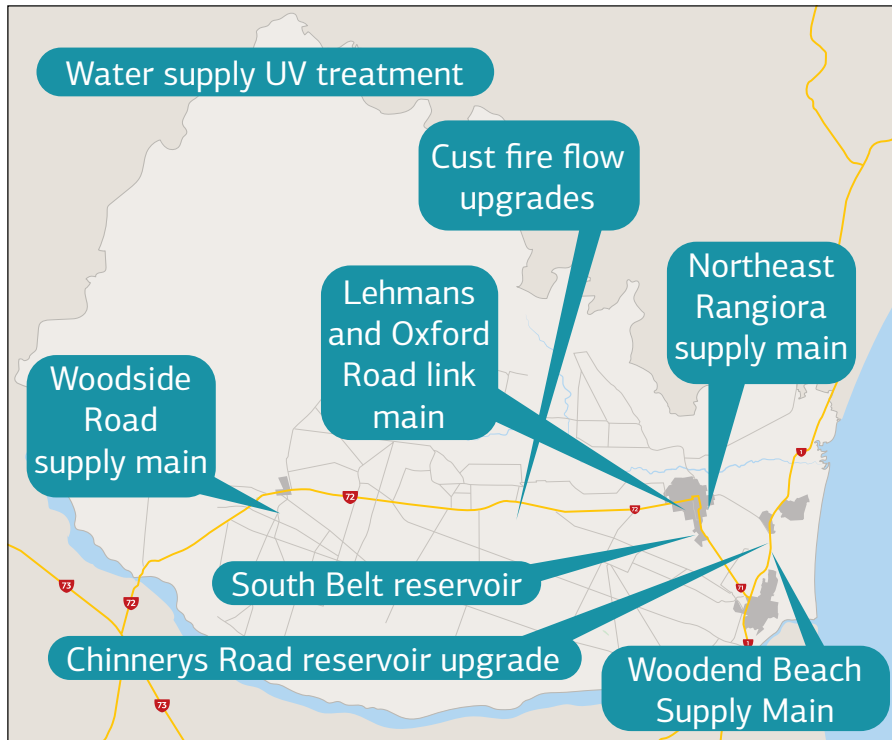
Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Operational Limitations	Including a provisional budget for the implementation of ultra-violet treatment for all District water supplies currently without UV treatment. (In response to the Havelock North water supply inquiry recommendations)	The Council will be financially ready to meet any legislative requirements to improve treatment of drinking water. Council will also be in a position to decide to proceed with the UV implementation independently of legislation should it choose to do so	\$6.4m	2021-2025		✓	
	Linkages     SDG 3, 6, 11						
	Assumptions	<ul style="list-style-type: none"> That the outcome of the Havelock North water supply inquiry will be legislation requiring councils to meet higher standards of treatment for drinking water supplies 					
	Alternative option/s	<ul style="list-style-type: none"> Alternative options that could be considered will depend on the Government's response to the inquiry recommendations In 2018, Council engaged Beca to investigate options to meet future drinking water standards, following recommendations from the Havelock North Drinking Water Inquiry Stage 2 report. A preliminary assessment report was produced which considered alternative treatment methods to UV disinfection, such as ozone. This was ruled out early in the investigation as it is generally more expensive than UV, unless there is a requirement to treat for more than just protozoa It is understood that if Council's supplies are required to be chlorinated (i.e. applications for exemptions to chlorination, that will be likely to be required when the Water Services Bill is enacted, are unsuccessful), then UV disinfection may not be required in addition to chlorine. Therefore, while not the first choice because of aesthetic issues, in this situation chlorine may be a viable alternative to UV disinfection. Following the establishment of Taumata Arowai, and the next revision of the standards being published (expected in 2021), the Council will work with Taumata Arowai to identify the best option to meet future requirements, before progressing into the construction phase 					
Water System Capacity	South Belt Reservoir in Rangiora	Ensures emergency storage requirements are met, and growth is catered for	\$3.1m	2026-2027	✓		
	Linkages     SDG 3, 6, 11						
	Assumptions	<ul style="list-style-type: none"> The adopted growth assumptions will eventuate 					
	Alternative option/s	<ul style="list-style-type: none"> Ayers Street could be an alternative site, however, South Belt is the preferred option as it is the primary headworks and land is available there 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Water System Capacity	Northeast Rangiora supply main	Services growth in the east of Rangiora through the construction of a new main	\$1.2m	2023-2025	✓		
	Linkages    SDG 3, 6, 11						
	Assumptions	<ul style="list-style-type: none"> The adopted growth assumptions will eventuate 					
	Alternative option/s	<ul style="list-style-type: none"> Existing network consideration determines that this is the obvious pipe route to service this area 					
Water System Capacity	Lehmans and Oxford Road link main	Allows for growth to the west of Rangiora	\$1.2m	2027-2028	✓		
	Linkages    SDG 3, 6, 11						
	Assumptions	<ul style="list-style-type: none"> The adopted growth assumptions will eventuate 					
	Alternative option/s	<ul style="list-style-type: none"> The configuration of the existing network makes this the obvious pipe route to service this area 					
Water System Capacity	Cust fire flow upgrades	Allows full fire flows to be provided in Cust in accordance with the firefighting code of practice	\$1.3m	2033-2038		✓	
	Linkages     SDG 3, 11						
	Assumptions	<ul style="list-style-type: none"> The funding/rating impact is manageable 					
	Alternative option/s	<ul style="list-style-type: none"> Full fire flows do not have to be provided as the code is voluntary and some other small areas do not have full firefighting capacity. The approach will need to be decided after consultation is carried out 					
Water System Capacity	Woodside Road Supply Main - Oxford	Allows for additional connections to the scheme	\$1.8m	2034-2035		✓	
	Linkages    SDG 3, 6, 11						
	Assumptions	<ul style="list-style-type: none"> The adopted growth assumptions will eventuate 					
	Alternative option/s	<ul style="list-style-type: none"> No alternatives are available due to the locations of existing reservoirs and this is the key pipe route from source to the Gammans Road Reservoir 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Availability of Reticulated Water	Woodend Beach Supply Main	Provides a reticulated water supply to this area	\$2.3m	2034-2035	✓		
	Linkages  SDG 3, 6, 11						
	Assumptions	<ul style="list-style-type: none"> That the outcome of the Havelock North water supply inquiry will be legislation requiring councils to meet higher standards of treatment for drinking water supplies 					
	Alternative option/s	<ul style="list-style-type: none"> Alternative options that could be considered will depend on the Government's response to the inquiry recommendations 					
Water System Capacity	Chinnerys Road reservoir upgrade	Ensures emergency storage requirements are met, and growth is catered for	\$2m	2032-2033	✓		
	Linkages  SDG 3, 6, 11						
	Assumptions	<ul style="list-style-type: none"> The adopted growth assumptions will eventuate 					
	Alternative option/s	<ul style="list-style-type: none"> Additional storage could be provided at Pegasus, however, this site is preferred because of land availability and predicted growth patterns 					

Upgrades to water supplies are also included in the Stimulus construction package included in section 4.2.1. These are as follows:

- Poyntzs Road water upgrade
- Ohoka water storage upgrade
- West Eyreton and Summerhill storage upgrade
- Tuahiwi water upgrade.



4.1.2 Water Supply replacement programme

Figure 4.3 150 year replacement cost forecast for Water Supply (in 2021 \$)

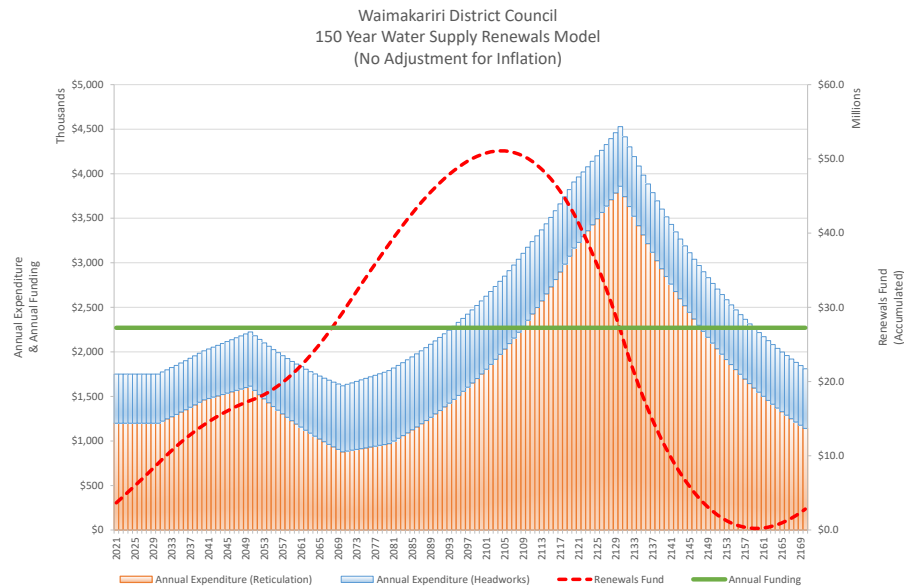


Figure 4.3 represents the 150 year replacement forecast for water supply, based on the Council's renewals model. The model relies upon an accurate understanding of expected useful life of each asset. As the understanding of useful life has improved through the burst history analysis (described in the Water Supply Overview Activity Management Plan), the renewals model is now able to better forecast which assets are required to be renewed within a certain time period. This helps ensure the optimum balance is achieved between assets being left in service longer than they should be, leading to unacceptable failure rates, versus assets being replaced prematurely and not realising their full value.

It can be seen that with the average asset age being relatively new, the rate of renewals remains relatively stable between now and 2070, before increasing to a peak in approximately 2130. Pipes being renewed in early years generally

includes asbestos cement (AC) pipe that is now reaching the end of its useful life, as well as some early generation plastic (PE and PVC) pipes.

The graph includes all asset class renewals, not just pipes. Reservoirs, pump stations, water supply headworks etc, some of which will go through a number of lifecycles over the 150 year period are all included, which explains the peak in 2049.

Figure 4.4 150 year replacement cost forecast for Stock Water (in 2021 \$)

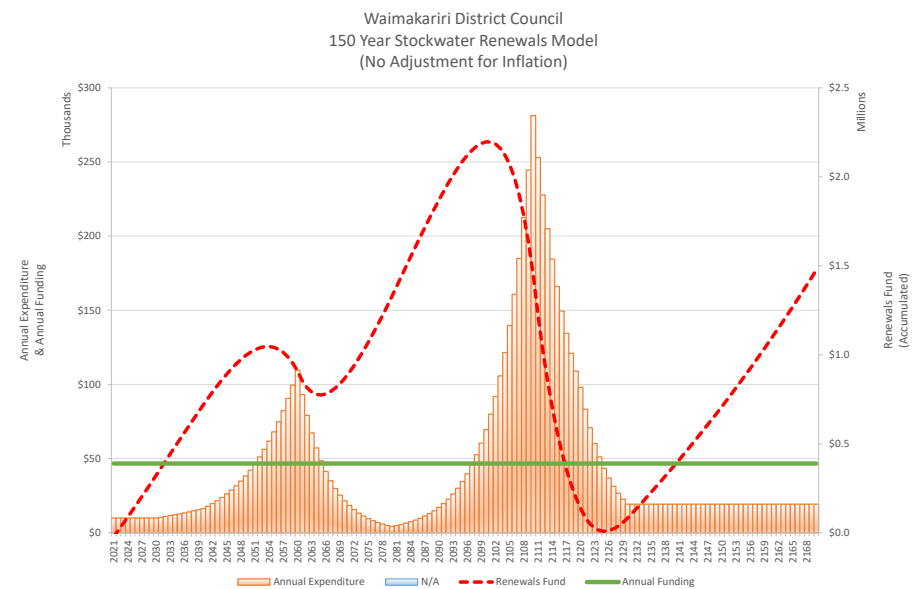


Figure 4.4 shows the replacement forecast for stock water. Depreciation is set at a level to fully fund future renewals which means the fund builds up around the turn of the century and the peak of renewals occurs shortly thereafter. This is not considered to be a significant issue as the annual expenditure and funding level for renewals is relatively small.

4.2 Wastewater



Principal goal: To provide reliable and efficient wastewater treatment plants of sufficient capacity to cater for growth and to minimise harm to the environment from the discharge of contaminants to ground, water or air.



There is a healthy and sustainable environment for all

UN SDG 6, 11, 12, 13, 15



Core utility services are sustainable, resilient, affordable; and provided in a timely-manner

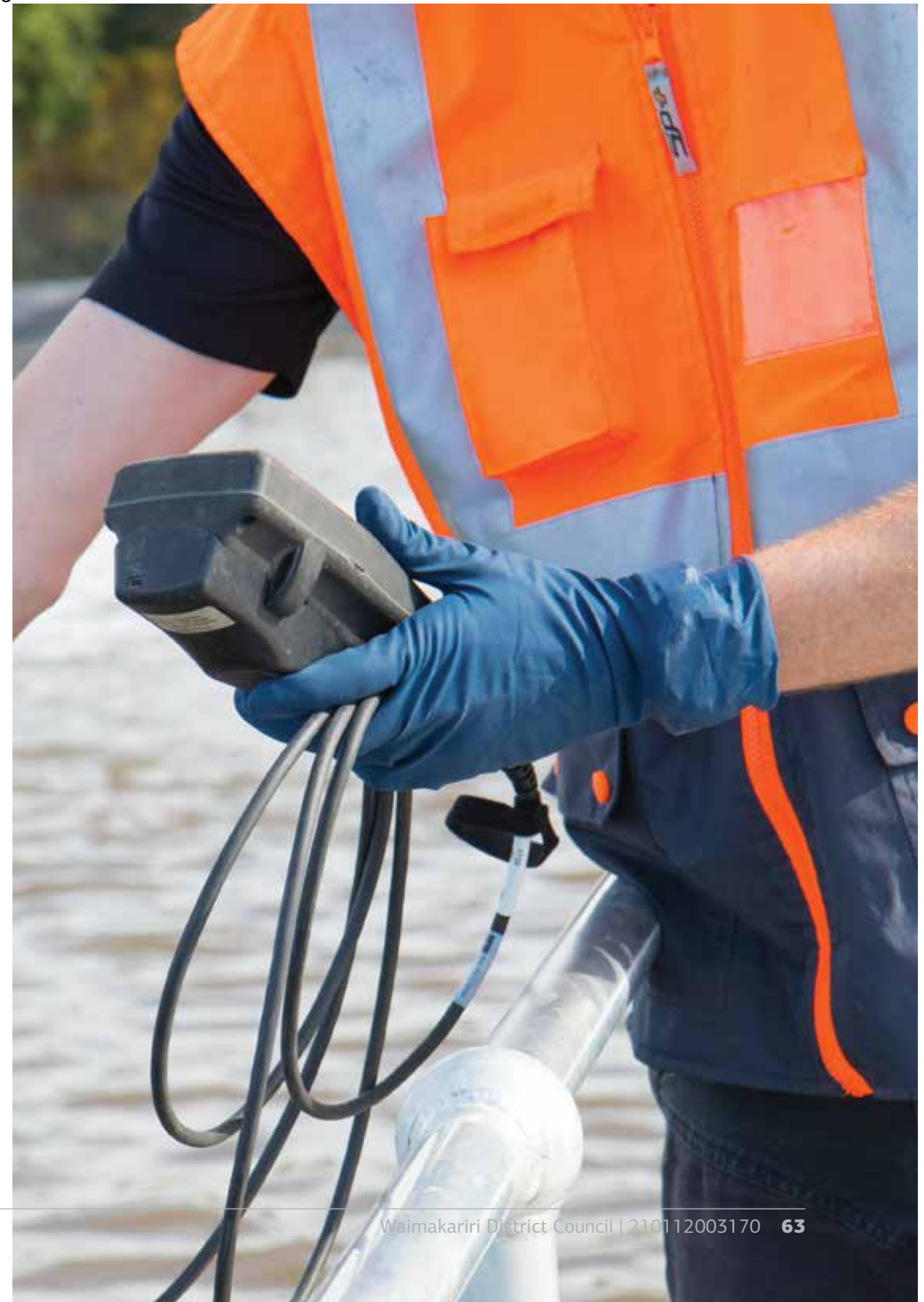
UN SDG 6, 7, 9, 11, 12, 13, 15



Extent	Asset
11 urban schemes	
2 rural schemes	
7	Treatment plants
52	Pump stations
223.5km	Piped gravity networks
147.4km	Piped pressure networks

The Council provides wastewater services via four separate network schemes that collectively enable the disposal of sewage from 17,106 properties in the District, or approximately 66% of the population. Just over 16,155 of these properties are connected to the Eastern District Sewer Scheme (EDSS) which provides for nine towns and settlements in the eastern part of the District, and disposes of effluent via a 1.5km ocean outfall.

Total value of assets: \$296.7m (Depreciated replacement cost - 30 June 2020)



4.2.1 Wastewater capital works programme

Figure 4.5 shows replacements make up the majority of the capital expenditure over the next 30 years associated with the wastewater infrastructure assets.

Figure 4.6 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2031/32 and 2046/51 are the average annual expenditure over that period.

Individual significant projects contributing to the 2021/22 year spend are continuation of the central Rangiora capacity upgrade and the Rangiora septage facility. The relatively high expenditure in the 2025/26 and 2028/29 financial years, relates principally to the Kaiapoi capacity upgrade project, pipe renewals and the new oxidation pond at the Woodend Treatment Plant.



Figure 4.5 Type of Capital Expenditure - Wastewater

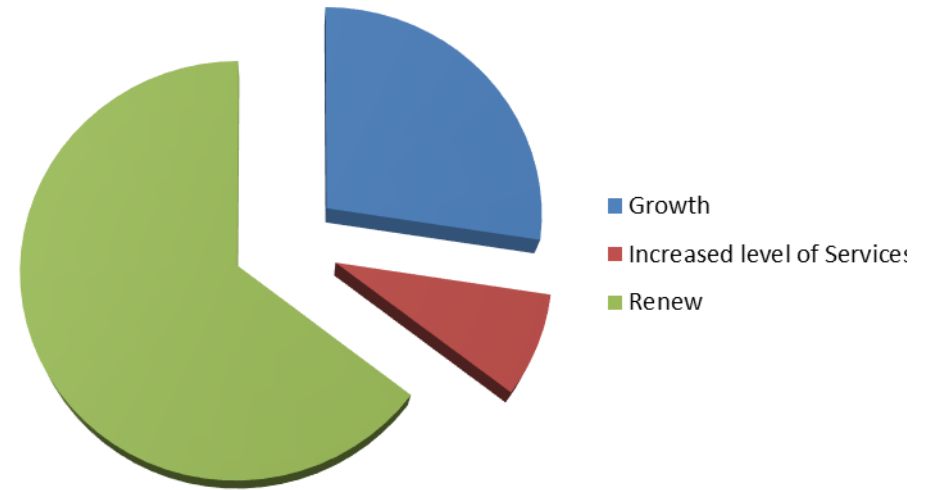


Figure 4.6 Projected Capital Expenditure - Wastewater

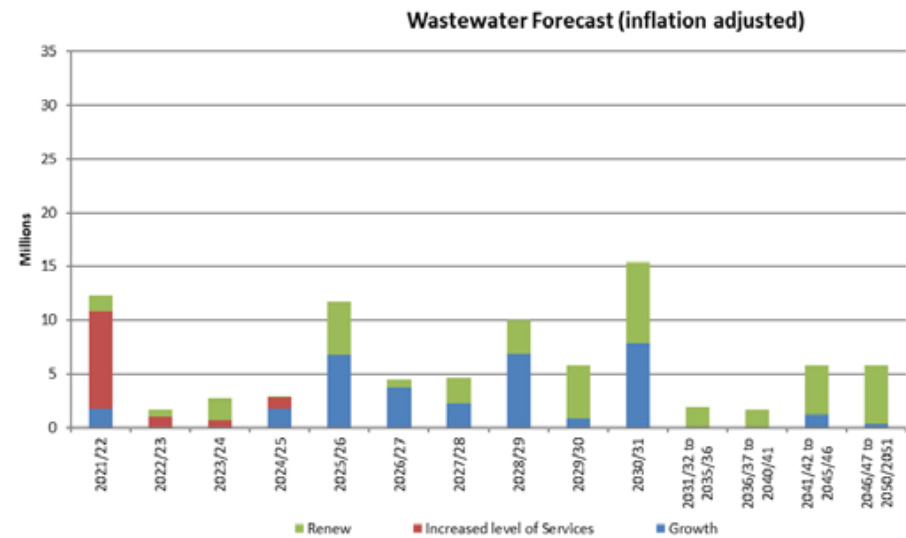









Table 4.2 Significant Wastewater capital projects

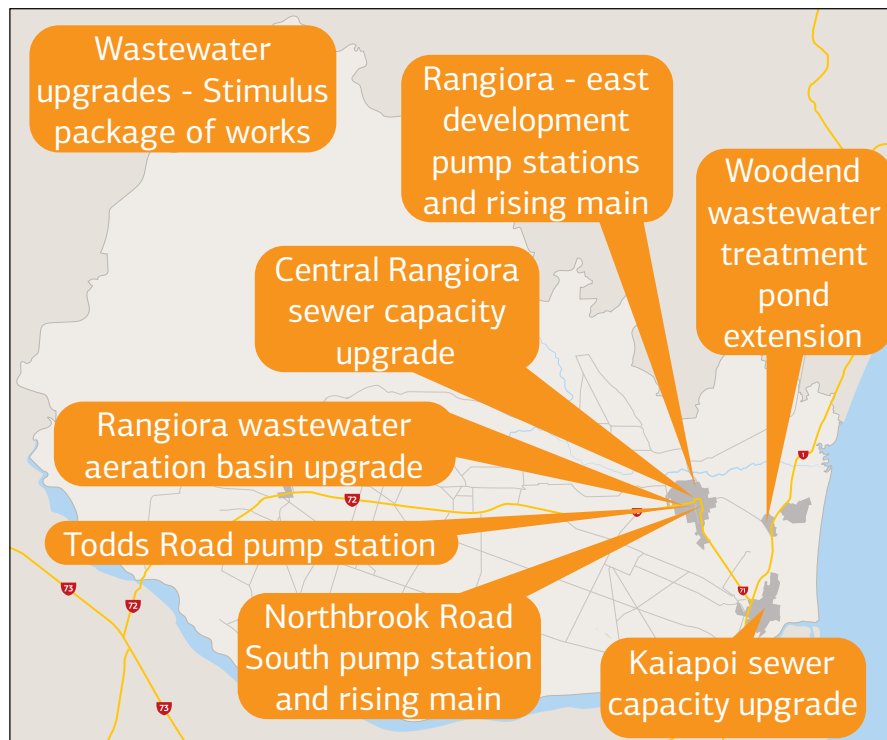
Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Wastewater Network Capacity and Legal Compliance	Central Rangiora sewer capacity upgrade	Meet levels of service, provide capacity for growth, improve environmental outcomes by reducing wastewater overflows, and replace some aging pipework	\$5.8m	2021-2052	✓	✓	✓
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Growth will continue as forecast, and the programmed works are sufficient to achieve the level of service by 2025 					
	Alternative option/s	<ul style="list-style-type: none"> This project has already started and the options report is Trim 150408055023 Delay carrying out all of the network upgrades don't meet levels of service and acknowledge the corresponding delay in improving environmental and health risk outcomes 					
Wastewater Network Capacity and Legal Compliance	Kaiapoi sewer capacity upgrade	Meet levels of service, provide capacity for growth, and improve environmental outcomes by reducing wastewater overflows	\$18.2m	2024-2031	✓	✓	✓
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Modelling of network deficiencies confirms the estimated budget, and indicative timeframe is appropriate 					
	Alternative option/s	<ul style="list-style-type: none"> Years 1 to 3 of this project involve assessing options and selecting a strategy which will confirm capital costs. The outcome will depend on the catchment Infiltration and Inflow investigations network modelling to be completed in 2021 					
Legal Compliance	Rangiora and Woodend wastewater treatment plant upgrades	Ensure consent compliance with additional loading on treatment plants.	\$4.0m (Rangiora aeration basin) \$2.5m (Woodend treatment pond extension)	2024-2027 2029-2031	✓		
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Growth on the network will proceed as forecast 					
	Alternative option/s	<ul style="list-style-type: none"> An options report for this project was completed in 2015. Refer to Trim 151022144521 If growth in serviced properties is slower than projected, the upgrade may be deferred 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Wastewater Network Capacity, Legal Compliance and Affordability	*Stimulus package of works	Meet levels of service, provide capacity for growth, and improve environmental outcomes by reducing wastewater overflows.	\$10.4m	2020-2022	✓	✓	✓
	Linkages	 UN SDG 3, 6, 9, 11					
	Assumptions	<ul style="list-style-type: none"> Growth will continue as forecast 					
	Alternative option/s	<ul style="list-style-type: none"> Fail to meet level of service High operating costs for Loburn Lea, Fernside and Oxford 					
Wastewater Network Capacity and Legal Compliance	Rangiora - east development pump station and rising main	Services development in east Rangiora	\$3.7m	2041-2042	✓		
	Linkages	 UN SDG 3, 6, 11, 15					
	Assumptions	<ul style="list-style-type: none"> Growth will continue as forecasted 					
	Alternative option/s	<ul style="list-style-type: none"> Delay network upgrades, don't meet levels of service and acknowledge the corresponding delay in improving environmental and health risk outcomes 					
Wastewater Network Capacity and Legal Compliance	Todds Road pump station	Services future development in the Todds Road area	\$2.7m	2028-2029	✓		
	Linkages	 UN SDG 3, 6, 11, 15					
	Assumptions	<ul style="list-style-type: none"> Growth will continue as forecasted 					
	Alternative option/s	<ul style="list-style-type: none"> Delay network upgrades, don't meet levels of service and acknowledge the corresponding delay in improving environmental and health risk outcomes 					
Wastewater Network Capacity and Legal Compliance	Northbrook Road south pump station and rising main	Services development in East Rangiora	\$1.6m	2025-2026	✓		
	Linkages	 UN SDG 3, 6, 11, 15					
	Assumptions	<ul style="list-style-type: none"> Growth will continue as forecasted 					
	Alternative option/s	<ul style="list-style-type: none"> Delay network upgrades, don't meet levels of service and acknowledge the corresponding delay in improving environmental and health risk outcomes 					

The following Wastewater construction packages are included in the Stimulus programme of work agreed to by the Council in 2020 as part of the Government's Covid-19 recovery response:

- Loburn Lea sewer upgrade
- Tuahiwi sewer upgrade/extension & water extension
- Fernside sewer upgrade
- Oxford wastewater upgrade
- Central Rangiora sewer upgrade Stage 5A.

Work started in 2020 due to the tight time frame required for expenditure.

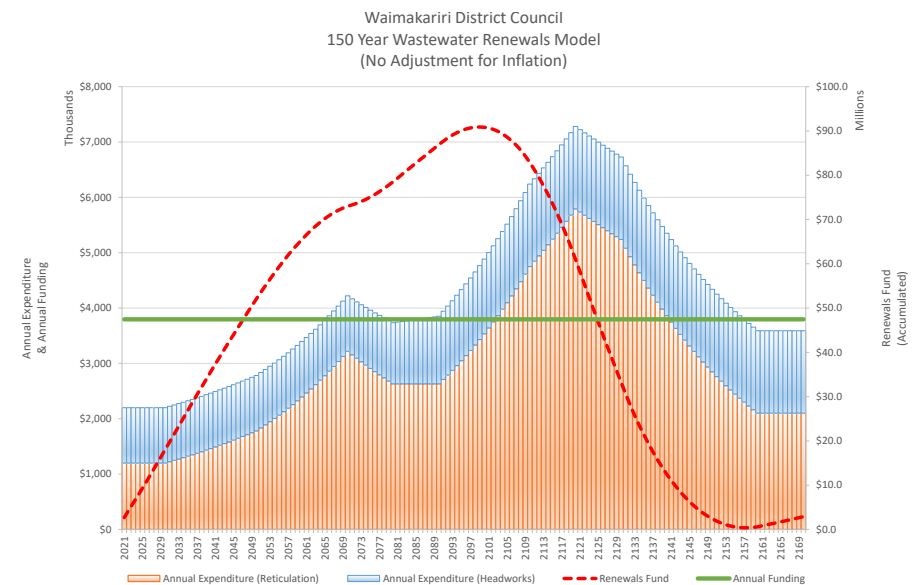


4.2.2 Wastewater replacement programme

The 150 year replacement forecast for wastewater in figure 4.7 shows the required risk-based renewals expenditure across all the wastewater supply schemes to ensure current levels of service continue to be met. Within the next 30 years the programme of renewals includes assets installed in the 1930s which are reaching the end of their useful lives. Pipe assets selected for the renewals programme will be assessed for rehabilitation where this is suitable or alternatively, they will be fully renewed.

The rise in expenditure from 2070 to the peak in 2120 relates to the end of life of the assets constructed with the development of Pegasus Town, the Rangiora supply upgrade, and the post-Canterbury earthquakes growth.

Figure 4.7 150 year replacement cost forecast for Wastewater (in 2021 \$)





4.3 Stormwater



Principal goal: To develop public drainage infrastructure that is effective and efficient in reducing risks of flooding to residential areas and business zones, to an acceptable level and at an affordable cost.



There is a healthy and sustainable environment for all

UN SDG 6, 11, 12, 13, 15



Core utility services are sustainable, resilient, affordable; and provided in a timely-manner

UN SDG 6, 7, 9, 11, 12, 13, 15



Extent	Asset
49	Basins
288.1km	Open drains and waterways
107.3km	Piped stormwater networks
10	Stormwater pump stations
7	Treatment devices

There are seven rural and five urban rated drainage areas within the District. Together the 12 drainage schemes cover approximately 10% of the District's land area but service approximately 90 % of the District's population. The Council has piped stormwater networks in the urban areas and maintains drains and waterways in rural areas.

Total value of assets: \$117.6m (Depreciated replacement cost - 30 June 2020)

4.3.1 Stormwater capital works programme

Figure 4.8 shows that the majority of the capital expenditure over the next 30 years is associated with increasing levels of service.

Figure 4.9 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2031/32 to 2046/51 are the average annual expenditure over that period.

The high level of service expenditure showing in 2021/22 relates to significant improvements in the Kaiapoi stormwater network. Government funding of ‘shovel ready’ projects has enabled these previously planned works to be brought forward.

The subsequent nine years of moderate level of service expenditure relates to ongoing flood mitigation and protection works triggered by the 2014 and 2017 storm events, as well as general ongoing stormwater improvements. Larger projects within that timeframe, and typically spread over a number of years are the Dockey Creek overflow diversion, the West Belt overflow pipe, a long term solution for managing resurgence flows at Mandeville, Kaiapoi, and Oxford, Rangiora water quality improvement works, and improved stormwater treatment for the North Drain catchment.

Figure 4.8 Type of Capital Expenditure - Stormwater

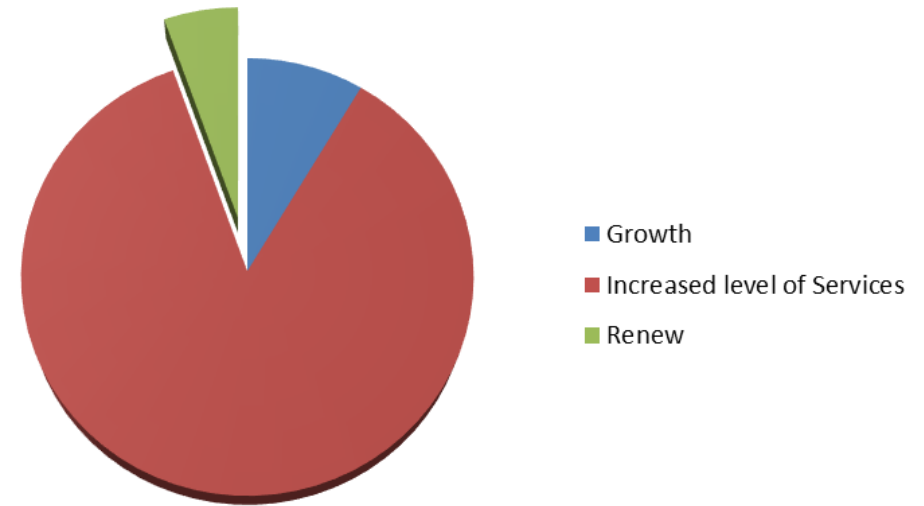


Figure 4.9 Projected Capital Expenditure - Stormwater

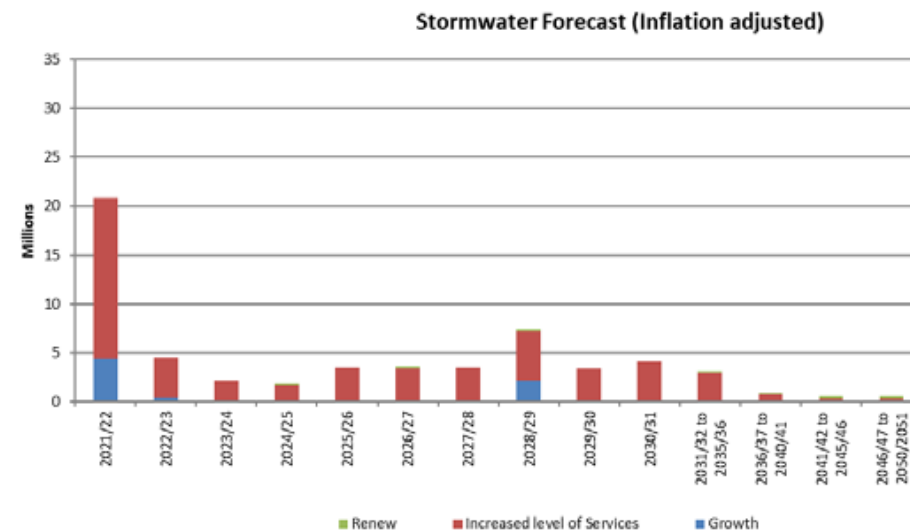
















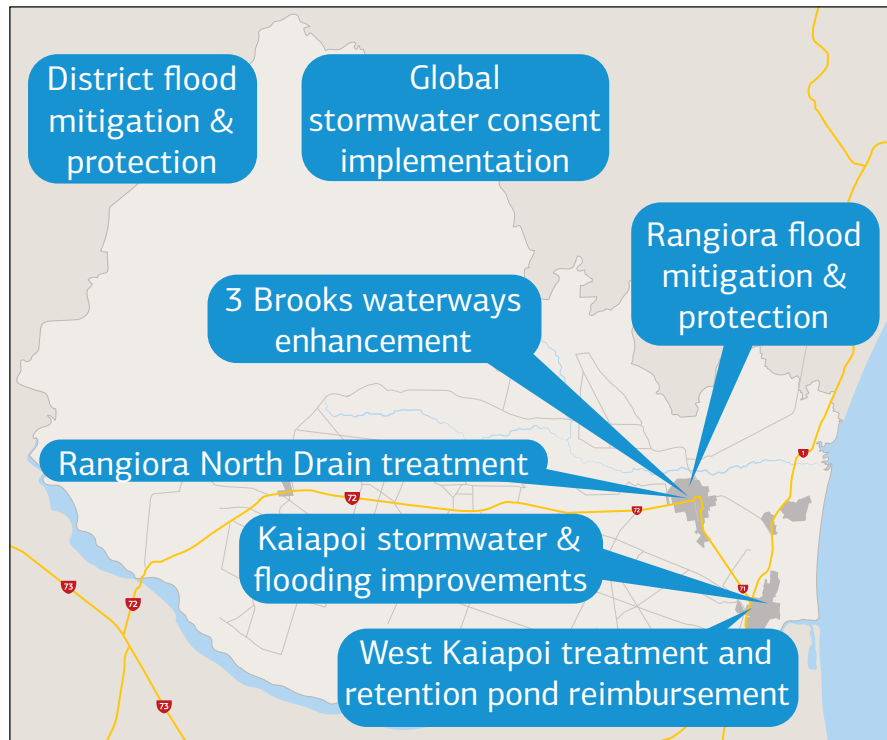
Table 4.3 Significant Stormwater capital projects

Issue	What are we doing?	What is the benefit?	How much will it cost in cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Legal Compliance	Global stormwater consent implementation	Meet requirements of the Land and Water Regional Plan, and improve environmental outcomes for waterways	\$21.4m provided (final estimated cost uncertain until consent is issued)	2025-2037		✓	
	Linkages	 UN SDG 11, 13, 15					
	Assumptions	<ul style="list-style-type: none"> Ecan accepts the proposed approach of developing a costed strategy between 2021 and 2025, and that full implementation will be a long term process 					
	Alternative option/s	<ul style="list-style-type: none"> Develop and trial affordable approaches to stormwater management and treatment in collaboration with Ecan, Ngāi Tahu and other industry and community stakeholders 					
Stormwater Network Capacity	Flood mitigation and protection programme of works	Protection of public and private property	\$2.7m (Rangiora) \$4m (rest of District)	2021-2026 2022-2028		✓	
	Linkages	 UN SDG 9, 11, 13					
	Assumptions	<ul style="list-style-type: none"> The Flood Team investigations to date have determined and made provision for the most cost-effective and practicable option to address each issue 					
	Alternative option/s	<ul style="list-style-type: none"> Both of these programmes of work are Council's response to flooding events in 2014 and 2017, and have been ongoing for some time Further investigations identify other options that could alleviate known flooding issues Maintain current levels of flood mitigation and protection 					
Stormwater Network Capacity	Covid-19 Shovel Ready programme of works*	Protection of public and private property	\$18.1m (Total project cost \$18.1m. \$9.1m Council's share, \$9.0m Government Shovel Ready projects funding)	2020-2023		✓	
	Linkages	 UN SDG 9, 11, 13					
	Assumptions	<ul style="list-style-type: none"> Current project team work will deliver the most cost-effective and practicable option to address the Kaiapoi flooding risk 					
	Alternative option/s	<ul style="list-style-type: none"> Maintain current levels of flood mitigation and protection 					

Issue	What are we doing?	What is the benefit?	How much will it cost in cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Stormwater Network Capacity	Three Brooks Waterways Enhancement	Maintain/upgrade current assets to ensure LOS is maintained	\$2.3m	2021-2031			
	Linkages	   SDG 9, 11, 15					
	Assumptions	<ul style="list-style-type: none"> The asset condition survey carried out is accurate, and repair recommendations appropriate 					
	Alternative option/s	<ul style="list-style-type: none"> Three options of intervention have been considered and reported upon. Leaving assets to further deteriorate would risk asset collapse and put LOS at risk 					
Legal Compliance	Rangiora North Drain treatment	Treatment of stormwater prior to discharge to receiving waters, in anticipation of consent requirements	\$1.1m	2022-2026			
	Linkages	   SDG 11, 13, 15					
	Assumptions	<ul style="list-style-type: none"> Ecan accepts the proposed approach of developing a costed strategy between 2021 and 2025, and that acceptable treatment can be achieved within this budget envelope 					
	Alternative option/s	<ul style="list-style-type: none"> Treatment options have yet to be considered. Outcomes from the stormwater management and treatment trials for the Global stormwater consent may be useful in determining the final design 					
Stormwater Network Capacity	Land purchase reimbursement for West Kaiapoi treatment and retention pond (Silverstream)	Treatment of stormwater from an existing residential area, prior to discharge, using a developer-led treatment pond	\$2.1m	2021-2022			
	Linkages	   SDG 11, 13, 15					
	Assumptions	<ul style="list-style-type: none"> That the developer's design is effective in achieving expected outcomes 					
	Alternative option/s	<ul style="list-style-type: none"> This project is part of a development agreement Council carries out its own separate pond development although this would be a less efficient alternative Not address the issue at this point in time, however, a delay would be likely to result in later consent discharge consent compliance issues, and higher costs 					

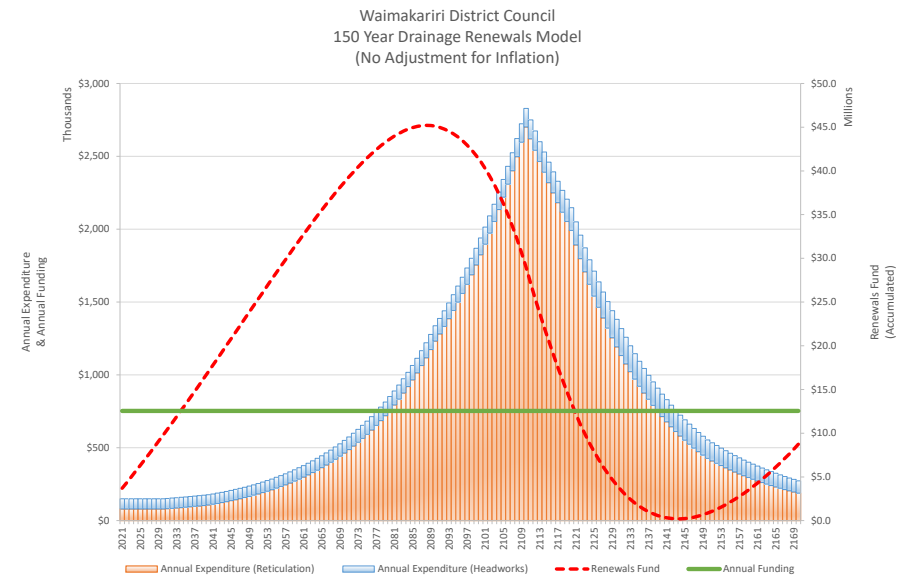
*Shovel ready programme of Kaiapoi stormwater @ flooding improvements includes McIntosh/Feldwick drainage concept and Parnham/Dudley concept.

Work started in 2020 due to the tight timeframe for expenditure



4.3.2 Stormwater replacement programme

Figure 4.10 150 year replacement cost forecast for Stormwater (in 2021 \$)



The 150 year replacement forecast for drainage in figure 4.10 shows the required risk-based renewals expenditure across all drainage schemes to ensure current levels of service continue to be met. Stormwater assets are relatively young compared to water and wastewater as generally it was not until the 1990's that full stormwater systems were installed with development. This means that the peak renewals period is a long way into the future.

The peak showing around 2110 relates to the end of life of assets in recent development such as Pegasus Town.

As for wastewater, a number of early stormwater mains were laid at the back of residential properties, rather than in public roads, and will present some challenges when they are to be replaced. Realignment into the road reserve, or the use of alternative technologies such as relining, which can extend the life of pipes by 50 years or more, may be required.

4.4 Roads and Footpaths



Principal goal: To plan, develop, operate, maintain and improve the District's transport infrastructure, delivering an affordable, integrated, safe, responsive and sustainable transport network.



There is a safe environment for all

UN SDG 3, 13.



Transport is accessible, convenient, reliable and sustainable

UN SDG 9, 11, 12



Extent	Asset
288	Bridges
20	Bus shelters
26	Bus stop seats
5,404	Streetlights
16,926	Traffic facilities
359km	Footpaths
18km	On and off road cycleways
970km	Sealed road
585km	Unsealed road

Total value of assets: \$1.0B (Depreciated replacement cost - 30 June 2020)



4.4.1 Roads and Footpaths capital works programme

Figure 4.11 shows that the majority of the capital expenditure over the next 30 years is associated with growth. Level of service increases remain a consistently minor component of the work required throughout the period.

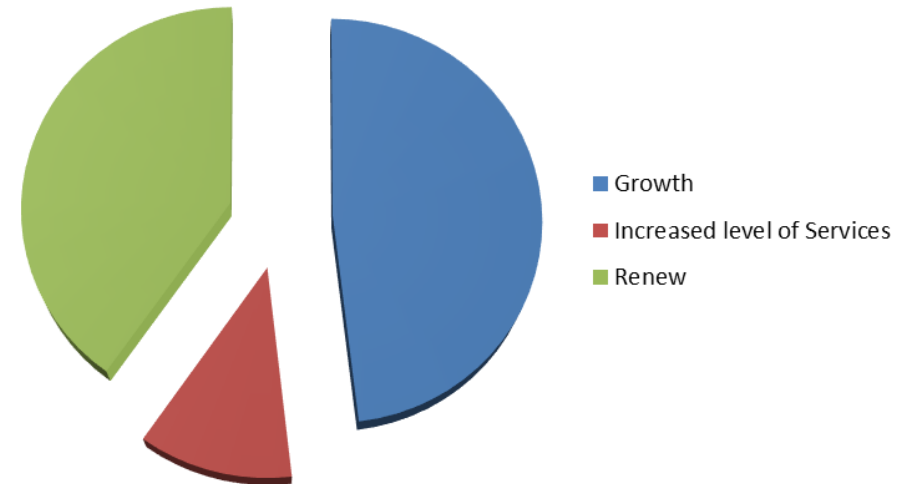
Figure 4.12 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2031/32 to 2046/51 are the average annual expenditure over that period.

Capital expenditure is anticipated to peak in 2029/30 and 2030/31 primarily due to the planned replacement of Skew Bridge, construction of the North-West Rangiora Collector Road (River Rd to Lehmans Rd), the Rangiora Town Centre parking building, Ravenswood Park and Ride, and the continuation of a number of route improvements commencing in earlier years.

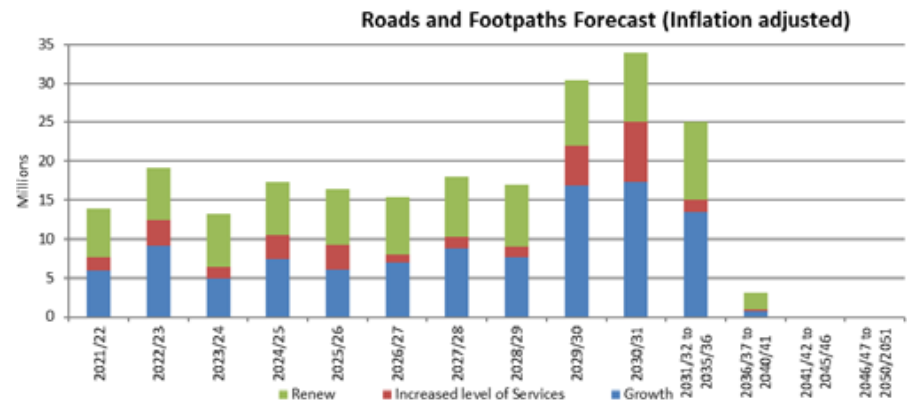
The cost of renewals also increases gradually over time, however, this is mainly because of inflation, as most renewal activity is smoothed, with large bridge renewal being the exception.



Figures 4.11 Type of Capital Expenditure - Roads and Footpaths




Figures 4.12 Projected Capital Expenditure - Roads and Footpaths







<p>NW bypass connecting River and Lehmans Roads</p> <p>New Rangiora eastern arterial</p> <p>Southbrook Road/Torlesse Street traffic lights</p> <p>West Rangiora route safety upgrade</p> <p>Keir Street road connection</p> <p>Southbrook Road improvements</p> <p>Rangiora/Woodend Road improvements</p> <p>Oxford Road/Lehmans Road roundabout</p> <p>Park 'n' ride infrastructure Rangiora</p> <p>Marsh Road/Railway Road intersection</p>
<p>Park 'n' ride infrastructure Kaiapoi</p> <p>Kaiapoi to Woodend Cycleway</p> <p>Old Waimakarari bridge replacement</p> <p>Williams St south intersection improvements</p> <p>Silverstream Collector Road</p>
<p>Park 'n' ride infrastructure Ravenswood</p>
<p>Woodend Bypass associated improvements</p> <p>North South Road Woodend</p> <p>Woodend East ODP</p>
<p>Tram Road route safety improvements</p>
<p>Ohoka Road intersection improvements</p>
<p>Skewbridge Road alignment/replacement</p>








Table 4.4 Significant Roads and Footpaths capital projects




Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Improving transport options	Park 'n' ride infrastructure	More public transport users means more cost-effective use of roading facilities	\$1.5m Rangiora & Kaiapoi	2024-2026	✓	✓	
		Reduces congestion and delays on the Northern Motorway approaching Christchurch	\$1.9m Ravenswood	2021-2022 2029-2030	✓	✓	
	Linkages	 UN SDG 3, 9, 11, 12, 13					
Assumptions	<ul style="list-style-type: none"> • People will continue to travel to Christchurch for work and education • The shift to public transport provides more transport options and assists those without a car/and or licence • That the wider Travel Demand Management Programme promoted by the Greater Christchurch partners is successful in changing attitudes and encouraging public transport use 						
Alternative option/s	<ul style="list-style-type: none"> • Provide alternative locations for park 'n' ride in Christchurch. This will not address future capacity issues on the Waimakariri River Bridge • Continue to build road capacity for private vehicles but this is likely to be prohibitively expensive • NZTA/Christchurch City Council provide this infrastructure instead of the Waimakariri District Council • The nature of the expenditure will be determined prior to design and construction based on observed usage and behaviour, and on mitigating any associated deficiencies. Expenditure for Rangiora and Kaiapoi may be on such items as expanding the parking, improving the user facilities, or considering alternative locations. The expenditure at Ravenswood is firstly to procure land, and then to construct a facility. The options for the location of this facility are still being worked through, and the options for the type of facility will depend on location, usage etc. as above 						





Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Improving transport options	Kaiapoi to Woodend Cycleway	Encourages more people to travel by bike between the two towns, reducing the number of road users, improving community health, and providing recreational opportunities while keeping cyclists safe	\$2.2m	2031-2033	✓	✓	
	Linkages	 UN SDG 3, 9, 11, 12, 13					
	Assumptions	<ul style="list-style-type: none"> An acceptable route is found to allow the cycleway to be completed 					
	Alternative option/s	<ul style="list-style-type: none"> Provide better public transport for commuters 					
Roading Connections	NW bypass connecting River and Lehman's Roads	<p>Helps to mitigate the impacts of traffic growth on a residential area. Heavy vehicles on West Belt result in loss of amenity and safety and this will help to redirect more of that traffic</p> <p>It also extends the alternative route between north-west Rangiora and the Fernside Road/ Flaxton Road/ Skewbridge route, reducing congestion on the existing Southbrook Road/ Lineside Road route</p>	\$2.2m	2030-2031	✓	✓	
	Linkages	 UN SDG 9, 11					
	Assumptions	<ul style="list-style-type: none"> The land will be able to be acquired The bypass will be able to accommodate increased traffic volumes Other improvements to Fernside Road/ Flaxton Road/ Skewbridge route proceed 					
	Alternative option/s	<ul style="list-style-type: none"> Smooth existing road, but this is not a long term solution as sealed surfaces degenerate The sealing of River Road is also not a long term solution as it: <ul style="list-style-type: none"> does not readily connect to the residential area in north-west Rangiora has a narrow formation and number of tight curves. This road alignment is not suitable for large numbers of heavy vehicles 					




Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Rooding Connections	New eastern arterial in Rangiora	Manages impacts of growth Reduces traffic congestion on Southbrook Road	\$21m	2035-2036	✓		
	Linkages	 UN SDG 9, 11					
	Assumptions	<ul style="list-style-type: none"> Land is available for any road building/widening required 					
	Alternative option/s	<ul style="list-style-type: none"> Further optimise existing network eg: direct traffic to existing Woodend network. A significant proportion of traffic on Southbrook Road has an origin or destination within Southbrook, rather than travelling on SH71 (Lineside Road) and providing alternatives will lower the volume on Southbrook Road itself 					
Rooding Connections	Old Waimakariri Bridge replacement	Ensures continuity of service by replacing aging infrastructure Provides better level of service for pedestrians and cyclists	\$6.1 m (Council's share)	2040-2041		✓	✓
	Linkages	 UN SDG 3, 9, 11					
	Assumptions	<ul style="list-style-type: none"> The bridge life lasts until replacement funding is available CCC and NZTA will approve funding for their share of the replacement 					
	Alternative option/s	<ul style="list-style-type: none"> Extend the life of the bridge by carrying out more major maintenance and strengthening work although this option will only delay the need for replacement 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Road Safety Improvements	Skew Bridge realignment/ replacement, including associated road improvements	Reducing crash/injury risk due to poor alignment and high traffic volumes Encouraging more traffic to travel via the western route rather than Southbrook Road	\$11m	2028-2031	✓	✓	✓
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Traffic volumes on the route will continue to grow, justifying the replacement 					
	Alternative option/s	<ul style="list-style-type: none"> Provide signs to give warning and guidance to drivers but this will only partially mitigate the risk Encourage use of alternative routes such as Southbrook and Lineside Road. This will exacerbate existing capacity issues on this route 					
Road Safety Improvements	Southbrook Road/Torlesse Street traffic lights	Safer environment for school children crossing Southbrook Road, and for cars entering and exiting the side roads in the vicinity of the school	\$1.8m	2021-2023	✓	✓	
	Linkages						
	Assumptions	<ul style="list-style-type: none"> NZTA will provide funding assistance 					
	Alternative option/s	<ul style="list-style-type: none"> The preferred option was chosen because it is safest for pedestrians, minimises congestion for through traffic, and benefits the wider network the most A pelican crossing would assist children but not cars trying to access the school Provide traffic lights at the Southbrook Road/Denches Road intersection or at the existing Kea crossing 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Road Safety Improvements	West Rangiora route safety upgrade	Lower risk of crashes due to road being engineered originally for a much lower volume and no longer fit for purpose. This in turn will encourage some traffic away from Southbrook Road	\$14.4m	2021-2032	✓	✓	
	Linkages 						
	Assumptions	<ul style="list-style-type: none"> Funding will be available 					
	Alternative option/s	<ul style="list-style-type: none"> A full scheme assessment was carried out that looked at a long-list and short-list range of options for each intersection and mid-block. These were evaluated via a MCA to determine the preferred mitigation for each component 					
Road Safety Improvements	Tram Road route safety improvements	Improving infrastructure and lowering speed limits will reduce the likelihood of fatal and serious crashes occurring	\$12m	2021-2032	✓	✓	
	Linkages 						
	Assumptions	<ul style="list-style-type: none"> Agreement is reached with the public on appropriate speed limits 					
	Alternative option/s	<ul style="list-style-type: none"> Accept lower levels of service 					
Road Safety Improvements	Keir Street Road connection	Linking Blackett St to Keir St across the railway line will provide an alternative to a single congested access	\$5m	2023-2024 2031-2032	✓	✓	
	Linkages 						
	Assumptions	<ul style="list-style-type: none"> The other rail crossing can be closed Satisfactory design agreement is reached with Kiwirail 					
	Alternative option/s	<ul style="list-style-type: none"> Only high level options have been considered at this stage. These include do-nothing, upgrade High Street, or provide a pedestrian only crossing. The actual location, alignment and extent of the crossing currently budgeted will be further refined as part of the preliminary design closer to the time 					

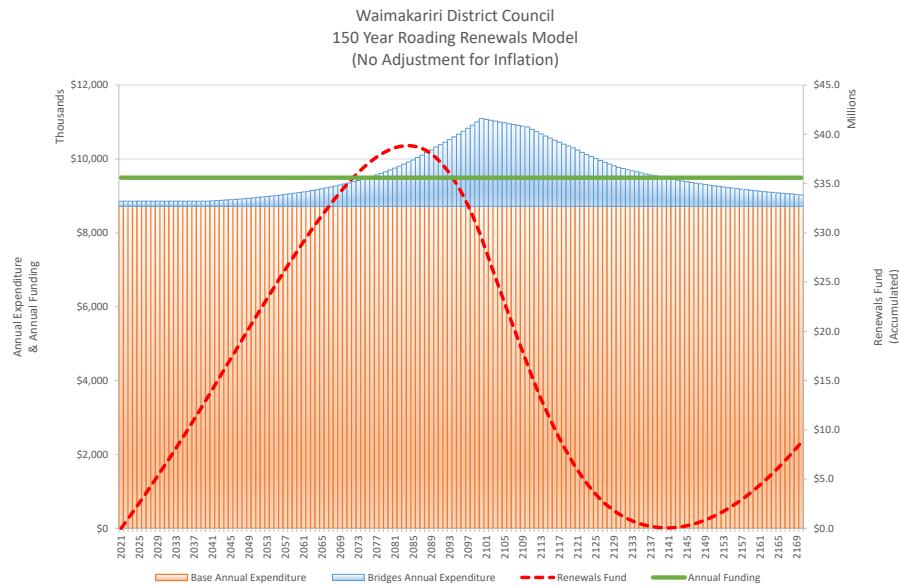
Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Road Safety Improvements	Southbrook Road improvements	Changes to intersection and corridor layout will make travel safer for all users, and provide a more pleasant environment for cyclists and pedestrians	\$4m	2025-2027 2031-2032	✓	✓	
	Linkages	 UN SDG 9, 11					
	Assumptions	<ul style="list-style-type: none"> Agreement is reached with all parties as to the best way forward 					
	Alternative option/s	<ul style="list-style-type: none"> Encourage traffic to divert to other roads Construct Eastern Bypass 					
Road Safety Improvements	Rangiora/Woodend Road improvements	Fewer people are killed or seriously injured	\$2.5m	2023-2028	✓	✓	
	Linkages	 UN SDG 9, 11					
	Assumptions	<ul style="list-style-type: none"> Land can be purchased as required for safety improvements 					
	Alternative option/s	<ul style="list-style-type: none"> This option includes a new roundabout at the Boys Road / Rangiora Road intersection. Other options include different intersection alignments such as realigning Tuahiwi Road onto Boys Road, or advance flashing lights. These have not been chosen as they do not meet the NZTA criteria, and would not remedy the issue. The exact location and size of the roundabout will be determined as part of the preliminary design 					
Road Safety Improvements	Ohoka Road intersection improvements	Safe negotiation of intersection Fewer deaths or serious injuries	\$2.3m	2021-2023 2028-2030	✓	✓	
	Linkages	 UN SDG 9, 11					
	Assumptions	<ul style="list-style-type: none"> Land and funding is available for best option 					
	Alternative option/s	<ul style="list-style-type: none"> This option includes a new roundabout at the Ohoka Road / Island Road intersection. Other options include different intersection alignments such as an improved tee intersection, or advance flashing lights. These have not been chosen as they do not meet NZTA criteria, and they would not remedy the issue. The exact location and size of the roundabout will be determined as part of the preliminary design 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Road Safety Improvements	Oxford Road/Lehmans Road roundabout	Roundabout will form part of the heavy traffic bypass of Rangiora	\$1.2m	2025-2027	✓	✓	
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Land and funding is available 					
	Alternative option/s	<ul style="list-style-type: none"> Introduce thresholding to slow traffic further 					
Road Safety Improvements	Woodend Bypass associated improvements	Improves access to State Highway and user safety	\$1m	2031-2033		✓	
	Linkages						
	Assumptions	<ul style="list-style-type: none"> NZTA will fund the by-pass 					
	Alternative option/s	<ul style="list-style-type: none"> No alternative options because the improvements are part of a partnering project with Waka Kotahi who is building the bypass 					
Road Safety Improvements	Williams Street south intersection improvements	Improves access and user safety	\$2m	2028-2030		✓	
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Traffic continues to increase 					
	Alternative option/s	<ul style="list-style-type: none"> Direct traffic elsewhere. This is not a desirable alternative because it will force arterial road traffic onto low speed residential roads 					
Road Safety Improvements	Marsh Road/Railway Road – intersection improvements	Increases safety	\$1m	2027-2029		✓	
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Land is able to be purchased and the project coordinated with Kiwirail 					
	Alternative option/s	<ul style="list-style-type: none"> Close road over railway crossing and force traffic to go elsewhere. This is not a suitable option because it would increase the pressure on other intersections not designed for the growth in traffic volume 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Road Safety and Amenity	North South Road Woodend	Provides better access	\$1.5m	2027-2032	✓		
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Development will continue as forecast 					
	Alternative option/s	<ul style="list-style-type: none"> The only alternative would be to not carry out these works, or to scale them back in some form, neither of which would provide an effective solution to the identified issues 					
Road Safety and Amenity	Silverstream Collector Road (Adderley-Island)	Improves access to key activity centre	\$1.8m	2021-2022	✓		
	Linkages						
	Assumptions	<ul style="list-style-type: none"> There is no change to Council plans for this area 					
	Alternative option/s	<ul style="list-style-type: none"> The only alternative would be to not carry out these works, or to scale them back in some form, neither of which would provide an effective solution to the identified issues 					
Road Safety and Amenity	Woodend East ODP	Manages impacts of growth	\$2.8m	2022-2027	✓		
	Linkages						
	Assumptions	<ul style="list-style-type: none"> Development will continue as forecast 					
	Alternative option/s	<ul style="list-style-type: none"> The only alternative would be to not carry out these works, or to scale them back in some form, neither of which would provide an effective solution to the identified issues 					

4.4.2 Roads and Footpaths replacement programme

Figure 4.13 150 year replacement cost forecast for Roothing and Footpaths (in 2021 \$)



Roothing and footpath renewals are programmed with the objective of achieving:

- A net benefit to the national and/or local economy from the renewals
- The lowest life-cycle cost for the asset (where it is uneconomic to continue repairing the asset)
- An affordable medium-term cash flow
- Other savings by co-ordinating renewal works with other planned works within the road reserve or adjacent to it
- Reduced risk, including the risk of failure and associated financial and social impacts, and increased risk of crashes, or other health risks.

The roading network has few large scale infrastructure items that would potentially impact on Council budgets, as most replacements are done in sections allowing the cost to be evenly spread year on year as depicted in figure 4.13. The only exceptions to this are large bridges. The key structures in Waimakariri are the Ashley Bridge which was replaced in 2014, the Old Waimakariri Bridge and the Waimakariri Gorge Bridge. The Waimakariri Gorge Bridge is shared with Selwyn District, and managed by them, and has an indefinite life not likely to need significant component replacements in the foreseeable future other than deck replacements.

The Skew Bridge that crosses the Cust Main Drain near West Kaiapoi, is programmed for an upgrade/realignment or replacement in 2028 to 2031, and following this work should not require renewal within the period of the Infrastructure Strategy. The Old Waimakariri Bridge, which links Christchurch and Waimakariri, is programmed for replacement in 2040/2041 at a cost of \$25m, of which \$6.1m is to be funded by the Council. Other significant bridges in the District will not need replacing in the next 30 years.

The steady increase in renewals, shown in figure 4.13, reflects the new assets the Council anticipates acquiring as subdivision occurs. The peak in expenditure in 2041 relates to the Council's share of replacing the Old Waimakariri Bridge.

4.5 Solid Waste



Principal goal: To provide an effective and efficient service for households and businesses to dispose of waste at an affordable cost, and encourage practices that minimise waste generation.



Core utility services are sustainable, resilient, affordable; and provided in a timely-manner

UN SDG 6, 7, 9, 11, 12, 13, 15



Extent	Asset
0.44km	Access roads
2	Cleanfill sites
5	Closed landfills
6.4km	Fencing
9	Gates
18,300m ²	Hardstand areas
2	Hazardous waste storage facilities
5,132m ²	Landscaping
2	Transfer stations
2.2km	Underground reticulation

Urban domestic kerbside collection services, which are provided to 62% of the District's rateable properties, consist of a rates funded recycling wheelie bin collection and a refuse bag collection funded through official bag sales. These customers may also opt in to a refuse and/or organics wheelie bin collection, the cost of which is charged through rates. Recycling and optional refuse bin collection services only are provided to another 3% of the District's rateable properties in the Ohoka and Mandeville area.

A Council resource recovery park operates in Rangiora, a transfer station is provided in Oxford and there are two cleanfill sites. Aftercare is provided to five closed landfill sites and groundwater quality is monitored at four of



these sites. Council is a joint venture partner in the Kate Valley Landfill and the rubbish accepted at the Southbrook Resource Recovery Park and the Oxford Transfer Station is transported there. The Council also has a role in facilitating waste minimisation behaviours within communities. This includes funding waste minimisation and sustainability programmes in schools and with businesses and the community.

Total value of assets: \$4.5m (Depreciated replacement cost - 30 June 2020)

4.5.1 Solid Waste capital works programme

Figure 4.14 shows that the majority of the capital expenditure over the next 30 years is associated with growth.

Figure 4.15 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2031/32 and 2046/51 are the average annual expenditure over that period.

The capital expenditure in the first 10 years of the Infrastructure Strategy period relates to purchase of additional land and upgrade projects at the Southbrook Transfer Station's rubbish pit, and the recycling and reuse area. New allowances have been made for upgrades at the Oxford Transfer Station and cleanfill pits. These are driven by capacity issues caused by growth, adopted diversion targets, and anticipated changes to reporting requirements to track waste materials handled at Council facilities.

The capital expenditure in the block from 2036/37 to 2040/41 is an allowance for expansion of the SRRP to enable on-site materials separation and processing to achieve better diversion outcomes.



Figure 4.14 Type of Capital Expenditure - Solid Waste

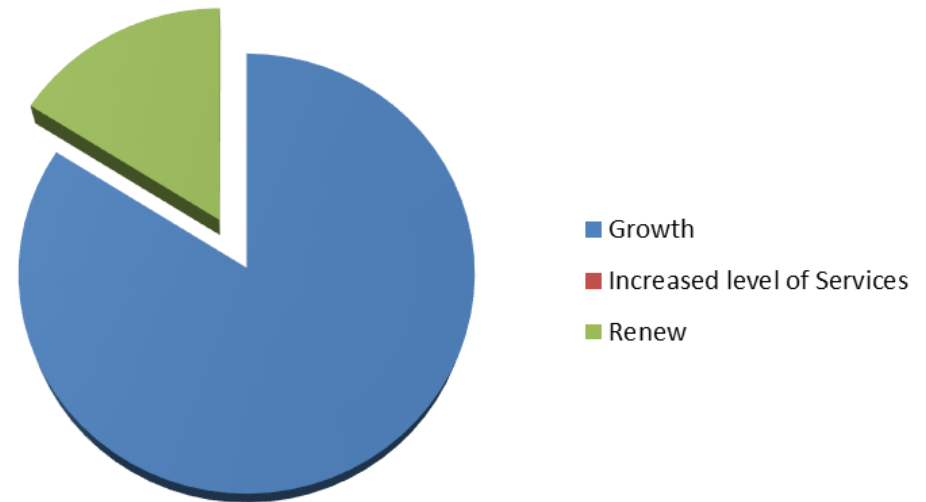


Figure 4.15 Projected Capital Expenditure - Solid Waste

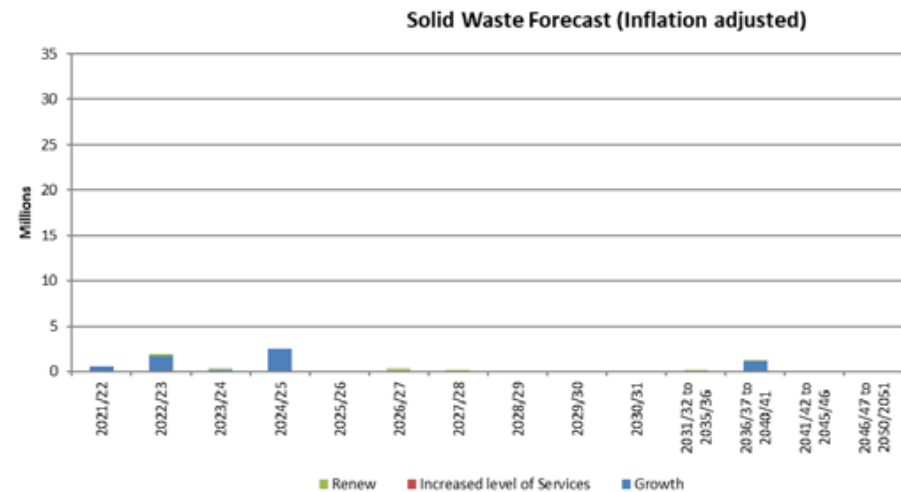








Table 4.5 Significant Solid Waste capital projects

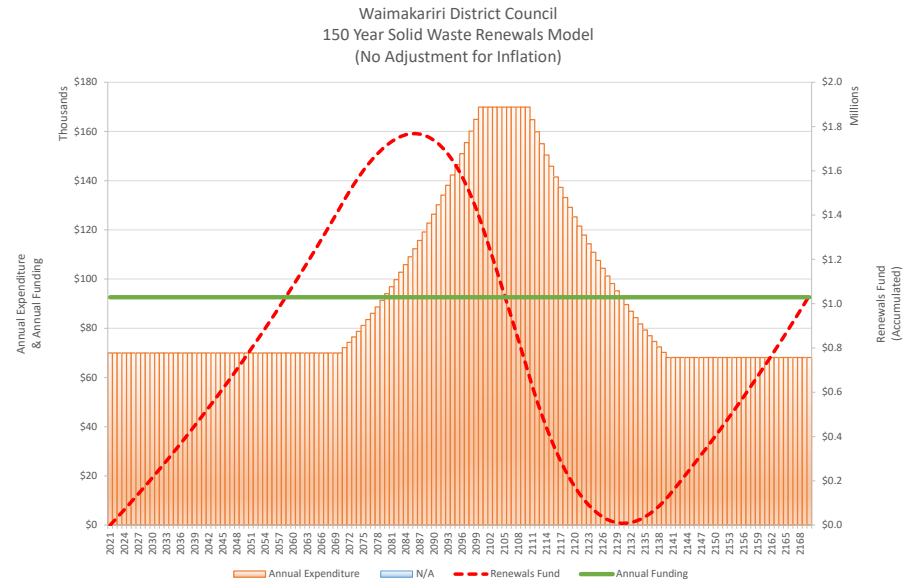
Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Capacity Health and Safety	Southbrook RRP reuse & recycling area expansion and Education Centre	Improves LOS and waste minimisation/diversion Reduces health and safety risks Community engagement improved through education centre activities	\$1.6m	2021-2023	✓	✓	
	Linkages	 UN SDG 9, 11, 13					
	Assumptions	<ul style="list-style-type: none"> Customer usage will increase in relation to population growth 					
	Alternative option/s	<ul style="list-style-type: none"> Provide satellite recycling stations for rural customers. This increases the risk of illegal dumping and contamination at these sites; there would be additional ongoing maintenance and compliance costs and bringing recycling to the SRRP for consolidation would incur additional transport costs. Equity issues relating to different levels of service for urban and rural ratepayers, and who pays for what, would also need to be considered Not providing an education centre as part of the upgrade. Council's delivery of waste facility site tours for schools and communities is constrained by not having an education facility at the SRRP 					
Capacity Health and Safety Changing Technology	Southbrook RRP pit and access upgrades	Maintains compliance. Improves LOS and waste minimisation/diversion Reduces waste going to landfill	\$1.8m	2021-2022 2024-2025	✓	✓	✓
	Linkages	 UN SDG 9, 11, 13					
	Assumptions	<ul style="list-style-type: none"> This first upgrade will include space/facilities for increased diversion of 'dry' waste, renewal of the rubbish pit floor and diverting the exit road away from the service vehicle working area 					
	Alternative option/s	<ul style="list-style-type: none"> The pit upgrade could be delayed until necessary for capacity. This is expected to be 2040 with diversion and new collection methodology. Future works will come at a higher cost, the pit floor will need continual maintenance until it is upgraded which disrupts customers and transportation to landfill, and there is limited space in the current configuration of the pit to allow for diversion of materials. The shared service area currently presents health and safety risks to customers which are being managed through traffic control measures such as speed bumps & flexible bollards. There is potentially a need for stop/go control of customer vehicles. Not upgrading the facilities also means a wider variety of materials will not be able to be separated Building facilities at a separate site will involve costs for land purchase and consenting and there is the potential for additional transportation costs A partnership could be formed to construct and operate facilities on a cost-share basis, either at the SRRP or another location 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Capacity Levels of Service Changing Technology	Southbrook RRP expansion stage 2	Caters for future growth and allows for in-District processing of 'dry waste' materials to better divert these from landfill	\$6.0m	2037-2040	✓	✓	
	Linkages	  SDG 9, 11, 13					
	Assumptions	<ul style="list-style-type: none"> Waste quantities will continue to increase in proportion to projected population increases and business development, despite changes to kerbside collection methodologies, requiring further site upgrades and/or expansion New technologies and markets will make diversion of more materials cost-effective. Facilities will be required to enable diversion and potentially the initial processing of those materials Future facilities will include equipment to undertake automated sorting to replace the principally 'manual-mechanical' sorting planned for the first upgrade. This will enable more materials to be sorted and diverted from landfill Increased capacity is available within the current site footprint 					
	Alternative option/s	<ul style="list-style-type: none"> Continue to send materials to receiving plants in Christchurch or other centres. Income is unlikely to be received from the sale of the materials and there would be additional transport costs on top of the processing costs Open an additional site within the District. This would require either land purchase or a lease arrangement. Site availability may be limited. It is best to co-locate facilities at or adjacent to disposal facilities to minimise transport costs, and there may be consenting and compliance issues owing to sensitivity of nearby land-use A partnership could be formed to construct and operate facilities on a cost-share basis, either at the SRRP or another location. Utilising an alternative location would require either land purchase or a lease arrangement. Site availability may be limited because of specific requirements and consenting or compliance issues due to sensitivity of nearby land-use 					



4.5.2 Solid Waste replacement programme

Figure 4.16 150 year replacement cost forecast for Solid Waste (in 2021 \$)



The solid waste renewals work required over the next 30 years is relatively low given the major assets are in very good condition overall, being only 23 years into a 100 year life cycle.

As shown in figure 4.16, the annual renewals budget is set at a rate necessary to build up the renewals fund enough to fund the large amount of renewals work due in later years. Consequently, depreciation will exceed renewals expenditure resulting in a growing account balance until around 2085. The peak occurring from 2100 to 2110 relates to the replacement of buildings, concrete structures and other major infrastructure at the Southbrook Resource Recovery Park and Oxford Transfer Station.

4.6 Green Space



Principal goals: To provide sports grounds and reserves to enable many recreational opportunities for communities as well as protect and enhance areas of indigenous vegetation.

To provide buildings and halls as community focal points, and meeting spaces for events, gatherings and recreational activities.



There are areas of significant indigenous vegetation and habitats that support indigenous fauna

UN SDG 15



Public spaces and facilities are plentiful, accessible and high quality

UN SDG 3, 11



Extent	Asset
Spaces and Places	
1	Airfield in Rangiora
6	Cemeteries
8	Civic Spaces
27	Community buildings
17	Cultural Heritage sites
71	Neighbourhood Parks
1,059 ha	Parks and reserves
4	Privately leased holiday parks – camping grounds at Ashley Gorge, Waikuku, Woodend and The Pines/ Kairaki Beaches
3	Public Gardens
63	Public toilets (The Council maintains 61 located on Council reserves)
25	Sports Parks
273	Streetscapes

Total value of assets: \$106.2m (Depreciated replacement cost 30 June 2020, excludes land value apart from the Airport)



Figure 4.17 Type of Capital Expenditure - Green Space

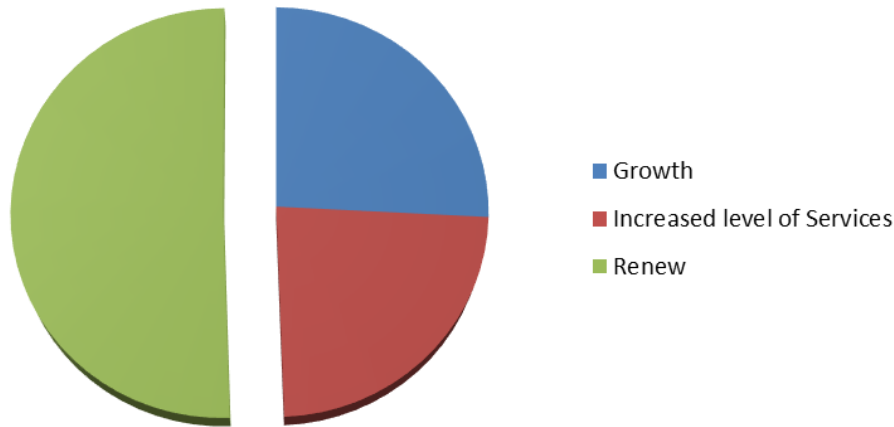
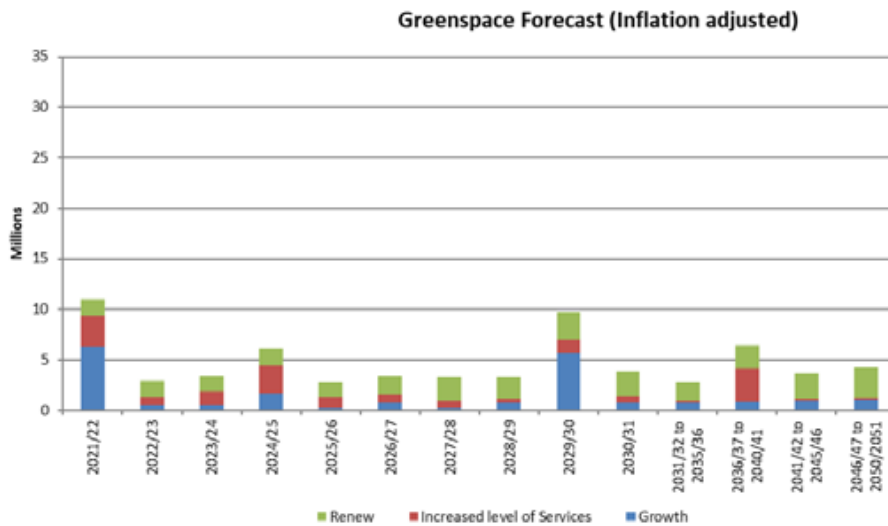


Figure 4.18 Projected Capital Expenditure - Green Space



4.6.1 Green Space capital works programme

Figure 4.17 shows that replacements make up at least half of the capital expenditure associated with the Green Space assets.



Figure 4.18 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2031/32 and 2046/51 are the average annual expenditure over that period.



Figure 4.18 shows the highest amount of capital expenditure is expected in the 2021/22, 2024/25 and 2029/30 financial years. This is due to the purchase of land in 2021/22 and subsequent construction of new community facilities at Pegasus Town in 2024/25 and north Woodend in 2029/30. The spike in 2036 to 2041 relates to the provisional allowance for upgrades to the indoor court facility in Rangiora. \$40,000 has been allocated in 2024/25 to investigate whether the projected demand necessitates additional court space.


Other capital expenditure over this period is attributed to the ongoing renewal of existing Green Space assets, and an improved renewal programme for community facilities now that the asset capture for these activity areas has been completed.



Table 4.6 Significant Green Space capital projects

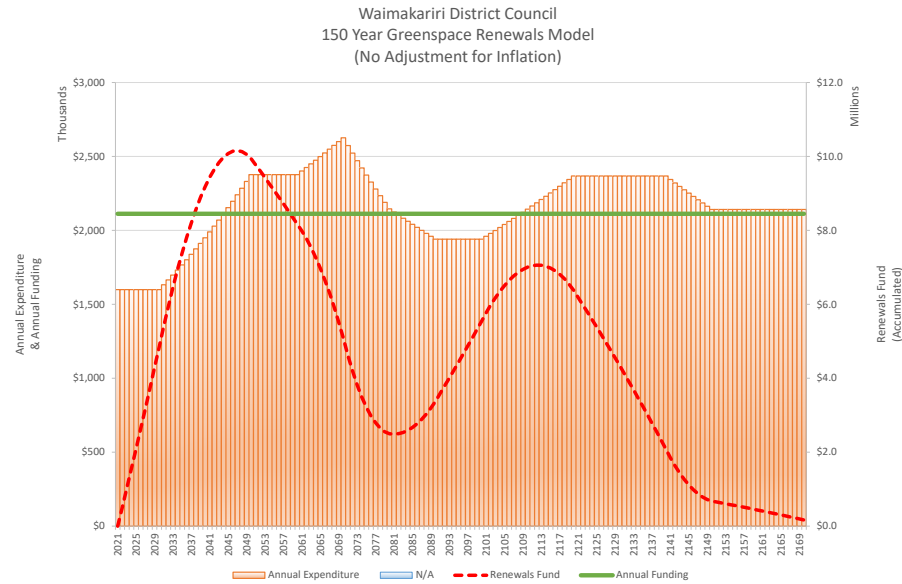
Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Sports field availability/ quality	Improvements to existing sports grounds	Better utilisation of sports fields Improving the quality of playing surfaces	\$1.8m	2021-2031	✓	✓	
	Linkages	 UN SDG 3, 11					
	Assumptions	<ul style="list-style-type: none"> Once improved, the existing sportsgrounds will have sufficient capacity to cater for growth Population and demographic trends continue as expected The move away from organised sports to informal sports and recreation identified in the updated Sports Facilities Strategy continues 					
	Alternative option/s	<ul style="list-style-type: none"> Improvements to sports grounds are assessed as part of the Sports Facilities Strategy which is updated every 3 years to inform the LTP. This review takes into account trends and population growth to ensure the recommended improvements remain appropriate Focus on providing new facilities to meet growth and demand instead of investing in existing sports grounds to maximise their availability/usage. This would be a much more expensive option and there would continue to be inefficient use of existing facilities 					
Community facility capacity	New community facility at north Woodend	Manages impacts of growth and levels of service shortfall in north Woodend for community facility provision	\$4.3m (land purchase) \$4.8m (facility)	2021-2022 2029-2030	✓	✓	
	Linkages	 UN SDG 3, 9, 11					
	Assumptions	<ul style="list-style-type: none"> Existing community facilities in Woodend will not be sufficient in the future to meet the demand arising from continued population growth in Ravenswood, as identified in the updated Community Facilities Strategy Suitable land will be available to be purchased at an affordable price 					
	Alternative option/s	<ul style="list-style-type: none"> Review the provision of community facility space (including aquatics) closer to the planned delivery date to determine if Council's preferred option is still the best option. This would include a reassessment of population growth and demand in this area Investigate a long term lease for a community facility in the Ravenswood subdivision The purchase could be delayed but the cost of land is likely to increase over time Not proceed with a community facility in north Woodend, utilising the Woodend Community Centre and proposed new Pegasus Community Centre instead. However, the growth triggered by the Ravenswood development will exceed levels of service for the provision of community facilities and will not be able to be met by existing provision 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Community facility capacity	New community facility at Pegasus	Manages impacts of growth and levels of service shortfall in Pegasus for community facility provision	\$1.8 (land purchase) \$500k (feasibility study) \$2.2m (facility)	2021-2022 2023-2024 2024- 2025	✓	✓	
	Linkages	 UN SDG 3, 9, 11					
	Assumptions	<ul style="list-style-type: none"> Existing community facilities will not be sufficient in the future to meet the demand arising from continued population growth in Pegasus, as identified in the updated Community Facilities Strategy Suitable land will be available to be purchased at an affordable price 					
	Alternative option/s	<ul style="list-style-type: none"> The completion of the feasibility study prior to development will determine whether the preferred option remains appropriate Options exist to lease space in Ravenswood/ Pegasus but a new Council-owned facility is a more cost-effective approach long term The purchase could be delayed but the cost of land is likely to increase over time. There would also be increased pressure on existing facilities and a bigger gap between the services the community desires and those able to be delivered 					
Indoor sports stadium capacity	Extension to the Mainpower Stadium		\$10m	2040-2041	✓		
	Linkages	 UN SDG 3, 9, 11					
	Assumptions	<ul style="list-style-type: none"> The population in the District continues to grow as forecast and demand for indoor court facilities remains high Improvements are able to be made at Mainpower Stadium to expand the indoor court space 					
	Alternative option/s	<ul style="list-style-type: none"> Not provide additional space for indoor sports and look to manage increased demand through existing assets or partnerships with other providers Look at alternative locations or options rather than Mainpower Stadium 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Biodiversity enhancement	Arohatia te Awa (Cherish the River)	Links land parcels together, increases public access, enhances biodiversity and has the potential to improve environmental outcomes for the waterway over the longer term	\$1.2m	2021-2031		✓	
	Linkages	 UN SDG 3, 11, 13, 15					
	Assumptions	<ul style="list-style-type: none"> Biodiversity and environmental improvements across the District remain a key priority for Council going forward Land purchase or easements are able to be progressed to allow the areas next to the waterways to be linked together 					
	Alternative option/s	<ul style="list-style-type: none"> Not fulfil Council's ZIPA obligations or respond to the identified need to protect, and enhance biodiversity leading to worse environmental outcomes and possible loss of reputation Council could re-negotiate to scale back the extent of its commitment but this is not recommended for the above reasons and also because the project was subject to extensive community consultation 					

4.6.2 Green Space replacement programme

Figure 4.19 150 year replacement cost forecast for Green Space (in 2021 \$)



Renewals of Green Space assets occur when they are no longer able to meet agreed level of services. The rate of asset renewal is intended to maintain the overall condition of the Green Space infrastructure at a standard which reflects its age profile and ensures the community’s investment is maintained.

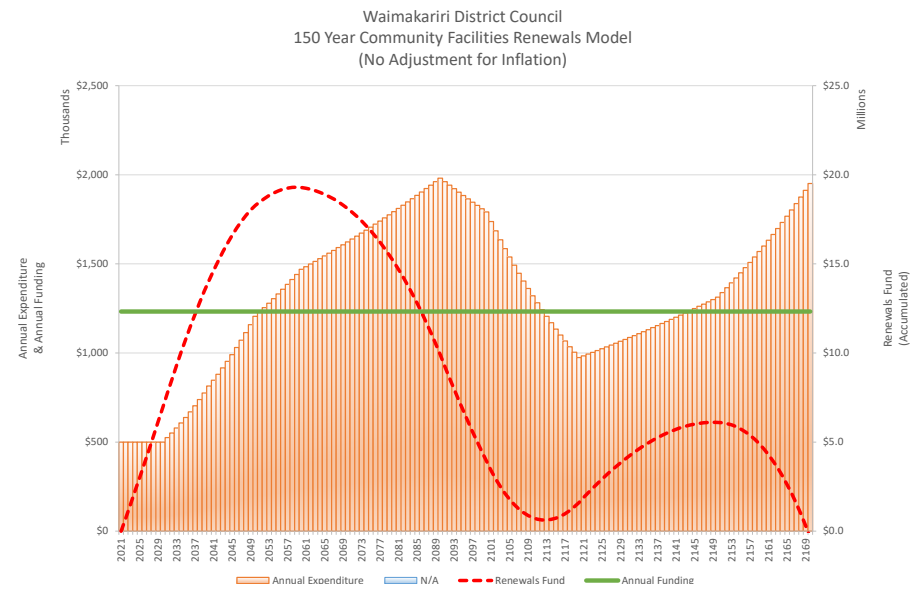
The level of expenditure on asset renewals varies from year to year, reflecting the age and condition profiles of the assets, the on-going maintenance demand, customer service issues and the differing economic lives of individual assets.

The continued growth in the District following the earthquakes has resulted in a significant number of additional Green Space assets being installed within reserves over recent years which generally have an average life expectancy of between 20 and 50 years. This is represented by the overall

rise in expected renewals costs from 2030 when a number of the new assets will begin to require replacement.

The peak from about 2060 to 2070 reflects the date the majority of garden beds were captured in the system and given a useful life of 50 years. The reality is that these horticultural assets are subject to on-going renewal and maintenance programmes as outlined in the Green Space Activity Management Plan.

Figure 4.20 150 year replacement cost forecast for community facilities (in 2021 \$)





4.7 Aquatic Facilities



Principal goal: To provide aquatic facilities to enable recreational and educational opportunities for communities.



Public spaces and facilities are plentiful, accessible and high quality

UN SDG 3, 11



Extent	Asset
Aquatic Facilities	
3	25 metre pools (one outdoor and two indoor)
3	Learn-to-swim pools (one outdoor and two indoor)
1	Leisure pool and spa at Dudley Park Aquatic Centre
1	Seasonal paddling pool at Waikuku

Total value of assets: \$19.5m (Total replacement cost - 30 June 2020, facilities only)

4.7.1 Aquatic Facilities capital works programme

Figure 4.21 shows that the majority of the capital expenditure over the next 30 years for the aquatics infrastructure assets is related to increased levels of service.

Figure 4.22 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2031/32 and 2046/51 are the average annual expenditure over that period.

The following chart indicates the highest amount of capital expenditure is expected in the 2031-2036 period due to the upgrade of the facilities at the Kaiapoi Aquatic Centre. Construction expenditure for a new eastern aquatic facility is shown in the 2036/41 block.

The rest of the capital expenditure over this period is attributed to an improved renewal programme for aquatic facilities now that the asset capture for this activity area has been completed. This varies from \$25,000 in 2022/23 to nearly \$1m in 2025/26 but the smaller figures are not easily seen because of the scale of the graph.

Figure 4.21 Type of Capital Expenditure - Aquatic

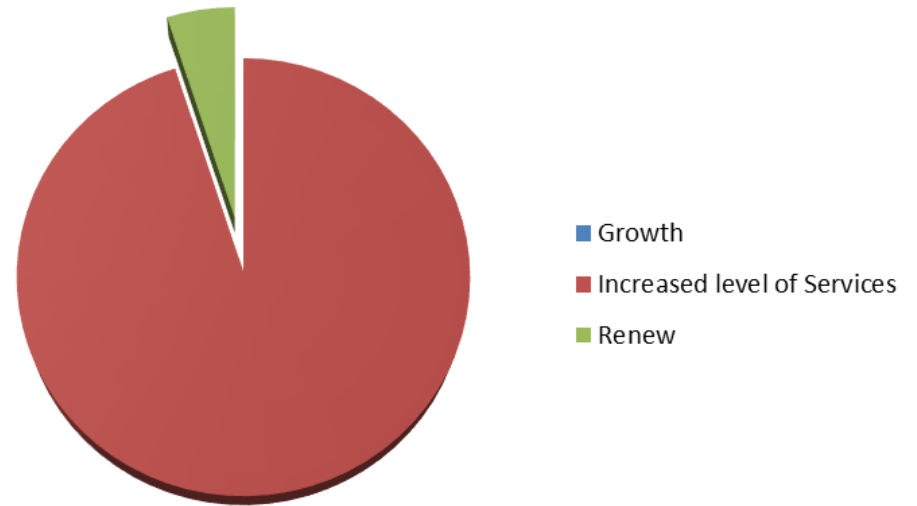


Figure 4.22 Projected Capital Expenditure - Aquatic

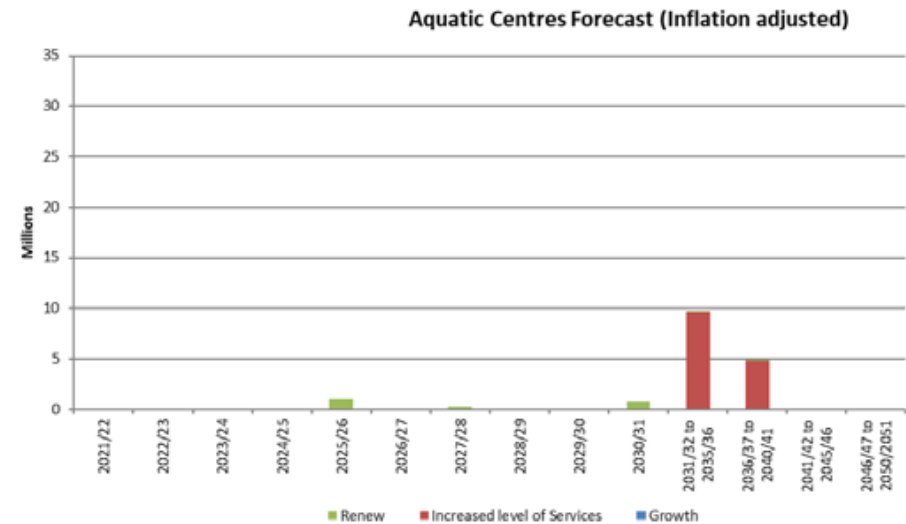



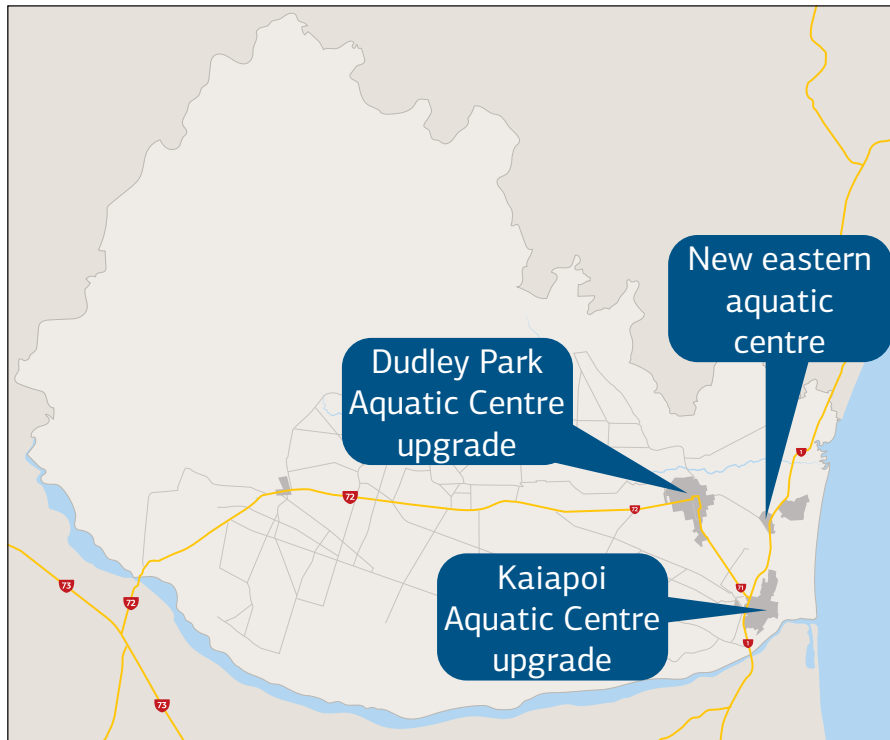


Table 4.7 Significant Aquatics capital projects

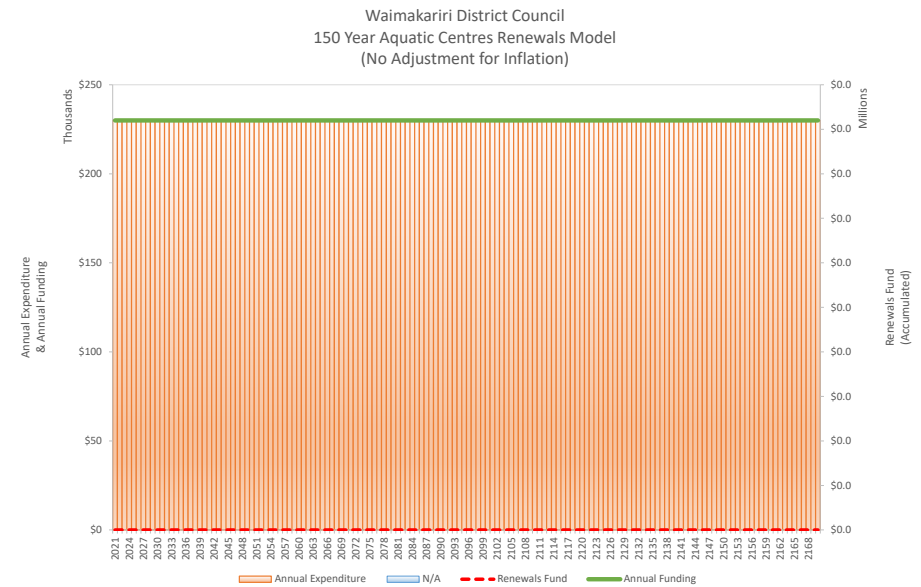
Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Capacity Levels of Service	Future development of new Aquatic Centre in the east of the District	Enables community outcomes to be achieved for high quality public facilities and meeting community needs	\$20m	2035-2040	✓	✓	
	Linkages	 UN SDG 3, 9, 11					
	Assumptions	<ul style="list-style-type: none"> The District's population will continue to grow as projected, both in terms of numbers and demographic profiles. Settlement will continue as expected in the Woodend Ravenswood area There will be no change in expected recreation preferences for aquatic facilities 					
	Alternative option/s	<ul style="list-style-type: none"> The purchase could be delayed but the cost of land is likely to increase over time Other Council land could be repurposed, however, there is nothing currently available that would not displace other groups or create larger rehoming issues. Not proceeding with the project would eventuate in demand far-outweighing the service able to be provided 					
Capacity Levels of Service	Upgrade Kaiapoi Aquatic Centre	Enables community outcomes to continue to be achieved for high quality public facilities and meeting community needs	\$15m	2030-2035	✓	✓	✓
	Linkages	 UN SDG 3, 9, 11					
	Assumptions	<ul style="list-style-type: none"> The District's population will continue to grow as projected, both in terms of numbers and demographic profiles There will be no change in expected recreation preferences for aquatic facilities 					
	Alternative option/s	<ul style="list-style-type: none"> The District Aquatic Facilities Strategy 2021-2031 recommends that the existing Kaiapoi pool site be redeveloped within the next ten years to better align the future delivery of services with changing demographics and community needs. However, this option has been considered within the context of all Council's projected expenditure and the community's ability to pay. To this end a decision has been made to manage current services and expectations while pushing the upgrade out as detailed above. Further delay to this work would see increased pressure on existing facilities and a bigger gap between the services the community desires and those able to be delivered 					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Capacity Levels of Service	Upgrade Dudley Park Aquatic Centre	Enables community outcomes to continue to be achieved for high quality public facilities and meeting community needs	\$15m	2040-2045	✓	✓	✓
	Linkages	 UN SDG 3, 9, 11					
	Assumptions	<ul style="list-style-type: none"> The District's population will continue to grow as projected, both in terms of numbers and demographic profiles There will be no change in expected recreation preferences for aquatic facilities 					
	Alternative option/s	<ul style="list-style-type: none"> The District Aquatic Facilities Strategy 2021-2031 recommends that the existing Dudley Park Aquatic Centre is refreshed, with new pools added and existing facilities upgraded, within the next ten years to better align the future delivery of services with changing demographics and community needs. However, this option has been considered within the context of all Council's projected expenditure and the community's ability to pay. To this end a decision has been made to manage current services and expectations while pushing the upgrade out as detailed above. Further delays would see increased pressure on existing facilities and a bigger gap between the services the community desires and those able to be delivered 					



4.7.2 Aquatic Facilities replacement programme

Figure 4.23 150 year replacement cost forecast for Aquatics (in 2021 \$)



Aquatics has a number of short life assets making it easy to smooth the renewal of these into a flat line over the long term (150 year) period. The exceptions to this are the aquatics buildings which have been included in the graph for community facilities (figure 4.20) and some larger expenditure items of plant and equipment. These include the replacement of HVAC and pool heating equipment which requires renewal approximately every 20 to 30 years to ensure the level of service provided by the pools remains constant.

4.8 Property



Principal goals: To support efficient and effective administrative and governance functions by providing office and service centre spaces that appropriately meet the physical accommodation needs of Council staff, customers, governance and other stakeholders, as well as spaces for public meetings and official occasions.

To provide fit-for-purpose and affordable housing for targeted elderly citizens.



People's needs for mental and physical health and social services are met

UN SDG 3.



Extent	Asset
600 hectares	Forestry land
83	Individual Rangiora airfield licenses
438	Leases/licenses of Council property
112	Housing for the Elderly units
5	Rental houses
3	Mixed use business areas (Kaiapoi)
3	Offices/service centres

Council provides targeted low cost housing for people who are over 65 years old at seven sites. The one bedroom units are contained within 45 buildings.

A number of other houses have been purchased by the Council for other purposes, usually associated with land acquisitions for infrastructure such as roads. These are generally only held as long as it takes to complete the new infrastructure work or the sites are able to be on-sold in an optimal way.

Three Council-owned service centres and a number of leased buildings provide office and service centre spaces to meet the accommodation needs



of staff and customers, and spaces for public meetings and official occasions. Library services are also provided out of two of these.

Total value of assets: \$32.6m (30 June 2020, excludes leases and licenses and land apart from business areas)

4.8.1 Property capital works programme

Service Centres

Figure 4.24 shows that the majority of the capital expenditure over the next 30 years associated with the property infrastructure assets is related to growth.

Figure 4.25 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2021/32 and 2046/51 are the average annual expenditure over that period.

The graphs show the indicative forecast over 150 years. This picks up several cycles of replacements and includes allowances for various refurbishments that extend the life of existing buildings. Ongoing renewals and refurbishments are proposed using a cycle of between 15 and 20 years. A larger mid-life spike indicates where more significant renewals are catered for at intervals of around 35 years.

Figure 4.24 Type of Capital Expenditure – Service Centres

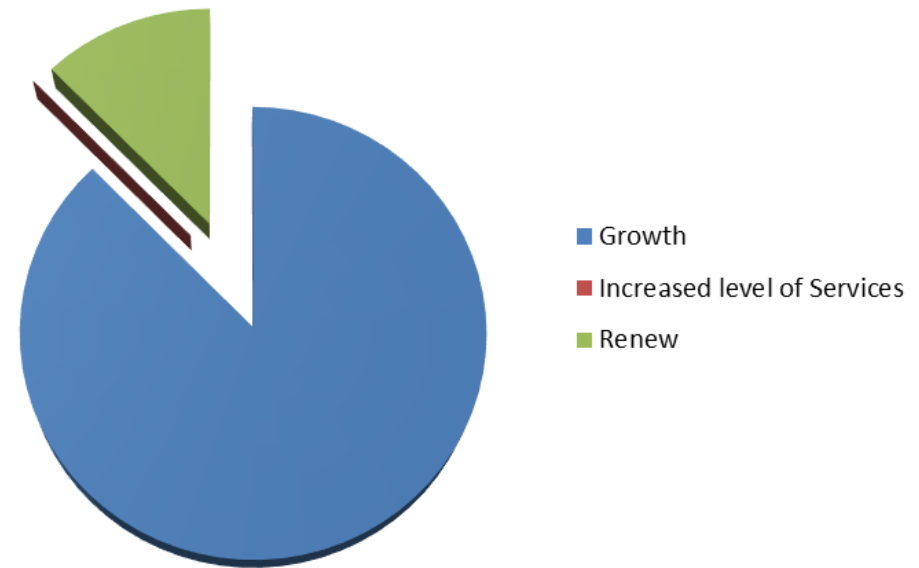
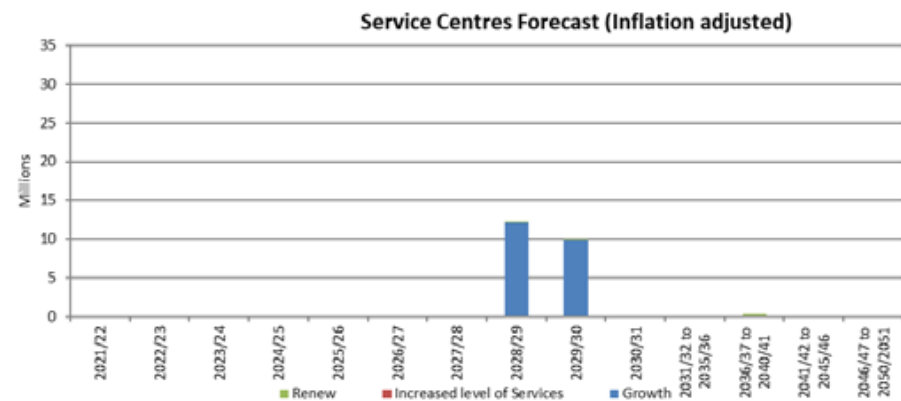


Figure 4.25 Projected Capital Expenditure – Service Centres



Housing

No allowance has been made for growth therefore the total number of units supplied will remain at 112. Existing rental income is adequate to cover the long-term costs of ownership, including the replacement of the units when they reach approximately 90 years old.

The capital expenditure forecast comprises renewal and replacement work and does not include any allowances for changed levels of service. A 10 year programme of mid-life refurbishments is underway. This includes some elements of enhancements but these are generally associated with changed regulatory requirements, the use of better materials and products, or design improvements which have the same level of expenditure as work done on a 'like for like' basis. The refurbishment programme is averaged over the 10 years to accommodate a practicable delivery capacity and to reflect that it is somewhat dependant on access to units as tenants vacate.

Figure 4.26 Type of Capital Expenditure – Housing

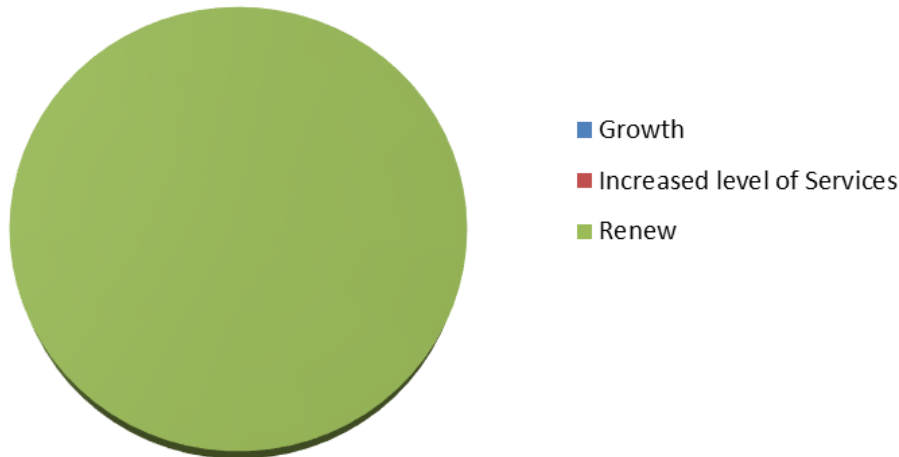


Figure 4.27 Projected Capital Expenditure – Housing

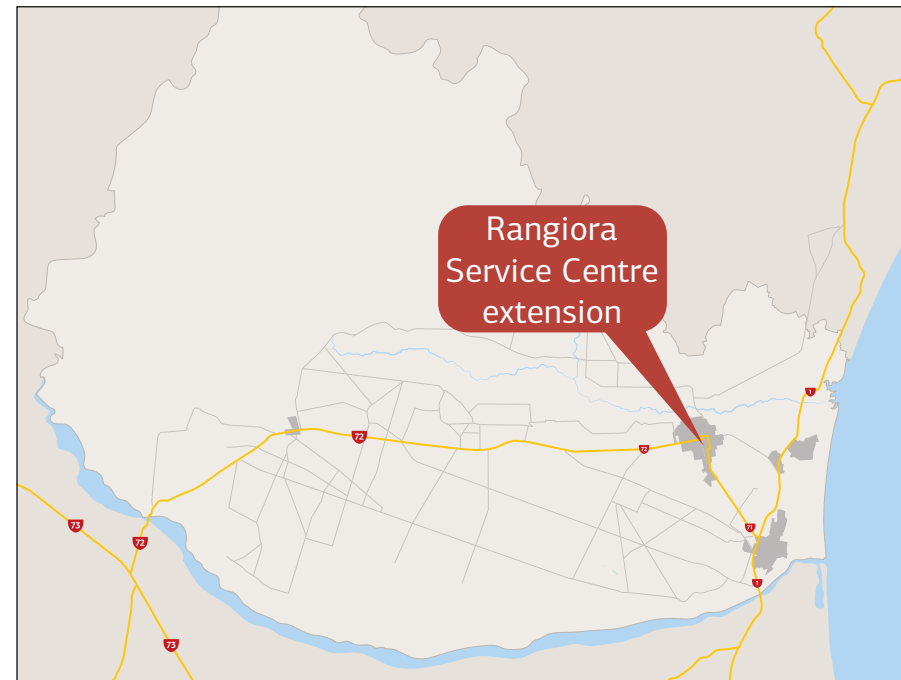
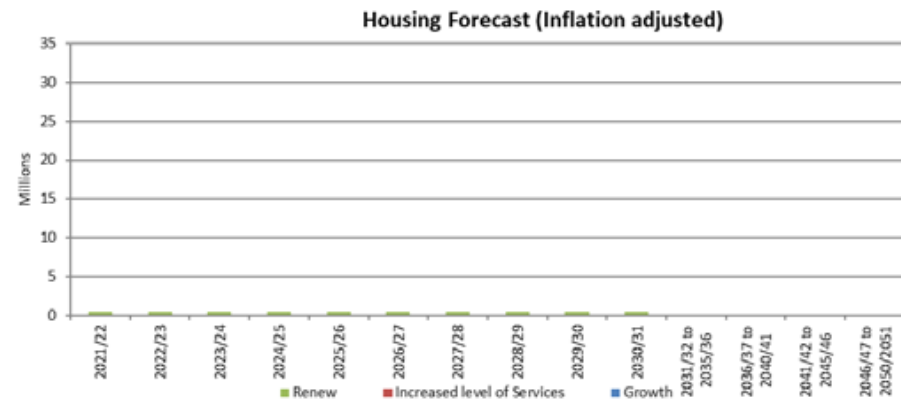



Table 4.8 Significant Property capital projects

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Council HQ Capacity	Rangiora Service Centre extension	Manage impacts of growth	\$18m	2028-2030	✓		
	Linkages	 UN SDG 9, 11					
	Assumptions	<ul style="list-style-type: none"> WDC as an entity continues with a similar structure over the 30 years The Farmers office space lease is able to be extended beyond 2028. If not, additional temporary accommodation may have to be leased until 2030 and fitted out to cater for increased staff numbers arising from population growth. Alternatively, the need for office space may be reduced depending on the outcome of the 3 Waters Review 					
	Alternative option/s	<ul style="list-style-type: none"> Leasing additional accommodation, both short term and in relation to the proposed extension to the existing building, could alleviate pressure but is less cost effective over the long term and compromises organisational performance and customer service A completely new HQ/ public space building is likely to exceed \$40m. If an extension to the HQ proceeds as planned, the option of developing this in conjunction with the library extension may reduce some costs and optimise the benefits to the community 					

4.8.2 Property replacement programme

Rangiora Civic Precinct

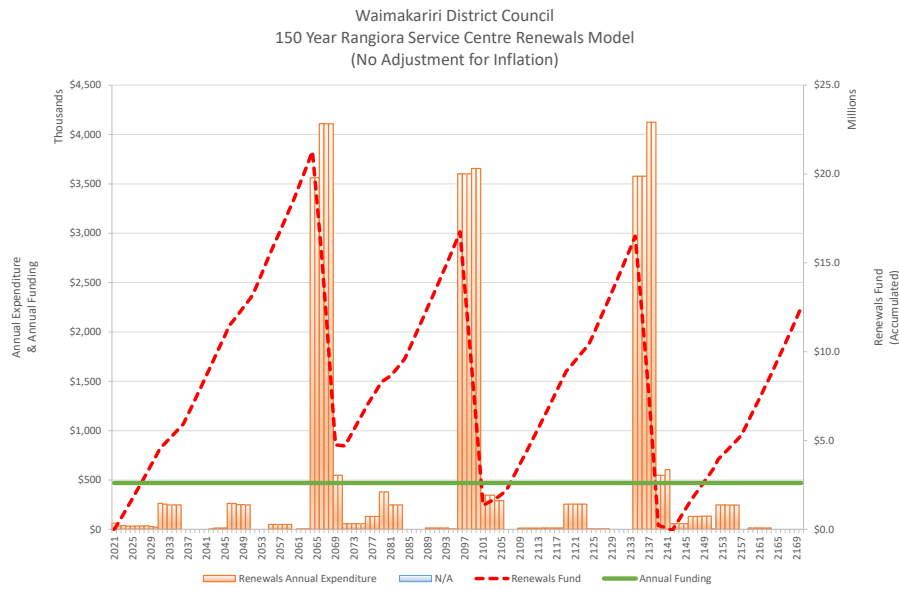
Figure 4.28 shows an extension of the Rangiora Service Centre near the end of the LTP period, to bring staff from three other buildings under one roof and to accommodate growth over the next 30 years. The existing building was refurbished in 2020 but the extent of the works were scaled back considerably due to the potential impact of Covid-19 on rate-payers. This elevates the risk around the existing facility, and increases the pressure on capacity in the interim. This issue can be addressed through leasing additional office space but is considered to be less optimal over the long term.

This renewal model assumes office accommodation/service centres are replaced after they come to the end of their economic life at 70 years. With its mixed age the existing Rangiora Service Centre and the extension would be replaced at two separate times with each replacement broadly conforming to a 70 year cycle.

Significant uncertainty exists around the scale and nature of the proposed extension as it is part of a larger campus development that includes the Rangiora Library, public amenity space and town centre parking. The model is therefore indicative and may be subject to change.



Figure 4.28 150 year replacement cost forecast for the Rangiora Service Centre (in 2021 \$)



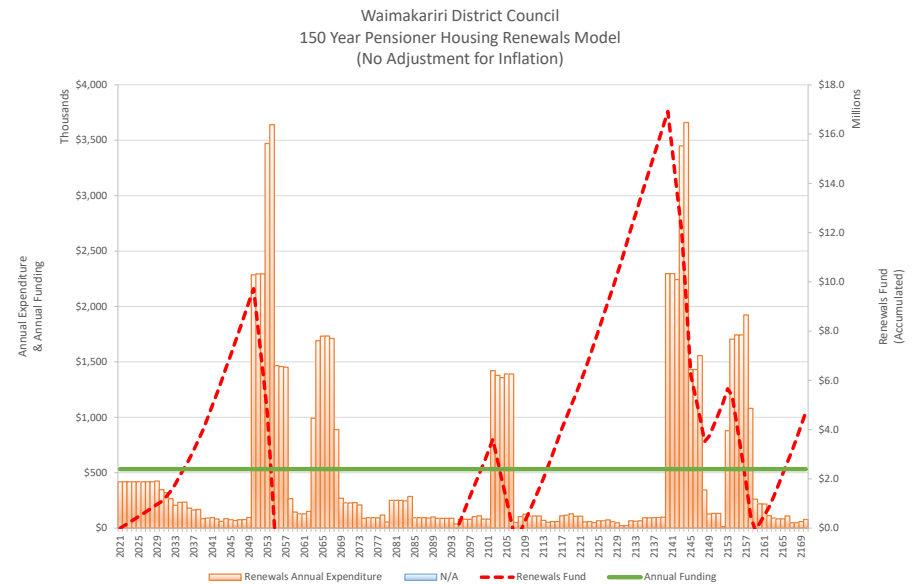
Housing for the Elderly

The renewal model shows annual expenditure over the next 10 to 11 years of just over \$400,000 per year to address building and site infrastructure, and the mid-life refurbishment of units at approximately 45 years of age. This is averaged to reflect the delivery strategy around vacancies, which are variable, and also allow for adequate staff resources to execute the refurbishments.

Over the balance of the 30 year IS period expenditure is modest, however, just beyond this substantial reinvestment is required as the various sites reach approximately 90 years of age and require replacement. The replacement of the relatively new Ranui Mews is scheduled in the first few years of the 22nd century.

Substantial growth in demand is anticipated over the next 30 years however no allowance has been made for the expansion of the portfolio. Council is yet to grapple what role it will have, if any, in responding to growth in demand, or for other social and targeted housing needs.

Figure 4.29 150 year replacement cost forecast for Pensioner Housing (2021 \$)



4.9 Libraries



Principal goal: To inform, educate, empower, entertain and inspire the community, by providing them with quality, easily accessible electronic and print collections and spaces that encourage social interaction and wellbeing.



People have wide ranging opportunities for learning and being informed

UN SDG 4, 3



Public spaces and facilities are plentiful, accessible and high quality

UN SDG 3, 11



Extent	Asset
33,000	Electronic resources
144,000 items	Library collections/items
347.5m ²	Oxford Library and Service Centre
1,892m ²	Ruataniwha Kaiapoi Civic Centre: Kaiapoi Library, Service Centre, Museum and Art Space
1,415m ²	Trevor Inch Memorial Library Rangiora: Chamber Gallery and Citizens' Advice Bureau

Total value of assets: \$21.9m (30 June 2020, excludes land)



4.9.1 Libraries capital works programme

Figure 4.30 shows that replacements make up the majority of the capital expenditure over the next 30 years associated with the library infrastructure assets.

Figure 4.31 shows the projected capital expenditure for the first 10 years, followed by five year blocks to cover the 20 years. The figures shown for each of the five year blocks between 2031/32 and 2046/51 are the average annual expenditure over that period.

The capital expenditure shown in years 2027 to 2029 relate to the proposed library extension.

Figure 4.30 Type of Capital Expenditure – Libraries

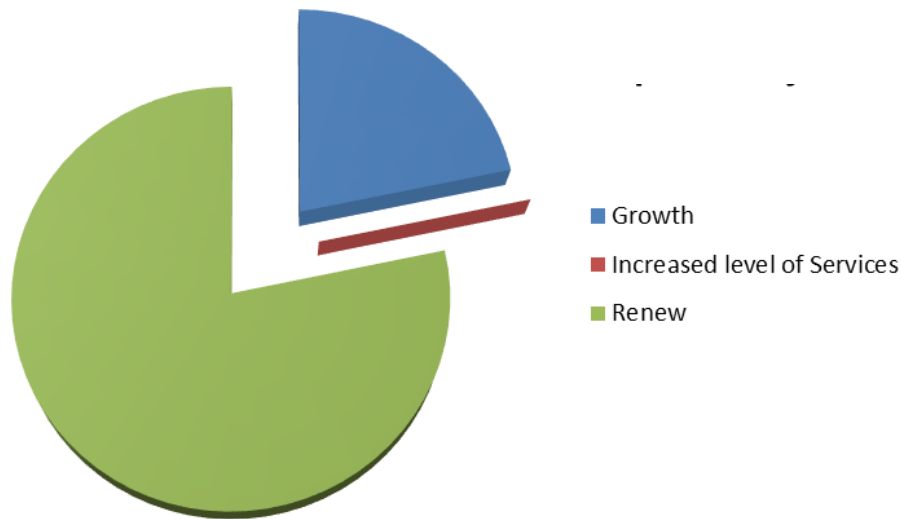


Figure 4.31 Projected Capital Expenditure – Libraries

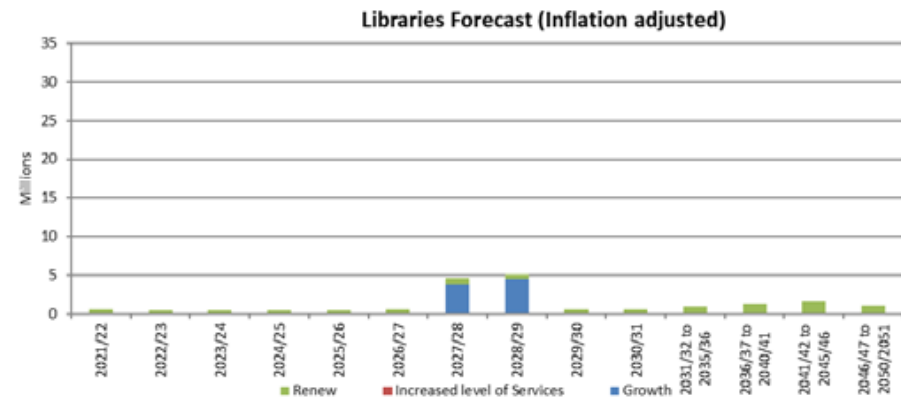



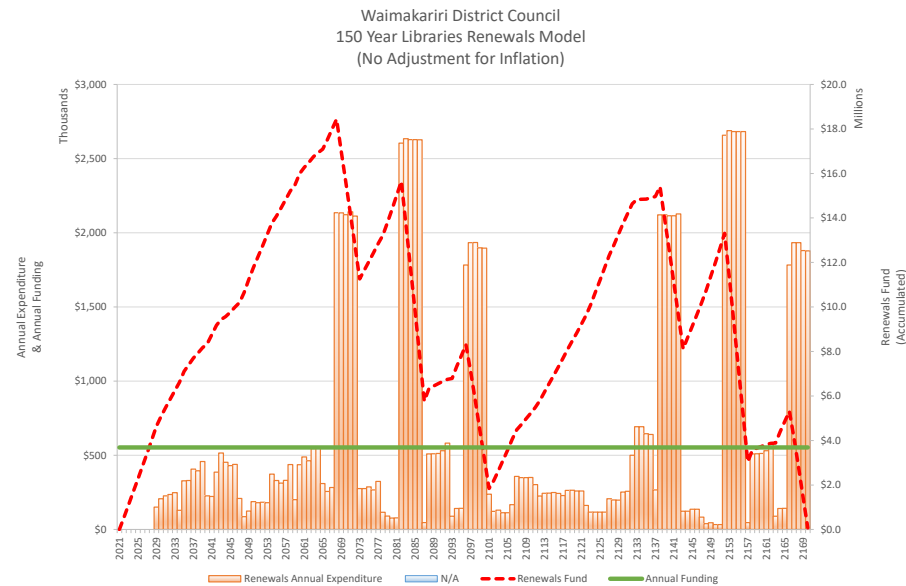
Table 4.9 Significant Library capital projects

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021\$)	When are we doing it	Growth	LoS	Renew
Library Capacity	Rangiora Library extension	Manage impacts of growth	\$7m	2027 to 2029	✓		✓
	Linkages  UN SDG 3, 4, 9, 11, 16						
	Assumptions	<ul style="list-style-type: none"> Current provision will be stretched because of population growth and demand through until 2028, requiring some temporary solutions to cater for demand The proposed mix of library provision will remain relevant despite the increasing access of individuals to technology 					
	Alternative option/s	<ul style="list-style-type: none"> Decisions about the future expansion of the Council's Rangiora Service Centre may also impact design options for the Rangiora Library 					



4.9.2 Libraries replacement programme

Figure 4.32 150 year replacement cost forecast for Libraries (in 2020 \$)



The renewals planned for the Rangiora Library, as part of the refurbishment project, will in part extend the life of the existing building, and the timing of ongoing renewals is heavily influenced by the substantial extension in 2027/29. Ongoing renewals and refurbishments are proposed on a cycle of between 15 and 20 years with a larger mid-life spike where more significant renewals are catered for at intervals of around 35 years.

The renewal model shows an extension of the Rangiora Library near the end of the LTP period to cope with growth and in part address renewals within the existing building. This was previously scheduled for 2023 but has been deferred due to the potential impact of Covid-19 on ratepayers. Some pre-existing issues have now been addressed such as the aged and poorly performing heating and ventilation. Deferring the extension does, however, elevate the risk of increased repairs and maintenance, and fail to address capacity issues in the interim.



The model has an assumed economic life for libraries of 70 years, with the Kaiapoi and Oxford Library/Service Centres replaced on that basis. With its mixed age the existing Rangiora Library and the extension would be replaced at two separate times with each replacement broadly conforming to a 70 year cycle.




Significant uncertainty exists around the scale and nature of the proposed extension as it is part of a larger campus development that includes the Rangiora Service Centre, public amenity space and town centre parking. The model is therefore indicative and may be subject to change.

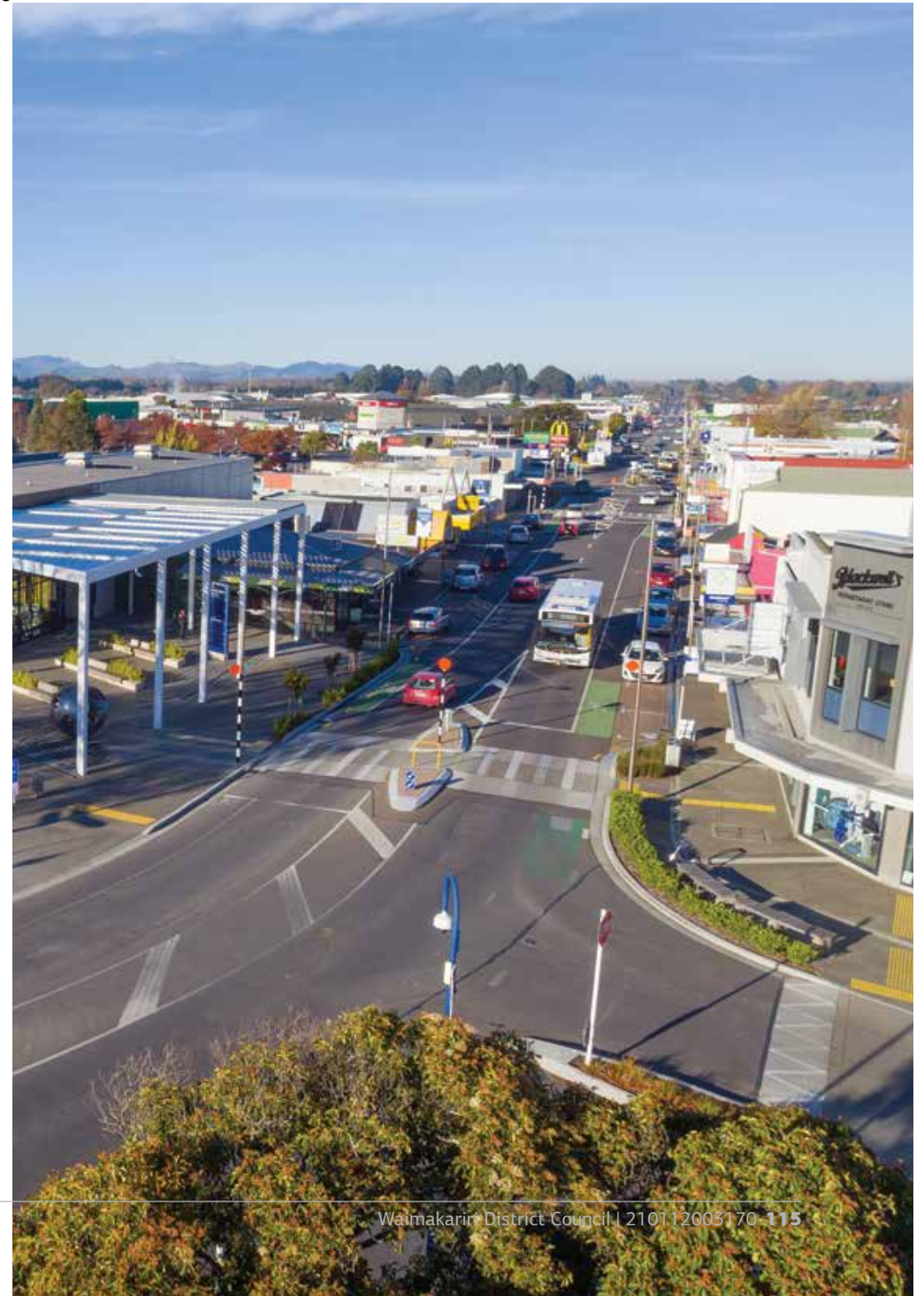
4.10 Other Significant Projects

Other multi-disciplinary infrastructure projects have been identified as significant capital projects because of the impact they have on the overall financial picture, or their significance to the community. These are included in the following table.

Table 4.10 Other significant capital projects

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
District Regeneration	Regeneration of former Red Zones	Enhanced environment	\$2.9m	2021-2026		✓	
	Linkages	 UN SDG 3, 11, 13, 15					
	Assumptions	<ul style="list-style-type: none"> All red zone land will be developed as reserve land, and for other uses, as per the Recovery Plan 					
	Alternative option/s	<ul style="list-style-type: none"> Red zone land remains undeveloped and maintained by Council. However, this would not meet community expectations or fulfil the vision and values of the Recovery Plan, nor the obligations placed on the Council by the prior land divestment agreement with the Crown. The majority of Regeneration projects are already completed, with a number of multi-year projects also currently underway 					
Town Centres Growth & Revitalisation	Rangiora Town Centre – additional public parking	Manage impacts of growth Encourage retail activity	\$6.1m	2021-2025	✓	✓	✓
	Linkages	 UN SDG 9, 11					
	Assumptions	<ul style="list-style-type: none"> Town centres continue to have a role for local and District populations Rangiora will continue to be the main service town for the District 					
	Alternative option/s	<ul style="list-style-type: none"> Restrain investment in town centre enhancement Continue to encourage private on-site parking to meet demand, expand and enforce time-limited street parking to encourage parking turnover, or provide car parking further away from the Rangiora Town Centre <p>These alternative solutions may make the town centre less attractive to visit, thereby discouraging users and negatively impacting on the centre's growth and economic viability</p>					

Issue	What are we doing?	What is the benefit?	How much will it cost? (in 2021 \$)	When are we doing it	Growth	LoS	Renew
Town Centres Growth & Revitalisation	Kaiapoi Town Centre Plan (KTC2028) improvements	Enhanced environment	\$1m	2021-2023			✓
	Linkages	 UN SDG 3, 8, 9, 11					
	Assumptions	<ul style="list-style-type: none"> Town centres continue to have a role for local and District populations Kaiapoi Town Centre will continue to grow and be economically viable 					
	Alternative option/s	<ul style="list-style-type: none"> Restrain investment in town centre enhancement Red zoned land remains undeveloped or is used for another purpose These alternative solutions may make the town centre less attractive to visit, thereby discouraging users and negatively impacting on the centre's growth and economic viability					
Town Centres Growth & Revitalisation	Town Centre development (reviewed town centre Plans)	Manage impacts of growth Enhanced environment	\$20.6m	2021-2032	✓	✓	✓
	Linkages	 UN SDG 3, 8, 9, 11					
	Assumptions	<ul style="list-style-type: none"> Town centres continue to have a role for local and District populations Kaiapoi Town Centre will continue to grow and be economically viable Rangiora will continue to grow and be the main service town for the District 					
	Alternative option/s	<ul style="list-style-type: none"> Restrain investment in town centre enhancement. This alternative solution may make the town centres less attractive to visit, thereby discouraging users and negatively impacting on the centres' growth and economic viability 					
Town Centres Growth & Revitalisation	Future town centre strategies implementation	Future provision for managing ongoing growth and revitalising the town centres	\$10m	2035	✓	✓	✓
	Linkages	 UN SDG 3, 8, 9, 11					
	Assumptions	<ul style="list-style-type: none"> Town centres continue to have a role for local and District populations Kaiapoi and Rangiora town centres will continue to grow and be economically viable Town centre infrastructure and amenities will need to be revitalised by 2035 					
	Alternative option/s	<ul style="list-style-type: none"> Restrain investment in town centre enhancement. This may make the town centres less attractive to visit, thereby discouraging users and negatively impacting on their growth and economic viability 					



5 Appendices

5.1 Asset condition and performance

Asset Systems

The Council's asset management systems for recording and analysing Council assets are under development. Phase 1 has enabled the in-field recording of all maintenance costs against the assets that have been maintained by Councils in-house maintenance unit. Proper analysis of asset maintenance costs will be able to be carried out as data accumulates over time. Phase 2 will see maintenance schedules being operated through the system, which will provide further opportunities for reliable asset data capture.



Asset condition for the pipework assets has been determined based on detailed analysis of pipe burst data, coupled with a review of industry documentation on typical asset lives.

In 2020 work was completed by the Council's Network Planning Team to assess burst data collected on Council water mains to determine expected useful life by asset category. This useful life was then converted to a condition rating, based on criteria provided in the IPWEA International Infrastructure Management Manual (IIMM) to assign a condition score to all pipeline assets. The analysis has enabled a more informed remaining useful life, and proxy condition score, as it is now derived from actual pipe performance data across the District. To verify the assigned asset life and condition score, and to take into account any local variability from expected lives, some individual pipe condition assessments are done on specific samples of AC pipe.

With this recent analysis, confidence in the Council's water supply reticulation condition assessment data has been increased from a 'C' to a 'B', or 'reliable'. At this level data set accuracy is considered to be +/- 10%.

Confidence assessment of facility assets remains at a 'C' or 'uncertain'. At this level the data set accuracy is considered to be +/- 25%. The planned 2021 Facilities Asset Inventory Survey is expected to significantly improve the level of confidence in this data.



Capacity and performance of water supply schemes is monitored and managed through the use of hydraulic water models. These models are also used to establish what capital works may be needed to accommodate growth and meet levels of service, and are updated approximately quarterly. In updating the Activity Management Plans, water source, treatment, storage, headworks and reticulation requirements were also reviewed to determine any additional upgrades required to meet both existing level of service deficiencies and growth related demand. Recent implementation of an asset management information system (AMIS), will more easily enable additional performance monitoring of the network via pipe burst monitoring.

The sewerage pipe network is primarily assessed for condition via the 20 year cycle, rolling wastewater CCTV programme started in 2008. Assessment priority is based on criticality and operational issues, and is also integrated with the road reconstruction programme. The CCTV condition information is complemented with maintenance activity records from the field recording wastewater mains blockage and overflow records.

Confidence in the data for the pipe network is a grade 'B' or 'reliable'. At this level data set accuracy is considered to be +/- 10%.

Confidence in the data for facility assets has been assessed as a grade 'C' or 'uncertain' as a condition assessment of all assets at headworks has not yet been carried out. At this level the data set accuracy is considered to be +/- 25%. As with the water supply assets, the planned 2021 Facilities Asset Inventory Survey is expected to significantly improve level of confidence in this data.

The existing capacity and performance of the wastewater schemes throughout the District are monitored using hydraulic models constructed and maintained by the Council for each scheme. Where a scheme has been identified as performing below the required levels of service, either currently or with the inclusion of future growth, upgrades have been subsequently modelled and budgets to carry out the upgrades included in the Long Term Plan.



A significant wastewater upgrade is currently under construction in Rangiora and two others are planned in Rangiora and Kaiapoi within the next ten years. Further out in 2029/2031, an extension to the treatment pond in Woodend will provide additional capacity. Once completed, these works will enable levels of service to be met, particularly with respect to overflow frequency in wet weather events, and ensuring there is sufficient capacity for growth.

The Oxford treatment plant has limited capacity to deal with wet weather flows. An investigative programme is planned to determine if I&I can be cost-effectively reduced.

A programme of CCTV inspections for the stormwater network has been recently implemented. The early results from this programme will indicate whether the rate of CCTV inspection should be increased, and also start to fill in the information gaps about these assets. Confidence in the pipe network data has been assessed as a grade 'D' or 'very uncertain'. At this level data set accuracy is considered to be +/- 40%.

A condition assessment of all assets at headworks has not yet been carried out, so confidence in asset condition is low. Data confidence for facility assets has been assessed as a grade 'C' or 'uncertain'. At this level the data set accuracy is considered to be +/- 25%. It is proposed that these assets will be physically assessed for condition in the next three years, following a comprehensive asset inventory review at all of the facility sites. This is expected to significantly improve the level of confidence in this data.

The 2014 floods within the District highlighted a number of capacity problems with the stormwater systems. The subsequent programme of works to resolve the issues is under way with completion planned for 2028.

The programme now incorporates additional work identified from the 2017 wet winter, when areas different to those affected by the 2014 storm experienced heavy localised rainfall. Recent government 'shovel ready' funding has permitted the works planned for the Kaiapoi catchments to be brought forward, with expected completion of the works in 2023.

Design standards for stormwater works are based on preventing flooding above floor levels in a 50 year flood event and to prevent nuisance flooding in events up to a 1 in 5 year storm. Stormwater modelling incorporates 1 metre of sea level rise and a 16% increase in rainfall intensity from climate change. Where relevant, all new stormwater systems are sized to manage these increased flows and higher outlet levels.

Council has recently applied for consents to discharge stormwater from its urban networks, and the outcome is pending. Under these consents Council will be required to improve the quality of the water it discharges into streams and rivers and there will be challenges around the best way to comply with the conditions. Consent applications propose that by 2025 Council will have developed and costed a strategy for meeting water quality standards that will then be implemented in the 2025 to 2036/37 period. Provisional budgets to meet the expected consent conditions have been included in the relevant scheme AMP's.



Overall the roading asset is in good condition. The levels of service generally meet customer demand, where the major areas of user interest, quality of ride, and footpath condition, both exceed Council targets.

Bridges are one of the major risk areas in a network, due both to the high replacement cost, and a higher risk to life in event of failure. While the majority of the District's bridges are classed as being in average condition or better, the ability to keep up with repair work, identified through formal inspections, has declined due to reactive works taking priority. Extra funding has been sought to meet this demand and agreed to in principle.

Challenges include those where development of the District puts greater demand on roading infrastructure in general, but in particular where construction traffic requires extra intervention over and above day-to-day

maintenance. Funding levels will need to keep up with this growth to ensure the roading network continues to perform well. The increased traffic on the network also means a higher likelihood of crashes which is necessitating a step change in infrastructure standards on some key routes, such as West Rangiora.



The solid waste assets are revalued on a three yearly valuation cycle. No specific condition assessment of the original transfer station assets has been undertaken, but the condition of more recently installed individual components at these sites, and the individual components relating to closed landfills and cleanfill pits, have been estimated based on the component age in relation to the typical design life. Overall 88% of solid waste assets are in good condition as the major assets (transfer stations) have a remaining life of over 50%, with 12% (assets at closed landfills and cleanfills) being adequate or poor. Council proposes to undertake a full condition assessment and validation of all solid waste assets over the next three years.

The renewal cycle for solid waste facilities is currently based on asset age. Once the planned programme of asset capture has been completed a more sophisticated replacement schedule will be developed.



A full condition assessment and validation of all Green Space recreation assets was undertaken in 2013. The implementation of an asset validation programme utilising mobile tablet technology has allowed all assets, except for community facilities, to be reassessed every 18 to 24 months. Staff are currently undertaking a programme of asset capture for all community facilities and these will be included in the asset validation process in the future. The asset information currently available suggests that, on average, the condition of parks related assets is moderate to good.

A full revaluation of Green Space assets was undertaken in 2019 and is completed every three years to ensure that the information on replacement cost and useful lives remains relevant.

Renewal programmes are based on the condition and age of park assets and realistic replacement budgets are set to ensure the overall condition of these assets is maintained or improved over time.

The condition of community facilities is generally very good, due in part to the considerable investment the Council has made to improve these assets since the Canterbury Earthquakes. The Earthquake Strengthening Programme has brought almost all community buildings up to, and in many cases above, 67 percent of National Building Standards. A number of other building improvements have also been made in conjunction with this work.

The asset capture process is identifying some facilities that require work to remain compliant. This is generally in the facilities that did not require strengthening work following the Canterbury earthquakes.

Generally Green Space assets are performing well and meeting the identified levels of service, however, it is anticipated that the expected population growth throughout the District over the coming years will put pressure on existing community facilities and parks and reserves.



The Aquatic Facilities have been impacted by Covid-19 restrictions and user numbers have not yet recovered to pre-Covid-19 levels. A District Aquatics Strategy has recently been completed to provide direction for future provision, including the best utilisation of existing assets. It identified that while pool facilities are still in relatively good condition and some capacity remains, Council needs to start planning for the future upgrade and development of these and additional sites to ensure services offered continue to meet the needs of a growing community.

The renewal cycle for aquatic facilities is currently based on asset age. Once the programme of asset capture has been completed a more sophisticated replacement schedule will be developed.



An independent condition assessment was conducted in 2015 and since then most 'Fair' and 'Poor' elements have been remediated or replaced including elements or spaces such as roofs, sewer, driveways, kitchens, bathrooms, internal fit-out, linings, carpets and fences. All units have also been independently assessed for insulation and asbestos.

The sites and units are inspected at least twice a year. A formal condition assessment is planned for 2021/22 for some critical assets such as roofs. An energy audit is also planned in early 2021 for some representative units.

The table below compares the 2015 overall condition of the portfolio relative to an internal estimate in 2020.

Year	As New	Excellent	Good	Fair	Poor
2015	25%	16%	36%	16%	9%
2020	20%	20%	44%	8%	3%

From an asset performance perspective, all the units are weather-tight and capable of being kept relatively warm, dry and compliant. A 10 year programme of mid-life unit refurbishments has been budgeted for to address interior condition, functional obsolescence and unit configuration, with units being upgraded as they become vacant.

Rentals have been increased significantly but are still below market rates and meeting their performance criteria for affordability.



The new leased Farmers building of approximately 850 m² is in excellent condition, performing well and fit-for-purpose in terms of design and functionality and thermal performance. A recent energy audit showed it was relatively cost effective.

The Ashley building was built in the 1980's, repurposed as office space in 2008/10 and strengthened in 2016, with both floors partially refurbished and asbestos encapsulated. Overall, the building is in good condition but some aspects such lighting, heating, ventilation and the main stairwell need attention. A recent energy audit showed the building was 50% more expensive to operate per person per year. Works to address these elements are proposed in 2021/22.

The Rangiora Service Centre was built in the early 1980's, undergoing alterations in 2018/19 and a substantial refurbishment in 2020/21. The latest upgrade has significantly improved the functional performance of the building, increasing capacity and providing a better work environment. The refurbishment is anticipated to generate a significant operational cost saving through reduced energy consumption.

The austerity brought about by the Covid-19 economic environment saw the budget halved and a number of performance enhancements were not able to be delivered. This will also impact on the lifecycle of some elements via wear and tear, as well as functional obsolescence. In particular significant additional capacity was not delivered by the refurbishment as had been planned. In the interim additional space has been leased in Durham House and the Portacoms have been retained. These are in good condition but struggle to maintain appropriate environmental conditions and should only be viewed as a temporary solution to space shortages.

The four separate Rangiora administration buildings duplicate administrative functions and secondary facilities such as toilets and staff rooms. The economies of scale that could be achieved are not taken advantage of in relation to effective spatial and facilities management. The separate buildings also compromise, to some extent, the way the organisation operates, including the delivery of customer services. In the longer term an office extension is proposed in 2028/30 to cater for further growth and to centralise office functions. This project is closely aligned with the proposed extension of the Rangiora Library and potential upgrades to the public car park and landscaped areas associated with this site. Further consideration and design is under way with a master plan for the site currently being progressed.



The rebuild of the Ruataniwha-Kaipoi Civic Centre after the Canterbury Earthquakes was completed in 2015. The Oxford Library rebuild was completed in 2017. Both of these buildings are in excellent condition, generally performing well and fit-for-purpose in terms of general design and functionality.

In the 1990's the Rangiora Library was mostly rebuilt, with the extension joining onto an existing building which is now used as an art gallery and meeting room. The exterior is generally in good condition and overall the interior is in good to fair condition. The heating and ventilation system that was previously performing poorly was replaced in 2020, however some other building elements are in only fair condition. Examples are the roof which leaks in heavy rains and the staff office/toilet areas which are well below standard.

The main performance issues with the building relate to capacity constraints but there are also some issues of functional obsolescence and spatial design. The 2017 Toilet Strategy categorised the public toilets within the Rangiora Library as 'high use' toilets, being very well used by members of the public either visiting the library or visiting the town centre, and recommended that provision be made for additional toilet cubicles when the building was redeveloped. There is also increased demand for the library service to provide support programmes for people with physical and cognitive challenges and this could increase as the population ages. There is little ability to adapt the cramped existing spaces to accommodate this.

The Rangiora Library extension has been deferred from 2023/24 to 2027/29 to run in tandem with a proposed redevelopment of the civic precinct site. This is subject to the master planning work for the site as a whole.

5.2 Identifying and managing risk by activity



A range of different types of risk assessments have been carried out for the District's water supply schemes. The operational risk assessment has previously generated a programme of work focussed primarily on improving security of supply and meeting the Drinking Water Standards. This work is now largely complete, with the final upgrade due for completion in 2021, subject to any further regulatory requirements from Taumata Arowai.

The vulnerability assessment and criticality assessments provide input data to the renewals programme. The effect of the vulnerability assessment, which only applies to underground pipes, is to accelerate the renewal of old brittle pipework, in areas of high risk of liquefaction and it is expected that all pipes at risk from earthquake in liquefiable ground will have been replaced by 2030.

The publication of the Havelock North Water Supply Inquiry Stage 2 report has prompted the inclusion of provisional budgets for installing UV treatment on all deep bore water supplies, where this is not already in place. Also included is provision for chlorination equipment for all supplies not currently chlorinated, to enable treatment of all supplies for bacteria and protozoa, and the provision for a residual disinfectant throughout all pipe networks.

This approach is precautionary as it is still uncertain what treatment future legislation and standards will require, and what the process may be to gain exemptions from some of these requirements. Updated standards and legislation are expected to be in place from 2021, so a greater degree of certainty is expected from this time.

Climate change poses some risks to Council's water supplies. This includes potential effects near the coast from sea level rise, and away from the coast from potential changes to groundwater recharge patterns arising from changing rainfall patterns. Environment Canterbury advises that the District's deep well water sources are less likely to be significantly impacted by climate change in the short to medium term, but this will continue to be monitored.

The risk of rising groundwater on the pipe networks in the eastern parts of the District will need to be understood and managed. Preliminary studies have been conducted to review the likely level of sea level rise near the coast, and further studies are planned to be undertaken within the first three years of the LTP to investigate the implications of this sea level rise on Council's assets.

A Water Safety Plan is required to be written by the water supplier for each supply as part of complying with the *Health (Drinking-water) Amendment Act*, and in the future under the *Water Services Act* (assuming the *Water Services Bill* is passed and enacted). Part of the process of preparing these plans is to undertake a risk assessment for all components of the supply, and where there are risks evaluated as unacceptable, to include improvement projects to address these risks. These identified improvement projects then feed through to the next Annual Plan or Long Term Plan process, where they cannot be delivered from pre-existing budgets. These documents therefore play an important role in informing both the AMPs, and the Council's corporate planning documents.



A range of different types of risk assessments has also been carried out for the District's wastewater reticulation schemes.

The Council's current level of service for the network is no overflows in a 2 year storm for existing areas developed before

the year 2000 and none in a 5 year storm for new development areas. Part of the central Rangiora upgrade project provides for additional capacity to achieve this level of service. Modelling and investigations are being undertaken for the Kaiapoi network to determine the upgrades required to achieve levels of service. An \$18.2m ten year budget is included in the LTP for this upgrade, starting in 2024/31.

The Council's resource consent for effluent discharge from its ocean outfall will expire in 2039. This permits a maximum discharge of 57,000 m³ per day. Analysis of the Ocean Outfall network completed in 2020 predicts there is sufficient capacity for the next 50 years without requiring significant upgrades. This Infrastructure Strategy assumes that when consent renewal is required it will be renewed without any substantial change to the current treatment and disposal approach. It is also assumed that the consent for the land-based discharge from the Oxford scheme will be renewed with similar conditions when it expires in 2031. The Fernside and Loburn Lea schemes will be connected to the EDSS before the end of 2021.

Climate change poses risks to Council wastewater schemes as it has the potential over the long term to increase pressure on flood protection infrastructure and stormwater systems, and damage coastal infrastructure. Drainage systems near the coast are likely to become problematic. This could lead to an increase in wastewater overflows from more severe wet weather events. Sea level rise, and associated potential groundwater rise, could also significantly increase infiltration into the reticulation network of coastal towns, lowering levels of service.



A range of different types of risk assessments have been carried out for the District's drainage schemes.

The operational risk assessment has previously generated a programme of work to address the flooding issues identified. Funding recently received from the Covid-19 Response and

Recovery Fund means that the significant works required to alleviate the long term flooding issues on both sides of the Kaiapoi River have been brought forward and will be completed within the first two years of the 2021-2031 LTP. The Rangiora and Ohoka programme is planned for completion by 2028/29.

The majority of the other high risks identified relate to earthquake risk, for which further assessment remains to be carried out.

The vulnerability assessment and criticality assessments provide input data to the renewals programme. The effect of the vulnerability assessment, which only applies to underground pipes, is to accelerate the renewal of old brittle pipework, in areas of high risk of liquefaction.

The Disaster Resilience Assessment considers the risk to above ground assets from a broad range of potential natural disasters, and overlaps with the operational risk assessment in identifying earthquake risk issues at facility sites.

The risk of poor performance of the District's open drain network, arising from blockages, is managed via the Drainage Maintenance Contract. This includes both a regular programme of drain cleaning, and a prompt response to calls from landowners advising that drains on their land need cleaning.

Risk from new developments increasing runoff and adding to pollutant load, is managed through the requirement for developers to include stormwater attenuation and treatment facilities within development proposals, which meet the requirements of the Land and Water Regional Plan. Flood risk for new homes is dealt with by setting minimum floor levels based on 50 year flood levels.

There is some financial risk from the requirement to obtain urban stormwater discharge consents from the Regional Council. Consents have been applied for with the outcome pending. The application proposes that by 2025 Council will have costed and developed a strategy for meeting water quality standards. There is uncertainty about whether this timeframe will be accepted, and also regarding the most cost-effective way of meeting water quality standards.

Climate change mitigation is the most significant long term challenge for stormwater drainage. Research to date has indicated that while low-lying coastal areas will remain protected by the dune system, increasing ground water levels will become problematic, and various combinations of storm tide, fluvial events and a rising mean sea level will cause over-topping of stop banks and natural river banks. Further assessment work is needed, and consideration given to the types of solutions that may be practical. The issues need to start being discussed with stakeholders, most notably the Regional Council and

affected communities. Major decisions will need to be made and an adaptive strategy developed that is acceptable to both the affected communities and the wider District, within the 10 year period of the LTP.



The most significant potential risks to the roading network are likely to be as a result of a major natural disaster, such as an earthquake or major flooding event. Other risks include political, economic, management and environmental. By maintaining a resilient network, short-term adverse changes can be managed.

Adding robust monitoring processes, and auditing these and their implementation regularly, helps to provide maximum information on the state of the network in real time, and the ability to respond appropriately, and in a timely manner.

Risk to the operation of the roading network is managed through the development and ongoing review of the roading risk register, as well as through emergency response planning, seismic screening of bridges, lifeline disaster resilience assessment, and detailed assessments of critical assets.

In general, the short term effect of emergency events on the road network can be mitigated by:

- Ensuring robust emergency management systems are in place
- Ensuring the network has alternative routes available wherever possible, particularly for arterial roads.

Council will continue to place emphasis on drainage maintenance and improvements to minimise impacts of major flooding events, while day to day management of bridge maintenance ensures flood events will cause no significant damage to infrastructure.

In the longer term, sea level rise resulting from climate change will affect all asset areas, not only Roothing. Decisions will be need to be made at a political level, both local and national, about issues such as controlling development in coastal areas, potential relocation of affected residents, or aggressive water level rise containment. Sea level rise affects not only coastal surges, but also ground water levels, and capacity of culverts and bridges. The next three years will need to be spent investigating and carrying out analysis to allow best practice decision making and possible network management changes



The primary risks to the solid waste activity are changing acceptance criteria and decreasing commodity values in recyclables markets, loss of or inability to access disposal sites, inability to access collection areas, insufficient containers to transport waste, extended power outages, fire, spillage of hazardous waste, limitations on facilities to manage waste from severe events, and lack of land to expand waste handling and transfer sites. The local and on-site risks are being managed through operational planning and proposed capital works.

More stringent acceptance criteria and further drops in commodity values will result in more changes to kerbside collection services, increased costs to ensure compliance with acceptance standards, and higher processing costs, and may impact on the economic viability of providing commingled recycling kerbside collection services.

An inability to access Kate Valley landfill, for example, if the access road became impassable in the event of an earthquake or large snow event, would result in rubbish and recycling building up in the pit and insufficient empty containers in which to store these materials on-site.

Climate change will not directly impact solid waste assets. Rising groundwater levels could increase the generation and spread of leachate from the Kaiapoi closed landfill. This would have to be mitigated to reduce the impact on groundwater quality.

The Rangiora closed landfill is adjacent to the Ashley-Rakahuri River and has stop banks on two of its three boundaries. An increase in severity and occurrence of flood events due to climate change increases the risk of floods undermining or washing out the stop banks and landfill site. The Council will need to work with Environment Canterbury to ensure the stop banks are maintained and adequate for use in the future.

Sufficient capacity exists in the cleanfill sites for 15 to 20 years with normal use. In the event of an emergency, such as an earthquake, the sites could reach capacity sooner than estimated. The Council does not own any additional land that would be suitable for this purpose and will need to

develop an alternative strategy to deal with hard fill and clean fill. This could potentially include processing concrete for sale as hard fill to save air space.

The Council will continue to work with neighbouring Councils and organisations to develop a strategy to manage waste arising from severe events such as earthquakes and flooding.



The four most significant risks to asset performance in the Recreation, Green Space and Community Facilities portfolios are earthquakes, climate change, population growth and demographic changes. These are identified as follows:

- The functionality of community facilities is more likely to be impaired by another significant earthquake, although the earthquake strengthening programme has mitigated this to a certain degree. The extent of any damage will ultimately depend on the size and nature of the earthquake event.
- Climate change has the potential to affect both the flora and fauna within parks, natural areas and streetscapes. Increased costs could arise from implementing strategies to mitigate the effects of climate change, in particular drought and storm events. Climate change is most likely to impact on open space areas over summer periods when dry conditions will affect the quality of grass cover, and more irrigation is required to maintain it. Sea level rise will eventually impact on coastal reserve areas. Consideration is being given to the use of more drought tolerant tree and shrub species, and grass cultivars.
- Demand for open space and aquatic facilities has increased because of the significant growth in the District. In response to this Green Space has focused on maintaining asset performance to ensure levels of service and resident expectations continue to be met across the existing asset base. Within the next 30 years two additional community facilities and an aquatic facility will be required to cater for the expanding population in the eastern part of the District.
- Population forecasts indicate the number of people aged 65 and over living in the District will increase considerably over the next 30 years. Green Space and Aquatics are aware the needs and expectations of older people must be considered when designing and maintaining assets.



The design of the building structures have over time demonstrated high levels of resilience to earthquakes, high winds and heavy precipitation. Detailed Engineering Evaluations (DEE's) completed after the 2010/11 earthquakes indicate a relatively low level of risk, mainly because most of the Council's buildings are single story and timber framing is used as the primary structural element. Resilience is further enhanced through the application of new design standards when refurbishments occur. The renewal/ refurbishment programme also includes a focus on making the units more energy efficient, and removing health hazards such as asbestos.

5.3 Relevant legislation

Resource Management Act 1991 Reform

The Government is currently undertaking a reform of the *Resource Management Act 1991* (RMA) to cut complexity and costs and better protect the environment. It proposes to replace the RMA with three new Acts called the *Strategic Planning Act* (SPA), the *Natural and Built Environments Act* (NABEA) and the *Managed Retreat and Climate Change Adaptation Act*.

The *Strategic Planning Act* is intended to promote community wellbeing through the integration of environmental management and land use infrastructure and will set the policy direction for the *Natural and Built Environments Act*. The purpose of the NABEA is to enhance the quality of natural and built environments both now and into the future.

Both of these Acts are expected to be in place by the end of 2022, with the more complex SPA being completed after the NABEA, and could impact on the regulation and consenting for infrastructure.

Proposed Managed Retreat and Climate Change Adaption Act

This Act includes powers to change established land uses, and provide for compensation/funding mechanisms to address adaptation and reduction of risks from natural hazards.

Climate Change Response (Zero Carbon) Amendment Act 2019

This Act sets up an independent commission responsible for setting emissions budgets and developing emissions reduction plans. These are likely to have some relevance to local government.

The Waste Minimisation Act 2008

The *Waste Minimisation Act 2008* (the Act) requires councils to promote effective and efficient waste management and minimisation within their districts and to adopt, implement and fund Waste Management and Minimisation Plans (WMMP). The Act also gives powers to the Governor General to direct councils to alter provisions in their WMMPs, and to the Minister for the Environment to set performance standards for councils. The Act allocates a proportion of the Waste Disposal Levy collected at municipal landfills to councils and requires councils to only spend their share of the levy monies on 'matters to promote or achieve waste minimisation; and in accordance with their WMMPs'. There are provisions in the Act for a Council's levy to be withheld in specific circumstances. Any of these provisions could impact on the solid waste activity and the services provided.

The Act is being reviewed in 2021 to update the legislation and to expand and increase the waste minimisation levy, and the reviewed legislation is expected to be gazetted in 2023.

Regulations can be made under the Act to prohibit the sale and manufacture of products that contain a specified material, for example, plastic. New Regulations were gazetted in order to reduce environmental harm from microbeads (2017) and from single-use plastic shopping bags (2018). In late 2020 consultation was undertaken on proposals to phase out hard to recycle plastics by 2025 and take action on another seven single-use plastic items. Once the draft regulations have been prepared there will be further consultation undertaken before the final regulations around these plastic packaging types and plastic items are gazetted.

The Government declared six priority products for regulated product stewardship under the Waste Minimisation Act, in late 2020. Once each regulated product stewardship scheme is co-designed and accredited, regulations will be prepared

and consulted on. The regulations for each of the six priority products will be progressively gazetted during 2021 and 2022. All of these regulations will impact on the Solid Waste activity and the services provided.

In preparing their WMMP's councils must have regard to the New Zealand Waste Strategy (NZWS), or any government policy on waste management and minimisation that replaces the Strategy. The current NZWS has two goals: reducing the harmful effects of waste and improving the efficiency of resource use. The NZWS is being reviewed in 2021, and any changes, for example, the introduction of waste minimisation targets for specific materials, will require councils to give effect to those changes in their WMMPs at the next review deadline.

The *Climate Change Response Act 2002*, the *Climate Change (Waste) Regulations 2010* and Amendments to the *Climate Change (Unique Emissions Factors) Regulations* are implemented through the Emissions Trading Scheme. The purpose of the Emissions Trading Scheme is to reduce the amount of greenhouse gases emitted in New Zealand. As a shareholder in the Kate Valley Landfill, the Council participates in the scheme, reports on, and pays for landfill gas emissions. The Climate Change Commission will be undertaking consultation around the first package of advice to Government on the actions it must take to reach net-zero by 2050, and the outcomes of this may result in changes to the NZWS e.g. a target to reduce organic waste being sent to landfill, which could impact on Council services.

National Policy Statement for Urban Development

This NPS came into effect in August 2020 and provides direction to councils about when and how cities should plan for growth. It aims to remove unnecessary restrictions on development, to allow for growth 'up' and 'out' in locations that have good access to existing services and infrastructure.

Government Policy Statement on Land Transport

The Government Policy Statement (GPS) sets the framework for government transport directions. This policy is revised every three years and in recent years there has been a substantial shift towards reducing transport emissions and improving transport safety; with the Government signalling a desire to reduce both emissions and road fatalities to zero.

Te Mana o te Taiao, the Aotearoa NZ Biodiversity Strategy 2020

This strategy sets out a strategic framework for the protection, restoration and sustainable use of biodiversity, particularly indigenous biodiversity, in Aotearoa New Zealand, from 2020 to 2050. An implementation plan is to be developed in 2021 which will focus on establishing the systems and processes needed to support the effective delivery of the strategy. Partnership is identified as a core approach for delivering the strategy and so it is likely the Council will be involved in some way in the refresh of the Canterbury Biodiversity Strategy and implementing additional local biodiversity action.

NZ Biodiversity National Policy Statement (NPS)

In 2020 the Government released a draft National Policy Statement for Indigenous Biodiversity for consultation which sets out the objectives and policies to identify, protect, manage and restore indigenous biodiversity under the *Resource Management Act 1991*. This set out additional responsibilities for Council to identify and protect indigenous biodiversity on private and public land which could incur significant additional costs. The final NPS is expected to be released in April 2021. Ultimately, Council's response to biodiversity will not be able to be inconsistent with the NZ Biodiversity Strategy or the NPS.

Mahaanui Iwi Management Plan

The Mahaanui Iwi Management Plan includes a number of objectives and policies for the 3 Waters activities, summarised as:

- Wastewater (seeking improved effluent treatment and aspiring to avoid discharging into the ocean)
- Stormwater (improved treatment of discharges to improve water quality, and aspiring to avoid contaminated stormwater entering natural waterways)
- Water supplies (management of abstraction quantities reflecting a desire to reduce unnecessary urban water consumption).

These aspirations are required to be considered in various planning activities under the *Resource Management Act 1991*. As such they could impact on Council's costs and the nature of the 3 Water services delivered.

5.4 Community outcomes

Community Outcomes describe how Waimakariri District Council aims to achieve meeting the current and future needs of our communities with good quality local infrastructure, providing local public services and performance of regulatory functions.

Community outcomes set the direction for our Long Term Plan (LTP) and all activities included in the LTP that the Council undertakes contribute towards achieving these outcomes. The key groups of activities that contribute to each outcome are displayed.

The Local Government Act 2002 requires Council to promote the following four Wellbeings in the present and for the future. Each Community Outcome is associated with one or more Wellbeing.



Social Wellbeing



Economic Wellbeing



Cultural Wellbeing



Environmental Wellbeing



U.N Sustainable Development Goals



Public spaces and facilities are plentiful, accessible and high quality

- People enjoy clean water at our beaches, rivers and lakes
- There is a wide variety of public places and spaces to meet people's needs
- There are wide-ranging opportunities for people to enjoy the outdoors
- The accessibility of community and recreation facilities meets the changing needs of our community.

UN SDG 3, 11



People's needs for mental and physical health and social services are met

- Our people are supported by a wide range of health services that are available and accessible in our District
- Participation in community-based support and services is acknowledged and encouraged
- Housing is available to match the changing needs and aspirations of our community
- There are wide ranging opportunities to support people's physical health.

UN SDG 3.



There are areas of significant indigenous vegetation and habitats that support indigenous fauna

- Conservation, restoration and development of significant areas of vegetation and/or habitats is actively promoted.

UN SDG 15



People are friendly and caring, creating a strong sense of community in our District

- There are wide-ranging opportunities for people of different ages, abilities and cultures to participate in community life and recreational activities.

UN SDG 3, 16



Core utility services are sustainable, resilient, affordable; and provided in a timely-manner

- Harm to the environment from sewage and stormwater discharges is minimised
- Council sewerage and water supply schemes, and drainage and waste collection services are provided to a high standard
- Waste recycling and re-use of solid waste is encouraged and residues are managed so that they minimise harm to the environment
- Renewable energy technologies and their efficient use is encouraged
- High-speed telecommunications services are readily available across the District
- Climate change considerations are incorporated into all infrastructure decision-making processes
- Good procurement practice and effective long-term planning ensures services are sustainable, affordable and value for money for the community
- Infrastructure services are managed in a way that reduces emissions over time.

UN SDG 6, 7, 9, 11, 12, 13, 15



The community's cultures, arts and heritage are conserved and celebrated

- Mana whenua are acknowledged and respected
- All cultures are acknowledged, respected and welcomed in the District
- Heritage buildings and sites are protected and the cultural heritage links with our past are preserved
- There are wide-ranging opportunities to participate in arts and cultural activities.

UN SDG 3, 16.



Effect is given to the principles of the Treaty of Waitangi

- The Council in partnership with Te Ngāi Tūāhuriri Rūnanga, continue to build our relationship through mutual understanding and shared responsibilities.

UN SDG 10, 16





There is a healthy and sustainable environment for all

- Harm to the environment from the impacts of land use, use of water resources and air emissions is minimised
- Cultural values relating to water are acknowledged and respected
- The demand for water is kept to a sustainable level
- Harm to the environment from the spread of contaminants into ground water and surface water is minimised
- The impacts from land use activities are usually only short term and/or seasonal
- Soils are protected from erosion and unsustainable land use practices
- Low carbon, climate-resilient development is promoted.

UN SDG 6, 11, 12, 13, 15



There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised
- Our District has the capacity and resilience to quickly recover from natural disasters and adapt to the effects of climate change
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised
- Climate change challenges are addressed in an appropriate, timely, cost-effective and equitable manner
- Our District is well served by emergency services and volunteers are encouraged.

UN SDG 3, 13.



Transport is accessible, convenient, reliable and sustainable

- The standard of our District's roads is keeping pace with increasing traffic numbers
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes
- Public transport serves our District effectively
- Opportunities to increase the occupancy of commuter vehicles is actively encouraged

UN SDG 9, 11, 12



People have wide ranging opportunities for learning and being informed

- Our educational facilities and libraries are well resourced and have the capacity to manage and respond to changing demographics
- Our people are easily able to get the information they need.

UN SDG 4, 3



Businesses in the District are diverse, adaptable and growing

- There are growing numbers of businesses and employment opportunities in our District
- There are sufficient and appropriate places where businesses are able to set up in our District.

UN SDG 8



There are wide ranging opportunities for people to contribute to the decision making that affects our District

- The Council makes information about its plans and activities readily available
- The Council takes account of the views across the community including mana whenua
- The Council makes known its views on significant proposals by others affecting the District's wellbeing
- Opportunities for collaboration and partnerships are actively pursued.

UN SDG 16



The distinctive character of our tākiwa – towns, villages and rural areas is maintained

- The centres of our towns are safe, convenient and attractive places to visit and do business
- Our rural areas retain their amenity and character.

UN SDG 11

SUSTAINABLE DEVELOPMENT GOALS

The U.N Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all by 2030. They address the global challenges including those related to poverty, inequality, climate change, environmental degradation, peace and justice. The community outcomes broadly align with these goals.




Learn more about each U.N goal at: un.org/sustainabledevelopment/sustainable-development-goals/



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WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR INFORMATION****FILE NO and TRIM NO:** GOV-01-11 / 210212023675**REPORT TO:** Council**DATE OF MEETING:** 23 February 2021**FROM:** Sarah Nichols, Governance Manager**SUBJECT:** Confirmation of Voting Method for 2022 and 2025 Local Body Elections**SIGNED BY:**
(for Reports to Council,
Committees or Boards)
Department Manager
pp Chief Executive**1. SUMMARY**

- 1.1 This report advises the outcome of the right for the public to demand a poll to change the voting system (to countermand) being used for the next two local body elections being held in October 2022 and 2025.

Attachments:

- i. Council Report 4 August 2020, (200728095649) and advertisement (210212023705).

2. RECOMMENDATION**THAT** the Council:

- (a) **Receives** report No. 210212023675.
- (b) **Notes** no countermand poll has been received for a change in voting method therefore First Past the Post (FPP) voting method will be used in the 2022 and 2025 local body elections, as previously resolved by the Council on 4 August 2020.

3. BACKGROUND

- 3.1 As part of the Representation Review and preparation for the 2022 and 2025 local body elections, the Council considers the voting method that would be used, being either First Past the Post (FPP), or the Single Transferable Vote (STV).
- 3.2 The Council considered a report at its 4 August 2020 meeting, advising the voting system to be used for the next two local body elections would be FPP. The Council also publically advertised on 1 September 2020 the decision to use this voting method, and the right of electors to demand a poll to countermand the resolution and seek use of STV.
- 3.3 For eligible electors to countermand (reverse the Council decision), a poll must be received no later than 18 February 2021 signed by at least five per cent of eligible electors of the District. This would require a minimum of 2,845 valid elector signatures, full name and address details.

4. **ISSUES AND OPTIONS**

- 4.1. This report advises that as per the advertisement of 1 September 2020, the public had until 4pm, 18 February 2021 to deliver a poll, containing at least the minimum number of signatories of eligible voters demanding the alternative voting method being used in the 2022 and 2025 local body elections.
- 4.2. The Council has not received a poll countermanding the resolution of the Council, therefore the First Past the Post (FPP) voting method is confirmed as the method used in for the 2022 and 2025 local body elections.
- 4.3. The voting system does not affect Maori Wards. Maori Wards are not currently able to be established within the Waimakariri District due to the number of persons enrolled on the Maori electoral roll, and inability to meet the legislative threshold, therefore no poll was sought from the community in relation to the establishment of Maori Wards.
- 4.4. The Management Team have reviewed this report and support the recommendations.

5. **COMMUNITY VIEWS**

5.1. **Groups and Organisations**

The public has an opportunity to express an opinion regarding voting method by way of seeking a poll after Council's decision is advertised. There is no evidence that the community has had a change of opinion since the survey undertaken in 2002.

During recent discussions with both the Runanga and the Mahi Tahī Joint Development Committee no issue was raised in relation to a change of the current FPP voting system and the groups are satisfied with the current arrangement. Discussions related to the Representation Review, which are separate to this paper, are ongoing and positive.

5.2. **Wider Community**

As per above comments.

6. **IMPLICATIONS AND RISKS**

6.1. **Financial Implications**

There are no cost implications. Election related costs are managed from the Governance Budget.

6.2. **Community Implication**

The community has opportunities to input into the process and potentially change the voting method used by countermanding a poll, signed by at least five percent of eligible electors within the Waimakariri District.

6.3. **Risk Management**

Limited risk to the Council as legislative processes are followed and the community consulted.

6.4. **Health and Safety**

Not applicable.

7. **CONTEXT**

7.1. **Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Legislation**

Local Electoral Act 2001, sections 28(1) and 29.

7.3. **Community Outcomes**

There are wide ranging opportunities for people to contribute to the decision making that effects our District.

7.4. **Delegations**

The Council is delegated by legislation to make decisions related to voting systems.

Sarah Nichols
GOVERNANCE MANAGER

WAIMAKARIRI DISTRICT COUNCIL

ATTACHMENT I

REPORT FOR DECISION**FILE NO and TRIM NO:** Gov-03-03 / 200728095649**REPORT TO:** Council**DATE OF MEETING:** 4 August 2020**FROM:** Sarah Nichols, Governance Manager**SUBJECT:** Outline of Representation Review for 2022 Election**SIGNED BY:**
(for Reports to Council,
Committees or Boards)_____
Department Manager
pp Chief Executive**1. SUMMARY**

- 1.1 The purpose of this report is to inform the Council on the method of voting to be used for the 2022 and 2025 Local Authority Elections. It also outlines the timetable for the Representation Review to be undertaken during 2020/21 which takes effect for the 2022 Local Body elections and to establish a working party to review the process and report to the Council.
- 1.2 The Local Electoral Act 2001 offers a choice of two voting systems for the Council Elections. The currently used First Past the Post (FPP), or the Single Transferable Vote (STV). In October 2017 the previous Council resolved to use First Past the Post voting for the 2022 and 2025 elections. This Council may resolve to change the voting method to STV, prior to 12 September 2020.
- 1.3 A key principle of the Local Electoral Act 2001 relating to a Representation Review is designed to implement the provision of "fair and effective representation for individuals and communities". The Local Electoral Act requires local authorities to review their representation arrangements on a regular basis, being at least once every six years. The next review must be undertaken during this triennium in preparation of Saturday 8 October 2022 Local Body elections.
- 1.4 The report also notes the Electoral Officer and Deputy Electoral Officer for the Council, as resolved by the previous Council. The Council must have these positions in place at all times, and this arrangement has continued from the previous Council. Should this Council wish to review the Electoral Officer position a further report would be presented to the Council with options.

Attachments:

- i. Local Government Commission Timetable Guide (attached)
- ii. Draft Representation Review Working Party Terms of Reference (Trim 200728095664).

2. RECOMMENDATION**THAT** the Council:

- (a) **Receives** report No. 200728095649.
- (b) **Notes** Anthony Morton from Electionz.com as the Electoral Officer for the Council.
- (c) **Notes** Sarah Nichols from the Council as the Deputy Electoral Officer for the Council.

- (d) **Notes** the First Past the Post (FPP) voting system for the 2022 and 2025 local authority elections.
- (e) **Establishes** a Representation Review Working Party and approves the Terms of Reference. (Trim 200728095664), which will meet regularly on Thursday mornings.
- (f) Appoints Mayor Gordon and Councillors (being one councillor from each ward) to the Representation Review Working Party.
- (g) **Approves** one member (non-Councillor) from each of Rangiora-Ashley, Kaiapoi-Tuahiwi, Woodend-Sefton and Oxford-Ohoka Community Boards being appointed by their respective Boards to be members of the Representation Review Working Party.
- (h) **Notes** a report will come before Council for consideration on the Maori ward matter at the November 2020 Council meeting, following consultation with Ngāi Tūāhuriri Rūnanga.
- (i) **Circulates** a copy of this report to each Community Board.

3. BACKGROUND

- 3.1 In 2002 the Council resolved to consult with the community before making the decision to hold the 2004 and 2007 elections by using the First Past The Post (FPP) method as opposed to the Single Transferable Vote (STV) method. Information was sent out with the rates instalment notices and an advertisement was placed in the Northern Outlook. Of the responses received in 2002, 782 favoured retention of the FPP system and 277 favoured a change to STV.
- 3.2 In 2008, the Council resolved to retain the FPP system and advertised its intentions for public submission and did this again in 2011 and 2017. No public feedback by way of demand of poll with the required voter percentage was received to change the voting system.
- 3.3 There is an opportunity for the community to poll for a change of method. The local authority must give public notice of the right of 5% of the electors to demand a poll on the future electoral system. Ninety days must be given following the public notice allowing electors to gather sufficient signatures to demand that a poll be held to change the electoral system. After which time the local authority may resolve to undertake a poll of electors.
- 3.4 STV stands for Single Transferable Vote. In its simplest form, STV means that voters are able to rank candidates in order of preference, rather than simply pick their most preferred candidate for each vacancy. Under the FPP (First Past the Post) electoral system, the candidate with the most votes wins. This is a very simple method of electing candidates and is widely used throughout the world. It was used in New Zealand for Parliamentary elections up until the introduction of MMP (Mixed Member Proportional) in the 1996 general election. Although FPP is very simple, some people have argued that the results of an FPP election may not always reflect the wishes of the majority of voters, whilst anecdotal public feedback is that the STV systems is confusing and cumbersome.
- 3.5 In the 2019 Local Authority Elections 67 Territorial and Regional Councils used the FPP system and 11 Councils used the STV system. District Health Boards use the STV voting system. There has been national discussion about on-line voting for future elections, however the current government has confirmed there will be no on-line voting options for the 2022 local body elections. Department of Internal Affairs is responsible for the oversight of any changes relating to voting methods or processes.
- 3.6 The Local Electoral Act requires local authorities to review their representation arrangements on a regular basis. Previously, this was required to take place every

triennium, but an amendment to the Act in 2002 meant that local authorities could determine their representation on the first occasion either in 2003 or 2006, and subsequently, at least once every six years after the first determination. The Waimakariri District Council chose to carry out its initial review in 2003 and a subsequent review in 2009. A review may be undertaken after three years but local authorities are not required to do so. As no representation review was conducted during the last triennium it must be undertaken during this triennium in preparation of the 8 October 2022 Local Body elections.

It is noted that the Electoral Officer is an appointment which can only be made by the Council. The Council must have an appointed Electoral Officer at all times and they retain the position until death or resignation or the Council appoints otherwise. This Council has used the services of Electionz.com for some time and the officer, Anthony Morton. The company has a good understanding of the District requirements. The contract for the associated services with Electionz.com is an operational matter and for practical purposes is with the Electoral Officer's company. Although the Deputy Electoral Officer is capable of overseeing the election process, by utilising a specialist company the Council maintain a level of independent advice and responsibility as the Deputy Electoral Officer has an ongoing relationship with all elected members. A deputy electoral officer has all the powers of the Electoral Officer, and is not subject to directions of any local authority or community board in exercising the powers or carrying out the duties of the Act. The Electoral Officer can appoint the deputy officer, and is supportive of Sarah Nichols in the role.

4. ISSUES AND OPTIONS

- 4.1. Councils must choose one of two voting systems for the Council Elections, being either First Past the Post (FPP), or the Single Transferable Vote (STV). In 2017 the Council confirmed its intention to retain the FPP voting system for the 2022 and 2025 local government elections. This report reaffirms that decision of the previous Council.
- 4.2. As defined by the Local Electoral Act, Representation Reviews are reviews of the representation arrangements for the local authority. In the case of territorial authorities, they include the basis of election for councillors (at large, wards or a mix of both), and the establishment (or dis-establishment) of community boards. The review determines for each local authority the detailed arrangements on the number of electoral subdivisions (if any), their boundaries, names and number of members to be elected.
- 4.3. The Council is required by statute to apply the 'ordinary resident population' figures derived either from the most recent Census or from population estimates prepared by Statistics New Zealand. The population data that most accurately reflects its current situation must be applied. Staff are also required to keep the Local Government Commission, the Surveyor-General of Land Information New Zealand and the Government Statistician (Statistics New Zealand) informed of progress with the Representation Review. Information is also required to be furnished to the Remuneration Authority and the Secretary for Local Government (Department of Internal Affairs).
- 4.4. The Census data is expected to be released by Statistics NZ towards the end of September 2020, however associated work can begin, without the current population data, to assist with the work programme and compliance of completion of key aspects.
- 4.5. When the 2009 Representation Review was undertaken an independent Chairperson was appointed. During 2015 when the last Representation Review work was undertaken it was considered unnecessary to appoint an independent Chairperson given the proposed balanced membership of the working party, with their combined knowledge of local communities and the best practice processes that will be followed in accordance to the Local Government Commission guidelines and legislative requirements, and the staff knowledge of legislation and statistics. For the upcoming Review, and following discussion

with the Mayor it is considered that in-house staff knowledge, in conjunction with members of the working party will provide for a balanced process. The matter can be reviewed, if deemed necessary, after informal consultation has occurred and prior to the Special Consultative Process occurring. The Representation Review is subject to appeal and objections to the Local Government Commission. An appeal occurred in 2016 overturning one aspect of the Council resolution involving the creation of the Woodend-Sefton Community Board.

- 4.6. The Local Electoral Act provided that Maori wards or constituencies may be established for territorial authorities, and can be achieved either by way of a Council resolution or as the outcome of a poll of electors. This decision must be made by the Council prior to 23 November 2020. It is intended a report be brought before the Council at its 3 November meeting for consideration following consultation with the Rūnanga.
- 4.7. Based on currently released census data relating to Maori Electoral Population (MEP) and General Electoral Population (GEP) the district currently does not have enough people enrolled on the roll to enable a Maori ward being established based on the formula provided by the Local Government Commission and the present number of councillors. This information will be worked through further, subject to Electoral Act considerations and consultation with Ngāi Tūāhuriri Rūnanga prior to November 2020. If the Council resolve otherwise it would have an effect on the Representation Review outcomes, therefore some timeframes outlined in this report may require amendment.
- 4.8. There are a number of steps that the Local Government Commission recommends as part of best practice when considering representation reviews. These include, but not limited to:
 - i. Giving consideration to significant changes in population in some areas which impact on fair representations; ie approximate equality between councillors in the numbers represented.
 - ii. Council and community views on community boards, retention or disestablishment and the size of those boards.
 - iii. Consideration of preliminary consultation with the community, including Maori.
 - iv. Identifying communities of interest. Communities of interest can be defined in terms of such characteristics as: sense of community identity and belonging reinforced by distinctive physical and topographical features; similarities in economic or social activities; similarities in the demographic, socio-economic and/or ethnic characteristics of the residents of a community; distinct local history of an area; local iwi; dependence on shared facilities and services in an area including schools, recreational and cultural facilities, retail outlets, transport and communication links. The LGA, s14(1)(c) states "when making a decision, a local authority should take account of the interests of future as well as current communities."
 - v. Determining effective representation for identified communities of interest and consider fairness of representation. This includes the +/- 10% rule of average population size per ward or constituency. For local authorities, a minimum of five Councillors to a maximum of 29 Councillors is permissible, in addition to the Mayor.
- 4.9. The Council must have an Electoral Officer appointed at all times and the previous Council formally appointed Anthony Morton, of Electionz.com as the Electoral Officer for the Council. Often a staff member will be chosen by the Electoral Officer (in conjunction with Chief Executive approval), to be the Deputy Electoral Officer, however the previous Council also chose to formally appoint Sarah Nichols as the Deputy Electoral Officer.

These positions continue indefinitely until such a time as a Council formally resolves differently.

- 4.10. The Acting Chief Executive has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Groups and Organisations

- 5.1.1. The public has an opportunity to express an opinion regarding voting method by way of seeking a poll after Council's decision is advertised. There is no evidence that the community has had a change of opinion since the survey undertaken in 2002.
- 5.1.2. Should the Council resolve to continue with the FPP system, advertising will be undertaken in August of the proposal, noting the opportunity to demand a poll.
- 5.1.3. Ngāi Tūāhuriri Rūnanga will be consulted regarding a Maori ward, ahead of any advertising.
- 5.1.4. The process for consultation regarding the Representation Review itself is outlined in the legislation and the timetable provides for the formal consultation process in June/September 2021 with informal consultation occurring with the community in later 2020/early 2021.
- 5.1.5. It is recommended that the Representation Review Working Party hold several information/drop in sessions during the informal consultation process to enable stakeholders and interested members of the community to informally share their views in relation to the Representation Review. These views would assist the Working Party establishing a draft proposal for Council consideration and subsequent Special Consultative Process in later 2021.

5.2. Wider Community

As per above comments.

6. IMPLICATIONS AND RISKS

6.1. Financial Implications

- 6.1.1. The Council would be faced with the costs of a poll should one be demanded. Should the Council decide to use the STV method, as opposed to the FPP method, the actual costs of election may increase slightly by way of processing costs due to the greater complexity of the method. That exercise has not been investigated, but a report could be sought from the Returning Officer.
- 6.1.2. The Governance unit hold budget allocation for the Representation Review process. There is minimal operational budget and staff time for the 2020/21 financial year to undertake informal consultation and information gathering before formulating the proposal that will be consulted on through a Special Consultative Process. There is budget allocation of \$25,000 allocated for Statistics NZ certified maps and associated documentation that is required as part of the final process.
- 6.1.3. If an independent Chairperson for the Representation Review Working Party was appointed, additional budget would need to be sourced to cover associated costs.

6.2. **Community Implication**

The community has opportunities to input into the process and potentially change the representation of elected membership at Council and Community Boards, and the names of those Community Boards. The community has the right to be represented fairly across the district with proportional number of elected members.

6.3. **Risk Management**

Limited risk to the Council as legislative processes are followed and the community consulted.

6.4. **Health and Safety**

Not applicable.

7. **CONTEXT**

7.1. **Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

Legislation

Local Electoral Act 2001 and Local Government Act 2002.

The most relevant sections of the legislation are contained in Part 1A sections 19A to 19Y of the Local Electoral Act 2001 and sections 27 to 34.

New Zealand Geographic Board Act 2008 and Locality Definition and Naming AS NZS 4819-2011.

7.2. **Community Outcomes**

There are wide ranging opportunities for people to contribute to the decision making that effects our District.

7.3. **Delegations**

The Council is delegated by legislation to make decisions related to voting systems.

The Local Government Commission confirms the final determination of the Representation Review, following recommendations of the Council and subject to appeal from the community.

Sarah Nichols
GOVERNANCE MANAGER

Appendix A: Timelines diagram

Figure 1 below is a summary of the timelines leading up to a round of local government elections. Refer to the relevant sections in these guidelines for detailed information about the associated requirements.

Figure 1 includes the dates relating to choosing electoral systems and establishing Māori wards/constituencies that must be met for any new resolutions to apply in the upcoming local government elections.

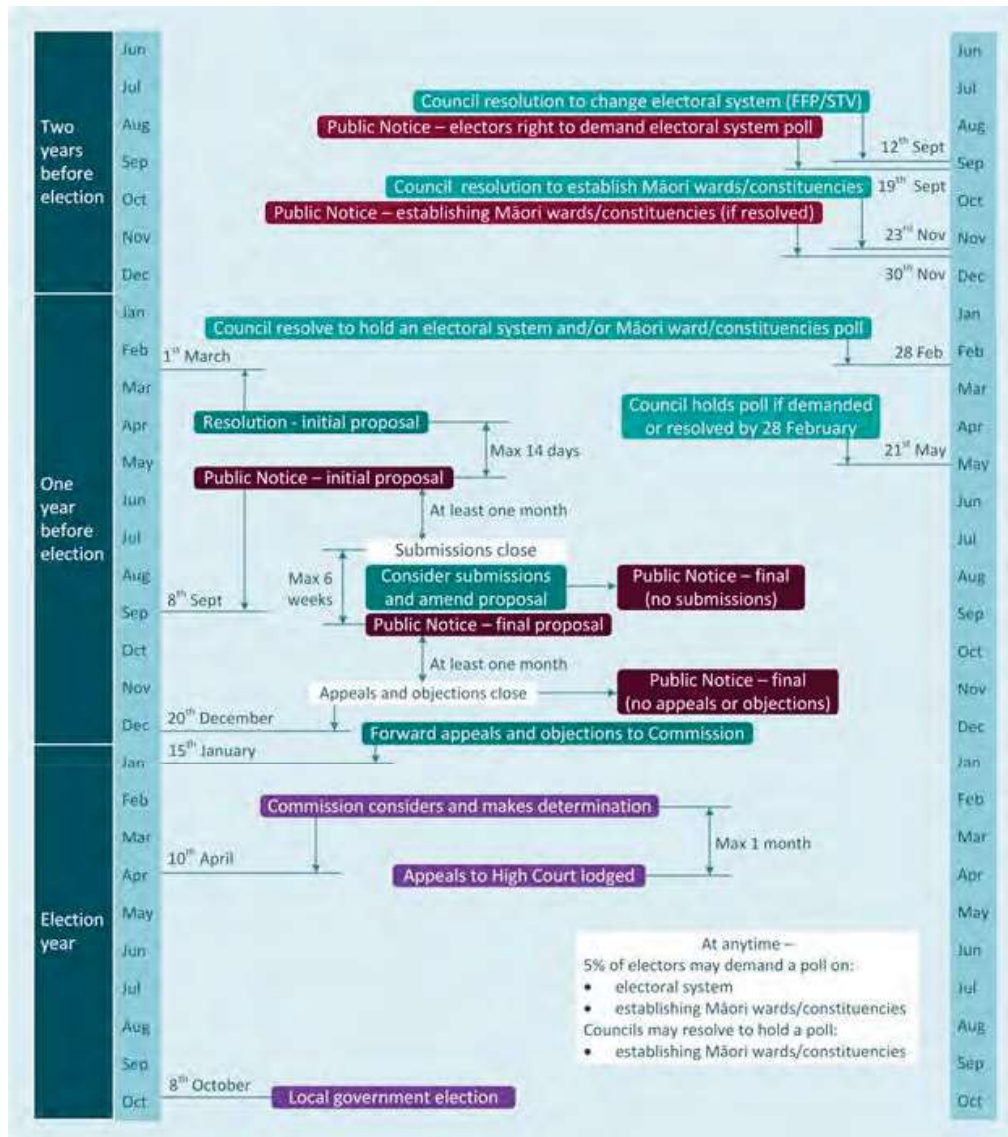


Figure 1: Timelines leading up to local government elections



S-TR 0085
 Issue: 2
 Date: July 2020
 Page: 1 of 3

TERMS OF REFERENCE COUNCIL AND COMMITTEES

2020 Representation Review Working Party

1. Establishment

The Working Party is established September 2020, following Council resolution and subsequent appointments by the Districts four Community Boards.

The Working Party shall be dis-established following the adoption of the Representation Review by Council (October/November 2021), subject to any appeal, objection and determination of the Local Government Commission.

2. Membership

Mayor D Gordon
 Councillor xxx from Kaiapoi-Woodend ward
 Councillor xxx from Rangiora-Ashley ward
 Councillor xxx from Oxford-Ohoka ward
 Community Board member xxx from Kaiapoi-Tuahiwi community
 Community Board member xxx from Rangiora-Ashley ward
 Community Board member xxx from Woodend-Sefton community
 Community Board member xxx from Oxford-Ohoka ward.
 Sarah Nichols, Governance Manager, WDC
 Chief Executive, WDC

3. Quorum

A quorum at any meeting of the Representation Review Working Party be half the appointed membership (including vacancies) therefore a quorum of four (4) is required.

4. Chairperson

The membership of the Working Party (excluding staff) will choose a Chairperson from the Working Party membership.
 If neutrality as Chair is unable to be maintained then the Working Party may seek approval from Council to re-consider the appointment of an independent Chairperson.

5. Terms of Reference

5.1 Abide by the legislative timeframes and that of Council resolution.

5.2 Undertake the following

- a) Examine the underlying principles of representation as set out in the *Local Electoral Act 2001*, s.4, as these apply to the Waimakariri District;
- b) Identify communities of interest currently existing within the Waimakariri District and consider new communities of interest;
- c) Examine the options available to territorial authorities for providing fair and effective representation for individuals and communities, namely –



S-TR 0085
 Issue: 2
 Date: July 2020
 Page: 2 of 3

TERMS OF REFERENCE COUNCIL AND COMMITTEES

2020 Representation Review Working Party

- Election of councillors 'at large',
 - Election of councillors from wards,
 - Election of councillors through a mix of wards and 'at large' elections;
 - the desirability of Community Boards;
 - the most appropriate number of Councillors;
 - the most appropriate number of Community Board members
 - if Wards are proposed, the number of Wards;
 - if subdivisions and communities are required;
 - the estimated costs for the preferred option, and any other options proposed for consideration;
- d) Consult with the current four Community Boards; Ngāi Tūāhuriri Rūnanga; and any other group identified as having a direct interest in the review;
- e) Hold a minimum of two, informal drop-in/information sessions within the wards to gain stakeholders and community views prior to May 2021, as part of the initial pre-consultation information gathering to assist with formulating a proposal for Council prior to full public consultation scheduled for June/July 2021.
- f) Prepare a Draft Consultation document for Council consideration at its May 2021 meeting to undertake a Special Consultative Procedure ahead of hearings and final proposal consideration by the Council later in 2021.

6. Budget

Notes that the Governance unit hold budget allocation for the Representation Review process. There is minimal operational budget and staff time for the 2020/21 financial year to undertake informal consultation and information gathering before formulating the proposal that will be consulted on through a Special Consultative Process. There is budget allocation of \$25,000 allocated for Statistics NZ certified maps and associated documentation that is required as part of the final process. If extensive promotion was recommended by the Working Party additional budget would need to be sought from the Council.

If an independent Chairperson for the Representation Review Working Party was appointed, additional budget would need to be sourced to cover associated costs.

7. Expertise

Principal Council staff assisting the working party will be:

- Chief Executive
- Governance Manager, Sarah Nichols (Project Manager)
- Governance Support Officer, Emma Stubbs

From time to time outside expertise may be required and the Working Party has the authority to consult with outside persons with specialist knowledge relevant to the spirit of the Representation Review should the need arise. Other specialist in-house staff will be called upon by the Working Party to contribute with advice from time to time (ie Communications, GIS mapping, Policy team (surveys and populations) during the Working Party duration.



S-TR 0085
Issue: 2
Date: July 2020
Page: 3 of 3

**TERMS OF REFERENCE
COUNCIL AND COMMITTEES**

2020 Representation Review Working Party

8. Administration

All meetings will be have agendas and be minuted. Documentation will be kept, as required and appropriate for the Local Government Commission, which assists their review of evidence and assessment prior to the Commission issuing the final determination. The Governance team will provide administration support.

9. Frequency of Meeting

As required, however due to the workflows of staff and elected members it is proposed that all working party meetings occur on Thursdays from 9.30am to 11.30am, commencing mid-September 2020. Meetings are anticipated to be monthly until such time as Council has considered public submissions (October 2021), ahead of the determination of the Local Government Commission.

DRAFT

ATTACHMENT II



WAIMAKARIRI
DISTRICT COUNCIL

**PUBLIC NOTICE OF COUNCIL RESOLUTION
ON ELECTORAL SYSTEM AND OF RIGHT TO
DEMAND A POLL**

Notice is given under Section 28(1) of the Local Electoral Act 2001 that the Waimakariri District Council has reconfirmed at its meeting of 4 August 2020 to hold the 2022 and 2025 Local Authority elections under the First Past the Post (FPP) electoral system. This electoral system has been used for past triennial elections of this Council. The FPP system would apply to the Council and Community Board elections.

Electors of this Council have a right under Section 29 of the Act to demand a poll to countermand the resolution to use this system. Should a valid demand for a poll be received, a poll will be held on whether the First Past the Post or Single Transferable Vote electoral system will be used.

A valid demand must be:

- Made in writing;
- Signed by at least five (5) per cent of eligible electors of the Waimakariri District Council. This will require 2,485 valid elector signatures;
- Delivered to the office of this Council, 215 High Street, Rangiora by 4pm, 18 February 2021.

Every elector who signs a demand must also set out in it his or her full name and the address for which he or she is qualified as an elector of the Waimakariri District Council.

Dated at Rangiora this 1st day of September 2020.

Sarah Nichols
Governance Manager

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