

# Activity Management Plan 2021

## Utilities & Roading Introductory Chapter

3 Waters | July 2021





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## 1 INTRODUCTION

This is the introductory chapter to the Waimakariri district council Utilities & Roding (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:

- Roding
- 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

### Roding

The Transport Activity Management Plan covers all of the roding 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 roding 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 roding 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 Roding 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

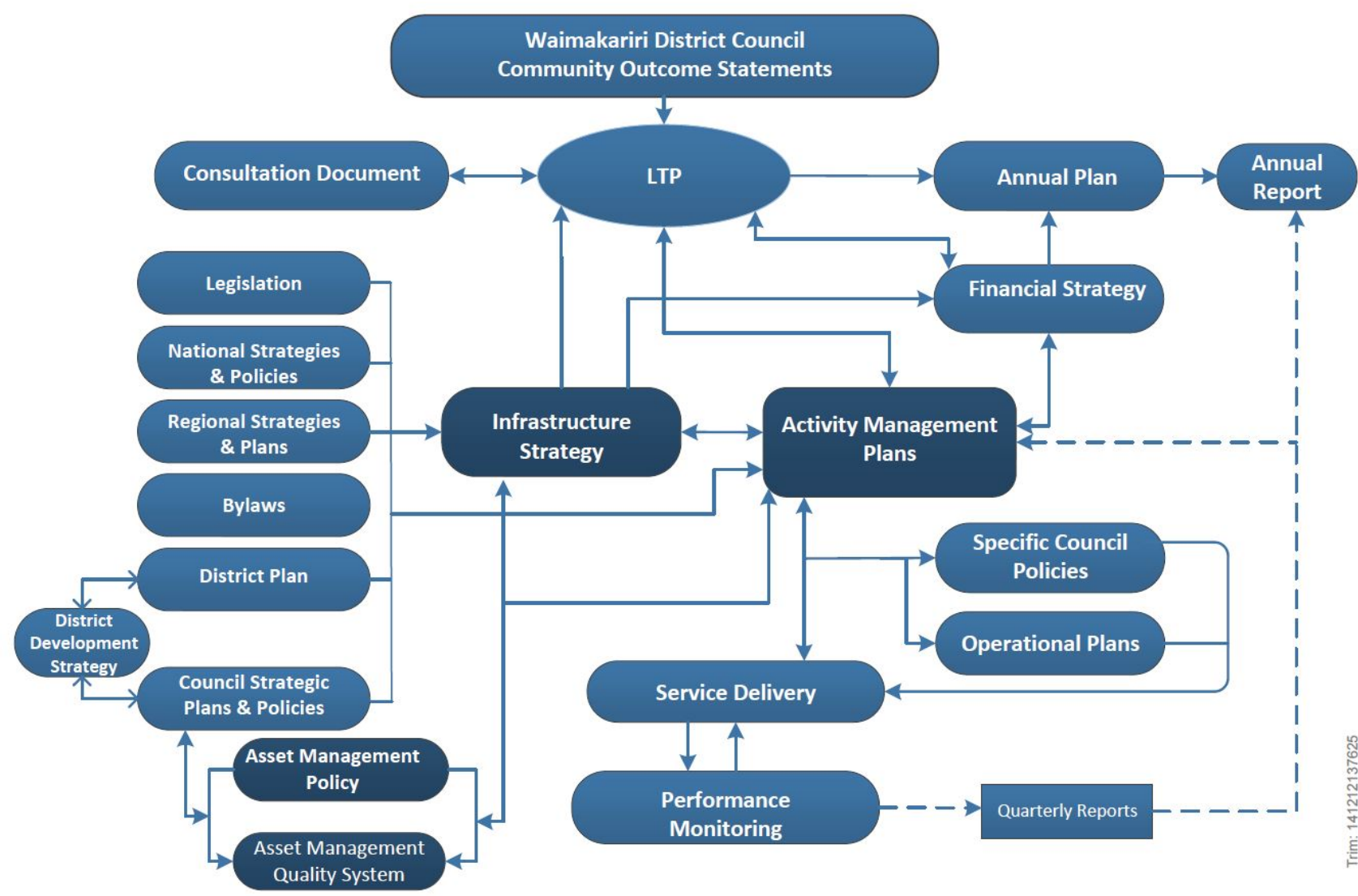
Council carried out section 17A (LGA 2002) reviews of the way it delivers its 3 Waters asset management planning, and its roading maintenance activities in 2015 and 2016 respectively. The relevant documents are TRIM 150515077665 and 160412032391. Roding maintenance continues to be contracted out with 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 Roding, Water, Wastewater, Drainage, Stock Water and Solid Waste activities.



Figure 1: Activity Management Planning Framework



## **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

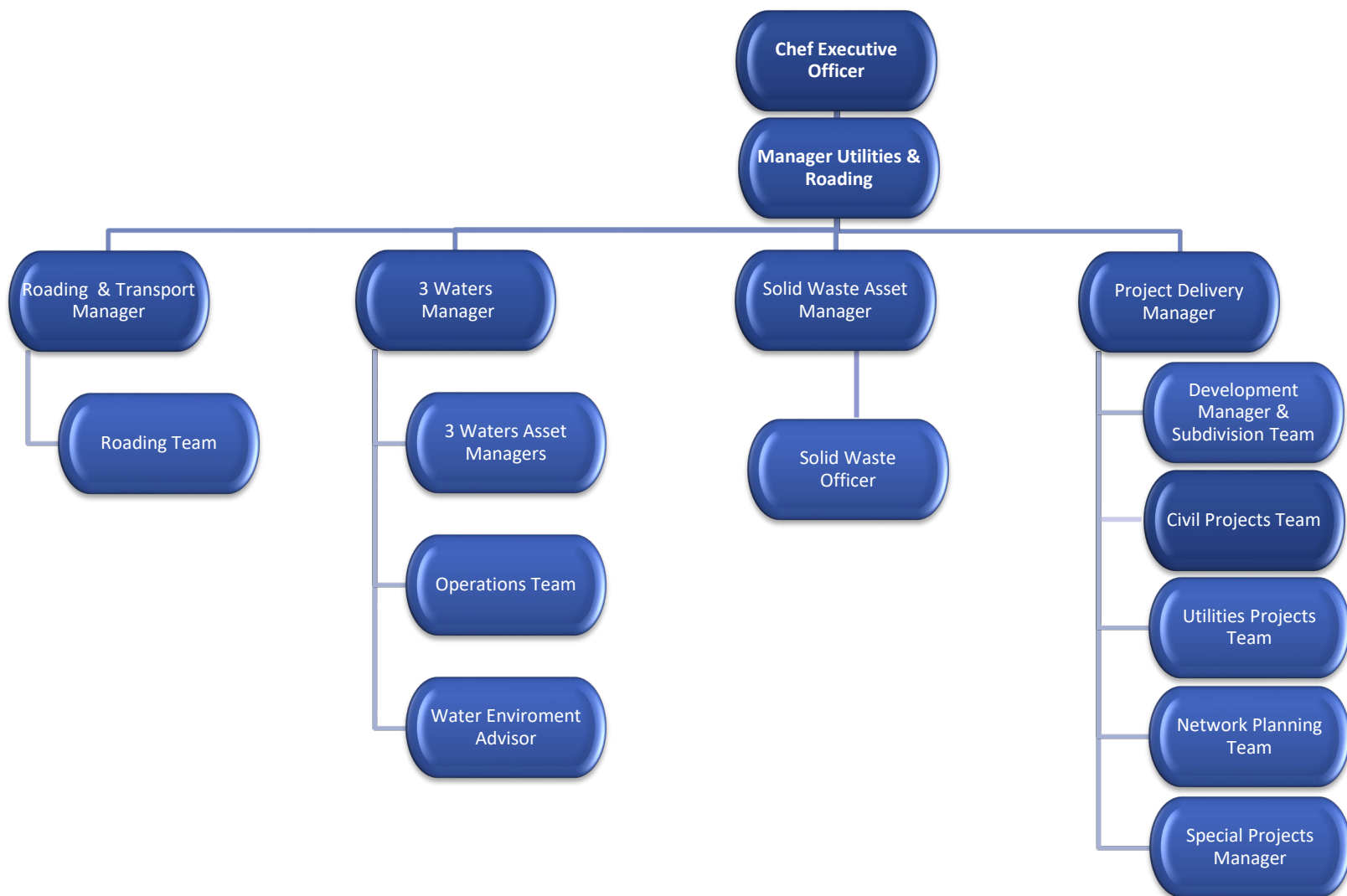
The Council's services progress the achievement of these outcomes by providing service levels that maintain community safety and public health, promote customer value for money and service efficiency, whilst protecting and enhancing the environment. These services provide the infrastructure that supports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

## **6 ORGANISATIONAL CONTEXT**

The Manager Utilities and Roothing 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 Roothing 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 Roding activity areas. For Roding the maturity level descriptions, outcome of the assessment, and the targets, are shown in section 8 (Asset management Practices) of the Roding 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 Roothing 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.

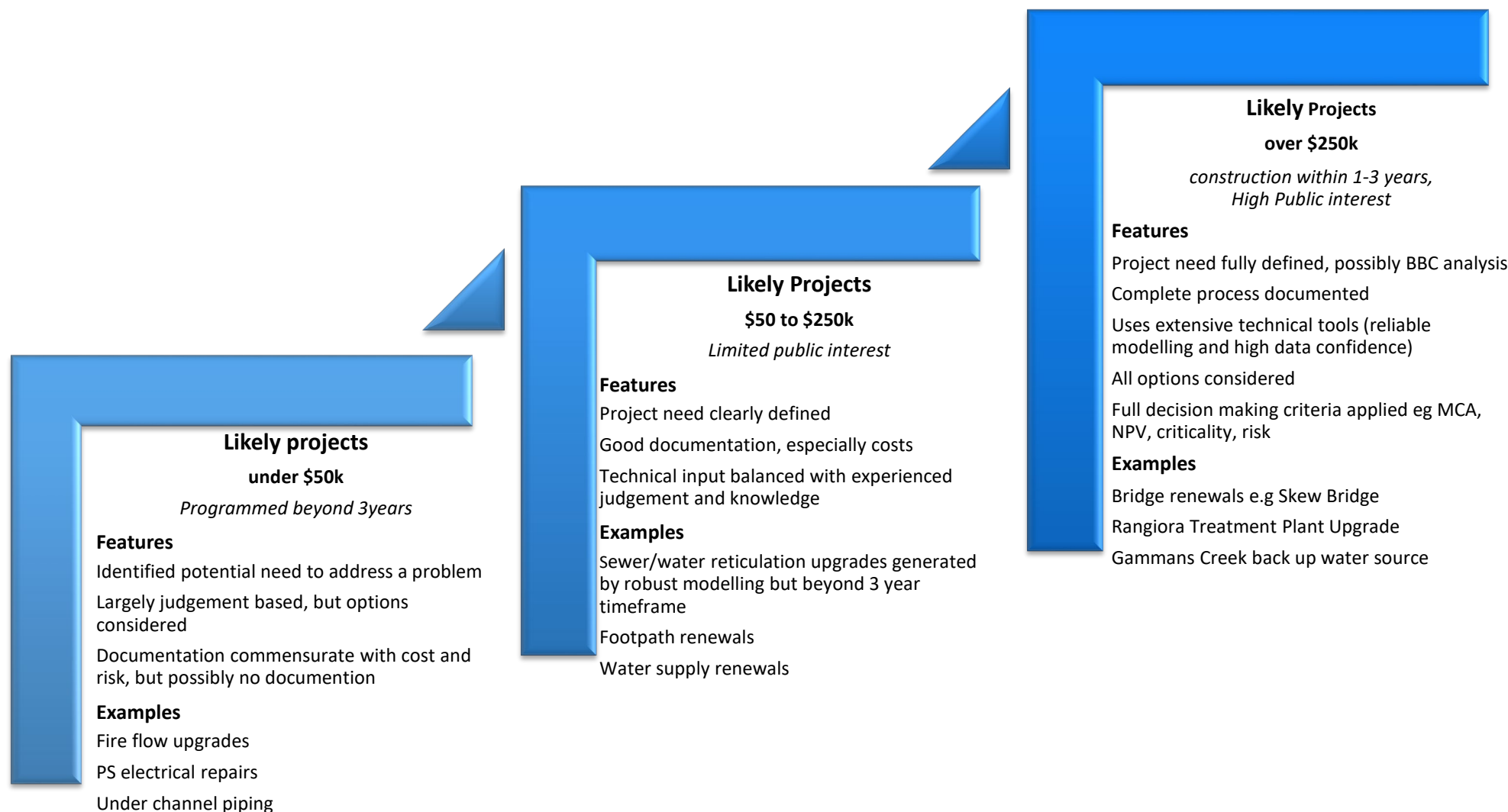
It should also be noted that the process of assessing and evaluating the options against the criteria in (a)-(k) above, helps to ensure that the Council is implementing sustainable solutions.

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 Roding (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 Roding 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 Roding 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 Roding Activity Management Plan was prepared by the Roding Asset Planning Engineer and reviewed by the Roding 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 Roding.

An overview of the Activity Management Plans was presented in a report to the Utilities and Roding 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 23<sup>rd</sup> 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 Roding 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 Roding valuations that were revised in 2020 were prepared by Stantec and externally peer reviewed By Brian Smith, and were then reviewed by the Roding 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 Roding 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 Roothing 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 Roothing 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 Roothing, 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 Roothing, 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	<a href="#">201208166991</a>
Section 2	Introduction Waimakariri Transport AMP 2021	<a href="#">201208166992</a>
Section 3	Levels Of Service Waimakariri Transport AMP 2021	<a href="#">201208166993</a>
Section 4	Future Demand Waimakariri Transport AMP 2021	<a href="#">201208166995</a>
Section 5	Risk Management Waimakariri Transport AMP 2021	<a href="#">201208167107</a>
Section 6	Life Cycle Management Plan Waimakariri Transport AMP 2021	<a href="#">201208166996</a>
Section 7	Financial Summary Waimakariri Transport AMP 2021	<a href="#">201208166997</a>
Section 8	Asset Management Practices Waimakariri Transport AMP 2021	<a href="#">201208166998</a>
Section 9	Plan Improvement And Monitoring Waimakariri Transport AMP 2021	<a href="#">201208166999</a>
Appendix A	Glossary of Terms Waimakariri Transport AMP 2021	<a href="#">201208167000</a>
Appendix B	Strategic Business Case Waimakariri Transport AMP 2021	<a href="#">201208167001</a>
Appendix C	Maintenance Contract Level Of Services Waimakariri Transport AMP 2021	<a href="#">201208167002</a>
Appendix D	Roading Valuation Report Waimakariri Transport AMP 2021	<a href="#">201208167003</a>
Appendix E	Risk Management Waimakariri Transport AMP 2021	<a href="#">201215171784</a>



## Water Supply

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

## Wastewater

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

## Drainage

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

## Stock Water

Scheme / Document Reference	TRIM Number
Stock Water Race AMP 2021	<a href="#">200819107116</a>

## Solid Waste

Scheme / Document Reference	TRIM Number
Solid Waste AMP 2021	<a href="#">201016139173</a>