

# Activity Management Plan 2021 Transportation Improvement and Monitoring

Roading | July 2021




**Prepared by**  
**Waimakariri District Council**  
**215 High Street,**  
**Private Bag 1005**  
**Rangiora 7440,**  
**New Zealand**  
[waimakariri.govt.nz](http://waimakariri.govt.nz)

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Action	Name	Position	Signed	Date
Prepared by	Yvonne Warnaar	Asset Planning Engineer (Roothing)		17 February 2021
	Simon Collin	Infrastructure Strategy Manager		17 February 2021
Reviewed by	Joanne McBride	Roothing and Transport Manager		17 February 2021
Approved by	Gerard Cleary	Manager Utilities and Roothing		17 February 2021
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# 1 Overview

This section outlines the proposed improvements to the Roding Activity Management Plan to meet the asset best practices and the proposed monitoring and review procedures.

Most decisions relating to renewal or replacement of assets are based on objective, rather than subjective, decisions. Further improvements in objective decision making are planned, or in progress, with use of deterioration modelling and other treatment selection recommendation algorithms (e.g. RAMM) being refined and increased.

There will always be ways in which we can continue to improve our business processes. Particularly as data, analysis, and technologies evolve and improve over time, rich knowledge and understanding will be available to better inform decision-making.

## Peer Review of Current Plan

Waimakariri District Council is committed to an ongoing improvement philosophy for asset management, maintaining a systematic approach.

Jeffreys Consulting completed a separate desktop peer review of the 2021 Roding AMP which involved comparison against the LGA 2002 criteria, the Office of the Auditor General New Zealand criteria for core and advanced AMPs.

Appropriate recommendations from that review have been included into the 2021 AMP Improvement Plan. Refer to [Appendix B](#) for the Peer Review report.

## Improvements achieved since the 2018 AMP

The Roding team has committed itself to progressively review and improve the Roding Activity Management Plan to raise the level of advancement in the AMP. Since the 2018 AMP two major changes have been made:

- Incorporation of the Business Case Approach and;
- Utilising the One Network Road Classification (ONRC) classification

The introduction of the Business Case Approach has resulted in a more comprehensive review and understanding of the issues affecting the District and how best to address them, which in turn has led to more informed engagement with key stakeholders.

The ONRC will provide a consistent framework allowing work to be prioritised according to need in accordance with the desired Customer Levels of Service as per the hierarchy. The ONRC allows Levels of Service appropriate to a road's position in the hierarchy to be identified. This in turn assists in identifying work and setting priorities.

In addition to these changes in management, the decision was made to change the traditional IMM style of Improvement Plan to that advocated by NZTA through the Road Efficiency Group (REG), and also to simplify and concentrate on key improvements. Previous improvement plans have promoted too many improvements which despite prioritisation have not been realistically achievable.

This Improvement Plan is instead built around the REG Pillars, and presents a more focused and targeted list of improvements.

## 2 Improvement Plan 2021- 2024

The purpose of the improvement plan is to:

- Identify and develop implementation of asset management planning processes
- Identify and prioritise ways to cost effectively improve the quality of the asset management plan
- Identify indicative time scales, prioritise human and financial resources required to achieve activity management planning objectives

The following improvement activities have been identified for action over the next 3 years. These activities have been developed by considering the unfinished tasks in the previous Improvement Plan (refer to Section 3) and the recent Peer Review (refer Section 4). In addition there are new tasks identified by the staff.

Note that some of the more minor points raised by the peer reviewer will be incorporated into the larger tasks as indicated below. The Improvement plan will be overseen by the Asset Planning Engineer and the first Improvement Plan task is to prepare a project plan outlining key deliverables and resourcing requirements to achieve the agreed programme.

Table 1 : Improvement Plan

Task category	Task number	Title	Activity	Current Status	Future Status and Identified Improvements	Improvement approach	Priority	Timeframe	Responsibility	Status Update / Notes	% complete	Risk Level	Risk Management Plan
SYSTEMS	1	AMP structure, content and updating process review	Review the plan structure that reflects the appropriate level of maturity, incorporates the most recent Waka Kotahi guidance, and reflects a cross-organisational picture, and provides assurance of a robust planning environment.	The current plan structure is based on earlier versions, and has not been updated to reflect either changed practices, or the increase in expected level of asset management planning. The current updating process has taken place late in the 3 year cycle, with insufficient time for consideration given to critical issues.	A robust, evidence-based, cross-organisational asset management plan that reflects 'best practice'.	Prepare project plan, identify key roles, times, resources required and actions for management. Review other AMPs, discuss what can be taken from each that would be of most use to WDC, and agree on a revised format. Review the AMP update process including timeframes for each element, key cross-department linkages and deliverables. Establish the resourcing needs to properly implement the Project plan, and ensure appropriate budget is available.	HIGH	By June 2021	Asset Planning Engineer  Roothing Manager				
SYSTEMS	2	Financial Systems review	Review various sources of financial reporting and forecasting to ensure 'one source of truth', such that budgets can be easily managed to meet forecasting and reporting requirements	Various spreadsheets plus different reporting needs and categories of expenditure make quick and accurate reporting challenging	Project names are consistent, financial information is easily monitored and reported on for Council and NZTA, and forecasting can easily be adjusted to allow good budget management	Roothing department to work with Finance to determine methodology, resources and timeframe  Consider alternative 'budget' and 'cost' spreadsheets (including reviewing "RoadsData")	HIGH	By December 2021	Asset Planning Engineer  Roothing Manager				
SYSTEMS	3	Risk Management	Ensuring risk is kept front of mind in Council Roothing activities	Risk register developed but not regularly monitored & updated	Risks regularly monitored and problem escalated if unable to be dealt with through the assigned plan and responsibility	Risk register revised to reflect a more current view Correlation between the Roothing Risk Register and the Corporate Risk Register checked for consistency Owners assigned to risk and reporting back timeframe established	MEDIUM	By March 2022	Asset Planning Engineer  Roothing Manager				
EVIDENCE	4	Begin capturing necessary supporting data	Determine the additional information that is required to be gathered to support a robust understanding of capital, renewals and maintenance needs	Current programmes are not well supported by good sound evidence	Strong field-based evidence to support the Councils planned expenditure in capital renewals and maintenance	Consider all areas of expenditure that require a more evidence based approach Develop data that would provide this evidence, where it is practical to capture Amend the maintenance contract to include this data capture Establish data collation, storage, and analysis needs	HIGH	By August 2021	Asset Planning Engineer  Roothing Engineer				

EVIDENCE	5	Strengthen One Network Roding classification and RAMM database	ONF criteria applied to network. Develop systems and implement processes for collecting data for relevant ONRC performance measures not currently captured.	Have identified areas missing but need to reconcile against internal audits currently being carried out	Future status is that all useful and appropriate data is collected in time for next AMP	Engage with NZTA to obtain assistance to classify network Audit RAMM database asset groups and identify gaps. Develop and implement prioritised action plan. Determine prioritised programme and timeframe for any uncaptured assets.	HIGH	ONF network classified by June 2023	Asset Planning Engineer  Roding Engineer					
EVIDENCE	6	Renewals Forecasting	Renewals forecasting to support IS using Useful lives plus replacement cost to compare with depreciation and current renewals practice of smoothing based on condition and available budget	Current Renewals forecasting based primarily on keeping the work within budget	Confidence in accuracy of longer term forecast versus depreciation allowing better long term planning	Once sufficient data captured as part of Task 4: Determine whether additional tools are necessary to assist with deterioration modelling Implement any agreed additional tools Analyse the deterioration outputs and review the current level of renewals funding Discuss impacts with Finance to understand effects, and funding options Include a longer term (30-50 year) depreciation forecast to support the Infrastructure Strategy and to anticipate long term renewal needs	MEDIUM	December 2022	Asset Planning Engineer					
COMMUNICATING	7	LOS Review	Review of LOS options	Have not been formally reviewed for some time	Good understanding by community as to what their rates buy, and when	Consider the possible areas that might benefit from a community debate on LOS Discuss options for co-operation with other departments Report to Council and seek mandate (to either consult or not) If agreed that needs consultation, begin planning for method, timeframe etc.	MEDIUM	By December 2022	Asset Planning Engineer  Roding Manager					
SERVICE DELIVERY	8	Monitoring	Investigate what changes/improvements in monitoring could improve management decision making and performance throughout the year	Much decision making is short term and reactive. Need more information to either verify current decisions or improve if need be	Full range of monitoring processes	Understand what is currently monitored Consider what should be monitored in accordance with best practice (including discussing with other Road Controlling Authorities) Gap analysis to determine what still required Develop and implement a monitoring methodology and programme	MEDIUM	By December 2021	Asset Planning Engineer  Roding Engineer					
DECISION-MAKING	9	Spatial analysis of network	Utilisation of spatial analysis to improve the Capital renewal and development project planning, including analysis of maintenance, construction date, condition and performance data	Spatial analysis has not been utilised much in past	All programmes and associated information in layers on RAMM to assist with understanding of network needs	Consider possible options for spatial analysis of information that would most benefit decision making, and prioritise Discuss with 3W to make sure any cross area efficiencies can be recognised Meet with GIS team to understand issues, resourcing, timeframes etc. Incrementally roll out GIS layers	MEDIUM	Get agreement on first priority with GIS – by December 2021 Roll out all agreed information into spatial	Asset Planning Engineer					

								format by March 2023					
DECISION-MAKING	10	Optimisation / prioritisation	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. Develop prioritisation processes to assist in decision making for capital projects and maintenance.	Prioritisation and optimisation largely done in a manual way	Clear and defensible decisions	Consider better use of the Justification Form process Consider and implement a robust and defensible prioritisation matrix	MEDIUM	By March 2022	Asset Planning Engineer  Senior Engineering Advisor  Roading Manager				
PEOPLE/CULTURE	11	Internal AMP decision making	Communicating AMP value and individual part in process to team	Team have some understanding of what Activity Management Planning is about but not where they fit into the overall scheme of things and how they contribute through their work	Staff work together for the good of the network and share ideas and information which can be used in the AMP process for evidence gathering and improvement	Hold progressive workshops with roading staff.	MEDIUM	Begin by June 2021  Ongoing communication	Asset Planning Engineer  Roading Manager				



### 3 Previous Improvement Plan 2018 - 2021

The table below details the improvements identified in the 2018 REG Pillars Improvement Plan and the progress made

Table 2 : Previous Improvement Plan 2018 - 2021

Title	Activity	Current Status	Future Status and Identified Improvements	Improvement approach	Priority	Timeframe	Responsibility	Status Update / Notes	% complete	Risk Level	Risk Management Plan
<b>SYSTEMS</b>											
Risk analysis review	Review current risk analysis against other methods to ensure most up to date thinking incorporated into AMP	Current risk analysis is very focused on the journey rather than the destination, such as Council facilities, hospitals, etc.	Risk table which includes specific actions and timeframes	Identify level of risk of various assets in conjunction with asset partners and management	High	1/03/2020	Transport Manager	Management have reviewed risk table and updated, actions to be assigned in last quarter of current NLTP	100%	Medium	COMPLETED
Valuation process	Review valuation process including comparison with other Councils (From WDC Finance team)	Some issues with high bitumen index leading to substantial inflation costs in valuation. Need to investigate alternatives	Finance satisfied that valuation process is correct and appropriate	Prepare and conduct a full methodology review	High	1/12/2019	Asset Planning Engineer	Although a methodology was prepared to carry out a review if the problem continued, this appeared to have settled down in the last AMP. In addition, Council have engaged a new PS provider so will be monitoring to see if this changes the valuation outcomes.	80%	Medium	TRANSFERRED TO 2021 AMP – TASK 2
Cross-organisation planning	Explain any processes in place to undertake cross-infrastructure planning within Council to improve operational efficiency.	Although it has been stated by various staff that they communicate closely, this process needs to be documented.	Process documented and is closed so all necessary parties are fully aware of each other's work and clashes or re-work are avoided.	Document process, carry out discussions with other relevant asset owners. Plan to utilise GIS to assist with communicating work programmes	Medium	1/02/2020	Asset Planning Engineer	This is a process that needs to be promoted through management. Will be working with Roading Manager over the next year to implement this, particularly with loading programmes onto a spatial platform to allow easy monitoring of planned and completed work. Discussions have been had with GIS but need to schedule with all other Council GIS work.	30%	Low	TRANSFERRED TO 2021 AMP – TASK 1 and 9
<b>EVIDENCE</b>											
RAMM database	Upgrade of the RAMM databases	Data Quality score has room for improvement. Valuer has identified a number of areas for improvement, as have Council staff.	Accurate, complete and timely RAMM data to better inform investment decisions and facilitate performance management. Improved capability to utilise data	Audit RAMM database asset groups and identify gaps. Develop and implement prioritised action plan.	High	Ongoing	Asset Planning Engineer	Score on RAMM improvement through the PMRT tool increased from 56 to 81. Highly motivated asset information team leader challenges all data collection processes and regularly reviews these for correctness and completion. He has set up a process with the Contractor to ensure data collected is correct and complete. The contractor has also been carrying out data reviews for critical assets such as culverts. Very confident that by the end of the coming 3 year programme the only uncertainties will lie with historic data, and data collection will make another step change.	75%	Medium	TRANSFERRED TO 2021 AMP – TASK 5
ONRC Data collection	Develop systems and implement processes for collecting data for relevant ONRC performance measures not currently captured.	Have identified areas missing but need to reconcile against internal audits currently being carried out	Future status is that all useful and appropriate data is collected in time for next AMP	Determine prioritised programme and timeframe for remaining uncaptured assets.	Medium	1/03/2020	Asset Planning Engineer	This did not take off as planned and responsibilities have been transferred elsewhere. Improving our evidence base has become one of the highest priorities for the next 3 years.	10%	Low	TRANSFERRED TO 2021 AMP – TASK 5
<b>COMMUNICATING</b>											
Asset mgmt plan	Include recommendations from Peer Review into AMP where appropriate and possible	Peer review indicated that there were areas that could better explain decision making. Many of these were already flagged as improvements, however some such as more use of visual aids such as maps of programmes, are yet to be developed fully	Peer review included an number of recommendations to help the AMP better 'tell the story' as to reasoning behind planned programme	Review other AMPs for useful examples, and discuss with GIS staff.	Low	1/12/2020	Asset Planning Engineer	Due to other time and resource constraints this improvement had to be put on hold. Reviews were carried out but the decisions as to how to shape the AMP to best tell the story have not yet been fully discussed by the team and management.	15%	Medium	TRANSFERRED TO 2021 AMP - VARIOUS

DECISION MAKING											
Spatial analysis of network	Utilisation of spatial analysis to improve the Capital renewal and development project planning, including analysis of maintenance, construction date, condition and performance data for 1. Identification and prioritisation of renewals and development projects 2. optimisation of maintenance programme (modified from 2015 Peer review)	Spatial analysis has not been utilised much in past	All programmes and associated information in layers on RAMM to assist with understanding of network needs	Add information and programmes in RAMM as new layers	Medium	1/06/2020	Asset Planning Engineer	Dependent on resourcing. This is a step up rather than correcting work not yet up to full spec so is a 'stretch' project. As with improving the appearance of the AMP this proved to be a stretch too far and will require careful programming to ensure it happens this time around.	0	Medium	TRANSFERRED TO 2021 AMP – TASK 9.
Monitoring	Investigate what changes/improvements in monitoring could improve management decision making and performance throughout the year	Much decision making is short term and reactive. Need more information to either verify current decisions or improve if need be	Full range of monitoring processes	Gap analysis to determine what still required	High	1/03/2020	Asset Planning Engineer	Utilising ONRC but need to review measures not currently captured	60	Medium	TRANSFERRED TO 2021 AMP – TASK 8
Capital projects	Develop prioritisation processes to assist in decision making for capital projects and maintenance.	Currently being revised for all assets	Consistent practice which will allow optimum decision making, both within and across capital projects	Working within asset management sub-group	High	1/12/2019	Asset Planning Engineer, Transport Manager	Much internal work been done on this with regards progress of projects, but need to do more internal monitoring of condition and contract management	70	Low	TRANSFERRED TO 2021 AMP – TASK 2, 4, 6, 9
Resourcing	Incorporate into the improvement plan an indication of the effort needed to complete the initiative.	Not done at all	Next AMP will be required to have resourcing included as part of the project planning	Further develop projects to understand scope of work for improvements, including co-opting other resources	Medium	1/12/2020	Asset Planning Engineer	Partially carried out but too late in the piece to be useful. Programming for this AMP commences late February 2021 to ensure key dates have been	30	Medium	TRANSFERRED TO 2021 AMP – TASK 1
SERVICE DELIVERY											
Procurement strategy	Review of procurement strategies	Out of date procurement strategy	Reviewed, updated and endorsed procurement strategy	Identify what is being purchased, extent of competition in the market, capacity and capability of market and internal staff, purchase selection methods, collaboration opportunities	High	1/12/2019	Transport Manager	New procurement	100%		COMPLETED
Maintenance contract	Procurement of new transport and roading contracts	10 yr maintenance contract ends July 2020	Retender maintenance contract having regard to updated procurement strategy. Adopt common contract specs across the WC Councils, integrate ONRC	Develop programme of tasks required over 20 month period between Sept 2018 and July 2020. Obtain internal approvals and develop communications plan	High	1/05/2020	Transport Manager	Project just kicked off, as MOR programme so critical to Council will be receiving a lot of attention	100%		COMPLETED
PEOPLE / CULTURE											
Recruitment/skill shortage	No improvements identified during last AMP. Should have included way to prepare for multiple retirements in roading department	Needs of department identified and possible restructuring depending on replacements and future work needs	All work processes mapped to allow transfer to less experienced staff	Set up process s mapping in preparation for staff departures.	High	1/12/2019	Transport Manager	In progress, some processes need completion for departed staff and need to complete for existing staff	50%		TRANSFERRED TO 2021 AMP – TASK 1

## 4 Peer Review Recommendations 2021

Table 3 : Peer Review Recommendations 2021

Action	Priority	
<b>Process of Development</b>		
Complete the cover page that details who was involved in the preparation. The document control should also show who will approve the plan.	High	Done
Review the AMP content to ensure it is adding value for the council and interested parties. The review should include comparison with other council Transport AMPs to consider what will work best for WDC.	High	Included in 2021-24 Improvement Plan – TASK 1
Review the AMP update process to ensure better buy-in from across council and to allow sufficient time for careful consideration of the key issues.	High	Included in 2021-24 Improvement Plan TASK 1
Put in place processes to regularly update the AMP and note what these are and the frequency within the document.	Medium	Included in 2021-24 Improvement Plan TASK 1
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	Included in 2021-24 Improvement Plan TASK 1
<b>Link to Other Planning Documents</b>		
Add a diagram or table in the Transportation AMP to show how the documents relate to other planning or technical documents.	Medium	Will be considered as part of TASK 1
Reference the Council Procurement Policies or Plans in the Transportation AMP.	Medium	Done
The AMP document should make reference to the Utilities & Transportation Introductory Chapter and encourage the reader to read it in conjunction with this AMP.	Medium	Done
<b>Growth and Demand</b>		
Review projects required to meet growth and demand, as not completed at time of draft AMP	High	Done
Comment on any non-asset demand solutions that are being considered	Medium	Will be considered as part of new structure and content – TASK 1
Undertake a sensitivity analysis to consider the impact of differing levels of growth on the funding	Medium	Future improvement (not included in this coming Improvement Plan)

<b>Levels of Service</b>		
Incorporate the key points from the business case into the AMP document in a Strategic Section, as per NZTA guidance	High	Will be considered as part of new structure and content – TASK 1
Develop and report on further measures that cover the entire network including parking and cycling, and further measures such as travel time etc.	High	Included as part of strategic business case performance measures
Incorporate discussion into the document on options to increase or decrease service levels, and costs and risks associated with differing levels of investment.	Medium	Included in 2021-24 Improvement Plan - TASK 3
<b>Assets Systems and Data</b>		
Show the data completeness and accuracy for different classes of assets and note how confidence will be improved.	High	Done
Develop and include in the AMP, GIS maps showing the network of transport assets.	Medium	Included in 2021-24 Improvement Plan - TASK 9
<b>Financial Information</b>		
Include a longer term (30-50 year) depreciation forecast to support the Infrastructure Strategy and to anticipate long term renewal needs.	High	Included in 2021-24 Improvement Plan - TASK 9
Provide further explanation as to the long term implications of renewal expenditure being lower than depreciation (i.e. will it result in deteriorating	High	Done
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	Will be considered as part of new structure and content – TASK 2
<b>Lifecycle Management</b>		
Include a table showing the relative priority of capital projects and how they were prioritised.	High	Done
Include a summary of how the key issues for each asset class are intended to be resolved over the period of the AMP.	High	Done but will be expanded on as part of next AMP
<b>Risk Management</b>		
The Risk Management Section should be improved by including a separate risk action plan which shows, for the higher priority risks, the specific future treatment actions required, costs, priorities person responsible and timelines for completion.	High	Included in 2021-24 Improvement Plan - TASK 3

Add maps of critical assets and demonstrate that criticality is being used to make informed decisions.	High	Included in 2021-24 Improvement Plan - TASK 9
Ensure that the AMP show what the treatment projects are and whether they are included in financial forecasts.	Medium	Included in 2021-24 Improvement Plan - TASK 2
<b>Optimised Decision Making</b>		
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	Included in 2021-24 Improvement Plan - TASK 10
Develop prioritisation processes to assist in decision making for capital projects and maintenance.	Medium	Included in 2021-24 Improvement Plan - TASK 10
Explain any processes in place to undertake cross-infrastructure planning within Council to improve operational efficiency.	Medium	Included in 2021-24 Improvement Plan - TASK 1,9
<b>Improvement Planning</b>		
Add responses to the Audit NZ key questions (these are listed in Appendix 1 to this report) to the Improvement Plan section.	High	Done
Incorporate into the improvement plan an indication of the effort needed to complete the initiative.	Medium	Included in 2021-24 Improvement Plan - TASK 1

## 5 Monitoring and Review Procedures

The AMP is a living document which is relevant and integral to daily AM activity. To ensure the plan remains useful and relevant the following on-going process will be undertaken:

Table 4: AMP Process

Action	Timing
Formal adoption of the plan by the Council	Three yearly
Review and reporting against key performance indicators	Quarterly
Revise the Activity Management Plan to incorporate new knowledge resulting from the Improvement Plan	Annually
Formally review to assess adequacy and effectiveness	Three yearly
Tracking progress of implementation of the Improvement Plan quarterly	Quarterly
Review condition assessment information (dependent on asset category this varies from 1 to 4 years)	Varies

### Performance Measures

The following indicators will be monitored to measure the effectiveness of this AM plan.

Table 5: AMP Performance Indicators

Indicators	Measure	Source of Information
Compliance with legislative requirements	Unqualified Audit opinion relating to Activity Management Plan outputs	Audit NZ reports
Quality of service delivered	100% compliance with LOS targets	Annual Plan reporting