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# ROAD MANAGEMENT PLAN



*Review V - 1*

June 2021

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Northern Grampians Shire Council  
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## SCHEDULE OF CHANGES AND AMENDMENTS

Version	Date Adopted	Comment
Draft	December 2004	Draft Plan accepted for public consultation.
V2004	January 2005	Plan adopted by Council.
V2007	July 2007	Reviewed and introduced Appendix 1 - Risk Assessment and amended safety & deficit inspection and hazard response regimes, updated the road lengths and terminology relating to the above. Adopted by the Northern Grampians Shire Council on 26 July 2007.
V2009	June 2009	According to section 301 (3) of the <i>Road Management (General) Regulation 2005</i> , Council has reviewed the existing Road Management plan.
V2013	August 2013	According to section 52 of <i>Road Management Act 2004</i> , the existing Road Management Plan should have been reviewed in 2011, but it has been on hold due to flood damage and restoration works. Draft version of RMP has been prepared for Council adoption.
V2013	Nov 2013	Road Management Plan has been adopted by Northern Grampians Shire Council on 6 November 2013.
V2017-1	May 2017	Draft Road Management Plan prepared by Council officers, and taken to public consultation for comment.
V2017	June 2017	Road Management Plan has been adopted by Northern Grampians Shire Council on 26 June 2017.
V2021-1	March 2021	Review road data, inspection regimes, hazards responses, design and construction parameters, hazard descriptions for footpath, bridge and road assets and risk matrix in the existing RMP through internal consultations. Prepare a report on the review and if there are any changes.
V2021-1	April 2021	Final discussion in Infrastructure Budget Review Meeting and amend the draft RMP 2021 if required.
V2021-1	May 2021	Public consultation of review by notice in local paper and on website.
V2021-1	June 2021	Consideration of any public submissions.
V2021-1	June 2021	Briefing to Council
V2021-1	June 2021	Road Management Plan has been adopted by Northern Grampians Shire Council on 28 June 2021.

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## 1. EXECUTIVE SUMMARY

The Northern Grampians Shire Council's Road Management Plan 2021-25 (RMP) has been prepared in accordance with the *Road Management Act 2004* (the Act) to document the methods and systems used by the Northern Grampians Shire Council (Council) in managing the local road and footpath network. It outlines Council's commitment to providing a safe local road and pathway network for use by all members of the community.

Council is the responsible authority for an extensive network of 3,370km of the local road network, consisting of 820km of sealed roads, 2,140km of unsealed roads, and 410km of formed/track roads. Within the road network are also 143 bridges and 275 major culverts. In addition, Council also maintains 114km of footpath network, a drainage network of 158km of kerb and channel, 69km of drainage pipes, 2,477 drainage pits and 51,324m<sup>2</sup> of car parks.

The Act requires councils to be able to set reasonable maintenance standards for the management of their road infrastructure assets. Reasonable maintenance standards require community transparency to ensure that community needs and preferences have been considered, whilst considering an appropriate balance with Council's resources, systems and funding levels.

In line with Council's Sustainable Asset Management Policy and to demonstrate compliance with the Act, Council maintains a Road Register which contains the specific detail of the road assets for which Council has responsibility. The Road Register also details the hierarchies assigned to the road assets. The RMP documents Council's intervention levels, inspection regimes and response times. These have been publicly displayed, discussed, and endorsed both internally and externally. Council's Infrastructure Service Levels are based on attributes of quality, quantity, intervention, responsiveness and sustainability levels.

In developing the RMP, Council considered the following criteria:

- Community consultation was used by Council in setting inspection regimes, as well as historical data and customer surveys
- The necessity to prove adherence to service levels and standards
- The types of inspection methods and frequencies
- Standards are reasonable and financially sustainable
- The activity guidelines for repair and maintenance.

Intervention levels relate to the extent of a defect, danger, problem, or inconvenience at which Council's Road Maintenance Unit will repair the asset with the most appropriate activity. Response times relate to the maximum allowable time within which Council will respond to such an activity. Levels of Service have been developed which are financially sustainable for the renewal of Council's road assets.

The road assets that have been considered in the preparation of the RMP are:

- road surface and pavement including car parks
- kerb and channel
- road drainage
- footpaths including shared-use paths
- bridges and culverts
- signage.

These assets have been categorised by a road classification system, which denotes the relative importance in terms of the maintenance levels and response times.

All service level standards have been developed in consultation with Northern Grampians' Infrastructure and Operations Departments to ensure that they are realistic, achievable, sustainable, and measurable. The consultation has also involved some subjective analysis of historical patterns of complaints, defects, responsiveness, and quality of repairs. These standards have then been provided to Councillors for review, as well as publicly displayed by Council to invite community feedback, before final adoption.

The RMP is a dynamic document that will be reviewed every four years or at every Council cycle or when there is a major change in the RMP.

## 2. INTRODUCTION

### 2.1 Background

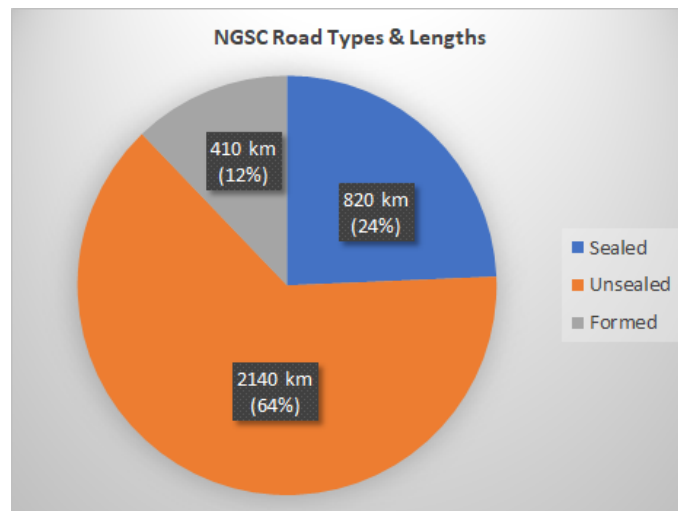
Council has a variety of roads both in terms of condition, design parameters and physical condition. Economic pressures, due to the limited funding for road maintenance and construction, has necessitated a review of road management, both for asset life, asset function, and the "day to day" maintenance requirements.

State Highways, Arterial Roads, Non-Arterial State Roads, Tourist Roads, Fire Roads and Forest Roads are managed by other Roads Authorities such as VicRoads, Parks Victoria, DELWP and GWM Water and are not part of the Municipal Roads Network.

Council currently maintains 3,370km of the local road network, consisting of 820km of sealed roads, 2,140km of unsealed roads, and 410km of formed/track roads as per the agreed level of service. This road network consists of 143 bridges and 275 major culverts.

In addition to the road network Council also maintains a 114km footpath network, a drainage network consisting of 158km of kerb and channel, 69km of drainage pipes, 2,477 drainage pits and 51,324m<sup>2</sup> of car parks.

The following pie chart illustrates the percentage of road types based on the total length of the road. The Road Register is constantly being reviewed.



*Figure 1: Proportion of road type Council maintains (May 2021)*

The following factors influence the development of the RMP for a provision of a safe and functional road network:

- Availability of funds
- Property access requirements
- Road duplication between destinations
- Realignment of road reserves to accommodate changing traffic demand
- Past inappropriate design parameters of roads
- Appropriate identification of roadways
- Community's expectation.



## 2.2 Road Management Plan (RMP) Objectives

The objectives of the RMP are to:

- Provide an overview of the management system used by Council to carry out its road management functions, as a responsible road authority under the Act, with consideration given to resource availability and operational objectives
- To ensure that a safe, reliable and efficient road network is provided for the movement of people and other goods and that road reserves are available for other appropriate uses
- Set the relevant standard concerning the discharge of duties in the performance of those road management functions.

The key elements of the RMP include:

- Register of Public Roads for which Council is responsible
- Asset management processes that Council uses for inspection, maintenance, and repair of Council managed roads
- Road and Infrastructure Levels of Service that detail the maintenance practices used by Council and Maintenance Standards
- Civil liability
- Powers and duties of road authorities
- Protection against damage.

The RMP intends to provide easy to understand information to enable the Council and the community to appreciate the value of the road assets and activities to manage risk across the road network.

## 2.3 Road Management Plan (RMP) Scope

The RMP covers road infrastructure and road-related infrastructure as defined under the Road Management Act, for which Council is the relevant road authority. The RMP is limited to roads that are defined in the Road Register. The assets covered include:

- Road surface and pavement (Council or local roads)
- Car parking both (On-street and Off-street)
- Kerb and Channel and road drainage (table drains and pits)
- Footpaths including shared-use paths
- Bridges (Other than Sub & super Structure) and Culverts
- Signage.

The following are excluded from the RMP:

- VicRoads or Arterial Roads
- Service Authority Assets
- Vehicle crossing (driveways) providing access to private properties
- Sub and Superstructures of bridges
- Underground drainage pipes
- Rural roadside vegetation (excluding canopy clearance, sight distance maintenance, and fallen trees affecting safety on travelled roads and paths)
- Rail track crossing (except approaching signage and some specific items)
- Forest and informal tracks, unmade roads, and unlicensed roads that are not included in the Road Register
- Roads that have been declared for removal from the Road register
- Unlicensed roads that are in occupation by an adjoining landowner

- Unlicensed roads (whether fenced or not)
- Roads that are not on the Road Register.

## 2.4 Key Stakeholders

Key stakeholders in the RMP include:

- Councillors (as representatives of the community)
- Ratepayers
- Residents, visitors, and road users
- Developers
- Employees
- Contractors and suppliers
- Pedestrians
- State and federal governments
- Emergency services (Police, SES, Fire, Ambulance)
- Other infrastructure managers with assets in the road reserve.

## 3. POLICIES AND STRATEGIES

### 3.1 Council Plan

Council's Council Plan 2021-25 details the course of actions Council must do to be able to achieve its long-term vision for 2041. The Council Plan sets out strategies for the next four years and the RMP underpins the strategic direction contained within the Council Plan.

The following key directions are supported by the RMP:

- Enhance Lifestyles and Community.
- Provide Sustainable Infrastructure.

### 3.2 Sustainable Asset Management Policy and Strategy

Council established a Sustainable Asset Management Policy which takes the objectives of the Council Plan and develops asset management principles. To support the implementation of these principles, a Sustainable Asset Management Strategy was established, detailing how Council assets, including but not limited to roads, will deliver a sustainable infrastructure service to meet the current and future needs of the community.

### 3.3 Road Asset Management Plan

Council's Road Asset Management Plan (RAMP) is a separate document to the RMP, that guides the management of the local road network. The document is reviewed every year to give assurance to all stakeholders, that road assets are being managed efficiently and sustainably.

Council uses the RAMP to assist in prioritising work and implementation of asset management improvements. The RAMP provides direction regarding the right service at the lowest long-term cost and a business planning tool to maximise efficiency. The RAMP also combines the financial implications of each asset group to define long-term financial requirements.

### 3.4 Long Term Financial Strategy (LTFP)

Council has a 10-year LTFP to ensure its long-term financial viability and the LTFP includes a review of expenditure on the renewal and maintenance of Council assets in line with the total budget.

### 3.5 Link between RMP and Other Council documents

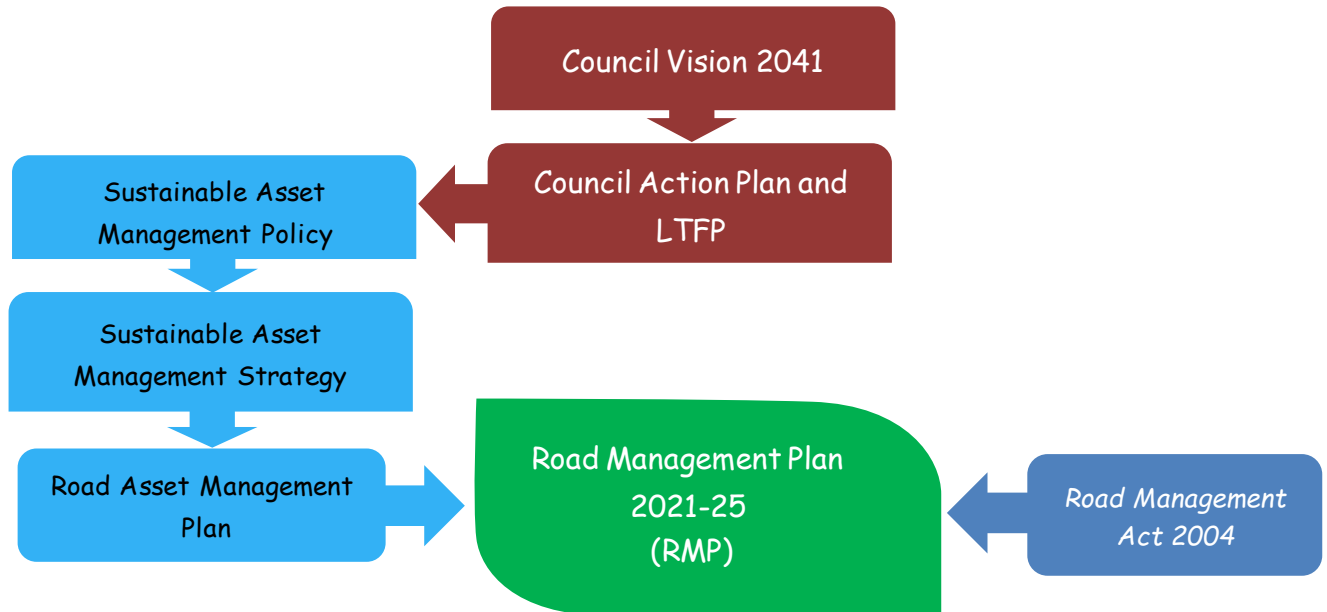


Figure 2: Road Management Plan Interaction with other Council Documents

The RMP is informed by the Council Vision 2041 and Council Plan 2021-25 and is linked to the Road Asset Management Plan to enable Council to manage road assets in a way that is consistent with the Council Vision 2041.

## 4. LEGISLATIVE REQUIREMENTS

### 4.1 Applicable legislation

The following are the applicable legislation:

- *Road Management Act 2004*
- *Road Safety Act 1986*
- *Local Government Act 1989*
- *Local Government Act 2020*

The following key principles are the basis of the RMA:

- Clear allocation of road asset management and ownership
- Clarification of civil liability laws for road management.

#### 4.1.1 Responsibilities of the Road Authority

Council is the coordinating Road Authority for all local roads in the shire and has the responsibility under the Act to inspect, maintain and repair all roads specified in Council's Road Register. Council has the power to manage works within the road reserves and to establish standards for construction, maintenance, and repair of public roads.

Public roads are roads that are reasonably required for public use, and these include both arterial roads and municipal roads over which VicRoads or a municipal council have made formal road declarations.

The Act requires Road Authorities to keep a register of municipal public roads. The register lists all roads within the municipality and indicates their respective road hierarchy and responsible Road Authority. Any road which is no longer required for public use must be removed from the Road Register.

Council decided to exclude any unused road reserves, minor tracks, and similar unlicensed roads in the RMP provisions.

#### **4.1.2 Responsibilities of Road Users**

The obligations of road users are set out in Section 17A of the *Road Safety Act 1986* (as amended by the RMA 2004) and are summarised as:

- A person who drives a motor vehicle on a highway must drive in a safe manner having regard to all relevant factors which include:
  - The physical characteristics of the road
  - The prevailing weather conditions
  - The level of visibility
  - The condition of the motor vehicle
  - The prevailing traffic conditions
  - The relevant road laws and advisory signs
  - The condition of any vehicle the person is driving or riding on the highway.
- A road user other than a person driving a motor vehicle must use a highway in a safe manner having regard to all the factors.
- A road user must take reasonable care to avoid any conduct that may endanger the safety or welfare of other road users, infrastructure, and the environment.

#### **4.1.3 Responsibilities of Utility Infrastructure and Service Providers**

Consent should be obtained from the relevant Road Authority for any works to be undertaken in the road reserve. A permit must be obtained from Council for any work within local roads or road reserves. For works beside arterial roads, a permit from VicRoads is also required.

### **5. FUNDING**

The source of funding available to Council for the management of road assets described in the RMP include:

- Rate Revenue (capped at CPI)
- Special Charge Scheme for Infrastructure Works
- Private developer-funded works
- State and Federal Government Road Grants, which include:
  - Roads to Recovery – Four year fixed allocation by Federal Government
  - Grants Commission – Roads component of Grant Commission funding, and
  - Others.

The commitments and obligations specified in the RMP are dependent on the available financial and staffing resources. The financial resources to deliver these commitments are determined as part of Council's annual budget process, where allocations for inspections, maintenance, renewal and upgrade of road assets including road-related infrastructure are specified. The level of funding will vary on an annual basis in accordance with the needs and available funding. Thus, the requirements of the RMP will also need to allow for variation in the level of service to match the annual funding.

## 6. ROAD CLASSIFICATION

### 6.1 Road Hierarchy

The classification of roads within the Northern Grampians Shire is based on a hierarchy system of traffic volume, traffic type and importance, which is derived using the following factors:

- Direct access to abutting properties
- Direct linkage with other roads in the network
- Transportation of goods/services and key traffic generator
- B-doubles and high mass limit route
- Public transport bus routes
- School bus routes
- Linkage within areas of the municipality, such as agricultural /commercial/ residential
- Identifiable origin and destination function served
- Type of traffic use. (vehicle size, type, weight, origin/destination)
- Roads that may be surplus to the overall road network
- Requirement for recreational needs (bicycles, horse trails, etc.)
- Vehicular access to the municipal road network
- Council's responsibility of management and maintenance of the road network
- A clear distinction between Council's municipal road system, and other road authorities such as VicRoads, Parks Victoria, etc.

### 6.2 Municipal Road Classification

The classification model takes into consideration the planning parameter and establishes a clear distinction between each classification. Separate 4-tier functional classification systems for the Urban and Rural road networks have been structured with sub-functions clearly defining the current use of a particular road within each category.





The 4-tier system is primarily based on the functions of Link, Collector, Major and Minor Access, and Residential and Property Rural Access.

The road hierarchy is used to develop the Level of Service.

## 6.2.1 Rural Road Network

This includes all classes of sealed, gravel and unsealed types of varying condition. The following are examples and description of different classes.

*Table 1: Rural Road Classification*

Road Hierarchy	Function	Responsibility	Photo
Rural Link	Principal route for the movement of goods and people from one township to another (direct Link). They are predominantly sealed.	Council	 <p>Landsborough Road (April 2017)</p>
Rural Collector	High usage road providing connection between Access roads and Rural Link roads (Arterial). Roads may be sealed or unsealed.	Council	 <p>Joel South Road (April 2017)</p>
Rural Access (Resident)	Very low usage road providing direct access to abutting residential properties. These roads do not perform a through road or alternative route function within the road system.	Council	 <p>Perry Jones Road (April 2017)</p>
Rural Access (Property)	Generally, allows access into farm paddocks, and maybe gravel or formed only. Abutting properties generally have no rural address.	Council	 <p>Busom Lane (April 2017)</p>

## 6.2.2 Urban Road Network

This includes all classes of sealed, gravel and unsealed types of varying condition. The following are examples and descriptions of different classes.

*Table 2: Urban Road Network Classification*

Road Hierarchy	Function	Responsibility	Photo
Urban Link (Arterial)	Principal route for the movement of goods and people between significant residential, industrial, and commercial nodes. They are predominantly sealed.	VicRoads	 <p>Scallan Street (April 2017)</p>
Urban Collector	High usage road providing connection between Urban Link roads and Access roads. Urban collectors' relays traffic to Urban Link roads.	Council	 <p>Napier Street (April 2017)</p>
Urban Access	Very low usage road providing direct access to abutting residential, industrial, recreational, and commercial properties. These roads do not perform a through road or alternative route function within the road system.	Council	 <p>Sharpley Avenue (April 2017)</p>
Urban Access Minor	Roads that primarily provide secondary access to abutting residential household and where roads may not have been originally constructed to current Council standards.	Council	 <p>Little Dawson Street (April 2017)</p>



### 6.2.3 Non-Maintained Roads

**Table 3:** Non-Maintained Roads

Road Hierarchy	Function	Responsibility
Non-Maintained Roads	<p>Road classification that are not maintained by Council and includes roads maintained by other authorities.</p> <p>Tracks providing private access (may exist along a road reserve to a limited number of properties) are also included here.</p> <p>Driveway/shared access road created as part of an owner's corporation subdivision are in this category.</p>	Other

### 6.3 Footpath Hierarchy Classification

Council applies footpath classification for all footpaths. The classifications are based on the public use function, which reflects the perceived risk associated with pedestrian and other usages of each footpath type. These classifications are used to differentiate service levels and maintenance standards.

Council inspects, maintains, and repairs all footpaths that are on the roads listed on the Road Register.

**Table 4:** Footpath Hierarchy Classification

Classification	Description
Category 1: Unconstructed/Informal (low usage)	Footpaths in this category are unconstructed, have limited usage and run next to a Council road in urban areas. Footpaths receive no added maintenance other than treatment of hazards found by the public.
Category 2: Other areas of made footpaths	Constructed footpaths in residential, commercial and industrial areas other than as described Category 3 and 4.
Category 3: Specific Pedestrian Generator	These footpaths service pedestrian generators that include hospitals, schools, senior citizens centres, aged care facilities, and major community facilities. The length classed as category 3 extends for the block having the pedestrian generator plus one added full block length.
Category 4: Central Business Areas and High use precincts (High Usage)	Footpaths in commercial/shopping strips within towns, including paths leading to central car parks, and those footpaths for the block having a school plus one added full block length.



### 6.4 RMP General Management System

Council’s inspections regime for road assets falls into three categories, which are:

- Reactive Inspections
- Proactive Maintenance Inspections
- Condition Surveys.

The inspection data is used to build maintenance work programs when defects outside intervention levels are selected. Asset Condition surveys result in asset renewals as part of Council’s long term asset management. Renewal work is subject to budget resources and other competing priorities.

Figure 2 below describes the general management system that Council uses for the RMP.

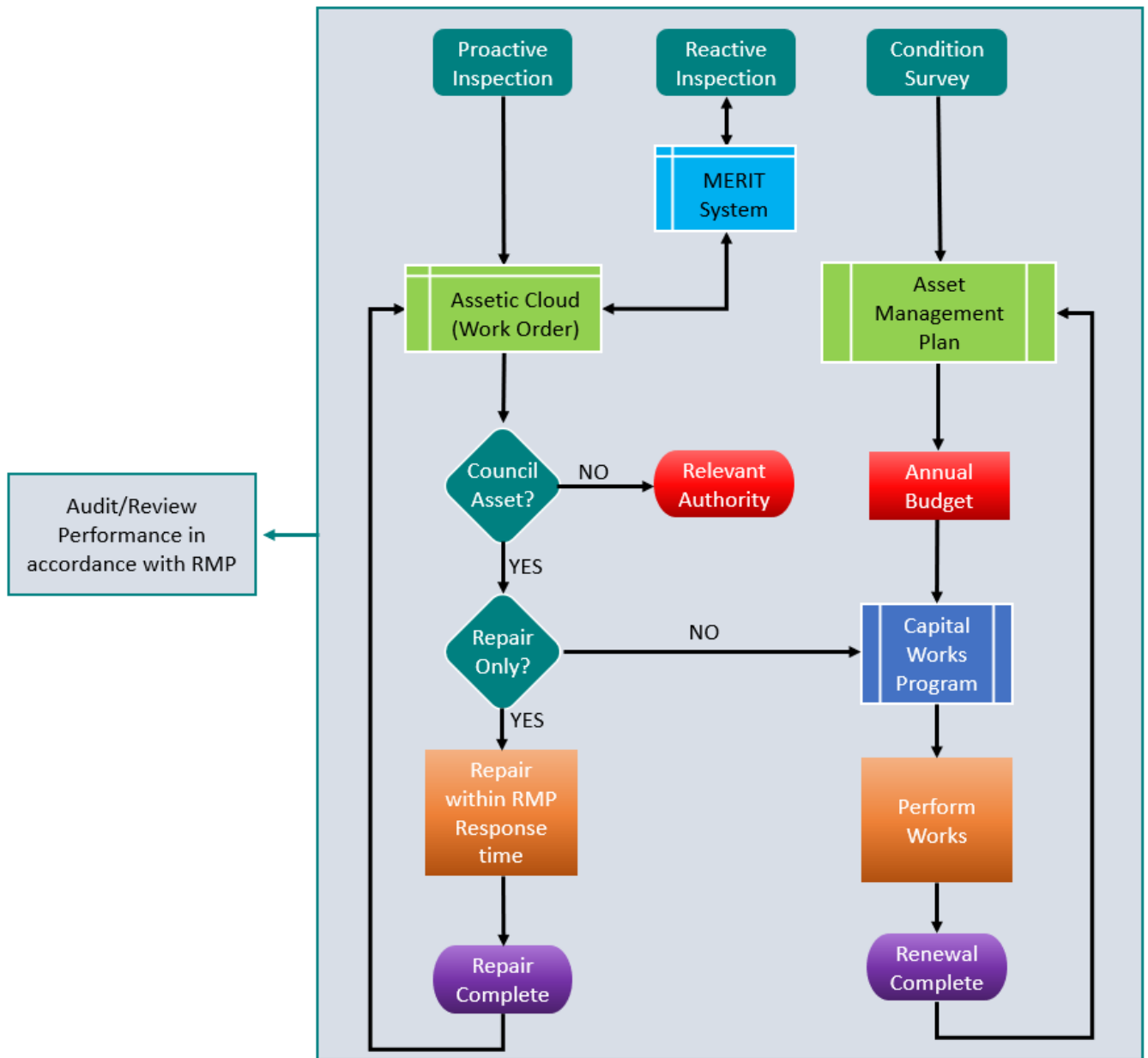


Figure 3: NGSC RMP Management System General Overview

### 6.4.1 Reactive Inspections

These inspections are taken as a response to a customer request or complaint related to a defect or hazard on a road asset. The request can be lodged via various communication methods, which include phone, letter, email, or social media. In each case, Council's qualified officer will inspect and respond within timeframes stated in the RMP.

Council uses a customer request system called MERIT and an Asset Management Information System called Assetic Cloud that log and track all customer requests. Through this system customers can report hazards, defects, or incidents electronically. Records of all maintenance work, inspection and other actions performed are maintained in Assetic Cloud.

The treatment of the responses is based on the safety and defect inspection schedule contained in the RMP, and the customer will be supplied with feedback.

### 6.4.2 Proactive Maintenance Inspections

These are programmed inspections on road assets using documented tools, procedures to identify defects beyond intervention levels, and techniques. Inspections are undertaken by a qualified Council Asset Inspector who visually inspects and measures common failure modes of asset classes. If defects are found to be outside the intervention level, works orders are created in Assetic Cloud and allocated to a Council Maintenance Officer who will inspect the defect and determine a repair method within the response time.

If a defect requires a larger scale work to repair, then the Maintenance Officer will either make an interim repair or supply warning signs to mitigate any hazard. A capital works request will be initiated.

### 6.4.3 Asset Condition Surveys

These inspections are conducted to assess the life and condition of the road assets. Inspections are used to determine if works are required to renew the asset to ensure it meets its service requirements. These inspections also permit the accurate re-valuation of the assets for asset management, audit, and accounting purposes. Inspections are used to develop Council's Capital Renewal Program. Inspections are done once every four years. Council normally outsources these services to specialists who provide a uniform and un-biased assessment of Council roads.

### 6.4.4 RMP Audit and Performance Review

The RMP will be reviewed at every Council cycle in accordance with the Road Management Regulations. Changes will be gazetted as required by the *Road Management Act 2004*.

The Inspections regime, Level of Service and Response Times will be subject to an internal audit every 6 months to test the effectiveness of the RMP. The outcomes, and any recommendations for further improvements, will be reported to Council's Audit & Risk Committee for any further action if required.

## Safety and Defect Inspection Frequency

The following tables summarise the frequency of inspections according to road and footpath classification.

### 6.4.5 Roads Safety and Defect Inspection Frequency

These are intended to primarily identify any obvious defects in our road assets. Road inspections try to identify defects in the road surface such as potholes, as well as damage to signs, drainage systems, barrier rails, bridges and culverts, guideposts, line marking and other road components which may affect the safety of the road user. They may not necessarily cover every road component and are not intended to assess the condition for asset valuation purposes.

Night inspections are conducted to primarily assess the effectiveness of signage and line marking reflectivity.

*Table 5: Safety and defect inspection frequency for roads by classification*

Inspection Type	Urban				Rural			
	Link	Collector	Urban Access	Minor Urban Access	Link	Collector	Access Residential	Access Property
Day	1 per year	2 per year	1 per year	1 per year	3 per year	2 per year	1 per year	Every 2 years
Night	1 per year	1 per year for sealed roads	Every 2 years for sealed roads	Every 2 years for sealed roads	1 per year	1 per year	Every 2 years for sealed roads	Nil

### 6.4.6 Footpath Safety and Defect Inspection Frequency

Footpath Inspections try to identify obvious defects in the wearing surface; these can include trip hazards, major cracks, or potholes and any vegetation clearance issues.

*Table 6: Safety and defect inspection frequency for footpaths by classification*

Footpath Classification	Category 4	Category 3	Category 2	Category 1
Inspection frequency	3 per year	2 per year	1 per year	Nil

## 6.5 Hazard Response

### 6.5.1 Road and Bridge Hazard Action Response

Table 7 below summarises response times for defect rectification works from the point of inspection.

**Table 7: Road and Bridge Hazard Action Response**

Response Code	Response Mechanism	Response time
A	Inspect and rectify if possible, or provide appropriate warning or place on a maintenance program <sup>1</sup> .	Within 1 day of inspection or notification.
B	Inspect and rectify if possible, or provide appropriate warning or place on maintenance program <sup>1</sup> .	Within 48 hours of inspection or notification.
C	Inspect and rectify if possible, or provide appropriate warning or place on maintenance program <sup>1</sup> .	Within 10 days of inspection or notification.
D	Inspect and rectify if possible, or provide appropriate warning or place on maintenance program <sup>1</sup> .	Within 20 days of inspection or notification.
E	Inspect and rectify if possible, or provide appropriate warning or place on maintenance program <sup>1</sup> .	Within 60 days of inspection or notification.
F	Inspect and rectify if possible, or provide appropriate warning or place on a maintenance program.	Within 6 months of inspection or notification.
G	Inspect and rectify if possible, or provide appropriate warning or place on a maintenance program.	Within 12 months of inspection or notification.

<sup>1</sup> Where it is not possible to rectify within stated timeframes because of the nature of the treatment required or level of resources required, appropriate warning signs, or temporary repair may be required until the repair can be permanently completed. Response times are based on normal working times/days, although these may be varied under exceptional circumstances.

Note: Appropriate warning could include, for example:

- Provision of warning signs
- Traffic control action
- Diverting traffic around the site
- Installation of temporary speed limit
- Lane closure
- Closure of the road to use by certain vehicle (e.g., a load limit)
- Road closure

## 6.5.2 Hazard response by Road Classification

Table 8 below contains the defect categories for roads and bridges and the defects versus road hierarchy matrix provide a timeframe to rectify all the identified defects.

**Table 8: Road and Bridge Hazard Action Response**

Asset Type	Hazard Description	Urban				Rural			
		Link (Roadside Car parks only)	Collector	Urban Access	Minor Urban Access	Link	Collector	Access Residential	Access Property
<b>Road Surface and Pavements</b>									
Road	The size of potholes are greater than 300 millimetre in diameter and 100 millimetres in depth	C	C	D	F	C	D	F	N/A
Road	Edge of sealed pavement breaks or loses material and reduces the pavement width by more than 200 millimetres or has a > 100mm drop off over 20 metres of length.	E	E	F	G	D	E	F	N/A
Road	Shoving/Depressions or Rutting on road surface should be greater than 75 millimetres in depth.	F	F	F	G	F	F	G	N/A
Road	Crocodile Cracking should affect more than 3 squares metres in road pavement and surface.	F	F	F	G	F	F	F	N/A
Road	Corrugations should be more than 75 millimetres in-depth and more than 20 metres in length	N/A	N/A	F	F	N/A	D	E	F
Road	Accumulation of loose materials on sealed traffic lanes	N/A	C	D	F	C	D	E	E
Road	Oil spill or water over road	A	A	A	B	A	A	B	C
Kerb & Channel	Vertical or Horizontal displacement is more than 100 millimetres or asset broken/displaced	F	F	G	G	G	G	N/A	N/A

Signs	Regulatory, warning and hazard signs missing, illegible at 100 metres distance or damaged, making them substantially ineffective.	E	E	E	F	E	E	F	G
Bollards and Guide Posts	Bent, loose, damaged, non-functional or causing injury to the general public: <ul style="list-style-type: none"> <li>Greater than 10 degrees off the vertical or</li> <li>Greater than 5% surface dented or</li> <li>Greater than 5% surface corroded /rusty.</li> </ul>	N/A	E	F	G	E	F	G	G
Vegetation	All tree defects including intrusion into pedestrian and/or vehicle clearance zone and sight distance issues that limit clear vision	E	E	E	E	D	E	E	F
Line marking	(1)-Missing or damaged RRPM's (Reflective Raised Pavement Markers) and/or (2)- Delineation or line marking not visible or ineffective	F	F	F	G	F	F	G	G
<b>Bridges and Major Culverts</b>									
Bridges	In Bridges and drainage cleaning and clearing of debris from surfaces.	N/A	F	F	G	E	E	F	F
Bridges	Any damaged or defective guardrail making it substantially ineffective	N/A	E	F	G	E	F	G	G

### 6.5.3 Hazard response by Footpath Classification

*Table 9: Hazard response by Footpath Classification*

Asset Type	Description	Category 4	Category 3	Category 2	Category 1
Footpaths	<ul style="list-style-type: none"> <li>Footpath lips or trip hazards greater than 40 millimetres in height difference. Mounds or depressions greater than 100 millimetres under a straight edge. Cross falls steeper than 1 in 20.</li> <li>Asphalt footpath affected by tree roots, lifted, or depressed greater than 40 millimetres in height difference and cracked or potholed more than 20 millimetres in width and 200 millimetres in diameter, respectively.</li> </ul>	D	D	E	N/A
Footpaths	Concrete bay is cracked or broken more than 20 millimetres in width.	E	E	F	N/A
Footpaths	Gravel Path potholed greater than 200 millimetres in diameter and 50 millimetres in-depth and depressed by 25 millimetres.	N/A	N/A	F	N/A

### 6.5.4 Defect and Maintenance Works

In cases where the nature of the repair required is not considered to be an immediate hazard, the repair work will be placed on a maintenance program to be undertaken within the response time adopted in this plan.

## 7. PLANNING, DESIGN, CONSTRUCTION AND MAINTENANCE STANDARDS

In assessing the design and construction parameters required for urban and rural roads specific reference is made to:

- the relevant Australian Standards
- VicRoads guidelines for design and construction
- VicRoads maintenance manuals where necessary
- VicRoads codes of practice where relevant
- NAASRA design guidelines
- relevant Austroads guides
- Infrastructure Design Manual

### 7.1 Design and Construction Parameters

Based on community feedback and having regard to national, state, and local government documentation, appropriate traffic lane widths and resultant road pavement widths and depths have been developed to form the proposed design and construction parameters for the Council road network.

The standards are divided into two groups being Urban and Rural with the design and construction parameters altering due to such factors as:

- Functional classification
- Traffic volume and type
- Location of adjacent vegetation
- Percentage of trucks
- Bus routes
- Location of the road e.g., industry, quarry, agricultural areas.

To meet the needs of the community and Council, the following design and construction parameters are recommended. All the new and upgrading works for urban and rural roads must comply with design parameters described in *Table 10*.

**Table 10: Parameter for all new and upgrading works.**

Adjacent Land Planning Zone	Proposed Road Classification	Road Reserve Width (New)	Vehicles Per Day Etc.	Formation Width (metres)	Pavement Width (metres)	Seal Width (metres)	Kerb & Channel	Minimum Clearance	Line marking	Guide posts	Design Speed
Urban	Collector	20	N/A	9.0	8.0	8.0	Yes <sup>2</sup>	N/A	Centre and intersection	N/A	N/A
	Access more than 20 houses	20	N/A	8.0	7.4	6.2	Yes	N/A	Intersection only	N/A	N/A
	Access less than 20 houses	20	N/A	7.0	6.2	6.2	Yes	N/A	Intersection only	N/A	N/A
	Access industrial	20	N/A	N/A	13.2	12.0	Yes	N/A	Intersection only	N/A	N/A
	Minor Access	10	N/A	N/A	6.2	6.2	Yes	N/A	Intersection only	N/A	N/A
Rural	Link	20	More than 50	9.2	8	6.2	N/A	6m above formation	Centre and intersections	150m	120km/hr (Sealed only)
	Collector	20	50-150	8.6	6.4	6.2	N/A	6m above formation	Centre and intersection	150m	100km/hr (Sealed only)
	Access Residential	20	More than 50	8.6	6.4	6.2	N/A	6m above formation	Sealed intersections only	150m	80km/hr
		20	Less than 50	7.4	6.4	N/A	N/A	6m above formation	N/A	150m	N/A
	Access Property Only <sup>3</sup>	20	N/A	7.4	6.2	N/A	N/A	6m above formation	N/A	Culverts only	N/A

<sup>2</sup> Kerb and channel may be replaced with sealed inverts in low drainage problem areas.

<sup>3</sup> Council accepts no responsibility for maintenance on these tracks but may do minor works on request, usually at the landowner's expense.



## **8. ASSET DATA AND RECORDS**

Asset data for prioritising maintenance and renewal work for roads, bridges, footpaths, and kerb and channel, is collected and maintained in Assetic Cloud; Assetic Cloud is the single source for all Council asset data. Records of works carried out (maintenance and renewal), asset condition data and inspections carried out are all stored in Assetic Cloud for access by Finance, Operation and Asset Teams.

## **9. PROPERTY ACCESS MANAGEMENT**

Where municipal roads interface with private property, the property access needs to be managed consistently to provide a safe, operable and sustainable asset. These are managed in accordance with Council's Road Asset Management Plan.

In cases where the provision of suitable access to dwellings is not covered by existing Planning and Building controls, the provision of such access will be subject to Council's Sustainable Asset Management Policy.

## **10. REGISTER OF PUBLIC ROADS**

According to the *Road Management Act 2004*, it is mandatory that a road authority keeps a register of public roads and the roads need to be maintained by the RMP. The Act also provides guidance as to what must be included in the Road Register, which includes:

- Name of the public road
- The date on which the road becomes a public road if declared after 1<sup>st</sup> July 2004
- The classification of the public road
- Reference to arrangements where management of road functions have transferred from one Road Authority to another.

Due to the different levels of usage along a road, it may be split into more than one hierarchy or level of service.

## **11. REGISTER OF FOOTPATHS, BICYCLE PATHS AND WALKING WAYS**

All information relating to footpaths, bicycle paths and walking paths is recorded in Assetic Cloud, including the footpath location, materials, dimensions, hierarchy, level of service, inspection frequencies and response mechanisms.

## **12. REGISTER OF BRIDGES AND MAJOR CULVERTS**

The register lists all bridges and major culverts for which Council is the responsible Road Authority. The register is held as a database and includes the following information:

- Location
- Dimensions
- Age
- Description of type.

### **13. DEMARCATION OF RESPONSIBILITY**

There are several areas where municipal roads interface with roads or railways which are maintained by other authorities such as neighbouring municipalities, VicRoads, Parks Victoria, DEPI, GWM Water, CFA and the Railways. There may be a differing level of service arising at this interface, due to the change in the way roads are managed by the various road authorities.

#### **13.1 Arterial Roads**

State Arterial Roads have the function of carrying the heaviest volume of traffic, including commercial vehicles, and providing the principal routes for traffic flows in and around the municipality. These are the roads specially managed by VicRoads and are not Council's responsibility.

#### **13.2 Boundary and Shared Roads**

Several roads and bridges fall on, along or across the boundary with the seven neighbouring municipalities. Provision is made for shared capital and maintenance costs in these instances, with the provision that all work will be cost-neutral, with no financial advantage to either municipality. Further details are contained in the "Code for the Routine Maintenance of Boundary Roads and Bridges". Council is in the process of formalising all boundary agreements with the adjoining councils.

#### **13.3 Crown Land**

Numerous public roads are located on Crown land managed by the Department of Environment and Primary Industry, and Parks Victoria. The road may be the responsibility of the relevant department, in some instances a road may pass through the Crown land and Council may remain the Responsible Authority. There are many freehold/private properties that are only accessed via roads located on Crown land, or via unused road reserves, and Council is under no obligation to provide or maintain access to those lots. There are also hundreds of kilometres of unused road reserves, throughout the shire that Council accepts no responsibility for, under the *Road Management Act 2004*. These road reserves are not included in the Road Register.

#### **13.4 Rail**

The relevant rail authority is responsible for the maintenance of the road and infrastructure near a rail crossing and some bridge structures. The *Rail Safety Act 2006* requires Safety Interface Agreements to be in place that fully detail the areas of responsibility for the two railway lines within the shire.

#### **13.5 Utility Service**

The relevant service provider including rural and urban water, gas, sewer, phone, or power is responsible for the maintenance of its infrastructure located within the road reserve.

#### **13.6 Private Streets**

A private street may have been created from the subdivision of private land. As of 2007, all these private streets are now under the control of the Council and shall be maintained in accordance with the RMP.

#### **13.7 Fire Access Tracks**

Council has no legal obligation to provide and maintain tracks or fire access tracks; however, if Council decides to maintain a road for fire fighting vehicle access as a community service, that function will be included in the asset register and not as a separate hierarchical class.

## **14. OWNER RESPONSIBILITIES**

### **14.1 Vehicle Crossings**

The *Road Management Act 2004* provides that a Road Authority is not liable for private vehicle crossings (driveways) and pathways on road reserves that provide access to land adjoining a road, this responsibility being with the adjoining landowner for both the construction and ongoing maintenance. Vehicle crossings must comply with Council's specifications and be kept maintained.

Proposed, new or altered crossovers to properties adjoining Arterial Roads require a Planning Permit under the *Environment and Planning Act 1986* before any works can commence.

### **14.2 Footpaths and Overhanging Vegetation**

A landowner has a responsibility to keep a footpath clear of vegetation growing from their property. Under the provisions of Council's General Local Law Council may direct the landowner to trim the overhanging branches.

### **14.3 Obstructing Footpath and Roads**

It is the responsibility of landowners to keep footpaths and roads clear of obstructions, including circumstances relating to:

- Tables, chairs, shop displays and signs on footpaths in commercial areas
- Obstructions on nature strips
- Weeds/trees affecting visibility.

### **14.4 Nature Strips**

Due to potentially high costs Council does not maintain nature strips to a high standard. Council may only undertake works where some safety or significant amenity issue is present. Historically the landowner has undertaken mowing and upkeep as a part of the presentation of their property.

### **14.5 Consent to Perform Works in Road Reserve**

In general, any person considering performing works in road reserves must obtain consent from the Coordinating Road Authority unless they are exempted under the *Road Management (Works & Infrastructure) Regulations 2005*. Advice and application forms based on Council's General Local Law are available from Council's offices for work on municipal roads.

### **14.6 Car Parks Management**

Council has a code for the management of public car parks, which provides more detailed information on the way that these are managed. Note that many car parks are located on private land and are not the responsibility of the Council. Some of the issues covered are: -

- Types of car park – Regional, Town, Local
- Types of usage – Shopping, Commercial, Recreational
- Leases and Committees of Management agreements
- Design and Maintenance

## 15. RISK MANAGEMENT

Council will receive notification of assets that require attention. Ratepayer notifications are to be entered into the customer request system and actioned according to the prioritisation given. Issues notified by staff members will be referred electronically to the appropriate staff member who will respond accordingly to the hazard response schedule provided in the RMP.

Risk management is carried out in accordance with Council's approved Risk Management Policy, with details being recorded in the official Risk Register. Council strives to manage risks responsibly, by eliminating, minimising, or cost-effectively controlling the risks. The objective of the risk management process is to ensure that:

- All significant operational and organisational risks are understood and identified
- The highest risks that should be addressed in the short to medium term are identified
- Risk reduction treatments which best meet business needs are applied
- Responsibilities for managing risks are allocated to specific staff
- The adopted risk management process is consistent with Australian Standards that define risk assessment and management.

### 15.1 Maintenance Risk Assessment

Through the identification of the sources of risk and areas of impact, a framework for risk identification and analysis can be prepared for Council's day-to-day exposure. The tables below provide a simple approach, when assessing the likelihood and consequence of risk of Council's road assets. These tables allow Council to prioritise potential risk exposures and as a result, adopt performance standards to reduce its risk exposure.

**Table 11: Consequence Scale**

LEVEL	DESCRIPTOR	DETAILED DESCRIPTION
1	Insignificant	<ul style="list-style-type: none"> <li>• Direct loss or opportunity cost of &lt;\$10k. Impact easily manageable within jurisdictional budget.</li> <li>• No impact. First Aid only required.</li> <li>• Impact absorbed through normal operations; Able to be rectified using management processes.</li> <li>• One or complaints or compliance incidents.</li> <li>• No measurable impact to brand, limited negative local publicity.</li> <li>• Contaminate spill contained on premises.</li> <li>• Recoverable data loss, non-sensitive data leak, minor incident resolved using normal work procedures, system unavailable for &lt;1 hour.</li> </ul>
2	Minor	<ul style="list-style-type: none"> <li>• Direct loss or opportunity cost of between \$10k and \$100k.</li> <li>• Some medical treatment required; first aid treatment for minor injuries.</li> <li>• Minor disruption to service, minimal time, effort and cost to resolve; success measures able to be achieved with some effort.</li> <li>• Individual legal action, local regulatory enquiry/improvement notices, low range fines.</li> <li>• Minimal damage to brand resulting from limited negative local publicity.</li> <li>• Emission discharge/contaminate spill not exceeding EPA reportable levels.</li> <li>• Small, isolated loss of confidentiality or data integrity, minor incident, system unavailable for 1-4 hours.</li> </ul>
3	Moderate	<ul style="list-style-type: none"> <li>• Direct loss or opportunity cost of between \$100k and \$1m.</li> <li>• Individual injury likely to result in time off work; significant injury involving medical treatment or hospitalisation.</li> </ul>

		<ul style="list-style-type: none"> <li>Moderate disruption or cessation of services (1-3 days), impacts cannot be absorbed into normal operations; some success measures affected with considerable effort necessary to rectify.</li> <li>Systemic complaints or compliance incidents, fines, minor litigation.</li> <li>Temporary damage to brand resulting from limited negative national publicity or detrimental local publicity.</li> <li>Short term effect on protected wildlife or plants. Emission discharge/contaminate spill exceeding EPA reportable levels.</li> <li>Small, isolated loss of confidentiality or data integrity, significant incident, system unavailable for 4-24 hours.</li> </ul>
4	Major	<ul style="list-style-type: none"> <li>Direct loss or opportunity cost of between \$1m and \$10m. Significant reworking of corporate budget incl cuts to items.</li> <li>Extensive serious injuries or fatality to individual; very high loss to organisation.</li> <li>Loss of customers, high disruption or cessation of services, extensive effort to resolve (up to 1 month); most success measures threatened, or one severely affected.</li> <li>Major systemic or breaches, significant fines/imposition of regulatory restrictions, major litigation.</li> <li>Damage to brand resulting from detrimental national publicity or extensive adverse local publicity.</li> <li>Severe long-term effect on protected wildlife or plants. EPA prosecution.</li> <li>Some loss of confidentiality or data integrity, serious incident, system unavailable for 24-48 hours.</li> </ul>
5	Catastrophic	<ul style="list-style-type: none"> <li>Direct loss or opportunity cost &gt; \$10m; financial impact could not be managed within corporate budget.</li> <li>Multiple fatalities/extensive long-term injuries; worse case loss.</li> <li>Significant loss of customers, major disruption or cessation of services over extended time (&gt;1 month); event/project/activity would never be carried out again.</li> <li>Actual or potential loss of licence, penalties on directors, serious litigation including class action.</li> <li>Substantial damage to brand resulting from extensive negative national publicity.</li> <li>Devastation to a large area. State significant environmental event.</li> <li>Significant loss of confidentiality or data integrity, very serious incident, system unavailable for more than 48 hours, widespread impact on operations and service delivery</li> </ul>

**Table 12: Likelihood Scale – The probability that a risk will occur**

LEVEL	CRITERIA	DEFINITION
A	Almost certain	>80% chance in next 12 months; event expected to occur most times during normal operations.
B	Likely	50-80% chance in next 12 months; will probably occur at some stage based on evidence of previous incidents.
C	Possible	25-50% chance in next 12 months; not generally expected to occur but may under specific circumstances.
D	Unlikely	10-25% chance in next 12 months; conceivable but not likely to occur under normal operations.
E	Rare	Less than 10% chance in next 12 months; only ever occurs under exceptional circumstances.

**Table 13:** Risk Matrix / Consequence and Likelihood scales

LIKELIHOOD		CONSEQUENCES				
		1	2	3	4	5
HIGH	A	M	H	H	E	E
	B	M	M	H	H	E
	C	L	M	H	H	H
	D	L	M	M	M	H
LOW	E	L	L	L	M	M

Table 14: Road Defect Risk Assessment

Asset Type	Hazard Description	URBAN												RURAL											
		Link (Parking)			Collector			Access			Minor			Link			Collector			Access Residential			Access Property		
		Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
ROAD PAVEMENT & SURFACE																									
Road	Size of Pothole are greater than 300mm diameter and 100mm in depth	C	5	H	C	5	H	C	3	H	C	2	M	C	5	H	C	3	H	C	2	M	-	-	-
Road	Edge of sealed pavement breaks and reduces the pavement width more than 200mm over 20m of length.	D	3	M	D	3	M	C	2	M	C	2	M	C	3	H	D	3	M	C	2	M	-	-	-
Road	Shoving/Depressions or Rutting on road surface should be greater than 75mm in depth.	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	D	3	M	-	-	-
Road	Crocodile Cracking should affect more than 3m <sup>2</sup> in road pavement and surface.	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	-	-	-
Road	Corrugations should be more than 75mm in depth and more than 20 metres in length.	-	-	-	-	-	-	C	2	M	C	2	M	-	-	-	C	3	H	D	3	M	C	2	M
Road	Bleeding, at intersections or bends	-	-	-	C	5	H	D	3	M	C	2	M	C	5	H	D	3	M	D	3	M	C	2	M
Road	Accumulation of loose material on sealed traffic lanes	-	-	-	C	5	H	C	3	H	C	2	M	C	5	H	C	3	H	D	3	M	D	3	M
Road	Oil spill or water over road.	B	3	H	B	3	H	B	3	H	D	3	M	B	3	H	B	3	H	D	3	M	C	5	H
Kerb & Channel	Vertical or Horizontal displacement is more than 100mm or asset broken/displaced.	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	-	-	-	-	-	-
Signs	Regulatory, warning and hazard signs missing, illegible at 100m distance or damaged, making them substantially ineffective.	D	3	M	D	3	M	D	3	M	C	2	M	D	3	M	D	3	M	C	2	M	C	2	M

Bollards and Guideposts	Bent, loose, damaged, non-functional, or causing injury to the public: <ul style="list-style-type: none"> <li>Greater than 10 degrees off the vertical or,</li> <li>Greater than 5% surface dented or,</li> <li>Greater than 5% surface corroded/rusty.</li> </ul>	-	-	-	D	3	M	C	2	M	C	2	M	D	3	M	C	2	M	C	2	M	C	2	M
Vegetation	All tree defects in cluding intrusion into pedestrian and/or vehicle clearance zone and sight distance issues that limit clear vision.	D	3	M	D	3	M	D	3	M	D	3	M	C	3	H	D	3	M	D	3	M	C	2	M
Line marking	1. Missing or damaged RRPM's (Reflective Raised Pavement Marker) and or 2. Delineation or line marking not visible or effective	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M
BRIDGE & MAJOR CULVERTS																									
Bridges	In bridges and drainage cleaning & clearing of debris from surfaces.	-	-	-	C	2	M	C	2	M	C	2	M	D	3	M	D	3	M	C	2	M	C	2	M
Bridges	Any damage to protective railing or running surface.	-	-	-	D	3	M	C	2	M	C	2	M	D	3	M	C	2	M	C	2	M	C	2	M
Signs	Regulatory and warning missing.	C	3	H	C	3	H	D	3	M	C	2	M	D	3	M	C	3	H	C	2	M	C	2	M
Signs	Regulatory and warning illegible at 100m distance.	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M



Table 15: Footpath Defect Risk Assessment

Asset Type	Hazard Description	Category 4 Central Business Area & High use precinct			Category 3 Specific Pedestrian Generator			Category 2 Other areas of made footpath			Category 1 Unconstructed/informal (Low Usage)		
		Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
Footpaths	Footpath lips or trip hazards greater than 40 millimetres in height difference. Mounds or depressions greater than 100 millimetres under a straight edge.	C	3	H	C	3	H	C	3	H	-	-	-
Footpaths	Asphalt footpath affected by tree roots, lifted, or depressed greater than 40 millimetres in height difference and cracked or potholed more than 20 millimetres in width and 200 millimetres in diameter, respectively.	C	3	H	C	3	H	C	3	H	-	-	-
Footpaths	Concrete bay is cracked or broken more than 20 millimetres in width.	D	3	M	D	3	M	C	2	M	-	-	-
Footpaths	Brick pavers out of alignment (raised over 40mm), missing or broken.	C	3	H	C	3	H	D	3	M	-	-	-
Footpaths	Gravel Path potholed greater than 200 millimetres in diameter and 40 millimetres in depth	-	-	-	-	-	-	C	2	M	-	-	-

## **16. FORCE MAJEURE**

Council will make every endeavour to meet all aspects of its RMP. However, in the event of natural disasters and other events including, but not limited to, fires, floods, droughts, and the like, together with human factors, such as lack of Council staff or suitably qualified contractors, because of section 83 of the Victorian *Wrongs Act 1958*, as amended, Council reserves the right to suspend compliance with its Road Management Plan.

If the Chief Executive Officer of the Council has to pursuant to section 83 of the above Act, consider the limited financial resources of the Council and its other conflicting priorities, meaning Council's RMP cannot be met, they will write to Council's officer in charge of its RMP and inform them that some, or all, of the timeframes and response times, are to be suspended.

Once the events beyond the control of Council have abated, or if the events have partly abated, Council's Chief Executive Officer will write to Council's officer responsible for Council's RMP and inform them which parts of the RMP are to be reactivated and the timeframes for each part of the RMP to be reactivated.

## **17. AUDIT**

The Inspections regime, Level of Service and Response Times will be subject to an internal audit every 6 months to test the effectiveness of the RMP. The outcomes, and any recommendations for further improvements, will be reported to Council's Audit & Risk Committee for any further action if required.

## **18. REVIEW**

This Plan will be reviewed every four years or earlier if circumstances require. Changes will be gazetted as required by the *Road Management Act 2004*.