Moira Shire

ENRICHING LIFE ON THE MURRAY

ROAD MANAGEMENT PLAN

Version 4
Adopted by Council
17 August 2009

(RESPONSE TO ROAD MANAGEMENT ACT 2004)

MOIRASHIRE
ON THE MURRAY

ROAD MANAGEMENT PLAN

1. Executive Summary 4
2. Purpose 5
3. Scope 5
4. Objective 6
5. Distribution 6
6. Key Stakeholders 6
7. Register of Public Roads 6
8. Classification of Roads and Footpaths 8
9. Demarcation and Transfer of Responsibility 9
10. Road Asset Management System 10
10.1 Policy & Budget Framework 11
10.2 Standards & Guidelines 13
10.3 Development and Implementation of Maintenance/Capital Works Programs 14
10.4 Audit 14
11. Maintenance Standards 15
11.1 Road Condition Assessment 15
11.2 Routine Maintenance Inspections 16
11.3 Levels of Service 18
11.4 Repair & Maintenance Works 19
11.5 Temporary Measures 19
11.6 Emergency Works 19
12. Community Obligations 20
12.1 Road Usage 20
12.2 Obstruction of Footpaths and Roads 20
12.3 Nature Strips 21
12.4 Fencing Adjacent to a Road Reserve 21

12.5 "Asset Protection" Permit 21
12.6 "Consent to Work within a Road Reserve" Permit 21
12.7 Heavy Vehicle Restrictions 22
12.8 Road Reserve Local Laws - Discharge of Water/ Damage/Interference 22
12.9 Vehicle Crossings (Driveways) 22
13. Customer Requests 24
14. Review of Road Management Plan 24
15. Technical References 25
16. Council Documents 25
17. Appendices 25
18. Appendix 1 – Version and Amendment Register 26
19. Appendix 2 – Roads Levels of Service 27
20. Appendix 3 – Footpaths, Levels of Service 35
21. Appendix 4 – Signs, Levels of Service 37

1. Executive Summary

Moira Shire Council is the largest shire in Victoria's north-east covering 4,057 square kilometres and is located 2.5 hours from Melbourne in the Goulburn Murray region. The Shire is bordered by the municipalities of Benalla, Campaspe, Indigo, Wangaratta and Shepparton. Council's northern border is the Murray River.

Moira Shire encompasses four major centres, Cobram, Nathalia, Numurkah and Yarrawonga as well as 18 smaller towns and communities with a population of approximately 28,000. The Shire is well served with a strong primary production sector including beef, sheep, cropping, dairy, fruit and viticulture. Value-added manufacturing food processing and tourism industries are increasingly important activities based on the strengths of climate, water and the riverine topography and landscape.

Moira Shire is custodian of an extensive range of community assets that it provides to facilitate delivery of its services to the community.

Moira Shire's local road network assets incorporate approximately:-

- 1000 kilometres of sealed roads;
- 2500 kilometres of unsealed roads varying from link roads to access tracks;
- 240 kilometres of kerb and channel
- 90 kilometres of footpaths; and
- 280 bridges and major culverts.

The 2008/09 roads maintenance operations budget in Moira Shire is $3.4 million and capital reinvestment budget is $4.1 million.

The abolition of non-feasance legal immunity and the introduction of the Road Management Act 2004 presented a prime opportunity to revisit the basis for setting service levels and focus on the real issues of risk/safety management and life cycle economy.

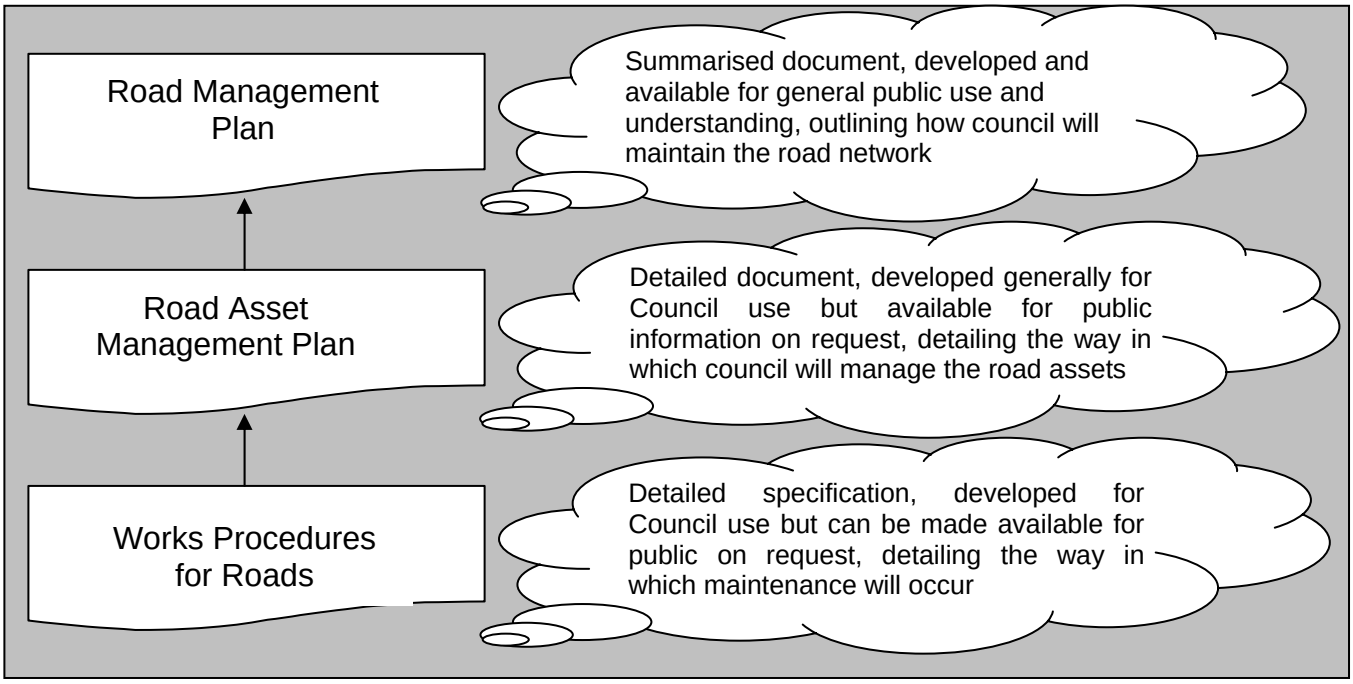
The Road Management Plan (RMP) and its supporting documents:

- have been developed as a response to the Road Management Act 2004;
- clearly define who is the responsible road authority and identify the responsibilities of the road user and the road authority for each asset; and
- seek to balance risk, lifecycle economy and social expectations of the community whilst considering the affordability and available resources.

In complying with the Road Management Act 2004, Moira Shire Council has taken the opportunity to develop an asset management system and service levels that focus on Council's Risk Management Strategy and Defect Assessment Methodology. There is also a close link between Council's Strategic Resource Plan and the Road Management Plan

The RMP is a dynamic document and is subject to continuous improvement based on Council's continuous improvement program, changing legislative requirements and economic, social and environmental impacts.

The RMP is a simplified summary of Council's road management processes. Comprehensive details are available in Council's Road Asset Management Plan, Footpath Asset Management Plan and Bridge Asset Management Plan.



2. Purpose

The purpose of the Road Management Plan is to:

- outline Council's role and responsibility to care for and manage the municipal road network;
- outline the community obligation of a road user;
- document Council's road asset management processes;
- provide a response to the requirements of the Road Management Act 2004; and
- outline the Council's road management and maintenance "levels of service" necessary for Council to provide a safe and functional road network.

3. Scope

The Road Management Plan covers the following assets:

- Road Pavement;
- Road Surface;
- Signage;
- Guideposts;
- Drainage;
- Kerb & Channel;
- Footpaths;
- Driveway Crossings; and
- Bridges & Major Culverts.

4. Objective

The objective of the Road Management Plan is to:

- provide an overview of Council's road asset management processes;
- identify the responsibilities of the road user and the road authority and clearly define who is the responsible road authority for each asset;
- be presented in a manner that is easily read and understood by the community; and
- comply to the Road Management Act 2004.

5. Distribution

The Asset Manager is responsible for the RMP and will distribute copies to the:

- Team Leader Asset Management;
- Corporate Library; and
- Cobram Service Centre (for public viewing).

Refer Appendix 1 for version and amendment register.

6. Key Stakeholders

The key stakeholders relating to the Road Management Plan are:

- Residents;
- Ratepayers;
- Tourists;
- Transport Industries;
- Public Transport Safety Victoria;
- Commercial Industries;
- Other Road Authorities;
- Utility Companies;
- Various Government Departments

7. Register of Public Roads

Moira Shire, under the implications of the Road Management Act 2004, is the nominated road authority of all municipal roads within the municipality that are listed on the Shire Municipal Register of Public Roads and the Coordinating Road Authority for other road authorities and utilities with road assets and infrastructure within the municipality road network.

The Council, as a requirement of section 205 of the Local Government Act 1989, has the care and management of municipal roads within its responsibility listed on the Register of Public Roads.

In addition, Council must ensure that if a road is required for public traffic, it is kept open for public use. However, Council is not obliged to carry out any surface or drainage work on an unmade road. Council will carry out works in accordance with the levels of service specified in Appendices 3, 4 & 5.

The Road Management Bill places a mandatory requirement that a road authority (Council) maintains a register of public roads. The purpose of the Public Road Register is to define public roads for which Council is the responsible road authority. Public roads are considered to be 'roadways' and 'pathways' that are 'reasonably available for general public purpose'.

Moira Shire Council's Public Road Register records the details of all public roads for which it is responsible. The register is contained and updated within the Road Asset Management System. The mandatory information to be kept is listed in Schedule 1 of the Road Management Act 2004 and includes:

- *the name of each public road or, if a road is unnamed, a description which enables the particular road to be easily identified ;*
- *if a road becomes a public road after 1 July 2004, the date on which a road became a public road;*
- *if a public road ceases to be a public road, the date the road ceased to be a public road;*
- *the classification, if any, of the public road;*
- *the reference of any plan or instrument made on or after 1 July 2004 that fixes or varies the boundaries of a public road;*
- *any ancillary areas;*
- *a reference to any arrangement under which road management functions in respect of any part of a public road or ancillary area is transferred to or from another road authority;*
- *any matter required to be included by the relevant road minister under section 22;*
- *any other matter required to be included by this Act;*
- *any other matter which is prescribed for the purpose of this clause.*

The Public Road Register also defines roads that Council have Memorandum of Understanding or agreements for, relating to maintenance (ie boundary roads, DSE etc).

The Public Roads Register will be updated at least twice per annum in March and September each year. A copy of the Public Road Register is available for public inspection at the Cobram Service Centre and on Council's website www.moira.vic.gov.au.

8. Classification of Roads and Footpaths

Moira Shire Council developed a Draft Road Management Strategy that was adopted by Council in 2002 and subsequently reviewed in June 2004. Extensive consultation was undertaken as part of this strategy and a hierarchy of roads was developed. The hierarchy from the strategy is being used as the base for the classification of roads. A Road Asset Management Plan is being developed and will replace the Road Management Strategy. Road classifications are based on functionality and are listed below:

Classification		Function	Accessibility	Surface
Urban	Link	Link between declared roads or industrial centres.	All Weather Access	Gravel or Sealed
	Collector	Connects into residential areas, minor industrial centres or conveys traffic to link or arterial roads.	All Weather Access	Gravel or Sealed
	Access - Residential	Access to residences or secondary commercial access.	All Weather Access	Gravel/Natural Surface or Sealed
	Lanes	Access to rear of properties, for property occupiers	Dry Weather Only	Gravel/Natural Surface or Sealed
Rural	Link	Link between townships, arterial roads, or industrial centres.	All Weather Access	Gravel or Sealed
	Collector	Connects into districts, industrial centres or conveys traffic to link or declared roads.	All Weather Access	Gravel or Sealed
	Access - Residential	Primary access to residences, or roads with significant traffic	All Weather Access	Gravel or Sealed
	Access – Secondary #	**Secondary access to residences, or roads with some traffic but no residences**	**Dry Weather Only**	**Formed using local pavement materials**
	Access - other	Other property access, river access, fire access.	Dry Weather Only	Unformed or Formed using natural materials

- new classification of Rural Road

Footpaths are classified as follows:

Classification	Function
High Usage	Central Business District
Medium Usage	Defined routes from elderly hostels, schools etc to businesses
Low Usage	Residential areas

Existing footpaths have been constructed using a variety of construction materials from asphalt, concrete, gravel and brick paving providing a practical application to establish a safe and useable footpath network within the locality.

Other parameters used in determining the classification of a footpath includes:-

- major shopping precincts;
- hospitals;
- schools;
- aged care facilities;
- local shopping precinct;
- residential access.

9. Demarcation and Transfer of Responsibility

Council is not responsible for Parks Victoria roads that do not provide access to private residence (these are controlled by the Department of Sustainability and Environment).

Moira Shire is bordered by the municipalities of:;-

- Campaspe to the west;
- Shepparton to the south;
- Benalla to the south east;
- Wangaratta to the east;
- Indigo to the north east;
- Murray River to the north.

Agreements for managing boundary roads and infrastructure exist. Infrastructure managed by Moira Shire Council appears on its Public Road Register. Boundary infrastructure managed by an adjoining municipality appears under the Shire Boundary Agreements section in the Public Road Register.

Vic Roads is the responsible road authority for all arterial roads. Where these arterial roads enter 60 kilometre per hour speed restriction zones, Moira Shire Council is the responsible authority for assets and infrastructure from the back of the kerb or from the top of the spoon drain to the fence-line

10. Road Asset Management System

Council's Road Asset Management System provides a framework for all asset management activities. The system ensures that accurate and relevant information is collected and available to allow informed decisions to be made regarding the road network assets. Relevant factors such as public risk, financial risk (consequence of deprival), efficiency and available resources are considered throughout the asset management system.

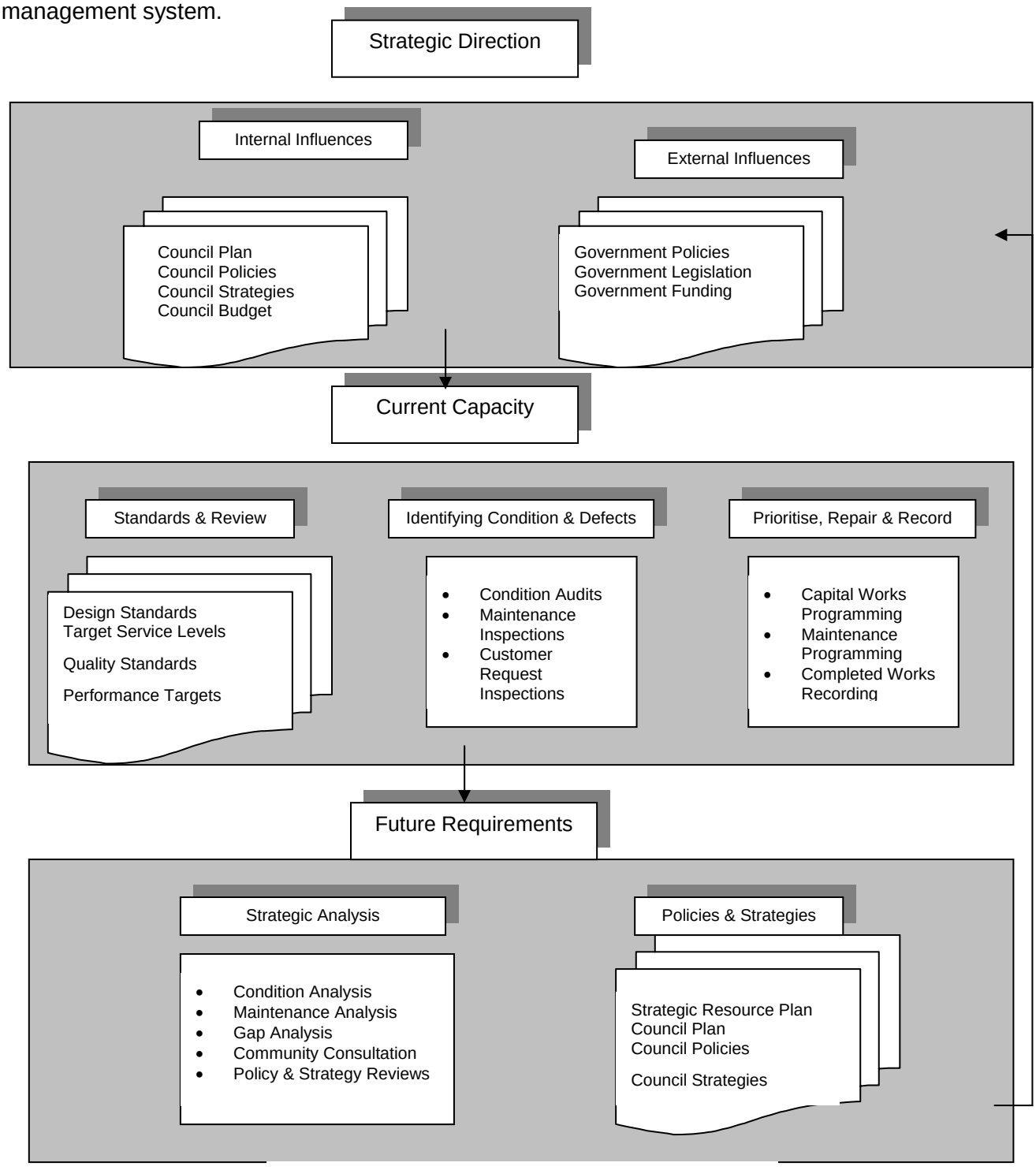


Figure 3 Road Asset Management System

10.1 Policy & Budget Framework

Fundamental inputs into the Road Asset Management system include any relevant Federal, State and local government policies and objectives, any relevant legislation, any relevant budgets set by governments, and any associated road authority asset management policies and strategies.

Council Plan

The Council Plan is the guide for the Shire's operation and development. Moira's Mission Statement is a community sharing opportunities, responsibilities and prosperity.

The Council Plan has several strategies relating to the Road Management Plan:-

- To develop and implement a Total Asset Management Systems; and
- To provide for effective and efficient road improvement and maintenance.

Policies & Strategies

Council has adopted an Asset Management Policy which broadly outlines the relevance of asset management and the organisational requirements to achieve sound asset management practices.

Council has adopted an Asset Management Strategy with the following objectives:

- *to provide quality outcomes in relation to the Asset Management Principles as described in Council's Asset Management Policy;*
- *to understand the needs of the community;*
- *to recognise the limitations on available funds;*
- *to identify the processes and procedures required to optimise the life of existing assets;*
- *to identify the processes and procedures required to minimise the risk of nonfeasance to Council; and*
- *to identify processes and procedures for the development of Asset Management Plans, to ensure best value for the community for each asset category.*

Council's Road Management Plan and Asset Management Plans have vital links with the Strategic Resource Plan 2009/10 to 2018/19 (SRP). Analysis of the data made available from these plans provides a measure as to Council's asset portfolio performance and strategic direction.

Council currently has several other policies and strategies affecting road asset management. Council continually review and update these policies and strategies when taking into consideration operational issues and external influences.

Budget Process

Funding for roads must compete against a wide range of other services provided by Council.

When allocating funds to road assets during the annual budget process Council aims to:

- ensure that all extreme and high risk defects are attended to and proactively maintain the network under this risk assessment rating;
- optimise the life of the asset to maximise the return on investment;
- move towards the desired level of service

Draft budgets and supporting documentation is prepared in March of each year. Council adopts the final budget by August.

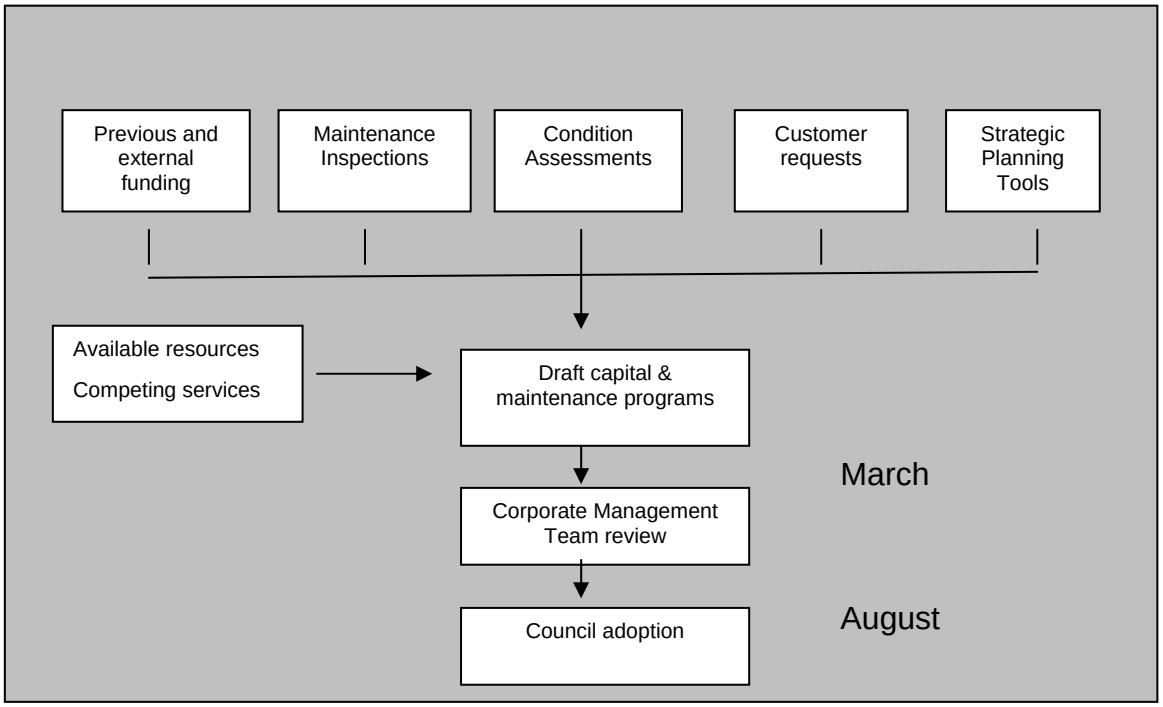


Figure 4 Budget process

All works must be resourced from the annual budget when it is adopted.

10.2 Standards & Guidelines

Council utilises and/or develops standards and guidelines to ensure a formalised and consistent approach to asset management.
Standards and guidelines that Council utilise within the asset management process are:

- Australian Standards Roads & Signs
- Vic Roads Standards
- Moira Road Design Standards as per Classification
- Works Procedures, Road Maintenance
- Condition Assessment Guidelines
- Moira Defect Assessment Methodology (Risk/Deprival Assessment)

Attributes relevant to standards or guidelines are recorded against assets within Council's asset register.

Standards are developed balancing the demands of community expectation, risk management and lifecycle economy against available funds and resources.

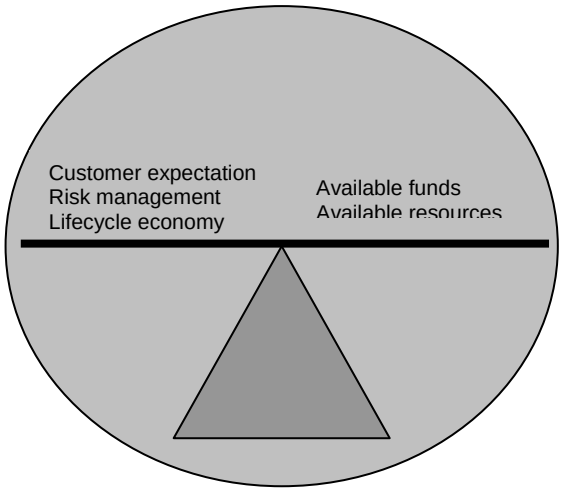


Figure 5 – Developing Standards

Community Expectation
The community has an expectation that works be undertaken to ensure that the network meets what they consider to be a desirable standard. Community expectation is determined by community consultation and customer requests.

Risk Management
Council has an adopted Risk Management Strategy. Asset Management within Moira Shire Council utilises the principles of the Risk Management Strategy. The recording of all defects and condition assessments are based on this methodology.

Lifecycle Economy
Moira Shire has adopted key principles to assist with the asset refurbishment/renewal programs and asset update programs to ensure that the existing asset continues to function as built or to be renewed or upgraded to meet the changing needs and expectations of the community. Council's Road Asset Management Plan describes these principles and processes in more detail.

10.3 Development and Implementation of Maintenance/Capital Works Programs

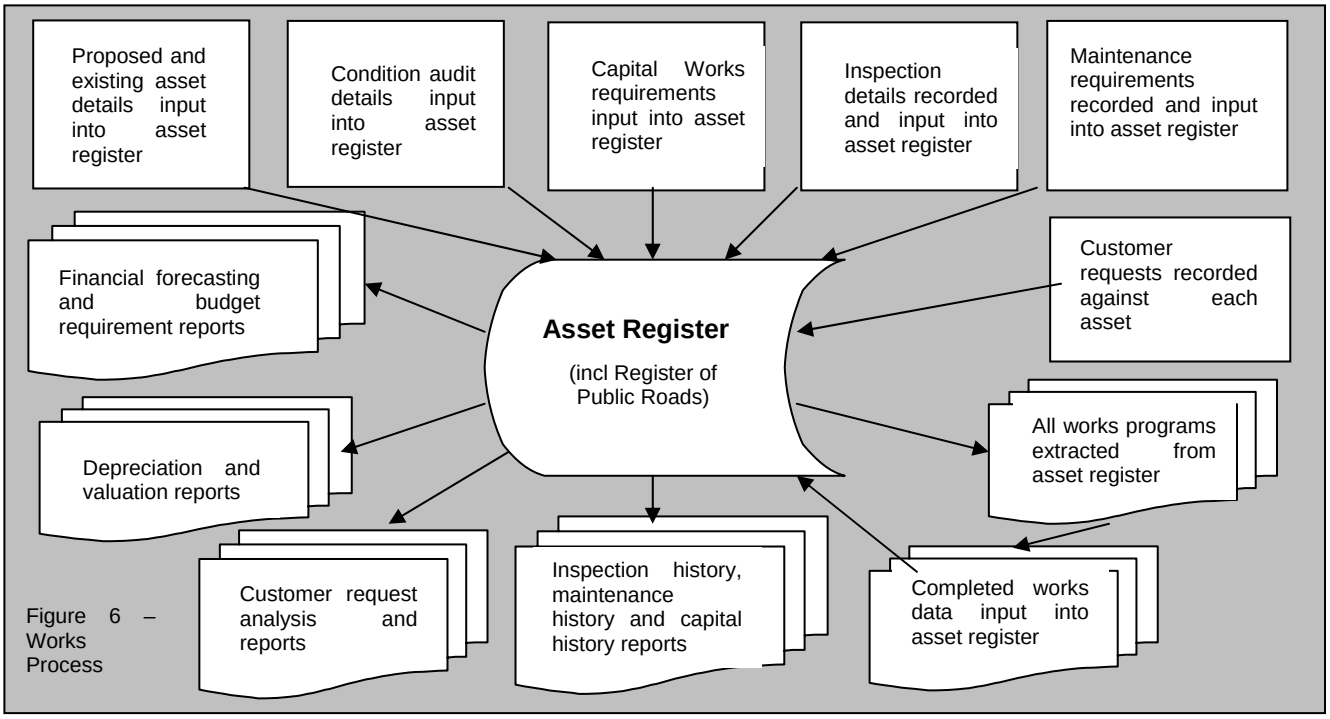


Figure 6 – Works Process

Council undertakes a regular program of inspections and condition audits of the road network assets aimed at identifying and assessing defects in accordance with Council's Risk Management Strategy and Defect Assessment Methodology. All Council's maintenance and capital works requirements are recorded within Council's asset register.

10.4 Audit

Audits will be carried out by Moira Shire Council to ensure that the maintenance program has delivered what was intended. Internal audits will be undertaken by Council's Risk Management and Audit Officer to determine risk and compliance matters. Audits are in integral component of Council's quality control system. The outcome of auditing is to confirm whether maintenance projects were delivered on time, within budget and to the specified quality.

Council has implemented an audit process to ensure:

- assets details are recorded accurately within Council's asset management system;
- condition assessments and maintenance inspections are conducted in accordance with Council's Road Management Plan frequency, methodology and criteria;
- works programs are developed according to relevant criteria;
- works are completed in accordance with Work Procedures, Road Maintenance;
- completed works are recorded in the asset management system; and
- expenditure is correctly allocated between capital and maintenance in accordance with Council's guidelines.

11. Maintenance Standards

Moira Shire Council has an Asset Management Defect Assessment Methodology, which was developed based on Council's Risk Management Strategy. This methodology is used:

- for assessing asset defects and condition;
- for determining service levels;
- for prioritising works programs.

Council is implementing quality assurance procedures and systems throughout the organisation. Council has used Auspec #4 as the basis for developing quality control documentation relating to maintenance standards.

11.1 Road Condition Assessment

Condition assessments are conducted to assess the asset condition as a whole for the purpose of:

- valuation and depreciation of assets;
- assessment of risk and consequence of deprival; and
- developing capital works programs.

Condition assessments are conducted at the following frequencies:

Asset Type	Criteria	Frequency
Sealed Road Wearing Course	• Cracking • Stone loss • Patching • Binder Level • Binder Condition	**Every 4 years, plus an additional inspection of the worst 20% every 2 years**
Sealed Road Pavement	• Pavement Failures • Depressions • Rutting • Formation/Shape • Shoulder Condition	**Every 4 years**
Unsealed Road All Weather Pavements	• Formation/Shape • Subgrade Exposure • Loose Material • Rutting	Every 2 years.
Lanes	• Pavement Failures • Potholes	Every 3 years
Bridges	• Structural Condition	Every 3 years (Level 2/3 Bridge Inspection).
Footpaths	• Replacement • Grinding	Every 3 years.
Kerb & Channel	• Functionality	Every 3 years.
Major Culverts	• Structural Condition	Every 3 years.

11.2 Routine Maintenance Inspections

Council conducts a regular program of inspections of the network for the purpose of:

- identifying defects and the magnitude of the defects;
- assessing defects by risk and consequence of deprival (financial risk);
- developing works programs.

Maintenance inspections are conducted at the following frequencies:

Asset Type	Criteria	Frequency
Unsealed Roads (link, collector and residential access) - all weather roads	• Grading • Potholing • Short Resheeting • Line of Sight Obstacles • Obstacles requiring traffic to deviate • Blocked Culverts	Three times each calendar year (at least 3 months between inspections)
Unsealed Roads (secondary access) - dry weather roads	• Grading • Potholing • Line of Sight Obstacles • Obstacles requiring traffic to deviate • Blocked Culverts	Three times each calendar year (at least 3 months between inspections)
Unsealed Roads (other access) - dry weather roads	• Grading • Line of Sight Obstacles • Obstacles requiring traffic to deviate • Blocked Culverts	Annually.
Sealed Roads	• Minor Resealing • Potholing • Crack Sealing • Stabilisation (Dig Out) • Regulation • Edge Break • Edge Drop Off • Shoulder Grading • Line of Sight Obstacles • Obstacles requiring traffic to deviate • Blocked Culverts	Twice each calendar year; (at least 4 months between inspections)
Lanes	• Derived from condition assessment and customer requests	Every 3 years as part of the condition assessment.
Sign Inspections (Day)	• **Damage** • **Existence**	**Annually**
Sign Inspections (Night)	• Reflectivity	**Annually**

Maintenance Frequency Table (continued)

Asset Type	Criteria	Frequency
Bridges	• Cleaning & Clearing • Wearing Surface • Minor Repairs & Painting • Stream Maintenance • Accident Damage • Vandalism/Graffiti	Annually (Level 1 Bridge Inspection).
Footpaths	• Derived from condition assessment and customer requests	Annually for high and medium use areas; every 3 years for others areas in as part of the condition assessment.
Kerb & Channel	• Derived from condition assessment and customer requests	Every 3 years as part of the condition assessment.
Major Culverts	• Cleaning & Clearing • Minor Repairs & Painting • Waterway Maint • Accident Damage • Vandalism/Graffiti	Annually.

Additional inspections may be conducted as deemed necessary:

- to substantiate and evaluate customer requests;
- as a result of adverse weather conditions
- as a result of an emergency or incident.

11.3 Levels of Service

The following levels of service were identified as part of the Moira Shire Council Road Management Strategy. They have been modified to reflect the requirements of Council's Defect Assessment Methodology.

Maintenance Levels of Service

Service	Performance Target (Outcome)	Performance Measure (What is required)	Performance Criteria (How is this done)
Asset Inspections	Condition identified, recorded and assessed for risk.	Conduct condition audits at prescribed intervals (section 11.1).	Scheduled condition inspections.
	Defects identified, recorded and assessed for risk.	Conduct inspections at prescribed intervals (section 11.2).	Scheduled maintenance inspections.
Programmed Maintenance Works	To maintain road network assets to an acceptable risk level.	Defects recorded at an extreme or high risk will be attended to within the timeframe required. (refer appendix 2).	Defects assessed in accordance with Council's Defect Assessment Methodology.
	Prepare road network assets for seasonal requirements.	Schedule works for assets with seasonal requirements.	Identify assets with seasonal requirements.
Customer Service	Customer requests responded to in a courteous and timely manner. (timeliness based on initial assessment from customer)	Investigate, inspect and program where applicable.	Additional inspection and respond to customer within a specified timeframe.
Emergency Response – Minor Event	Prompt response to an emergency event.	Attend to emergency events prior to any scheduled works.	Moira Shire Council Quality Assurance Procedure - EMERGENCY WORKS / CALL OUT
Emergency Response – Major Event (Declared)	Prompt response to an emergency event	Attend to emergency events prior to any scheduled works.	In accordance with Moira Shire Council Municipal Emergency Management Plan or The Victorian State Emergency Response Plan

11.4 Repair & Maintenance Works

Council conducts maintenance according to a works program developed utilising the information obtained from inspections and data stored against each asset within Council's asset register.

Works programs are prioritised using some of the following criteria:

- risk assessment;
- deprival assessment;
- asset classification (function);
- asset usage.; and
- resource efficiency.

Calculation of risk is determined as per the methodology described in Appendix 4 & 5.

Works are completed and details recorded within Council's asset register (Conquest). Typical details recorded include but are not limited to:

- date completed;
- amount of work completed.

11.5 Temporary Measures

If an extreme risk is identified either through Council's routine maintenance inspections or via an inspection carried out due to a customer request, Council will take appropriate action, as a matter of priority, to reduce the risk of an incident (eg warning signs, flashing lights, safety barriers etc) until such time as maintenance or repair works can be completed.

11.6 Emergency Works

Emergency works are works required to be undertaken urgently, outside of the routine works program, usually as a result of an emergency incident. Emergency incidents include, but are not limited to:

- traffic incidents;
- fires;
- floods;
- storms;
- spillage;
- public safety

Minor Events, responses shall be in accordance with the Moira Shire Council Quality Assurance Procedure - EMERGENCY WORKS / CALL OUT

Major Events are declared emergencies; responses shall be in accordance with the following:

- Municipal Emergency Management Plan
- The Victorian State Emergency Response Plan

12. Community Obligations

The Road Management Act 2004 confers specified rights on members of the public using public roads that are legally enforceable and imposes duties on members of the public using public highways which may be taken into account in any proceedings.

12.1 Road Usage

Under the Road Safety Act 1986, the obligations of the road users are listed as follows:

"17A. Obligation of Road Users

- *A person who drives a motor vehicle on a highway must drive in a safe manner having regard to all the relevant factors including (without limiting the generality) the*
  - *physical characteristics of the road*
  - *prevailing weather conditions;*
  - *level of visibility;*
  - *condition of the motor vehicle;*
  - *prevailing traffic conditions;*
  - *relevant road laws and advisory signs; and*
  - *physical and mental condition of the driver.*
- *A road user other than a person driving a motor vehicle must use a highway in a safe manner having regard to all the relevant factors.*
- *A road user must*
  - *have regard to the rights of other road users and take reasonable care to avoid any conduct that may endanger the safety or welfare of other road users;*
  - *have regard to the rights of the community and infrastructure managers in relation to road infrastructure and non-road infrastructure on the road reserve and take reasonable care to avoid any conduct that may damage road infrastructure and non-road infrastructure on the road reserve; and*
  - *have regard to the rights of the community in relation to the road reserve and take reasonable care to avoid conduct that may harm the environment of the road reserve."*

12.2 Obstruction of Footpaths and Roads

Under the provision of Council's Streets and Roads Local Law 2003 (No. 1 of 2003), adopted at Council's Ordinary Meeting on 16 Jun 2003, landowners have a responsibility:

- to keep the footpath clear of vegetation growing from their property;
- to keep the footpath and road clear of items obstructing vision; and
- not to occupy, or conduct works, on any footpath or road for any purpose other than the lawful movement of vehicular and pedestrian traffic unless otherwise permitted by Council or other appropriate authority.

12.3 Nature Strips

Due to the potentially high costs Council does not maintain nature strips unless some significant safety or amenity issue is present. Historically the landowner has undertaken mowing and up-keep as a part of the presentation of their property.

Parking is prohibited on nature strips pursuant to regulation 197 Road Rules Victoria.

Nature strip trees which have been planted by Council (or with Council's permission) will be maintained by Council. Council permission is required for others to plant trees in the nature strip.

12.4 Fencing Adjacent to a Road Reserve

Under clause 7 of Council's policy "Contribution to Fencing Costs by Council" Council does not contribute to any fencing costs along road reserves/property boundaries.

12.5 "Asset Protection" Permit

Where a building permit has been issued, the builder or the owner must within seven days before commencing any works on the site;

- obtain an "Asset Protection" Permit;
- advise Council in writing of any damage that exists to any Council infrastructure assets; and
- lodge a security deposit with the Council.

Applications for an "Asset Protection" Permit are available from Council service centres.

12.6 "Consent to Work within a Road Reserve" Permit

Unless a permit has been obtained a person on a road under the control of Council must not

- occupy or fence off part of a road;
- erect a hoarding or overhead protective awning;
- use a mobile crane or travel tower for any building work;
- make a hole or excavation; or
- reinstate a hole or excavation.

Applications for an "Consent to Work within a Road Reserve" Permit are available from Council service centres.

12.7 Heavy Vehicle Restrictions

Heavy vehicle restrictions apply to some roads and bridges within the boundaries of the Moira Shire. It is the obligation of the road user to adhere to these restrictions which include:

- all mass limit vehicles are not permitted without a permit;
- B-Doubles exceeding 19 metres are not permitted without a permit;
- generally, vehicles exceeding 6 tonne GVM are not permitted to be used on roads within residential areas without a permit;
- heavy vehicle parking restrictions apply within built up and residential areas; and
- load limits apply to some bridges within Moira Shire.

12.8 Road Reserve Local Laws - Discharge of Water/ Damage/Interference

Responsibilities under the provision of Council's Streets and Roads Local Law 2003 (No. 1 of 2003) and Road Management Act 2004 include:

- a person who has control of water running through channels, pipes or culverts for the purpose of irrigation or otherwise, must not permit water to escape onto a road under the care and management of the Council;
- a person must not, without a permit, deposit or discharge water on a road under the care and management of the Council;
- the owner and/or occupier of land must not permit irrigation water from the land to flow onto a road reserve under the care and management of the Council;
- no person may destroy, damage or interfere with a watercourse, ditch, creek, gutter, drain, tunnel, bridge, levee or culvert; and
- a person must not without the approval of the Council tamper or interfere with any road reserve.

12.9 Vehicle Crossings (Driveways)

Vehicle crossings (driveways) are the responsibility of the landowner.

<u>Urban Vehicle Crossing Responsibilities:</u>

- vehicle crossing (driveway) infills between the kerb and channel and the footpath, and the footpath and the property line;
- layback through the kerb; and
- footpath crossover.

The owner is also responsible for maintaining the vehicle crossing, and the immediate surrounds impacted on by the vehicle crossing, in a safe condition.

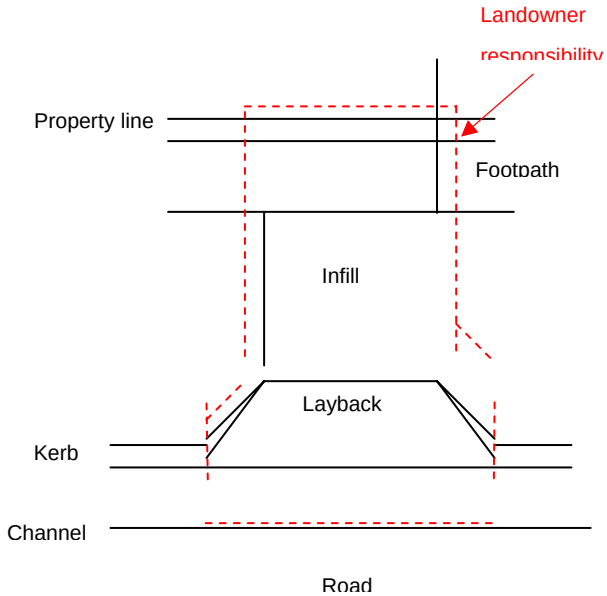


Figure 1 Urban Vehicle Crossing Responsibilities - Kerb and Channel

Rural Vehicle Crossing Responsibilities:

Arrangements are similar for vehicle crossings over an open table drain where the owners responsibilities are:

- culvert; and
- vehicle crossing infill between the road edge and the property line.

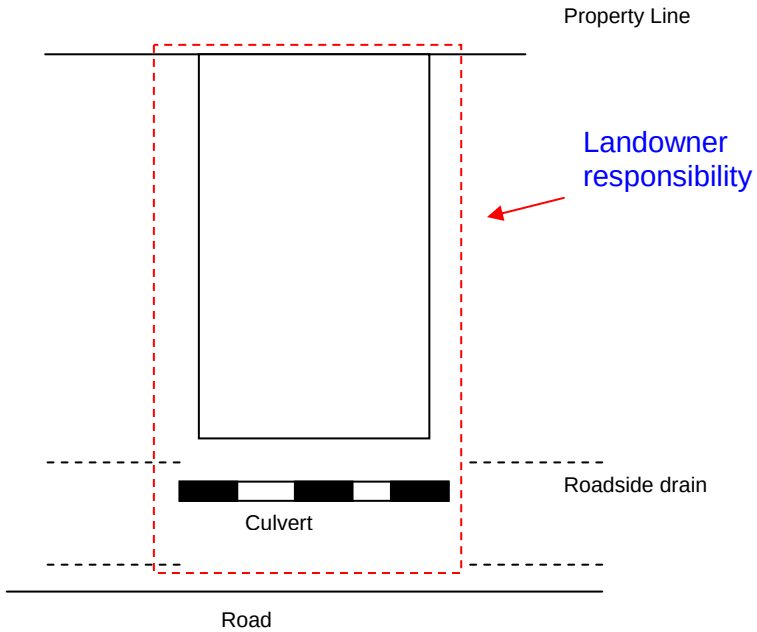


Figure 2 Rural Vehicle Crossing responsibility – Culvert crossing

The construction standards for vehicle crossings are further detailed in Council's standard drawings and are available from Cobram Service Centre.

Any works carried out on vehicle crossings requires a Permit from Council.

13. Customer Requests

Moira Shire Council records all incoming customer requests in Council's customer request system (Conquest Request). The process for requests are as follows:

- request forwarded to responsible officer;
- request investigated;
- response developed by officer (eg include on works program where applicable, respond to customer with result etc); and customer advised
- request completed.
- Works required (action) is attached to a Council asset
- The request and action are linked
- The action is closed when the works are complete

14. Review of Road Management Plan

Moira Shire Council will review this plan commencing after the next Council general election with completion by 30 June, in accordance with the Road Management Act, General Regulations. This review may include but not be limited to:

- condition and performance of assets:
  - changes in overall condition;
  - levels of service achieved;
  - financial forecasts;
  - validation of estimated costs for asset works.
- progress on Capital Works Development Program;
- recommendations for amendments;
- the performance and appropriateness of asset documents including:
  - Asset Management Policy
  - Road Management Plan
  - Asset Management Plan
  - Defect Assessment Methodology
  - Asset Procedures;

15. Technical References

- Road Management Act 2004;
- Code of Practice for Road Management Plans
- Code of Practice for Operational Responsibility of Public Roads
- Code of Practice for Management of Road and Utility Infrastructure in Road Reserves
- Risk Management Standard, AS/NZS 4360:1999;
- International Infrastructure Management Manual (IIMM) 2002, IPWEA;
- MAV Asset Management Improvement STEP Program – Road Asset Management Plan Framework 2003;
- Road Rules Victoria;

16. Council Documents

- Council Plan 2009/10 – 2012/13
- Strategic Resource Plan 20009/10 - 2018/19
- Asset Management Policy
- Asset Management Plan
- Defect Assessment Methodology
- Public Road Register
- Streets and Roads Local Law 2003 (No. 1 of 2003)
- Annual Report 2002-2003

17. Appendices

- Appendix 1 - Version and Amendment register.
- Appendix 2 – Roads Levels of Service (Auspec #4 extract)
- Appendix 3 – Footpaths Levels of Service
- Appendix 4 – Signs Levels of Service
- Appendix 5 – Risk Assessment for Road Defects

18. Appendix 1 – Version and Amendment Register

Issue	Date	Details	By
Draft	05/10/2004	Proposed Road Management Plan	Tony Parr
Gazetted	25/11/2004	Gazetted Road Management Plan	Tony Parr
Drafted	21/12/06	Road Management Plan – Revision 2 (Draft)	Geoff Bolling
CMT	21/03/07	Road Management Plan – Revision 3 (Draft)	Geoff Bolling
Council	16/07/2007	Road Management Plan – Version 2 Adopted by Council on 16 July 2007 Advertised in Government Gazette on 9 August 2007	Geoff Bolling
Draft	08/05/2009	Revision which commenced on 1 Jan 2009 as required by State Government – Version 4	Geoff Bolling

19. Appendix 2 – Roads Levels of Service

Key Outputs & Target Levels of Service

SEALED ROAD MAINTENANCE			
Key Area / Definition	**Output / Target Level of Service**	**Performance Measure**	**Priority Response**
PPR POTHOLE REPAIR Isolated failure on the road surface.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To restore the riding surface to a consistent surface.**	• **Risk Assessment <= Moderate** • **Deprival Assessment <= Minor.**	• **Risk assessment = Extreme, make safe within 48 hours** • **Risk Assessment = High, make safe within** **Link 2 weeks** **Collector 3 weeks** **Access 4 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.** • **No Potholes prior to resealing program.**

PSC REGULATION (LOCAL SHAPE CORRECTION) Regulation of wheel ruts and depressions in pavements >25mm in depth.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To retain geometric shape and ride quality.**	• **Risk Assessment <= Moderate** • **Deprival Assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 2 weeks** **Collector 3 weeks** **Access 4 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.** • **All repairs undertaken prior to resealing program.**
PCS CRACK SEALING Areas of longitudinal cracking, excluding crazed or crocodile cracking.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To make the surface water resistant.**	• **Deprival assessment <= Minor.** • **Programmed works.**	• **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.**

PBS MINOR RESEALING Areas with: • Loss of aggregate • Bleeding and flushing • Extensive crocodile cracking	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To ensure water proof pavement and assist in maintaining geometric shape and ride quality.**	• **Risk assessment <= Moderate.** • **Deprival assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 2 weeks** **Collector 3 weeks** **Access 4 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.**
PMP DIGOUTS Extended area of deformation in road surface.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To ensure water proof pavement and assist in maintaining geometric shape and ride quality.**	• **Risk assessment <= Moderate.** • **Deprival assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 2 weeks** **Collector 3 weeks** **Access 4 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.**

SEB EDGE REPAIR Fretting of the sealed edge, which reduces the sealed road width.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** **To restore the line and level of the original surfacing.**	• **Deprival assessment <= Minor.** • **Programmed works.**	• **Council budget.** • **Repair in accordance to Road Management Plan.**
SDO EDGE DROP OFF Loss of material by the edge of the seal >75mm depth.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To restore the line and level of the original surfacing.**	• **Risk assessment <= Moderate.** • **Deprival assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 2 weeks** **Collector 3 weeks** **Access 4 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.**

SGU GRADING UNSEALED SHOULDERS Where the unsealed shoulder is: • Holding water • Requires spot filling • Scouring • Potholing • Generally rough	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To restore the line and level of the original surfacing.**	• **Risk assessment <= Moderate.** • **Deprival assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 2 weeks** **Collector 3 weeks** **Access 4 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.**

UNSEALED ROAD MAINTENANCE			
Key Area / Definition	**Output / Target Level of Service**	**Performance Measure**	**Priority Response**
PGU GRADING Unsealed roads that have the following defects: • Corrugations • Minor Potholing • Scouring • Longitudinal Rutting • Out of Shape • General Roughness Loose Material	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To maintain ride quality and shape to ensure a safe travelling speed of not less than 85% of environmental speed per km under normal conditions.**	• **Risk assessment <= Moderate.** • **Deprival assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 3 weeks** **Collector 3 weeks** **Access 3 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Management Plan and budget.** • **Fire Prevention access, Seasonal access and Tourist access are identified and treated separately under the Road Management Plan.** • **This does not include major upgrades.**

PMPU SHORT RESHEETS To eliminate sub grade exposure.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To maintain ride quality and shape to ensure a safe travelling speed of not less than 85% of environmental speed per km under normal conditions.**	• **Risk assessment <= Moderate.** • **Deprival assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 3 weeks** **Collector 3 weeks** **Access 4 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.**

PPRU POTHOLE PATCHING Isolated failure on the road surface.	• **To provide safe driving conditions and rideability appropriate to the classification of the road.** • **To restore the riding surface to a smooth condition to ensure a safe travelling speed of not less than 85% of environmental speed per km under normal conditions.**	• **Risk assessment <= Moderate.** • **Deprival assessment <= Minor.**	• **Risk assessment = Extreme make safe within 48 hours.** • **Risk Assessment = High, make safe within** **Link 3 weeks** **Collector 3 weeks** **Access 3 weeks** • **Works will be programmed and conducted in accordance with Council's Quality Assurance Plan and budget.**

20. Appendix 3 – Footpaths, Levels of Service

An inspection of all council's footpaths is carried out every three years. Defects are categorised into

- **Extensive 5 –** 30mm + lip (either grinding or segment replacement required)
- **High 4 –** 20 to 30mm lip
- **Moderate 3 –** 10 to 20 mm lip
- **Minor 2 –** 6 to 10mm lip
- **Low 1 –** under 6mm

Footpath areas are categorised into

- High usage including CBD
- Medium usage (possibly around schools and hospitals)
- Low usage (residential areas)

Works will be classified as priority if the defect has caused personal injury or where in the opinion of Council's Manager – Operations, the defect is very likely to cause physical injury.

Maintenance Works are prioritised as follows

Maintenance works are classified as follows

- grinding
- paving
- filling
- lineal filling
- small replacements (under 4 lin. m)

Crews when working at a site will generally be carrying out one type of work.

In parts of the CBD area, maintenance may need to be carried out on a Sunday to avoid disruption to high pedestrian volumes and shop keepers. When this is done, all 5, 4 & 3 defects are repaired. These works are programmed on a semi regular basis through the year.

Programmed works are carried out on a semi regular basis so as to minimise risk to Council workers exposed to long periods of physically demanding work; ie works are done in various intervals of 2 to 4 days between other jobs.

Where a footpath is in a high usage area (with defects on it), a length is chosen in which defects of one type (3, 4 & 5) are remedied. This length may include areas of medium and low usage. These lengths are determined by the Team Leader on site to achieve efficiencies and the elimination of defects in the high use area.

Footpath maintenance crew will generally visit the larger towns with the greater program first. This process enables all significant defects (4 and above) on high usage footpaths to be completed within 12 months.

Due to time limitations and budgetary constraints, significant defects in low and medium usage footpaths may not be attended to before the next inspection is carried out.

Emergency works are carried out within 7 days of being identified.

Process for replacing pavement segments (length >4 lin. m)

Defects (3, 4 & 5) greater than 4 lin.m will be replaced when funded by Capital Works funding.

Interim maintenance works will be carried out to reduce the risk to below level 3. These works will be carried out within 12 months of the defect being identified.

21. Appendix 4 – Signs, Levels of Service

A proactive inspection of all Council's signs is carried out once every year via both a dedicated night inspection and a dedicated day inspevtion. Reactive inspections are carried out as required by customer requests. In addition, all Council staff are encouraged to advise Operations of defective sign when identified on their work and non work journeys

Responses to sign defects are based on risk as follows

E – extreme risk, sign is to be replaced by the end of the next working day

H – high risk, sign is to be replaced within 14 working days

M – moderate risk, sign is to be replaced within 3 months

L – low risk, sign is to be replaced as funds permit

Sign replacements are prioritised on the following risk maintenance matrix

Sign Risk Assessment Matrix

	existing sign damaged	existing sign damaged	reflectivity reduced (poor night visibility)	sign missing or ineffective	reflectivity reduced (poor night visibility)	sign missing or ineffective
	duplicate sign exists (or other confirming signs)	no duplicate sign	Duplicate sign exists (or other confirming signs)	duplicate sign exists (or other confirming signs)	no duplicate sign	no duplicate sign
Regulatory Movement (Stop & GiveWay)	L	M	M	H	H	E
Regulatory Speed (reduction)	L	L	L	M	M	H
Hazard (B&W chevrons)	L	L	L	M	M	H
Bridge Width Hazard Markers (bridges<5m wide) #	**L**	**L**	**L**	**M**	**M**	**H**
Bridge Width Hazard Markers (bridges>5m wide) #	**L**	**L**	**L**	**L**	**L**	**M**
Regulatory Speed (increases)	L	L	L	M	M	H
Speed advisory signs	L	L	L	L	L	H
Other Regulatory Signs	L	L	L	L	L	M
Other Warning Signs	L	L	L	L	L	L
Guide Signs	L	L	L	L	L	L

Appendix 5 – Risk Assessment for Road Defects

Short Resheets

Risk Assessment

	0 Condition Factors	1 Condition Factors	2 Condition Factors	3 Condition Factors	4 Condition Factors
4 Reaction Factors	M	H	H	E	E
3 Reaction Factors	L	M	H	H	E
2 Reaction Factors	L	L	M	H	E
1 Reaction Factors	L	L	L	M	H
0 Reaction Factors	L	L	L	L	M

Reaction Factors

Deviation from travel path and/or braking	This factor is present when the defect is located such that a vehicle needs to take action to avoid it , ie deviate or brake.
Hazard to other road users	This factor is present if the defect is such that a driver needs to deviate into the line of oncoming traffic to avoid it.
Lack of Traction	This factor is present when loose material is on the road or when gravel roads are significantly corrugated
Sight Distance of defect which causes one of the above	This factor is present if the defect is not visible due to road alignment or light conditions (eg shade)

Condition Factors

Road Width	If the driveable width is 3 to 4m, this factor is present. For a driveable width of 6+m, this factor is not present. Between these limits, 50% factor may be applicable
Speed Environment	If the usual speed on the road is 80km/hr, this factor is present. For speeds less than 50km/hr, this factor is not present, between these limits, 50% factor may be applicable
Depth of Table Drains	This factor is present if these is a deep table drain (0.9m) which can cause a vehicle to flip.
Structures or Trees	This factor is present if there are unforgiving obstacles which can be impacted.

Other Road Defects

Risk Assessment

	0 Condition Factors	1 Condition Factors	2 Condition Factors	3 Condition Factors	4 Condition Factors
4 Reaction Factors	H	H	E	E	E
3 Reaction Factors	M	H	H	E	E
2 Reaction Factors	L	M	H	H	E
1 Reaction Factors	L	L	M	M	H
0 Reaction Factors	L	L	M	M	M

Reaction Factors

Deviation from travel path and/or braking	This factor is present when the defect is located such that a vehicle needs to take action to avoid it , ie deviate or brake.
Hazard to other road users	This factor is present if the defect is such that a driver needs to deviate into the line of oncoming traffic to avoid it.
Lack of Traction	This factor is present when loose material is on the road or when gravel roads are significantly corrugated
Sight Distance of defect which causes one of the above	This factor is present if the defect is not visible due to road alignment or light conditions (eg shade)

Condition Factors

Road Width	If the driveable width is 3 to 4m, this factor is present. For a driveable width of 6+m, this factor is not present. Between these limits, 50% factor may be applicable
Speed Environment	If the usual speed on the road is 80km/hr, this factor is present. For speeds less than 50km/hr, this factor is not present, between these limits, 50% factor may be applicable
Depth of Table Drains	This factor is present if these is a deep table drain (0.9m) which can cause a vehicle to flip.
Structures or Trees	This factor is present if there are unforgiving obstacles which can be impacted.