



Mildura Rural City Council

## Municipal Road Management Plan

June 2021 - Version 5.1

## DOCUMENT CONTROL

### DISTRIBUTION SCHEDULE

Version No.	Date	Distribution	Reference
4.0	June 2013	To Asset Management Team Leader (Ken Conrick) from CT Management Group (Jim Henshelwood)	INT-20135424

### SCHEDULE OF ADOPTION

<b>Trim File: 08/03/04</b>		<b>To be reviewed:</b>		
<b>Document Owner:</b> Manager Asset Services		<b>Review Frequency:</b> To be reviewed annually in conjunction with setting of annual budget, and also in accordance with the requirements of the Road Management (General) Regulations 2016		
Version No.	Date	Prepared/Reviewed	Approved	ELT/Council Minute No.
1.0	22 November 2004	Asset Development Manager	Council	2004/11/0528
2.0	16 January 2007	Asset Development Manager	Council	2007/01/0005
3.0	24 September 2009	Asset Development Manager	Council	C-5975
4.0	27 June 2013	Asset Management Team Leader	Council	2013\0129
4.1	3 May 2016	Asset Management Coordinator	Executive Leadership Team	INT-201612888
5.0	22 June 2017	Asset Management Coordinator	Council	C-11770
5.1	03 May 2021	Engineering Coordinator	Council	

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## ABBREVIATIONS

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<b>AAAC</b>	Average annual asset consumption
<b>ARI</b>	Average recurrence interval
<b>ASB</b>	Asset Services Branch
<b>CCF</b>	Civil Contractors Federation
<b>CRC</b>	Current replacement cost
<b>CRM</b>	Customer Request Management
<b>ELT</b>	Executive Leadership Team
<b>IRMP</b>	Infrastructure risk management plan
<b>MMS</b>	Maintenance Management System
<b>PCI</b>	Pavement Condition Index
<b>RICL</b>	Retreatment Intervention Condition Level
<b>RFS</b>	Request for Service
<b>RMP</b>	Road Management Plan
<b>RPM</b>	Raised Pavement Marker
<b>RV</b>	Residual Value
<b>SLA</b>	Service Level Agreement
<b>VPH</b>	Vehicles per hour
<b>WIS</b>	Works and Infrastructure Services

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# 1 EXECUTIVE SUMMARY

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The Municipal Road Management Plan is the statutory plan under the Road Management Act 2004 that sets out the maintenance regime for management of the municipal road network for Mildura Rural City Council (referred to hereafter as Council). It establishes the management system to inspect, maintain and repair its public roads based on policy and operational objectives having regard to available resources.

The Road Asset Management Plan covers the road network asset group that includes roads, footpaths, kerb and channel, bridges and carparks. It sets out how Council will manage the road asset group and includes lifecycle costing forecasts into the future. The Asset Management Plan complements the Municipal Road Management Plan by providing background information. These two plans are key elements of Council's strategic road management planning.

The Municipal Road Management Plan also sets the relevant standard in relation to discharge of duties in the performance of those road maintenance management functions.

The key elements of the Municipal Road Management Plan include:

- Register of Public Roads for which Council is responsible;
- Asset Management System that Council uses to manage maintenance and renewals of its public road network;
- Road Inspection Guidance Manual that details maintenance standards and practices used by Council.

Included are details and schedules for:

- Hierarchy classification of all roads and footpaths - based on their specific function, types of users and user numbers;
- Levels of service (reasonably acceptable condition of the asset considering the obligations on all road users to drive in accordance with the prevailing road conditions and to keep a proper lookout as well as exercise reasonable care for their own safety) - determined by the hierarchy classification and the available funding;
- Inspection regimes – the types and frequency of inspections in order to detect defects when they reach the stated intervention level requiring maintenance intervention;
- Maintenance activities - outlining the various types of routine maintenance and the performance standard of each activity;
- Defect intervention levels - relating to the defect type, indicating the point at which remedial action is required;
- Response times - the target response times for completing remedial work once a defect exceeding the stated intervention level has been detected by council;

Risk management principles form part of Council's consideration regarding hierarchy classifications, levels of service, inspection regimes, defect intervention levels and response times.

## 2 BACKGROUND

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### 2.1 ASSET FUNCTION

The network of public roads is infrastructure provided to the community to facilitate a safe, convenient and defined means for transporting people and goods around and through Mildura Rural City Council's municipal area.

This type of infrastructure represents a significant investment by the community and is vital to its health and well-being. Along with council owned buildings, the road and footpath network constitutes the most expensive of the infrastructure assets maintained by the Council for the community.

The Municipal Road Management Plan establishes the maintenance management arrangements for Council's assets and responsibilities within the road reserve of municipal roads.

### 2.2 MILDURA RURAL CITY COUNCIL

Mildura Rural City Council covers an area of 22,330 square kilometres, making it the largest in Victoria. Major townships within the urban area include Mildura, Irymple, Red Cliffs and Merbein. These irrigation areas formed part of the first irrigation colony established in Australia.

Other townships within Council's rural area include Ouyen, Walpeup, Murrayville, Underbool, Werrimull, Cullulleraine, Nangiloc and Colignan.

Mildura Rural City Council's estimated resident population is 60,281. The population growth rate over the last decade exceeds 1% per year on average. With the structure of the region's economy and a significant transient population for employment purposes, Council serves a regional population of 100,000 across three states – Victoria, New South Wales and South Australia.

### 2.3 LEGISLATIVE BASIS FOR THE PLAN

This Municipal Road Management Plan (referred to hereafter as the 'Plan') has been prepared in accordance with the following Acts:

- Road Management Act, 2004;
- Local Government Act, 1989;
- Local Government (Best Value Principles) Act 1999.

Associated with the Road Management Act 2004 are the following Regulations that came into effect 1 July 2005:

- Road Management (General) Regulations 2005 (current version 2016)
- Road Management (Works and Infrastructure) Regulations 2005

In addition, the following Codes of Practice have been developed under the Road Management Act 2004:

- Road Management Plans
- Operational Responsibility for Public Roads
- Clearways on Declared Arterial Roads
- Management of Road and Utility Infrastructure in Road Reserves
- Worksite Safety - Traffic Management

Mildura Rural City Council is the designated 'Coordinating Road Authority' for municipal roads within the City and is responsible for their care and management.

Council must ensure that if a road is required for public traffic, it is kept open for public use, and may carry out work on the road. The Council is not obliged to do any specific work on the road and in particular is not obliged to carry out any surface or drainage work on an unmade road.



## 2.4 PURPOSE OF THE PLAN

The purpose of the Plan is to establish a management system for Council to inspect, maintain and repair its public roads based on policy and operational objectives having regard to available resources.

It also sets the relevant standard in relation to discharge of duties in the performance of those road management functions.

The key elements of the Plan include:

- Register of Public Roads for which Council is responsible;
- Asset Management System that Council uses to manage maintenance and renewals of its public road network;
- Road Inspection Guidance Manual that details maintenance standards and practices used by Council.

Council have developed a Road Asset Management Plan (R-AMP) to compliment the Municipal Road Management Plan. The R-AMP outlines the key elements involved in managing the asset and combines management, financial, engineering and technical practices to ensure that the required level of service is provided at the lowest long-term cost to the community within the limits of any fiscal constraints that may be imposed by Council.

## 2.5 PUBLIC ROADS

A 'road' by definition in the Local Government Act 1989 includes a street; right of way; cul de sac; by-pass; bridge or ford; footpath, bicycle path or nature strip; any culvert or kerbing or other land or works forming part of the road.

'Arterial Roads' are Freeways, Highways and Declared Main Roads which are managed by the State Government through VicRoads.

'Municipal Roads' are roads for which the municipal council is the responsible Road Authority. The Road Management Act imposes specific duties on a Council with respect to the inspection, repair and maintenance of its municipal public roads which are those that are reasonably required for general public use.

'Other Roads' include roads in state forests and reserves, and roads on private property. The municipal council is not responsible for the care and maintenance of these.

## 2.6 KEY STAKEHOLDERS

The Plan affects a range of internal and external stakeholders within the community who may or may not be direct users of the road network. The following table outlines the key stakeholder groups:

Table 1: Key Stakeholders

Stakeholder Group	Role or Involvement
<b>Internal Stakeholders</b>	
Elected Council	Custodian of the asset, with Councillors representing the residents and setting strategic direction as per the Corporate and Operational Plans.
Executive Leadership Team and Strategic Management Team	To ensure that Asset Management Framework, Policy and Strategy is being implemented as adopted, and to ensure that long-term financial needs to sustain the assets for the services they deliver are advised to council for its strategic and financial planning processes.
Managers of the road and road reserve assets	Responsible for the overall management of the assets including planning, design, maintenance, capital works, monitoring, updating the plan and ensuring its outcomes are realised to achieve the levels of service being required from utilisation of the assets.
Maintenance personnel (Internal)	To ensure provision of the required/agreed level of maintenance services for asset components.
Asset Management Team	To ensure AM planning meets requirements that optimise useful asset life and service provision.
Finance Branch	To ensure that Council is provided with adequate financial information. . The relevant asset managers will also receive this information to facilitate sound management of the assets.
Information Systems Branch	To ensure that the relevant IT systems are functioning and that any data within the systems is secure and its integrity is not compromised.
Risk Team	To ensure that risk management practices are conducted as per Council policy and assist operations managers with advice on risk issues.
Internal auditors	To ensure that appropriate policy practices are carried out and to advise and assist on improvements.
<b>External Stakeholders</b>	
Community	Users of the road network, including: <ul style="list-style-type: none"> <li>• Pathway users who have a need for access as pedestrians.</li> <li>• Motorists who use vehicles such as trucks, buses, commercial vehicles, cars and motorcycles and cyclists.</li> <li>• Residents and businesses who reside, work or have involvement with property adjoining road reserve.</li> <li>• Commercial and Industrial producers who require access along transport routes for business including agriculture, dairy, manufacturing and service industries.</li> </ul>
Emergency Services	Includes Police, Fire, Ambulance and SES for access.
Traffic/Transportation Managers	For the management of traffic flow through the area.
Maintenance personnel (External)	To ensure provision of the required/agreed level of maintenance services for asset components.
VicRoads and Utility agencies	Those utility service providers sharing use of the road reserve (water, sewerage, gas, electricity, telecommunications, etc.).
Suppliers of goods and services	Need to be aware of and notify management of impacts that may enhance or impede their ability to provide key services.
State and Federal Government Departments	Periodic provision of advice, instruction and support funding to assist with management of the road network.

## **2.7 OBLIGATIONS OF ROAD USERS**

### **2.7.1 General Use**

The Road Management Act 2004 requires that a person who drives a motor vehicle on a highway must drive in a safe manner having regard to all the relevant factors, including 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;
- 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. They must also 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.

The road user should also take reasonable care to avoid any conduct that may damage road infrastructure and non-road infrastructure on or harm the environment of the road reserve.

### **2.7.2 Incident Claims**

If a person proposes to commence a proceeding in a court based on a claim in relation to an incident arising out of the condition of a public road or infrastructure, the person must give written notice of the incident to the responsible road authority within the prescribed period of the incident occurring [clause 115(1) of the Road Management Act] (30 days).

### **2.7.3 Council By-Laws**

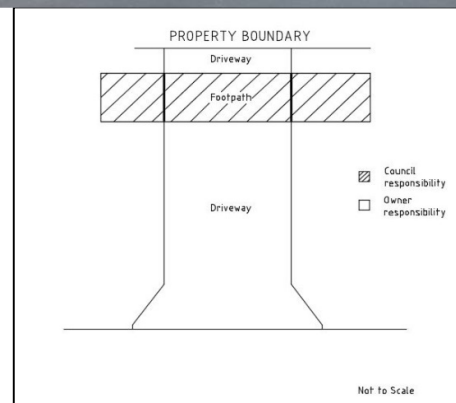
Council has by-laws in place that restrict what activities can be undertaken within the road reserve and will issue permits for certain activities provided all conditions are met and adhered to. Where a member of the public or organisation proposes to undertake activities within the road reserve that may in any way impede access by the public or interfere with road infrastructure, it is their responsibility to apply to council for a permit.

#### 2.7.4 Obligation to Maintain and Keep Safe

In relation to provision of access to the road reserve from adjoining properties, there are several assets within the road reserve that council does not have an obligation to maintain.

These assets include:

1. **Vehicle crossings** (driveways) where the portion of a vehicle crossing located between the carriageway and the property boundary is the responsibility of the adjoining property owner to maintain. Construction of vehicle crossings is to be in accordance with MRCC Standard Civil Construction Drawings. Council will however, inspect and maintain the section of a driveway/crossover that is part of a constructed footpath's path of travel.



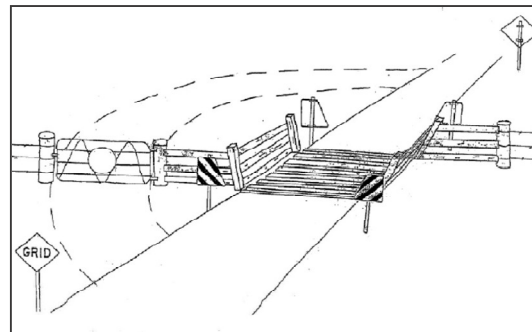
2. **Nature strips and infill** areas (the residual areas between the edge of the road or back of the kerb and the property boundary not occupied by the footpath and private road crossings). These are normally sown to grass with responsibility for maintenance of the grass and sprinkler systems generally being left to the property owner. Street trees however, are controlled by Council.



3. **Single property stormwater drains** that are constructed within the reserve from the property boundary to a discharge outlet in the kerb or into the drain. They are there to benefit the property and as such are the responsibility of the owner of the property being served to maintain.



4. **Cattle Grids and Gates.** The landowner benefiting from the use of a cattle grid or gate is required to enter into a section 121 Agreement (Road Management Act 2004) for the construction, maintenance, repair, and insurance of the cattle grid. This agreement defines the roles and responsibilities of both Council and the landowners for the ongoing management of the cattle grid. Cattle grids located on municipal roads are to be inspected as part of Councils programmed inspections.



## 2.8 RELATIONSHIP WITH OTHER PLANNING DOCUMENTS AND STRATEGIES

The Asset Management Strategy provides guidance to Council's Financial Strategy and to the Council Plan. The Road Asset Management Plan in turn provides input to the Municipal Road Management Plan, Financial Management Plan and the Annual Business Plan and Budget. From this the Annual Works Programs for infrastructure maintenance and renewals are developed.

The Municipal Road Management Plan is also subject to a Community Consultation process that may cause changes to levels of service that will then need to be amended in the Road Asset Management Plan.

The Road Asset Management Plan provides more information on Council's Asset Management Policy Framework and the linkages to key corporate strategies, plans and system.

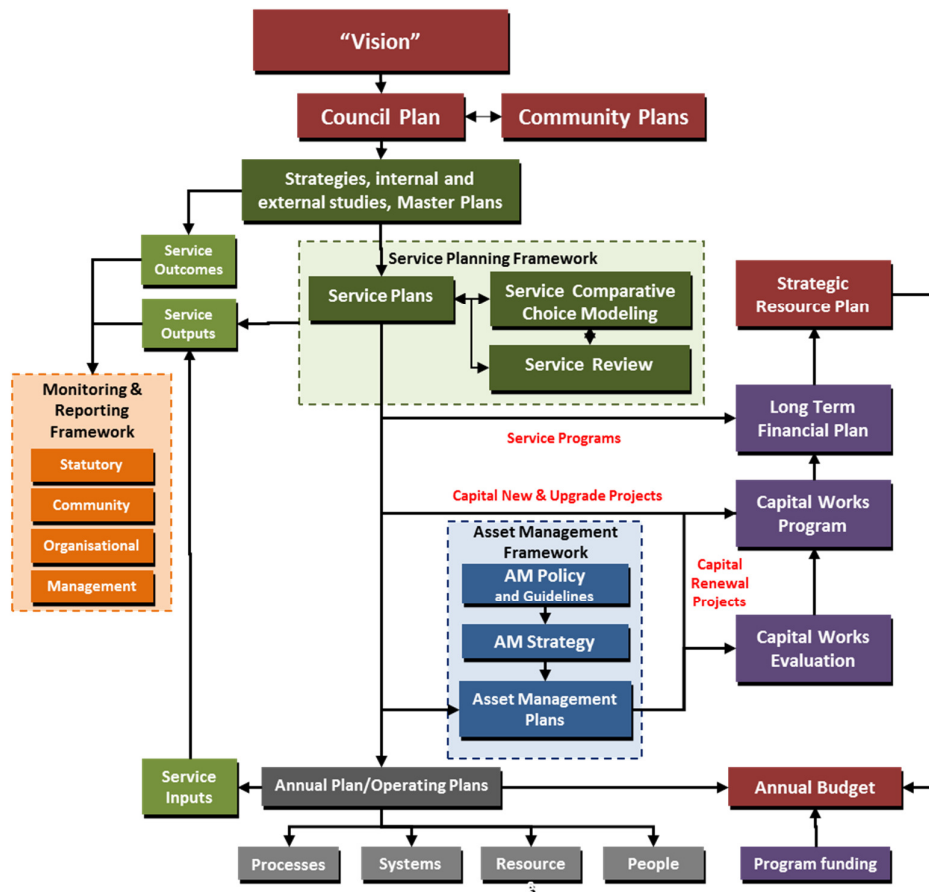
The following is a brief description of key strategic documents:

- **Council Plan** – overall strategic planning of the Council's financial and other resources for the upcoming 4 years. Projects identified through this Financial Plan are administered by way of the Annual Budget.
- **Strategic Resource Plan** – is contained within the Council Plan and outlines both financial and non-financial resources required to achieve the Council Plan. This strategic level document that is forward looking for the life of the Council Plan.

- **Annual Budget** – sets out in detail the objectives contained in the Strategic Resource Plan, for the current financial year. This is a management level document and is short to medium-term. It also provides a basis for management to prepare reports to Council to monitor achievement of performance targets. The works identified in the Asset Management Plan form the basis of future annual budgets.

The following chart outlines the linkages between the various components involved in Council’s strategic planning process.

Figure 1



## 2.9 RELATIONSHIP WITH BUDGET PROCESS

### 2.9.1 Funding Maintenance Levels

The Plan determines the levels of service for maintaining Council’s assets in the road reserve. These levels of service (defect intervention levels and response times) have been predicated on their affordability to Council and therefore the community.

The maintenance levels of service are funded through the annual operations budget.



## 3 ASSET MAINTENANCE RESPONSIBILITIES

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### 3.1 ROAD REGISTER

Council has a Municipal Public Road Register containing public roads for which it is the responsible Road Authority under the Road Management Act 2004. This register records the details of the public roads and ancillary areas for which it has a maintenance responsibility.

The Municipal Road Map is an integral component of the Road Register as it provides the visual location of where the road lies within the municipality. The Road Register has been mapped in Council's Geographic Information System (GIS).

The Municipal Public Road Register is a part of Council's road asset register. The asset register also records information such as the type, condition, configuration and quantity of road assets for which it is responsible, together with a history of the assets including any additions, deletions and changes to those assets. The road asset register also records details of the valuation of infrastructure assets (e.g. replacement value, depreciation) in accordance with relevant accounting standards.

The Municipal Public Road Register is available as a PDF document on Council's website, or for inspection in hard copy format at each of the Council's Customer Service Centres, and will be updated at least annually. Changes to the Municipal Public Road Register will occur within 30 days of advice of such changes.

### 3.2 ASSETS INCLUDED IN THE PLAN

The assets located within the municipal road reserve covered by the Plan for which council is responsible for maintenance are:

- Road Pavement (base material)
- Road Surface (bitumen or asphalt seal)
- Footpath
- Kerb and Channel
- Street Trees
- Carparks
- Other Infrastructure such as traffic facilities (roundabouts, traffic humps, etc), linemarking and signs.

The following table from the Road Asset Management Plan indicates the extent of road network assets for which Council is responsible. Replacement value of the assets as at 30 June 2016 is \$488 million.

*Table 2: Asset Summary*

Asset Category	Quantity (approx.)
Sealed Roads	1,000 km
Unsealed Roads	4,120 km
Kerb and Channel	500 km
Carparks	102,400 m <sup>2</sup>
Footpaths – Sealed	305 km
Footpaths – Unsealed	85 km
Pedestrian Bridges	12 No.

### 3.3 RESPONSIBILITY OF RATEPAYERS FOR HAZARD RECTIFICATION

If Council becomes aware through routine inspections or notification from the public of an unacceptable hazard to road users emanating from ratepayer's property, Council will notify the owner and direct them to make the area safe and repair the defect. In the event that the defect is not repaired and subject to the level of risk assessed, Council may at its own discretion, repair it as a charge against the property.

### 3.4 CARE AND MAINTENANCE OF URBAN LANEWAYS

Throughout the urban centres and rural townships of the municipality, laneways exist as a consequence of either the initial Crown Subdivision of Townships or private subdivision developments. The condition of these laneways ranges from being formed and sealed through to being undeveloped.

Laneways are those portions of land defined on plans of subdivisions as:

- Laneways
- Rights-of-way, and
- Roads that are provided for the rear access to land parcels that have other road frontages used as the predominant means of property access.

Care and maintenance for laneways refers to roadway patching, resealing, grading, removal of litter and accumulated rubbish and removal of weed and vegetation growth.

From a maintenance management perspective, Council considers that undeveloped laneways are private streets which fall within the relevant Local Government Act definitions and as such will be opened, upgraded and constructed on the basis of benefiting landowners meeting the costs.

The following is the current practice for responsibilities for care and maintenance of council owned laneways within Mildura Rural City Council urban areas:

- Where laneways have been constructed and have a sealed surface, the inspection and maintenance of the sealed surface is the responsibility of Council. Council will undertake maintenance to the surface in accordance with this plan and will provide for any associated weed and vegetation control on the laneway.
- Where laneways have been formed and gravelled, the inspection and maintenance grading is the responsibility of Council. Council will undertake maintenance to the surface in accordance with this plan and will provide for any associated weed and vegetation control on the laneway.
- Where laneways are unmade or have earthen surfaces and are utilised on a regular basis by vehicular traffic, Council will maintain the laneway at a minimum level to provide for basic vehicle access, on a "dry weather only" basis. Council maintenance in this instance will be grading and carried out on the basis of safety, accessibility and available resource funding. Weed and vegetation control within the laneway will be the responsibility of Council.
- Where laneways are not open and have not continually been utilised for vehicular traffic, Council will only open the laneway at the request and cost of abutting and benefiting owners.
- For all laneway categories, fence repairs and maintenance will be the responsibility of the landowner as will litter and rubbish removal. Council's Local Laws have provisions to ensure that landholders follow through with their responsibilities.

Requests for laneway maintenance are to be dealt with by the normal resident request provisions through Council's Customer Service Centre and maintenance works undertaken by Works and Infrastructure Services (WIS).

Council's Asset Services Branch will consider all requests for laneway construction in conjunction with the formulation of Council's annual Capital Works Program. Laneways requested to be constructed will be via Special Charge Schemes or Half Cost Schemes, the process for which will be undertaken by Council's Asset Services / Corporate Services Branches. Council will also consider Lifecycle Costing and its impact on future budgets.

#### 4.3 DEMARCATIONS WITH OTHER AUTHORITIES

There are a number of areas where Municipal Roads interface with roads or railways which are maintained by other authorities such as neighbouring Municipalities, VicRoads, Parks Victoria, Department of Environment, Land, Water and Planning, and VicTrack.

Where there are maintenance demarcation agreements defining limits of responsibility on municipal roads between the Council and other Road Authorities or any private organisation, the schedule of roads affected and details of these agreements will be listed in the Road Register.

Issues relating to VicRoads are outlined in general in the Road Management Act 2004 Code of Practice "Operational Responsibilities for Public Roads". Specific arrangements between the Council and VicRoads are made to clarify any issues not contained within the Code of Practice. Current agreements include the Perpendicular Operational Boundary Agreements.

The agreements with the following Authorities, currently under review, include:

- VicRoads
- VicTrack
- Department of Environment, Land, Water and Planning
- Parks Victoria
- Swan Hill Rural City Council
- West Wimmera Shire Council
- Hindmarsh Shire Council
- Yarriambiack Shire Council
- Buloke Shire Council
- Wentworth Shire Council
- Renmark Paringa Council
- Loxton Waikerie District Council
- Southern Mallee District Council

Maps highlighting those roads for which VicRoads have responsibility are included in Appendix 8.

Typical demarcation issues where council is often thought to have sole responsibility are listed in the following table:

*Table 3: Typical Maintenance Demarcation Issues for which Council is not responsible*

Issue	Agreement with	Responsibilities
Street Lighting	Electricity Supply Authority	Asset owned by the Authority; Council pays annual charge.
Municipal Roadside Vegetation	Dept. Environment, Land, Water and Planning (DELWP)	Remnant vegetation controlled by DSE not Council.

#### **4.4 ARTERIAL ROAD MAINTENANCE RESPONSIBILITIES**

Responsibilities for Arterial Roads are divided between VicRoads and Council. The VicRoads Code of Practice, "Operational Responsibilities for Public Roads", Gazetted on 17 December 2004, has the following purpose:

- a) to provide practical guidance by clarifying or determining how the operational responsibility for different parts or elements of a road reserve is to be allocated between road authorities (namely in this case VicRoads and Mildura Rural City Council); and
- b) to establish principles giving practical guidance for determining the boundary between a 'roadway', 'pathway' or 'shoulder' in any particular case, and for determining which road authority is responsible for road-related infrastructure.

#### **4.5 IRRIGATION CHANNEL CROSSINGS MAINTENANCE RESPONSIBILITIES**

Council has sought legal advice as to the responsibility for ownership of road bridges over First Mildura Irrigation Trust's - now Lower Murray Water's (LMW) - channel system as a result of the amendments to the *Road Management Act 2004*.

The advice is that the responsibility for maintenance and upgrading of existing bridges and culverts in public roads and public highways (as defined by the Road Management Act 2004) within the municipality is the sole responsibility of LMW as the 'infrastructure manager'. This includes all approach and warning signage plus guardrail protection located at each channel crossing. As such, LMW must ensure that all existing road bridges and culverts are maintained to a reasonable standard and comply with directions given to it by the coordinating road authority, which for the purposes of the legislation is Council.

## 4 LEVELS OF SERVICE

### 4.1 ROAD AND FOOTPATH HIERARCHIES

All roads and footpaths within the municipal road network are classified according to a hierarchy in terms of their specific function and user numbers. The hierarchy classification is used to assist in prioritising works programs and also intervention responses for any defects that exceed stated intervention levels.

Council has developed a footpath hierarchy and a road hierarchy. Table 4 shows the hierarchy for footpaths while the road hierarchy is detailed in Appendix 1 and 6.

Table 4: Footpath Hierarchy Categories

Category	Usage Description
Paved Areas	Langtree Mall, Eighth and Ninth Street paved areas
CBD and High Use Precinct	Mildura CBD other than Paved Areas, and areas within close proximity to Schools, Hospitals, Recreation Reserves etc.
Constructed sealed and Unsealed Paths in Other Urban Areas	Footpaths in residential, commercial and industrial areas other than High Use Precinct, and urban Bicycle Paths.
Constructed Sealed and Unsealed Paths – Rural	Footpaths in Irrigation and Rural areas

### 4.2 LEGISLATIVE REQUIREMENTS

The following table details the legislation relevant to road network assets.

Table 5: Legislation Relevant to Management of Road Network Assets

Legislation	Requirement
<b>Local Government Act 1989</b>	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
<b>Road Management Act 2004</b> and associated Regulations and Codes of Practice	Purpose is to establish a coordinated management system for public roads that will promote safe and efficient State and local public road networks and the responsible use of road reserves for other legitimate purposes, such as the provision of utility services. Defines the responsible authorities for all roads within the state. It makes Council the controlling authority for Public Local Roads, Boundary Roads and parts of Declared Roads within the municipal area and it is therefore responsible for managing the infrastructure assets within them.
<b>Transport Act 1983</b>	Relates to the operation of the road network
<b>Road Safety Act 1986</b>	Safety requirements relating to the use and operation of the road network.
<b>Environment Protection Act 1970</b>	Applicable due to roadside conservation areas

<b>Occupational Health and Safety Act 1985</b>	Applicable to working within the road reserve.
<b>Vic Roads Standards</b>	Used in conjunction with Council's Standards to determine minimum standards for road construction and maintenance.
<b>All other relevant Australian Standards and Codes of Practice</b>	Such as Codes of Practice relating to Road Management Act and other relevant legislation.
<b>All other relevant State and federal Acts and Regulations</b>	Where applicable, including Disability Discrimination Act (1992) including the Disability Standards for Accessible Public Transport (2002)
<b>All Local Laws and relevant policies of the Organisation</b>	Construction standards, Maintenance contracts, etc

### 4.3 TECHNICAL AND MANAGEMENT REQUIREMENTS

These represent detailed management and technical levels of service that are necessary in managing the road network assets to meet the various requirements expected of the service.

They include:

- long-term sustainability of the service;
- operation and maintenance of the network;
- monitoring of the network's performance;
- operational technical standards;
- design technical standards;
- materials technical standards;
- construction and maintenance technical standards;
- financial management;
- budget management;
- maintain service potential of the assets (asset management);
- customer contact;
- ensuring community health and safety;
- hazard identification (risk management);
- complying with relevant legislation, and
- other measures deemed useful for achieving the community service standards.

### 4.4 STANDARDS AND SPECIFICATIONS

The following standards, specifications and references are applicable for the design and maintenance of roads and footpaths within Mildura Rural City Council's road and pathway network.

- ARRB Sealed Local Roads Manual
- AS 2734 Guide to Good Asphalt Practice
- AAPA Bituminous Surfacing Manual
- ARRB Unsealed Roads Manual
- Australian Standards Field Guides HB81.1-81.9 for Traffic control at Works on Roads
- Austroads Guide to Sprayed Sealing
- Requirements by manufacturers for the use of proprietary products
- Project-specific Technical Specifications
- Risk Management Standard, AS/NZS ISO 31000:2009
- VicRoads Standard Specification Section 750 – Routine Maintenance
- MRCC Municipal Road Management Plan
- MRCC Vegetation Management Plan 2015 - 2019



- MRCC Service Level Agreement – Provision of Infrastructure Services
- MRCC Work Site traffic Management 2005
- Infrastructure Design Manual

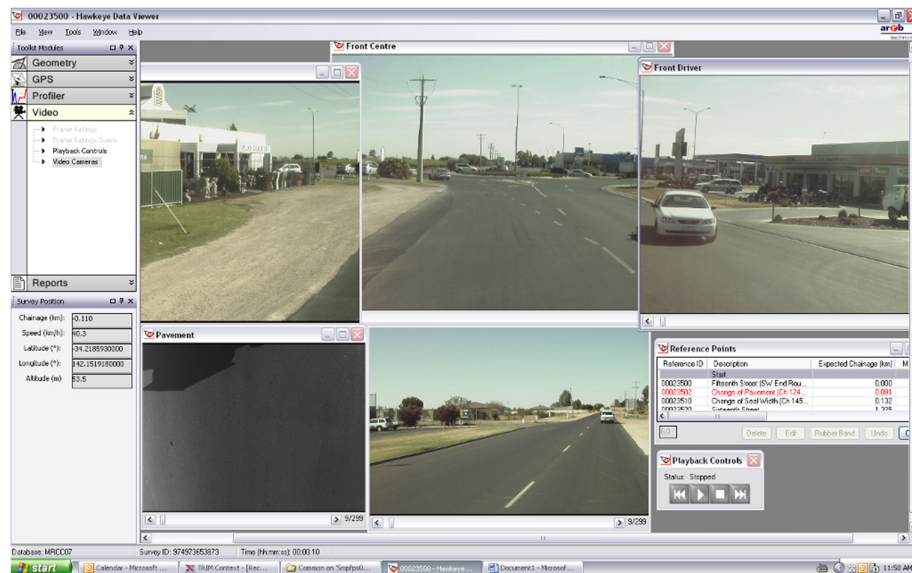
Appendix 1 provides the functional hierarchy classification for roads.

Levels of service for maintenance of the road network take into account:

- Community views and values through the Plan's advertising and gazettal process;
- Industry standards;
- The need to provide a road network that is safe for all users;
- The need to ensure that the conservation values of roadsides are protected and wherever possible enhanced in accordance with Council's Roadside Management Plan 2010-2014;
- Ability of Council to fund maintenance activities.

Council also takes into account the following matters as part of the development of the maintenance standards:

- (a) **Road condition surveys** – periodic surveys to monitor road pavement, road surfacing, structure, and roadside condition at specified intervals depending on the asset, its condition at the previous survey, the volume and nature of road usage (hierarchy classification), and any risk to safety.



- (b) **Routine maintenance inspections** – regular inspections, as part of the day-to-day maintenance of the road network, to monitor asset condition against defect intervention levels and asset safety. Inspection intervals have been determined based on the particular road asset element, the type, volume and nature of road usage, and the resources available.



- (c) **Routine maintenance standards** – routine maintenance and repair functions and standards that are based on agreed asset performance targets and defect intervention levels and response actions (based on risk assessment) for a particular asset element (eg. road, footpath, bridge) and road type. Standards vary across the road network in line with relevant risk factors such as traffic volumes, composition of traffic, operating speed, the susceptibility of assets to deterioration, the cost effectiveness of repairs, and competing priorities for funding.



- (d) **Repair and maintenance works** – routine maintenance and repair works are undertaken within a specified reasonable period of time based on intervention action priorities, and to specified standards.



- (e) **Temporary measures** – temporary works to be undertaken to reduce the risk of an incident until such time as maintenance or repair works can be completed. Response times and measures (eg. warning signs, flashing lights and safety barriers) are determined based on the risk to safety and the type, volume and nature of road usage.



- (f) **Emergency works** – works required to be undertaken immediately outside routine works programs to ensure the safety of road users and the public as a result of emergency incidents. Emergency works include traffic incident management, responses to fires, floods, storms and spillages, and assistance under the Victorian State Emergency Response Plan and Municipal Emergency Management Plan.



The outcome of the assessment of the various maintenance factors results is the preparation of the annual program for road maintenance, setting out the level of activities and resources to be considered with the Annual Recurrent Budget. Key to the ability to fund this work is affordability.

By developing long term maintenance programs, Council is better able to strategically plan its finances.

The Plan establishes schedules of maintenance standards for different categories of public roads and pathways for which Council has operational and/or maintenance responsibility.

The hierarchy of roads and pathways is used as the basis for determining the various standards across the road network in line with relevant risk factors, while taking into account the type, volume and nature of road usage.

The Vegetation Management Plan guides the activities of Mildura Rural City Council and others on roadsides to ensure that the conservation values of roadsides are protected and wherever possible enhanced. The Plan focuses on the management of remnant vegetation located on roadsides and recognises the opportunities to protect and enhance our indigenous vegetation. The protection and enhancement of native vegetation is critical to safeguard all flora and fauna species, and maintenance of biodiversity in the Mallee (MCMA 2008).

The annual review of the strategic asset renewal/replacement needs, through the Road Asset Management Plan, will provide the input for the development of the annual capital renewal/replacement works program for consideration with the annual budget.

#### **4.5 ASSET INSPECTIONS**

Survey and inspection processes are required for competent management of the road network assets. A four-tier inspection regime has been implemented covering safety, incidents, defects and condition. Council's Road Inspection Guidance Manual and Appendix 3 and 4 list the inspection requirements in detail and also their frequencies.

The inspection program not only identifies safety defects that exceed stated intervention levels and facilitates timely repairs, it also feeds into and guides the development of maintenance and capital works programs.

The inspection regime for the road network covering safety, incidents, defects and condition is as follows:

- **Programmed (Defect/Maintenance) Inspections** - Regular inspections, as part of the day-to-day maintenance of the road network, to monitor asset condition against defect intervention levels.
- **Reactive/Safety Inspections** - Response to customer enquiries or notifications. Council inspects all reported defects and records this information in Council's AMS following notification by members of the community or Council employees while undertaking their normal work duties. All inspections are conducted by an appropriate Council representative and defects are assessed as against any relevant stated intervention level.
- **Condition Inspections** - Identify deficiencies in the structural integrity of the road network infrastructure assets which if untreated, are likely to adversely affect system values. The deficiencies may well impact short-term serviceability as well as the ability of the component to continue to perform for the duration of its intended life span.

Programmed and Condition Inspections are undertaken by way of a formal timetable regime. Condition inspections are conducted at a lesser frequency than programmed inspections that are designed to find defects due for rectification works.

#### 4.6 REQUESTS FOR SERVICE

Customer Requests for Services, both internally and externally sourced, are entered in to Council's Customer Request Management System. This enables the requests to be recorded and tracked to facilitate action.

The process is set out in detail in the flow chart in Appendix 5.



## 5 LIFE CYCLE MANAGEMENT

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### 5.1 DEFECT INTERVENTION LEVELS AND RESPONSE TIMES

The defect intervention level is that point where a defect requires remedial action given resources available and the risk to road/ footpath users. The implication of this is that defects can and will exist and to endeavour to address them immediately they are observed is impracticable due to the cost.

Appendix 2 provides schedules for Maintenance intervention criteria and response times.

### 5.2 CONDITION STANDARDS

A periodic condition assessment is undertaken of the structural integrity of each of the road asset components. This information is used in financial modelling to determine the optimum point at which to undertake retreatment of the asset to restore it to its original condition. Long-term financial strategies can then be developed to provide for asset renewal funding.

The annual review of the strategic asset renewal/replacement needs utilising condition information on the various asset components, undertaken through the Road Asset Management Plan, will provide the input for the development of the annual capital renewal/replacement works program for consideration with the annual budget.

### 5.3 EXCEPTIONAL CIRCUMSTANCES / FORCE MAJEURE

Council has an obligation to manage the municipal road network in accordance with its Municipal Road Management Plan.

Council also has responsibilities under the Emergency Management Act 1986 that include a requirement to have a Municipal Emergency Management Plan. Through this Plan, it has responsibilities to plan for and provide assistance to emergency services and the community during an emergency or natural disaster.

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 a 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 Municipal Road Management Plan.

In the event that the Council's Chief Executive Officer (CEO) has, pursuant to Section 83 of the above Act, to consider the limited financial resources of Council and its other conflicting priorities, meaning Council's Plan cannot be met, they will write to Council's Officer in charge of its Municipal Road Management Plan 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 CEO will write to Council's Officer responsible for Council's Plan and inform them which parts of Council's Plan are to be reactivated and when.



## 5.4 ROAD INSPECTION GUIDANCE MANUAL

### Road Inspection Guidance Manual

The Road Inspection Guidance Manual sets out the parameters on how operational maintenance is to be carried out to meet the levels of service set by Council. This includes response times to the various categories of defects, inspection frequencies for the road hierarchies and inspection methodology to achieve a consistent approach across the entire road network within Council's allocated road operational budget

## 6 PLAN IMPROVEMENT AND MONITORING PROCESS

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### 6.1 PERFORMANCE MEASURES

The following performance measures are used to measure the performance of this plan:

- Community Surveys;
- Customer Service Requests numbers;
- Response times for addressing defects are met within the prescribed times;
- Annual renewal programs are completed as scheduled
- Compliance against proactive inspection frequencies

### 6.2 AUDIT REVIEW PROCESS

Mildura's Management Systems require ongoing internal auditing for compliance issues and external auditing for legislative purposes. This is to ensure that Council's services are performing consistently and that Service Units' internal processes remain current.

### 6.3 ROAD ASSET MANAGEMENT PLAN REVIEW

The Road Asset Management Plan will be reviewed during annual budget preparation and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the budget decision process.

To ensure that the Road Asset Management Plan remains a useful document and relevant to the ongoing management of the asset, the following review activities will be undertaken:

- Both the Road Asset Management Plan and Municipal Road Management Plan will be periodically reviewed in accordance with the Road Management (General) Regulations 2016 (also see Section 7.4);
- The Plan is to be formally adopted by Council as it is a strategic planning document;
- Subsequent to this formal adoption, any significant changes to levels of service are to be reported to and endorsed by Council to ensure that councillors are fully aware of the consequences of their decision making which may have an impact on financial strategy and budget;
- When the current financial and service status of the asset is properly established after a period of operating experience under the Asset Management Plan, Council is to undertake a review of service levels through a process of community consultation to determine both current and future needs of the community outlining in the process the likely financial impact of any changes;
- Any proposed variations to levels of service that have a financial impact are to be considered by Council through the budget process. If funding is approved the AM Plan is to be revised to reflect the new levels of service;
- The Plan review will also incorporate any changes arising from AM improvement program.

Changes to the Plan need to be readily identified. The process that will be adopted for updating it is outlined below:

- (a) Where changes are made that do not materially alter the technical aspects of management (standards and specifications) and seek only to enhance the information provided within the Plan, the changes will be approved by the Director responsible for the asset.
- (b) If material changes are made to standards and specifications, a report will be presented to Council, along with a brief explanation as to why such changes were necessary, seeking its endorsement to them.

In relation to numbering the document version, material changes necessitating Council approval will cause a change to the prime number of the specific AM Plan Version (eg from Version 1.00 to 2.00). Enhancements approved by the relevant Director will cause a change to the point number of the specific AM Plan Version that had previously been endorsed by Council (eg from Version 1.00 to 1.01).

#### **6.4 MUNICIPAL ROAD MANAGEMENT PLAN REVIEW**

The Plan is a statutory document and is related closely to the Road Asset Management Plan. Both are to be reviewed at the same time to ensure that any changes necessary are incorporated into both documents where relevant. Both are to be reviewed in accordance with the Road Management (General) Regulations 2016.

Where there are changes to the RMP that require Council endorsement, the amended RMP need to be put through the process of Council endorsement, gazettal notice of public exhibition, public exhibition, consideration by Council of any public comment, then approval of the amended document as adjusted and gazettal notice of the adoption. The Road Asset Management Plan may also need to be amended to ensure it matches the RMP.

## 7 KEY REFERENCES

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The following is a list of key Mildura Rural City Council and legislative reference documents:

1. Council Plan 2013 – 2017
2. Road Asset Management Plan
3. Road Inspection Guidance Manual
4. Annual Report and Budget
5. Vegetation Management Plan 2015 - 2019
6. Service Level Agreement – Provision of Infrastructure Services Nov 2004 *INT-099406*
7. Work Site Traffic Management 2005
8. Road Management Act 2004 Code of Practice ‘Operational Responsibility for Public Roads’ *IN-0917163*
9. Perpendicular Operational Boundaries Agreement *Ref: IN-056782*
10. Road Management Act Demarcation Resolution (Schedules 3, 4 and E) *Ref: OUT-0610229*

Key standards, manuals and guidelines include:

- International Infrastructure Management Manual Version 4.0 - 2011, IPWEA
- IPWEA-NAMS.AU Practice Notes 1 – Footpaths and Cycleways, 2007
- IPWEA-NAMS.AU Practice Notes 2 – Kerb and Channel, 2008
- Risk Management Standard, AS/NZS ISO 3100:2009
- All relevant Australian Standards and Codes of Practice
- ‘Australian Rainfall and Runoff – A Guide to Flood Estimation’ - Institution of Engineers Australia, 1987.

Other References include:

1. DVC, 2006, ‘Asset Investment Guidelines’, ‘Glossary’, Department for Victorian Communities, Local Government Victoria, Melbourne,  
<http://www.dvc.vic.gov.au/web20/dvclgv.nsf/allDocs/RWP1C79EC4A7225CD2FCA257170003259F6?OpenDocument>
2. IPWEA, 2011, ‘International Infrastructure Management Manual’, Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au](http://www.ipwea.org.au)
3. VicRoads Risk Management Guidelines.
4. VicRoads Standard Specification Section 750 – Routine Maintenance.
5. Vicroads Traffic Management Note No. 14 – Linemarking Changes Brought About By Changes To Road Rules - Victoria
6. Austroads “A Guide to the Visual Assessment of Pavement Conditions (1987)”
7. Unsealed Roads Manual – Guidelines to Good Practice – Revised August 2000
8. Sealed Local Roads Manual – Guidelines to good practice: design, construction, maintenance and rehabilitation of pavements – Revised and expanded edition – July 2005

## 8 APPENDICES

### 8.1 APPENDIX 1 – ROAD HIERARCHY CLASSIFICATIONS

Classification	Type	Definition	PC	Target Standards
<b>Arterial</b>	VicRoads Arterial	VicRoads Declared Main Road or Highway	-	
<b>Link Roads</b>	Sealed Link Road (Urban)	Sealed roads carrying very high traffic volumes including commercial vehicles and providing the principal routes for vehicles in and around the major urban areas.	A	Variable seal width
	Sealed Link Road (Dryland)	Sealed roads carrying moderate volumes of traffic and linking small townships to arterial roads within Council's dryland areas.	C	Variable seal width; 2m shoulders
	Sealed Link Road (Irrigated)	Sealed roads carrying high volumes of traffic and linking urban areas.	C	Variable seal width; 2m shoulders
<b>Collector</b>	Sealed Collector Road (Urban)	Sealed roads carrying moderate volumes of traffic and linking local areas to link and arterial roads in the Council's urban areas.	A	Variable seal width
	Sealed Collector Road (Irrigated)	Sealed roads carrying moderate volumes of traffic and linking local areas to link and arterial roads in the Council's irrigated area.	C	Variable seal width; 2m shoulders
	Sealed Collector Road (Dryland)	Sealed roads carrying moderate volumes of traffic and linking local areas to arterial roads in the Council's dryland areas.	C	Variable seal width; 2m shoulders
	Unsealed Collector Road (Dryland)	Gravel roads in dryland areas identified through consultation with local residents as being high priority roads; also school bus routes.	E	8.0m pavement; 1m shoulders
	Unsealed Collector Road (Irrigated)	Gravel roads within Council's irrigated areas with relatively high traffic volumes and linking sealed collector roads; also school bus routes.	E	8.0m pavement; 1m shoulders

Classification	Type	Definition	PC	Target Standards
Local	Sealed Local Road (Urban)	Sealed roads carrying only local traffic as per the following classification:		
		SLU1 - Provide access to private properties	B	7.9m seal
		SLU2 – Provide access from cul-de-sacs in residential areas	B	7.9m seal
		SLU3 - Provide access for heavy vehicles to industrial facilities	A	Variable seal width
		SLU4 - Typically located in recreation reserves and serving slow moving traffic on an occasional basis	D	6.8m seal width with concrete edge / plinth; no shoulders
	Sealed Local Road (Irrigated)	Sealed roads carrying only local traffic. Their primary function is to provide access to horticultural properties within Council's irrigated area.	D	6.8m seal width; 2m shoulders
	Sealed Local Road (Dryland)	Sealed roads carrying only traffic local to small rural centres in Councils dryland areas.	D	6.8m seal width; 2m shoulders
	Unsealed Local Road (Dryland)	Unsealed roads in dryland areas carrying only low volumes of local traffic.	F	Variable pavement width; 1m shoulders
	Unsealed Local Road (Irrigated)	Unsealed roads in Council's irrigated area carrying only low volumes of local traffic.	F	Variable pavement width; 1m shoulders
	Unmade Natural Surface (Dryland)	Unshaped road lacking imported pavement material but graded occasionally, located in dryland area (typically only used by a few vehicles per day).	G	No design provided
	Unmade Natural Surface (Irrigated)	Unshaped road lacking imported pavement material but graded occasionally, located in irrigated area (typically only used by a few vehicles per day).	G	No design provided
Laneway	Sealed Laneway	Sealed roads carrying only local traffic, typically providing secondary access to properties with more than one street frontage.	B	7.9m seal
	Unsealed Laneway	Unsealed roads carrying only local traffic, typically only providing occasional secondary access to properties with more than one street frontage.	E	Variable pavement width

PC defines the Pavement Classification as detailed in the Road Network Asset Management Plan.



## 8.2 APPENDIX 2 – MAINTENANCE INTERVENTION LEVELS

Defect Description	Hierarchy	Category	Maintenance Criteria	Response Time
<b>SEALED PAVEMENT</b>				
<b>POTHOLE PATCHING</b> Treatment of isolated failed pavement areas <0.25 m <sup>2</sup>	Link and Collector	1	1. Potholes in sealed pavement >300mm in diameter and >100mm deep 2. Repair of failed pavement areas that have resulted in holes (potholes), using appropriate materials to repair the potholes and restore the riding surface to a smooth condition.	48 Hours
		2		180 Days
	Local	1		48 Hours
		2		180 Days
	Laneways	1		48 Hours
		2		365 Days
	Car Parks	1		48 Hours
		2		365 Days
<b>REGULATION OF WHEEL RUTS AND DEPRESSIONS</b> Depressed or rutted areas of pavement <5 m <sup>2</sup> .	Link and Collector	1	1. All ruts or depressions >100mm depth measured with 1.2 m straightedge transverse, or under a 3 m straightedge longitudinal 2. All ruts or depressions >40 mm and <100mm depth measured with 1.2 m straightedge transverse, or under a 3 m straightedge longitudinal	14 Days
		2		180 Days
	Local	1		14 Days
		2		180 Days
	Laneways	1		14 Days
		2		365 Days
	Car Parks	1		14 Days
		2		365 Days
<b>CRACK SEALING</b> Filling of cracks and joints, excluding “crocodile” cracking,	Link and Collector	All	Any Longitudinal cracking >2m in length and >=5mm in width Any Transverse cracking >2m in length and >=5mm in width	365 Days
	Local			365 Days
	Laneways			365 Days
	Car Parks			365 Days
<b>SURFACE TREATMENT</b> Areas of pavement <25 m <sup>2</sup> with: (a) Loss of aggregate (b) Bleeding or flushing (c) Extensive or “crocodile” cracking	Link and Collector	All	(a) stripping (>50% loss of aggregate for an area >5 m <sup>2</sup> ) (b) bleeding/flushing for an area >50 m <sup>2</sup> (c) all “crocodile” cracking	365 Days
	Local			365 Days
	Laneways			365 Days
	Car Parks			365 Days
<b>PAVEMENT CLEANING</b> Cleaning of pavement including intersections, kerbs and channels to remove debris which is a danger to traffic or pedestrians or prevents the free drainage of the pavement.	Link and Collector	1	1. When fallen debris, slippery substances, accumulation of granular material, ponding of water or any other obstacle becomes a danger to traffic or pedestrians 2. When accumulation of aggregate, dirt or debris prevents the free drainage of the pavement	48 Hours
		2		180 Days
	Local	1		48 Hours
		2		180 Days
	Laneways	1		48 Hours
		2		365 Days
	Car Parks	1		48 Hours
		2		365 Days
<b>EDGE REPAIR</b> Repair of broken edges of seal to line and level to maintain nominal sealed width.	Link and Collector	1	1. When edge break - 150mm or greater laterally over at least a 1 m length from the nominal seal line 2. When edge break >75mm and <150mm laterally over at least a 1 m length from the nominal seal line	48 Hours
		2		180 Days
	Local	1		48 Hours
		2		180 Days
	Laneways	1		48 Hours
		2		365 Days
	Car Parks	1		48 Hours
		2		365 Days
<b>DEFORMATION</b> Treatment of isolated failed pavement areas between 0.25 m <sup>2</sup> and 30 m <sup>2</sup> in area and segment deformation >40mm	Link and Collector	All	All failed areas	180 Days
	Local			180 Days
	Laneways			365 Days
	Car Parks			365 Days

Defect Description	Hierarchy	Category	Maintenance Criteria	Response Time
UNSEALED SHOULDER (a) drop off from edge of seal to shoulder; (b) roughness, scouring or potholes; holding of water.	Link and Collector	1	1: Drop off /Build-up >100mm depth measured over a 20 m length.	48 Hours
	Local	2	2: Drop off >50mm and <100mm depth measured over a 20 m length.	180 Days
	Local	1	2: Potholes, scouring or roughness >75 mm depth measured with a 1.2 m straightedge, or when there is holding of water	48 Hours
	Car Parks	2		365 Days
UNSEALED PAVEMENT				
UNSEALED ROAD Spot gravelling, pothole repair, grading or reshaping.	Link and Collector	1	1: Pothole In the traffic lane >500mm diameter and >150mm deep	48 Hours
		2	2: Potholes, scouring or roughness >50 mm in depth and <150mm in depth measured with1.2 m straightedge	180 Days
	Local	1		48 Hours
		2		365 Days
	Car Parks	1	2: Continuous corrugations over 20 m exceeding 40 mm in depth	48 Hours
		2		365 Days
DRAINAGE				
SURFACE DRAINS AND VERGES Cleaning and reshaping to maintain flow of water and protect road and roadside from scour	Link and Collector	All	When there is ponding of water or scouring	180 Days
	Local			
SUBSURFACE DRAINS Cleaning of outlets and pits to maintain flow of water	Link and Collector	All	When debris inhibits free flow	180 Days
	Local			
	Car Parks			
CULVERT AND PIT CLEANING AND STORM WATER DRAINS Cleaning of culverts, pits and stormwater drains to maintain flow of water	Link and Collector	All	When debris inhibits free flow	180 Days
	Local			
	Car Parks			
CULVERT AND PIT REPAIR Repair or replacement of damaged culverts, pits, surrounds, grates, lids or lintels and headwalls	Link and Collector	1	1: Damaged to such an extent that it compromises the structural integrity of the pit lid/ surround or missing drainage pit lids, surrounds, grates, in pedestrian areas or traffic lanes 2: When culvert or pit becomes non-functional	48 Hours
		2		180 Days
	Local	1		48 Hours
		2		180 Days
	Car Parks	1		48 Hours
		2		365 Days
KERB AND CHANNEL Cleaning to maintain flow of water	Link and Collector	All	When debris, uplift, slumping or damage inhibits free flow	180 Days
	Local			365 Days
	Laneways			365 Days
	Car Parks			365 Days
DRAINAGE BASINS Minor repairs of scouring on batters, slashing, mowing and weed control. Maintenance of all depth markers and warning signs.	All	All	Any scour depth >300mm Maintain vegetation height to max. 300mm Replace damaged or vandalised signs	180 Days
GROSS POLUTANT TRAPS This activity covers the routine inspection and cleaning of GPT's and litter baskets to ensure the GPT continues to operate as designed	All	All	When debris inhibits free flow	180 Days

Defect Description	Hierarchy	Category	Maintenance Criteria	Response Time
<b>VEGETATION</b>				
GRASS MOWING SEALED Mowing of roadside areas to maintain sight distance and reduce hazards to road users	Link & Collector	All	<ul style="list-style-type: none"> <li>To maintain sight distance of 30m in advance of all road approaches and departures.</li> <li>3m behind the line of guideposts (If Allowable).</li> <li>Where there are no guideposts mowing shall be to a width of 5m from the edge of pavement, if practicable.</li> <li>Maintain grass length to a maximum 300mm.</li> </ul>	180 Days
	Local			365 Days
GRASS MOWING UNSEALED Mowing of roadside areas to maintain sight distance and reduce hazards to road users	Link & Collector	All	<ul style="list-style-type: none"> <li>To maintain sight distance of 30m in advance of all road approaches and departures.</li> <li>3m behind the line of guideposts (If Allowable).</li> <li>Where there are no guideposts mowing shall be to a width of 5m from the edge of pavement, if practicable.</li> <li>Maintain grass length to a maximum 300 mm.</li> </ul>	180 Days
	Local			365 Days
EDGE TRIMMING Trimming of grass clear of kerbs or seal to maintain drainage	Link & Collector	All	All growth 100mm forward of back of kerb or seal.	180 Days
	Local			365 Days
GRASS AND WEED CONTROL Control of vegetation growth, including around road furniture, on paving over kerb and channel, on traffic islands and on the road pavement.	Link & Collector	All	<ul style="list-style-type: none"> <li>Grass and weeds that restrict intersection sight distance or obscure safety signs.</li> <li>Maintain grass length to a maximum 300 mm</li> </ul>	180 Days
	Local			365 Days
TREE AND SHRUB MANAGEMENT Maintenance of roadside areas, including brush cutting, foliage trimming and removal of vegetation.	Link & Collector	1	1: Tree limbs or trees that are in immediate danger of falling and causing a danger to the public	48 Hours
		2	1: Trees and shrubs which restrict intersection sight distance or obscure safety signs, or intrude into clearance envelope over trafficable areas of roads and paths	180 Days
	Local	1	2: Cut and remove new tree and shrub growth within drains, clear zones, the shoulder and verge.	48 Hours
		2		365 Days
	Car Parks	1	2: Trim trees to maintain: <ul style="list-style-type: none"> <li>Minimum 0.3 metre from back edge of kerb /or 1 metre from shoulder;</li> <li>Minimum 3.5 metre height clearance over shoulder.</li> <li>Minimum 4.9 metre height clearance over traffic lane.</li> <li>Minimum 2.4 metre height clearance over footpaths</li> </ul>	48 Hours
		2		365 Days
	Footpath	1		48 Hours
		2		365 Days

Defect Description	Hierarchy	Category	Maintenance Criteria	Response Time
ROAD FURNITURE				
SIGN REPAIR Repair, re-erection and cleaning of signs, including supports.	Link & Collector	1	1: Any sign or support damaged to such an extent where more than 10% of the sign face is not visible or fallen (blocking trafficable surfaces including footpaths). -	48 Hours
		2		180 Days
	Local	1	1: Regulatory and Warning signs missing or damaged to such an extent where more than 10% of the sign face is not visible or illegible at a critical location such as intersections.  2: Straighten signposts when more than 5 degrees off vertical, or replace when damage renders ineffective.  2: Clean sign and delineator faces when reflectivity is reduced due to accumulation of dirt.	48 Hours
		2		180 Days
	Car Parks	1		48 Hours
		2		365 Days
GUARD FENCE AND WIRE ROPE SAFETY BARRIER If defined as MRCC responsibility. Realignment, repair or replacement of isolated guard fence < = 15 m/section, including terminal sections, posts, rails and cleaning of delineators.	Link & Collector	1	1: Missing or damaged at a critical location such as intersections, making them substantially ineffective 2: Defective guardrail, posts and hardware	30 Days
		2		180 Days
	Local	1		30 Days
		2		365 Days
GUIDEPOSTS AND DELINEATORS Cleaning, painting and/or replacement of damaged and missing guideposts, marker posts and delineators. Straightening or replacement of crooked or bent guideposts	Link & Collector	1	1: Guideposts missing or damaged at a critical location such as intersections.	30 Days
		2	1: Functional requirements not met	180 Days
	Local	1	1: Not visible from 150 metres at night, on low beam	30 Days
		2	2: Missing, bent or damaged guidepost, marker post or delineator	365 Days
FOOTPATHS				
SEALED / OTHER PAVED AREAS Replacement, repair or regulation of defective paved areas <2 m².	All	1	1: Defective pedestrian areas on islands, footpaths and bicycle/shared paths with a step >50mm 1: Reinstatement's and unfilled gaps between footpath slabs 50mm or greater	180 Days
		2	2: Defective pedestrian areas on islands, footpaths and bicycle/shared paths with a step >20mm and <50mm 2: Reinstatement's and unfilled gaps between footpath slabs >20mm and <50mm	365 Days
CONSTRUCTED UNSEALED PATHS		1	1: Pothole >150mm in depth 2: Pothole >50mm and ≤150mm in depth and >300mm in diameter	48 Hours
		2	1: Washout/Scouring >150mm in depth 2: Washout/Scouring >50mm and ≤150mm in depth and >300mm in width	365 Days
KERB AND CHANNEL Maintenance of all concrete kerb and channel adjacent to the carriageway	Link & Collector	All	>50mm step or misalignment	180 Days
	Local		Depression >100mm over 1200mm length	365 Days
	Car Parks			365 Days

Defect Description	Hierarchy	Category	Maintenance Criteria	Response Time
<b>EMERGENCY</b>				
EMERGENCY CALLOUT Repair of any defects presenting a hazard to the public.	All	All	Any defect/ hazard that presents an imminent threat to the safety of people and property.	3 Hours

### 8.3 APPENDIX 3 – INSPECTION REQUIREMENTS

Inspection Type	Purpose	Inspection Performed by and Reporting Requirements
<b>Reactive/Safety Inspection</b>	<ul style="list-style-type: none"> <li>Safety inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community.</li> <li>Safety issues may be detected as the result of:               <ol style="list-style-type: none"> <li>formal programmed defect inspection; or</li> <li>observation followed by notification to council by members of the community or council employees while undertaking their normal work duties with a subsequent safety inspection to be conducted by an appropriate council officer.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Council representative with some knowledge of road maintenance techniques who may then call in a higher level of expertise if necessary.</li> <li>Recording to identify specific safety defect, time first reported, time inspected and by whom, subsequent action and time of completion.</li> </ul>
<b>Incident Inspection</b>	<ul style="list-style-type: none"> <li>An inspection carried out to comply with the requirements the Road Management Act [Division 5 – Claims Procedure, Clause 116];</li> <li>This inspection enables an incident condition report to be prepared for use in legal proceedings and the gathering of information for the analysis of the causes of accidents and the planning and implementation of road management and safety measures.</li> </ul>	<ul style="list-style-type: none"> <li>Qualified engineer or experienced technical officer with extensive knowledge and experience in road construction and maintenance practices.</li> <li>Formal Incident Report required, as described.</li> </ul>
<b>Programmed Inspection</b>	<ul style="list-style-type: none"> <li>Inspection undertaken in accordance with a formal programmed inspection schedule to determine if the road asset complies with the levels of service as specified in the Municipal Road Management Plan;</li> <li>A record of each street/road is to be completed detailing the name of the inspector, the inspection date, time and street/road name and a description of any defects found that are at the specified intervention levels defined in the Asset Management Plan;</li> <li>In addition, a notation must to be recorded of any street/road inspected where no defect was apparent under the specific rigour of the inspection.</li> </ul>	<ul style="list-style-type: none"> <li>Engineer or technical officer with knowledge of road maintenance techniques;</li> <li>A record of the inspection is to be signed by the inspector for placing on council's asset database for reference purposes (NB: this may include insurance or litigation requirements).</li> </ul>
<b>Condition Inspection</b>	<ul style="list-style-type: none"> <li>An inspection specifically to identify deficiencies in the structural integrity of the various components of the road infrastructure assets which if untreated, are likely to adversely affect network values. The deficiencies may well impact short-term serviceability as well as the ability of the component to continue to perform for the duration of its intended life span;</li> <li>The condition inspection process must also meet the requirements for accounting regulations and asset management;</li> </ul>	<ul style="list-style-type: none"> <li>Inspection undertaken under the direction of a qualified engineer or experienced technical officer with extensive knowledge and experience in road construction and maintenance practices;</li> <li>Specific data to be recorded is determined by requirements of the Asset Management Plan and the Asset Information System used to assess asset component needs.</li> </ul>

	<ul style="list-style-type: none"> <li>Regular or periodic assessment, measurement and interpretation of the resulting condition data is required so as to determine the need for any preventive or remedial action then development of relevant programs of rehabilitation or renewal works.</li> </ul>	
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#### 8.4 APPENDIX 4 – PROGRAMMED INSPECTION FREQUENCIES

Asset Group	Hierarchy Category	Inspection Type, Frequency and Department Responsible to undertake Inspection			
		Programmed	Branch	Condition	Branch
Sealed Roads	Link - Urban	6 months	Works and Infrastructure Services	4 years	Asset Services
	- Irrigated	6 months	Works and Infrastructure Services	4 years	Asset Services
	- Dry Land	6 months	Works and Infrastructure Services	4 years	Asset Services
	Collector - Urban	6 months	Works and Infrastructure Services	4 years	Asset Services
	- Irrigated	6 months	Works and Infrastructure Services	4 years	Asset Services
	- Dry Land	6 months	Works and Infrastructure Services	4 years	Asset Services
	Local - Urban	6 months	Works and Infrastructure Services	4 years	Asset Services
	- Irrigated	6 months	Works and Infrastructure Services	4 years	Asset Services
	- Dry Land	6 months	Works and Infrastructure Services	4 years	Asset Services
	Laneways - Urban	6 months	Works and Infrastructure Services	4 years	Asset Services
Unsealed Roads	Collector - Irrigated	6 months	Works and Infrastructure Services	5 years	Asset Services
	- Dry Land	6 months	Works and Infrastructure Services	5 years	Asset Services
	Local - Irrigated	6 months	Works and Infrastructure Services	5 years	Asset Services
	- Dry Land	6 months	Works and Infrastructure Services	5 years	Asset Services
	- Unmade Natural Surface	12 months	Works and Infrastructure Services	5 years	Asset Services
	Laneways - Urban	6 months	Works and Infrastructure Services	5 years	Asset Services
Off-Street Car Parks	Sealed	6 months	Works and Infrastructure Services	4 years	Asset Services
	Unsealed	6 months	Works and Infrastructure Services	5 years	Asset Services

<b>Bridges</b>	Guardrail protection	6 months	Works and Infrastructure Services	5 years	Asset Services
	MRCC Responsibility only	6 months	Works and Infrastructure Services	5 years	Asset Services

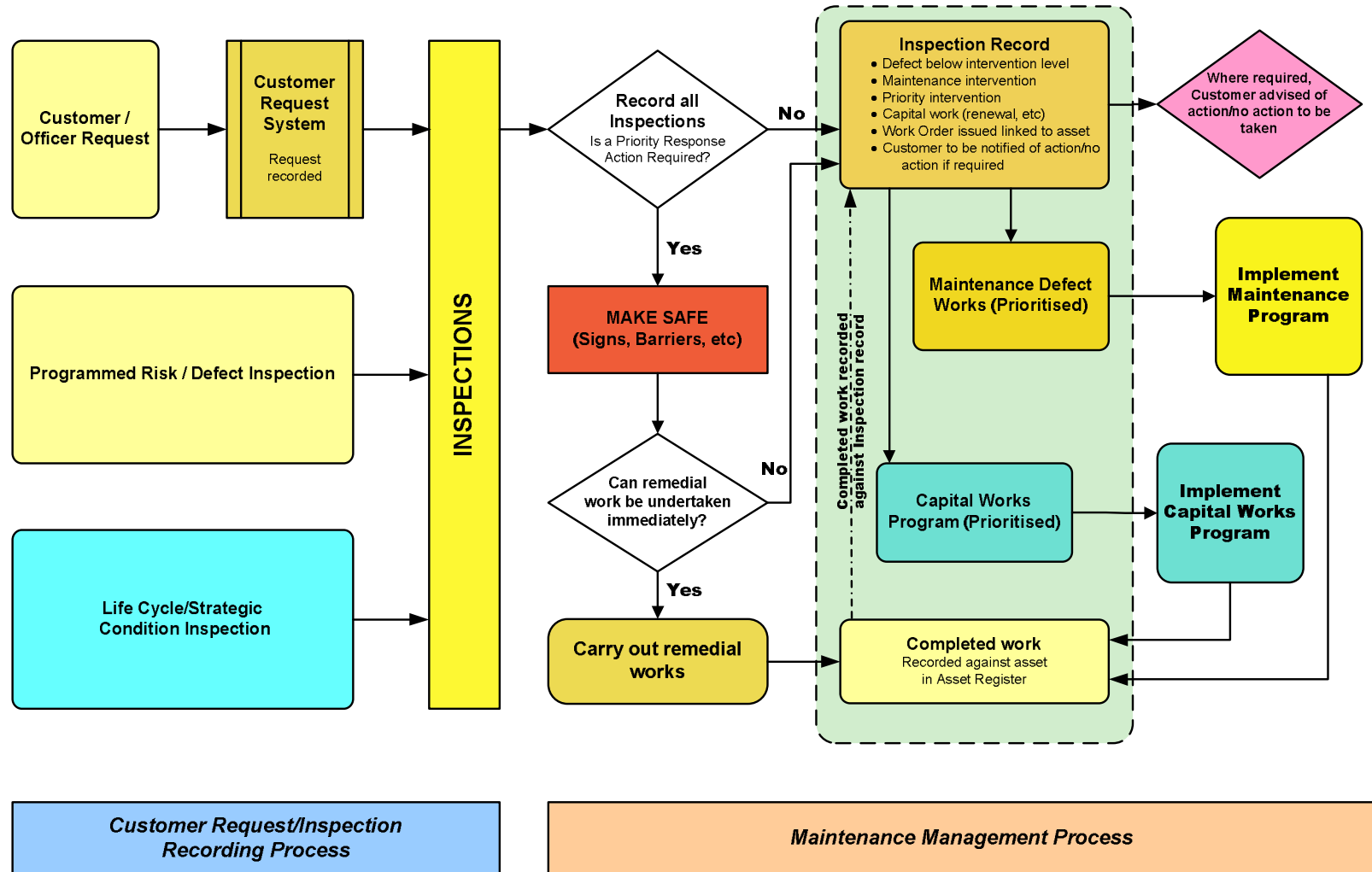
Asset Group	Hierarchy Category	Inspection Type, Frequency and Department Responsible to undertake Inspection			
		Programmed	Branch	Condition	Branch
<b>Line marking</b>	Link	6 months	Works and Infrastructure Services	5 years	Asset Services
	Collector	6 months	Works and Infrastructure Services	5 years	Asset Services
	Local	12 months	Works and Infrastructure Services	5 years	Asset Services
<b>Roadside Furniture</b>	Regulatory Signs	6 months	Works and Infrastructure Services	N/A	Asset Services
	Bus Shelters	2 years	Works and Infrastructure Services	4 years	Asset Services
<b>Roadside Vegetation</b>	Street Trees – Urban (General)	2 years	Building and Environmental Services	N/A	Building and Environmental Services
	Street Trees - Urban (Power line Clearance)	12 months	Building and Environmental Services	N/A	Building and Environmental Services
<b>Footpaths</b>	Langtree Mall, Eighth and Ninth Street paved areas	6 months	Works and Infrastructure Services	4 years	Asset Services
	Mildura CBD and High Use Precinct	6 months	Works and Infrastructure Services	4 years	Asset Services
	Footpaths in other Urban Areas	12 months	Works and Infrastructure Services	4 years	Asset Services
	Footpaths in Irrigation and Rural areas	12 Months	Works and Infrastructure Services	4 years	Asset Services
<b>Kerb and Channel</b>	Link	6 months	Works and Infrastructure Services	4 years	Asset Services
	Collector	6 months	Works and Infrastructure Services	4 years	Asset Services
	Local	6 months	Works and Infrastructure Services	4 years	Asset Services
	Rural Irrigation Intersections	6 months	Works and Infrastructure Services	4 years	Asset Services

**CRM:** When applied to Inspection frequency, CRM (Customer Request) indicates that an inspection will only be undertaken upon a request being submitted and an assessment made as to whether an inspection is warranted on the grounds of a risk to public safety.

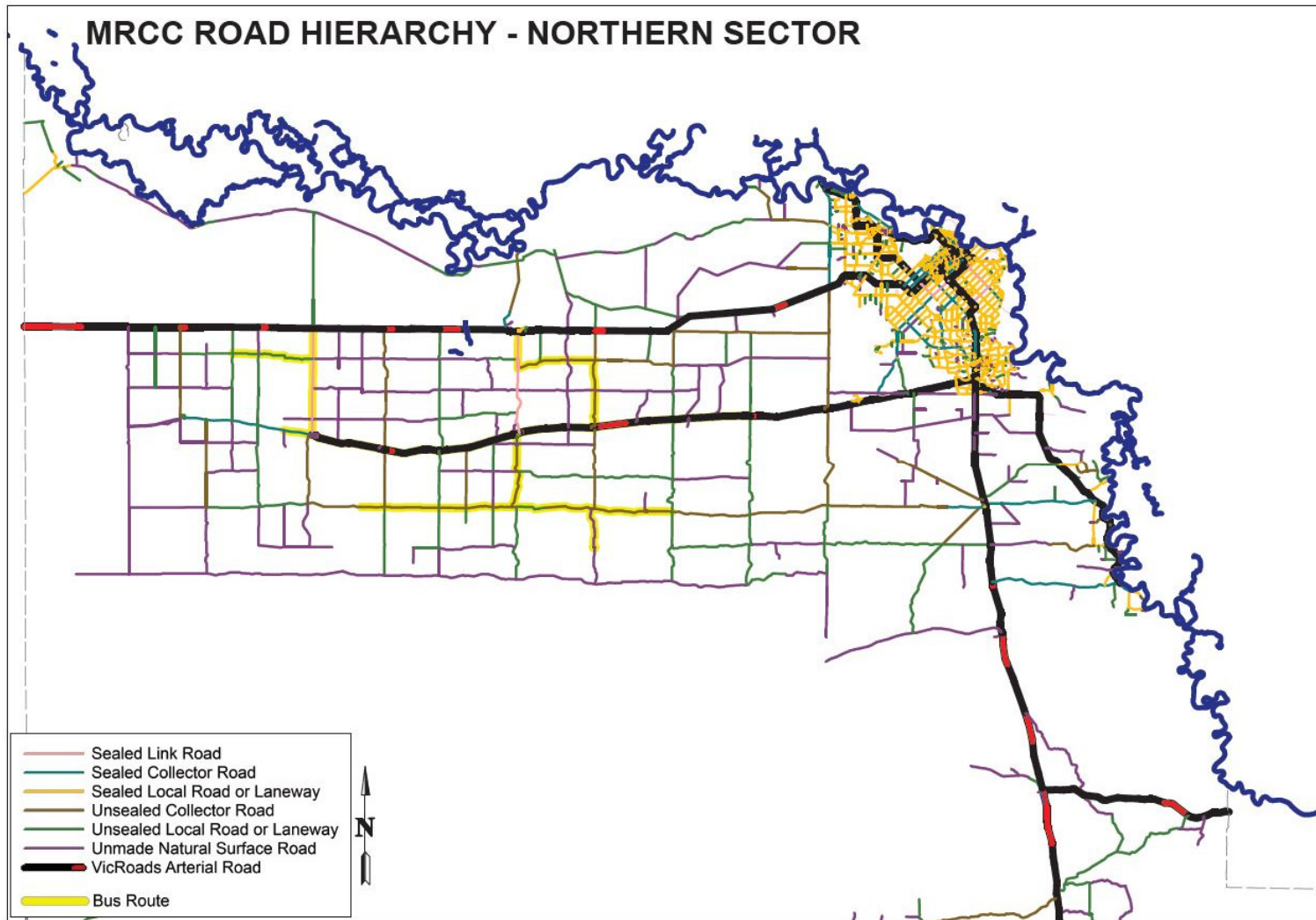
**N/A:** This denotes that the issue is not applicable as that asset component does not exist in that category or an inspection is not warranted.

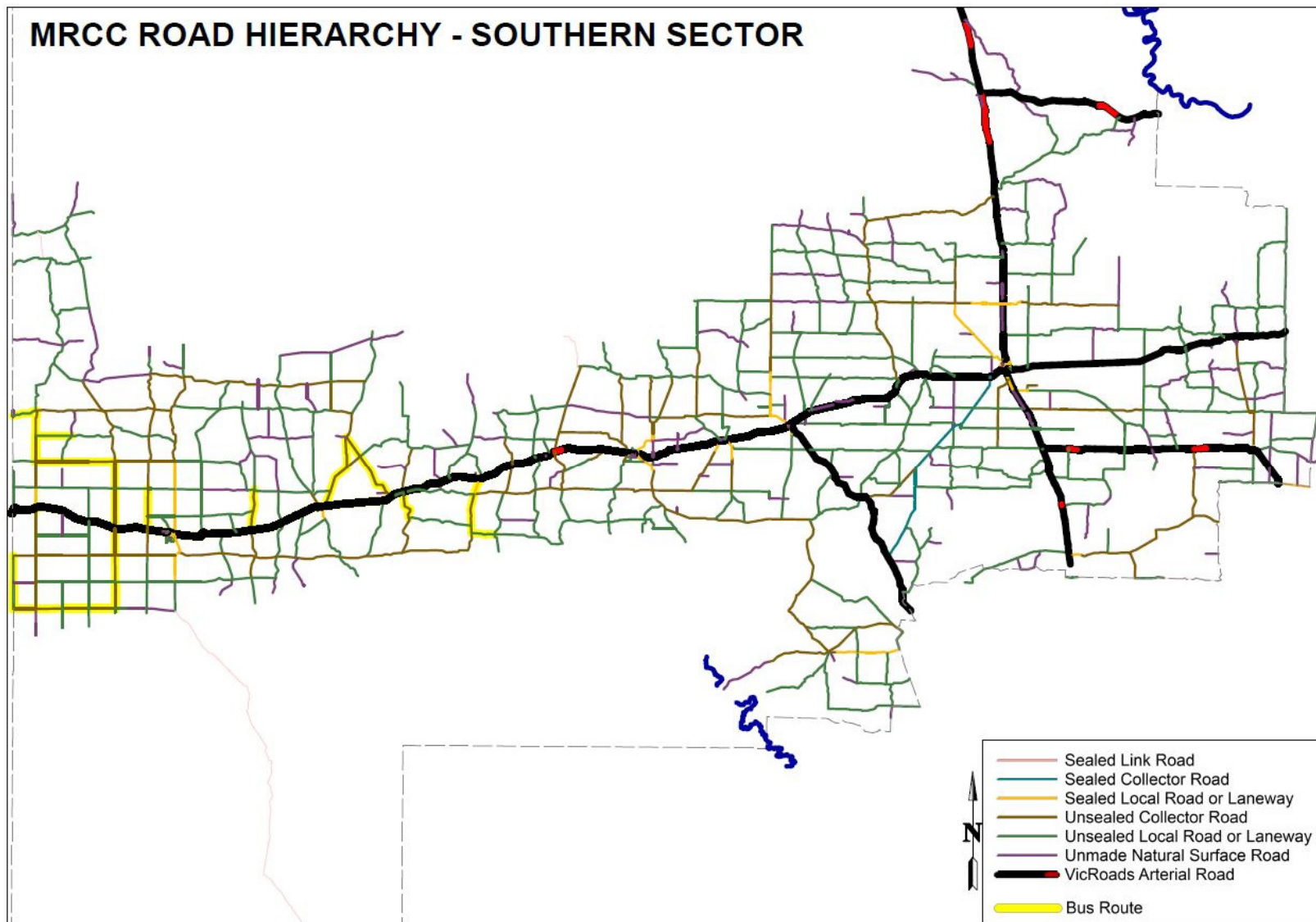


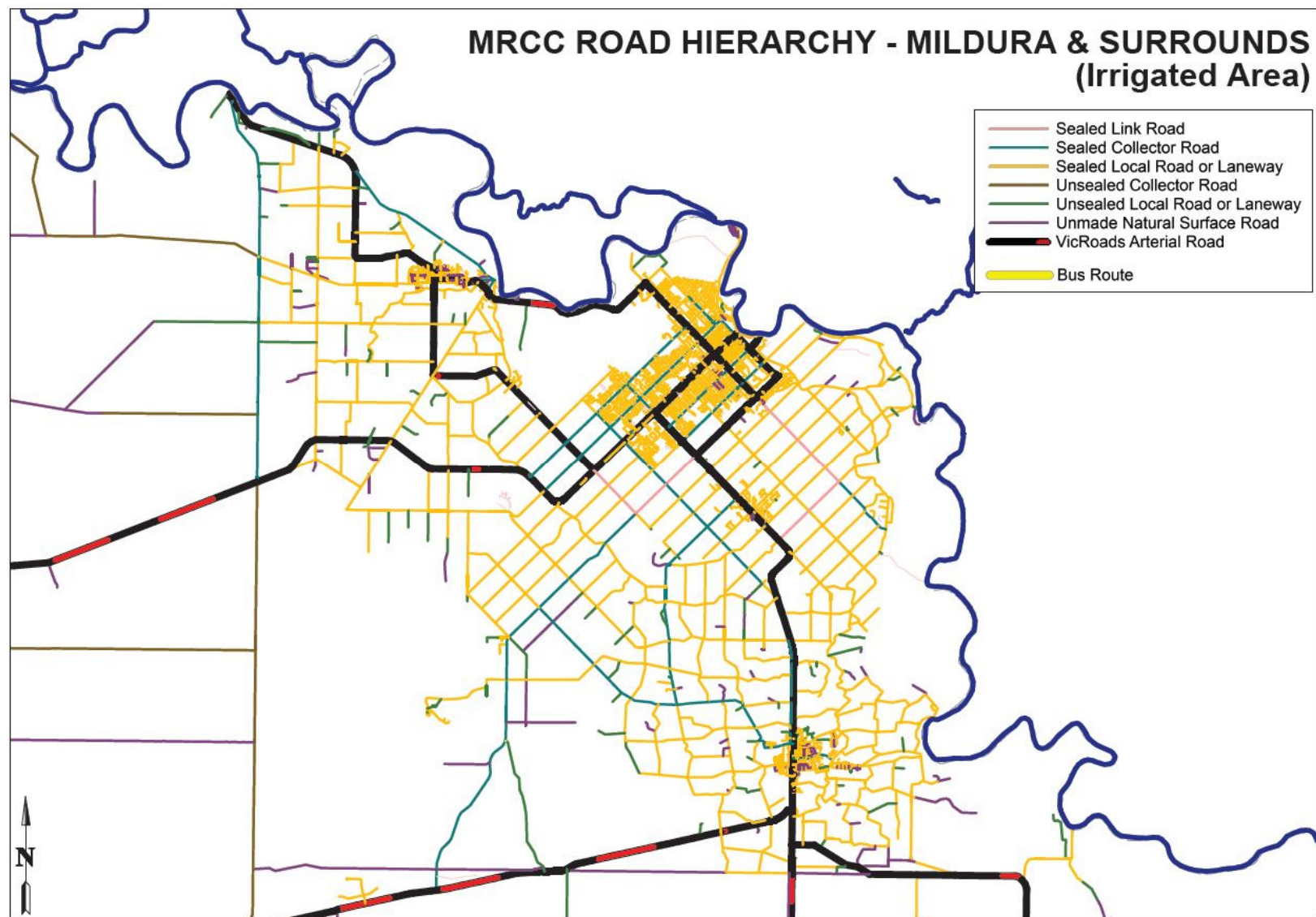
## 8.5 APPENDIX 5 – INSPECTION MANAGEMENT FLOW CHART



## 8.6 APPENDIX 6— ROAD HIERARCHY MAPS



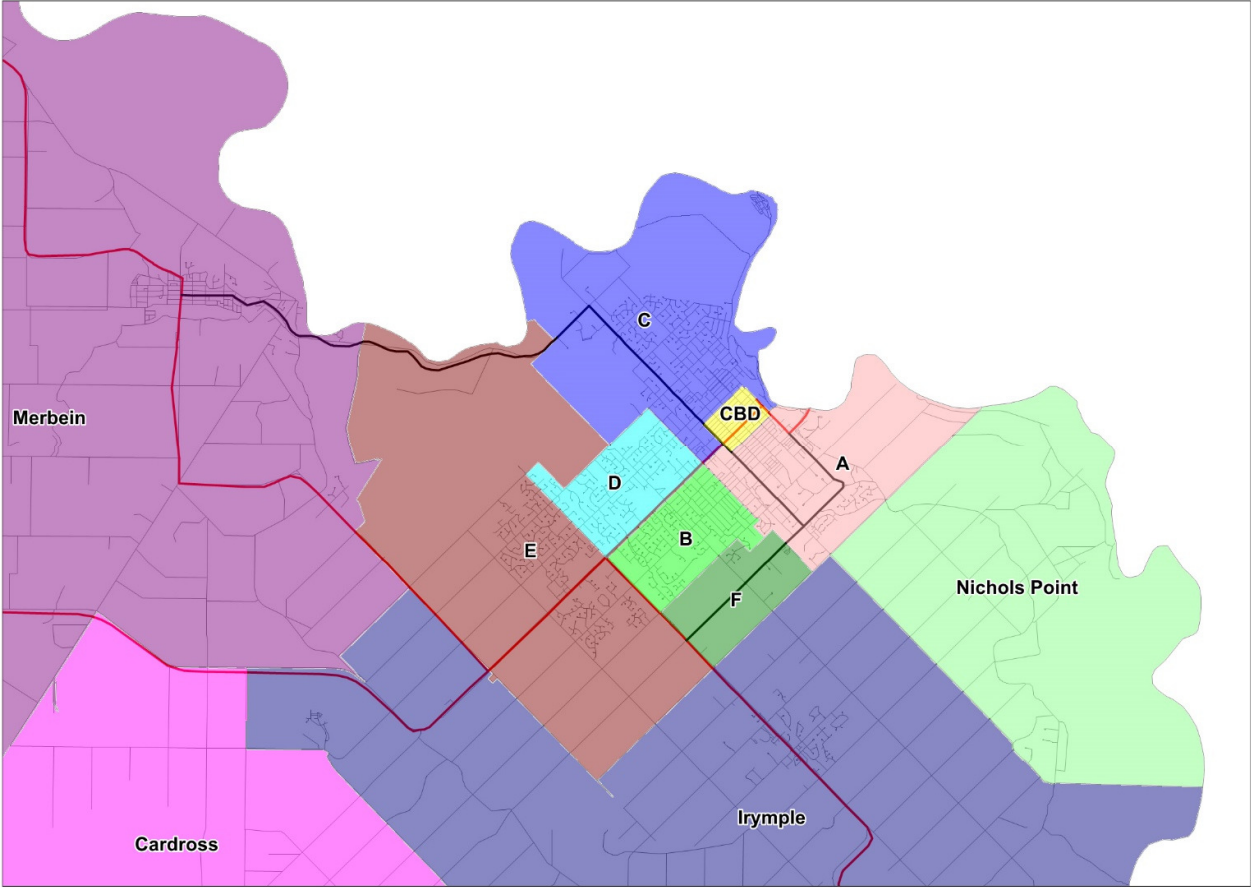




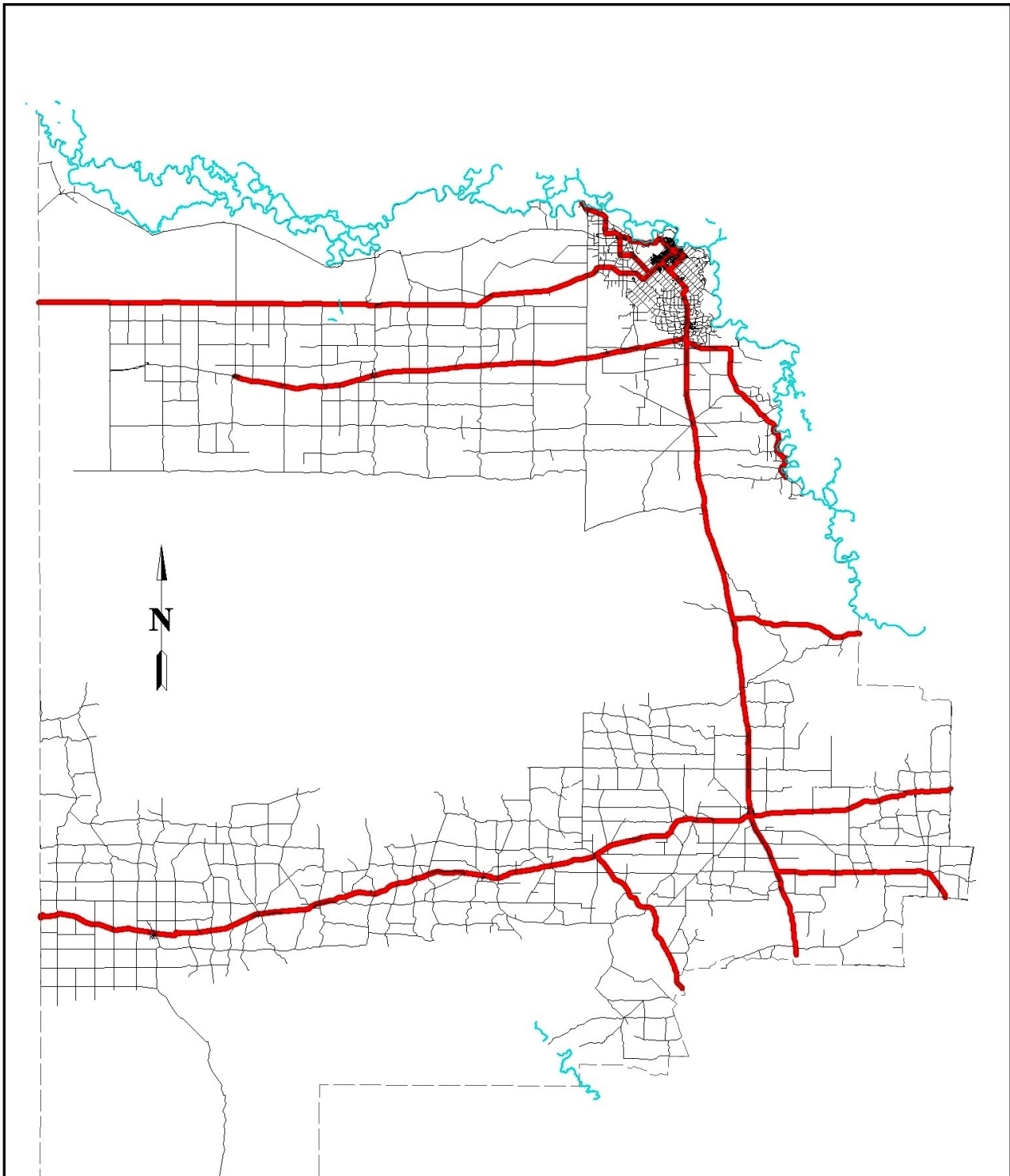


8.7 APPENDIX 7 - MILDURA FOOTPATH ZONES

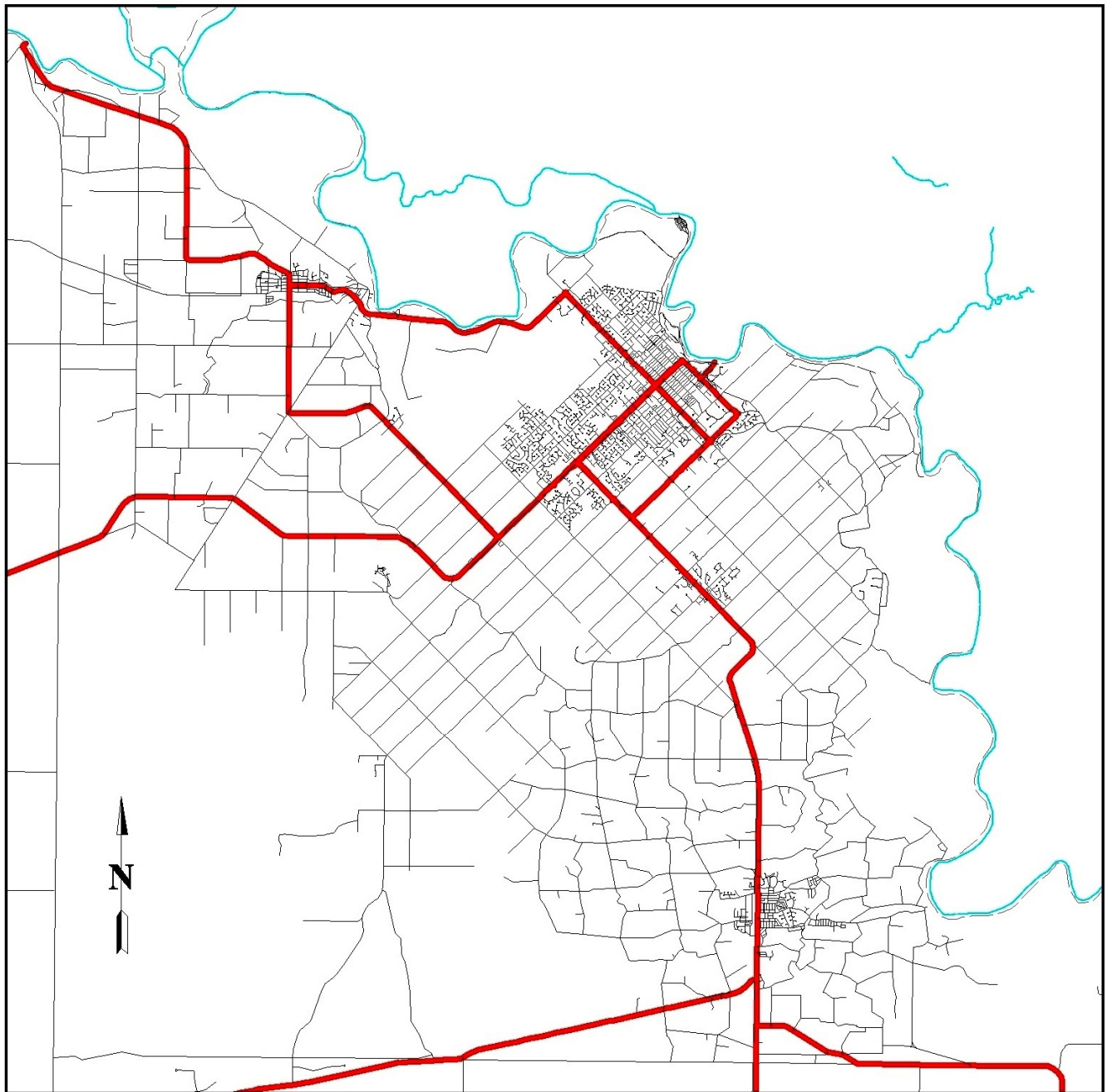
Hierarchy Category
CBD Mildura
Other Areas:- Sealed
Other Areas:- Unsealed



## 8.8 APPENDIX 8 - VicROADS ZONES



Roads marked red are declared Highways and Main Roads and are the responsibility of VicRoads.



Mildura Irrigated Area

Roads marked red are declared Highways and Main Roads and are the responsibility of VicRoads