SOUTH GIPPSLAND SHIRE COUNCIL

Road Management Plan 2022

Adopted 16 February 2022

South Gippsland
Shire Council

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Introduction

Background

South Gippsland Shire Council (Council) has developed this Road Management Plan (The Plan) in accordance with the requirements of the *Road Management Act 2004* (the Act). The Act was introduced to establish a statutory framework for the management of the road network to facilitate the coordination of the various uses of road reserves for roadways, pathways, infrastructure and similar purposes.

The Plan describes how South Gippsland Shire Council manages its road assets in accordance with the requirements of the Act, and the associated Codes of Practice. The Plan is applicable to all road and road related infrastructure, as defined under the Act, for which Council is responsible.

Purpose

The purpose of this Road Management 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.

The key elements of The Plan include:

- Definitions of Council's maintenance responsibility on various infrastructure.
- The management system that Council employs for the inspection, maintenance and repair of its roads.
- Inspection standards that document the nature and frequency of different types of inspections (i.e. reactive and proactive).
- Maintenance standards that document intervention levels, maintenance response requirements, and maintenance response times.

Legislative Framework

The Act governs the management of roads within the State of Victoria and its primary purpose is to establish a coordinated management system for public roads. The Act is supported by regulations and codes of practice. The Act governs alongside the principles and objectives of other related Acts such as the Transport Act, the Road Safety Act and the Local Government Act, all of which provide a framework for the establishment and operation of Councils road management responsibilities.

The Act facilitates the making of Council's Road Management Plan, which in effect provides the opportunity for Council to establish a policy defence against civil liability claims associated with the management of the road network. In conjunction with the associated regulations and codes of practice, the Act defines the legislative principles that road authorities must conform to in the management of their road infrastructure.

Functions of a Road Authority

The Act sets out roles and responsibilities that Council, as a Road Authority must adhere to in order to adequately exercise its duty. General functions of a Road Authority are set out in section 34 of the Act and are presented below.

A road authority has the following general functions:

- To provide and maintain, as part of a network of roads for use by the community serviced by the road authority;
- To manage the use of roads while having regard that the primary purpose of a road is for use by members of the public, and that other uses are to be managed in a manner which minimises any adverse effect on the safe and efficient operation of the road and on the environment;
- To manage traffic on roads in a manner which enhances the safe and efficient operation of roads;
- To coordinate the installation of infrastructure on roads and the conduct of other works in such a way as to minimise, as far as is reasonably practicable, adverse impacts on the provision of utility services;
- To undertake works and activities above.

In seeking to achieve its functions, a road authority should:

- Consult with the community and disseminate information in relation to the exercise of those functions;
- Take steps as are reasonably practicable to ensure the structural integrity and safety of public roads in accordance with the Act.

The Act indicates that Road Authorities, such as South Gippsland Shire Council, can have both Coordinating and Responsible Road Authority responsibilities. A Coordinating Road Authority has coordinating functions as defined by section 36 of the Act. A Responsible Road Authority has operational functions as defined by section 37 of the Act.

Obligations of Road Users

Whilst Council has significant obligations as a Road Authority, there is also an onus upon road users to take due care when using the network.

Section 17A of the *Road Safety Act* sets out the obligations of road users as follows:

1 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:

   a. Physical characteristics of the road;

   b. Prevailing weather conditions;

   c. Level of visibility;

   d. Condition of motor vehicle;

   e. Prevailing traffic conditions;

   f. Relevant road laws and advisory signs;

   g. Physical and mental condition of the driver.

2 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.

3 A road user must:

   a. 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;

   b. 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;

c. 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.

Section 174 subsection (3) defines that the infrastructure manager, non-road infrastructure, road infrastructure and road reserve have the same meanings as in section 3(1) of the Road Management Act 2004.

Key Stakeholders

This Road Management Plan is intended to demonstrate to stakeholders that Council is managing its roads and the road-related assets responsibly.

The key stakeholders include:

- Residents and businesses serviced by the road network.
- Pedestrians including those with disabilities and the elderly with restricted mobility.
- State Government – having responsibility for Local Government.
- State and Federal Governments – as fund providers for road infrastructure development.
- Councillors – as stewards of Council's infrastructure assets.
- Community – as users of services.
- Utilities/developers – as infrastructure providers.
- Employees – having responsibilities for implementation of this Plan.
- Contractors/suppliers – as providers of services required in the implementation of this Plan.
- Emergency agencies (Police, Fire, Ambulance, VicSES).

Exceptional Circumstances

Council will make every endeadvour to meet all aspects of this Road Management Plan.

Periodically, there will be situations or circumstances that affect Council's business activities and that will affect the ability to deliver the service levels outlined in this Plan. This includes, but is not limited to natural disasters, such as fires, floods, or storms, or prolonged labour or resource shortage.

In the event that Council assesses the financial and other resources of Council of such an event, including all conflicting priorities, and determines that some or all of the functions outlined in the Road Management Plan cannot be met, then in line with the intention of Section 83 of the Wrongs Act, the CEO will confirm via written correspondence to the Council Officer in charge of this Plan that:

- Some, or all of the timeframes and responses in Council's Road Management Plan are to be suspended.
- The timeframe for the suspension period.
- Any other relevant information.

Once the scope of the event/s have been determined, and the resources committed to the event response have been identified, then there will be an ongoing consultation between Council's CEO and the Officer in charge of this Plan, to determine which parts of Council's Plan are to be reactivated and when.

Council statements to residents about the suspension or reduction of the services under the Road Management Plan will include reference to how that work will be done and how it has been prioritised, and the period for which the use is likely to be affected.

Availability of the Road Management Plan

The Road Management Plan is available for viewing by the public at South Gippsland Shire Council Office, 9 Smith Street, Leongatha between the hours of 8.30am and 5.00pm Monday to Friday (or other business opening hours).

The plan is also available on Council's website www.southgippsland.vic.gov.au

Asset Description and Responsibilities

This section provides the details of road infrastructure and road-related infrastructure assets that are being covered under this Road Management Plan. It also outlines assets not covered under this Plan.

Assets Covered

- **All Sealed and Unsealed Roads** listed in Council's Register of Public Roads including:
  - → Road infrastructure such as road pavements, sealed surfaces, road shoulders.
  - → Road-related infrastructure such as kerb and channel, traffic islands, line markings and road furniture including regulatory and advisory signs, guideposts, guard rail and barrier fences.

- Ancillary Areas to Roads (on road intended car parks, bus stops and rest areas) including:
  → Formation, pavement, sealed surfaces, kerb and channel and drainage.
- Road Structure including:
  → Road bridges, major culverts, roundabouts, median strips, gabion walls and guardrails.
- Off-Road Urban Car Parks that are owned or managed by Council and recorded on the Register of Public Roads.

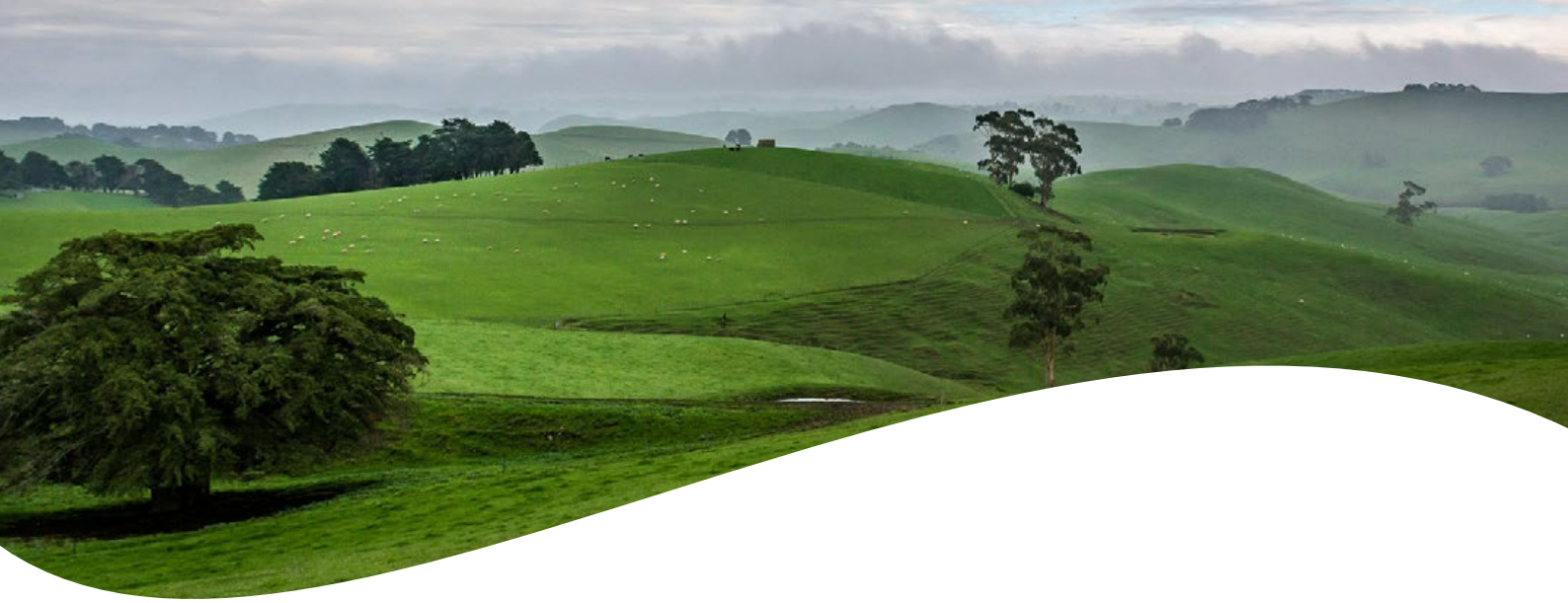
  Note: Car parks that are not described in the Register of Public Roads are excluded from the provisions of this Plan.
- Footpaths and bicycle paths within a road reserve including:
  → On-road and off-road footpaths and bicycle paths;
  → Footbridges; and
  → Paved surfaces (both sealed and unsealed).

Registered Assets that are adjacent to arterial roads, such as service roads, cemetery roads, ancillary areas, internal access roads, footpaths and bicycle paths, for which Council is the responsible authority, are also encompassed by this Plan.

Assets not Covered

- Roads on freehold land (including common property) except where such land is owned and managed by Council.
- Unconstructed urban streets, unformed roads, urban laneways, grassy lanes, driveways and informal tracks where such a road has been determined to be "not reasonably required for general public use".

  Note: Any such road shall not be placed on Council's Register of Public Roads or if identified to no longer be "reasonably required for general public use", then such roads shall be removed from the Register of Public Roads and the date that was removed noted.
- Vehicle Crossings (driveways) – the portion of a vehicle crossing located between the carriageway and the property boundary is the responsibility of the adjoining owner to maintain. Details shown in Figure One.
- Roads under the control of other Road Authorities, inclusive of VicRoads, the Department of Environment, Land, Water and Planning and Parks Victoria.
- Nature strips and infill areas – those residual areas between the road formation and the property boundary not occupied by the footpath and private road crossings.



- Property Stormwater Drains – these drains carry stormwater from a property to a discharge point in the kerb or drain or underground drainage pipe. They are there to benefit the property and as such are the responsibility of the owner of the property being served to maintain.
- Informal bicycle paths and ways that are off-road, unpaved and not defined in Council's Path Strategic Plan.
- Cattle Underpass Structure – these are box culvert-type structures built for the purpose of providing safe crossing for cattle under a road. The culvert is installed and owned by the property owner and owner responsibility for the maintenance of these structures is established through a Section 173 (*Planning and Environment Act 1987*) agreement with the adjacent land owner. After the initial 12-month construction defect liability period, Council assumes responsibility for the road pavement seal, markings, and guideposts only. Responsibility for the structure, including attachments such as guardrail, farm access approaches, fencing and underpass drainage remains with the owner for the duration of the agreement.
- Minor Street Furniture – assets which have no impact on the liability to maintain road or road infrastructure including bollards, seats, bicycle racks and waste receptacles.

Land Owners Responsibilities – Driveways

Driveways are the responsibility of the owner of the land for which the driveway provides access to from the road. The landowner is responsible for that part of the driveway as shown not shaded in Figure One, specifically:

- The infills between the kerb and channel and the footpath, and the footpath and property line; and
- The layback through the kerb (excluding the channel).
- The immediate surrounds impacted on by the driveway.

The footpath crossover is part of the footpath and is the responsibility of Council. However, Council may charge the landowner for the cost of repairs to damage to the footpath caused by vehicles using the driveway.

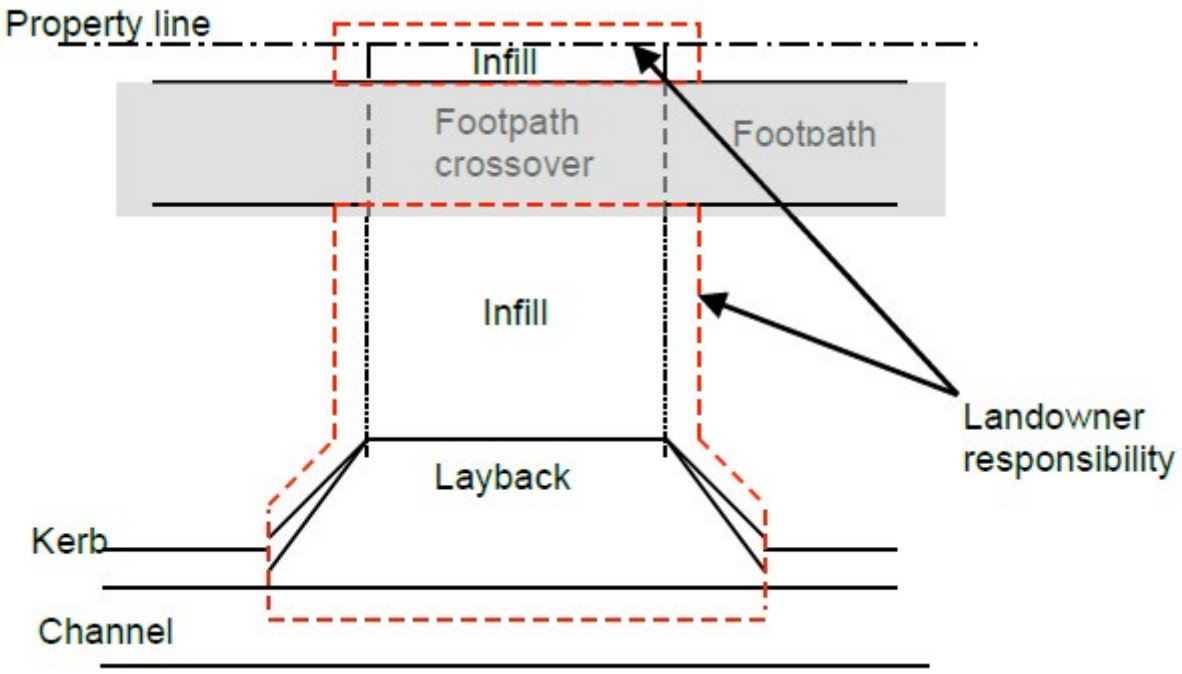


Figure One: Driveway Responsibility

Arrangements are similar for culvert crossings over an open table drain (in urban or rural areas) where the owner's responsibilities are the:

- Culvert and endwalls.
- Driveway infill between the road edge and the property line excluding any footpath crossover.
- Maintenance of the road seal adjacent to the driveway to be free of loose material sourced from the property or the driveway.

When Council identifies hazards within the area of the crossover for which the property owner is responsible, the property owner will be informed of the identified hazard and provided with a time-frame in which they are required to rectify the hazard.

However, there may be occasions where a property owner's asset is presenting a hazard in an area of the road or footpath that Council is responsible for. For example, a tree branch protruding from the property owner's premises and overhanging the footpath for which Council is responsible and is presenting a hazard to pedestrians. As outlined previously, the property owner will be informed of the identified hazard and provided with a time-frame in which to rectify it. The difference being in this instance that Council remains responsible for the footpath

and if the property owner fails to remove the hazard within a reasonable time-frame, then Council will remove the hazard and may invoice the owner for any associated costs. In this case, if Council allows the property owner to remove the hazard, Council must monitor the situation to ensure it is done as quickly as possible as Council ultimately remains liable having identified hazards on its footpath.

Council reserves the right to direct the standard of construction, materials and location of driveways within the road reserve. Council also reserves the right to reconstruct or replace the footpath at its sole discretion.

Demarcation and agreement with other Road Authorities

Agreements with VicRoads

VicRoads is the coordinating road authority for national and state arterial roads within Victoria. Council has entered into a demarcation agreement with VicRoads.

In the case of arterial roads, VicRoads is responsible for the road pavement, kerb and channel, traffic signals, medians, some underground drainage and bike paths belonging to VicRoads. Council is responsible for Council-owned assets contained within the area from the back of the kerb to the building line and line-marking associated with parking bays.

Agreements with adjoining Municipalities

Council shares municipal boundaries with five other Councils. Council has demarcation agreements for the majority of roads crossing these boundaries. There are, however, a number of boundary roads for which the limits of responsibilities need to be defined. To address this, Council has entered into the maintenance agreement with the neighbouring municipalities of Bass Coast Shire Council, Baw Baw Shire Council, Cardinia Shire Council, Latrobe City Shire Council and Wellington Shire Council. The maintenance responsibilities on the boundary roads are reflected in the Register of Public Roads.

Agreement with other Road Authorities

A number of roads are located on Crown land and managed by the Department of Environment, Land, Water and Planning (DELWP). Council has negotiated with DELWP to establish demarcation boundaries for maintenance management of these roads. Similarly, Council has maintenance agreements with Parks Victoria.

Register of Public Roads

Council keeps a copy of the Register of Public Roads in accordance with Section 19 of the Act. The Register is a stand-alone document titled *South Gippsland Shire Council – Register of Public Roads*. It is to be read in conjunction with the Road Management Plan.

The Register specifies all roads and road categories that Council will be responsible for maintaining and repairing.

The Register also defines the general demarcations between private assets and Council assets. Where the Council enters into an arrangement with another organisation to carry out works on other public roads, the responsibility of the Council is limited to the terms of that agreement.

The Register is reviewed on an "as required" basis, but not less than annually to ensure that it is accurate and up-to-date.

Reference to current formal demarcation agreements with VicRoads, Boundary Roads and other Road Authorities for roads located within the municipality is shown in Appendix A (Table A1).

Road and Path Hierarchy

The Act requires that Councils maintain a Public Road Register that includes a classification for each public road.

Therefore, Council have developed a road hierarchy and an associated classification of roads that recognises different roads within Council perform differing functions. It provides a basis for establishing the policies which will guide the management of the road, by grouping roads together into categories according to their intended functions.

Road Hierarchy

South Gippsland Shire Council uses a road hierarchy which assigns a functional classification to each public road or road segment within its boundaries. These are included in the Register of Public Roads. It should be noted that the classifications are functionally based rather than being based on traffic volumes or the current standard of construction (except the classification Access Track).

Table One: Road Hierarchy

Classification	Function
Arterial Road	VicRoads-controlled roads. Council is not the coordinating or responsible road authority, except for those areas of responsibility specified in the provisions of the gazetted "Operational Responsibility for Public Roads – Code of Practice".
Connector Road/Street	• Links significant towns, locations and/or industries; • Has a high percentage of through traffic; • Includes access to abutting properties; • Caters generally for higher traffic volumes and traffic speeds, and or a higher percentage of heavy vehicles.
Access Road/Street	• Provides property access in both urban and rural areas; • Provides access to minor locations and industries; • Has a moderate percentage of through traffic; • Caters for moderate traffic volumes and speeds.
Access Place	• Roads other than those defined as connector or access that provide access to residential property; • Have minor street or side/rear lane in Urban areas; • Formed and "gravelled" or "formed only" no through roads in rural; • Often has poor road formation, often narrow and with poor alignment.
Access Track	An unformed track that provides access only by four-wheel drive vehicles.

Path Hierarchy

Pathway maintenance standards are not necessarily reflected by the road classification, or even the significance of the adjacent road within the network. Instead, pathway maintenance levels are determined by the pedestrian usage.

The key factor which influences the specific categories of the pathway hierarchy is the volume of pedestrian traffic for that pathway with consideration given to the proximity to schools, aged care facilities, hospitals and other public use establishments tending to attract large numbers of pedestrians.

Table Two: Path Hierarchy

Classification	Function
Business/Commercial	CBD areas of major towns and selected key pedestrian areas. Specified locations which can represent a high volume of pedestrian and special needs traffic associated with adjacent properties e.g. outside schools, medical precincts, elderly citizens centres, hospitals, markets, minor shopping areas.
Local Crossing/Collector	Constructed footpaths on local roads in residential and low-density residential areas.
General Access	A footpath that primary provides access to residential property.
Shared Path	A path that is open to the public and designated for use by bicycle riders and pedestrians.

Process for Updating the Hierarchies

Changes to the hierarchy classifications will occur when there are major changes to the function of a road or pathway. This may result from new developments, when a road is renewed or built, or when an existing road is closed or altered. Changes to the hierarchy may also occur as a result of a serviceability audit which results in a recommendation that the classification be reviewed.

Once the Road Management Plan is formally adopted, there is the opportunity for the community to suggest amendments to the road or pathway hierarchies and with consideration to the requirements of reclassification, the Public Road Register will be updated if required.

Road Management at Council

Level of Service

Service levels act as management targets that facilitate decision making at each stage of the asset lifecycle. Service levels define performance expectations and are formulated through an assessment and consideration of legislative requirements, organisational objectives, customer expectations and financial constraints.

The primary road management objective for Council is to ensure the provision of a safe and efficient road network for use by the community. As a well-established municipality, with only a small proportion of new road and road-related assets being planned, designed and constructed each year, Council has focused on documenting the detailed service levels for the Maintenance phase of the asset lifecycle. This phase represents the stage where Council is most exposed to risk. As a result, routine defect inspections and maintenance service levels are detailed in the Road Maintenance Management Plan (RMMP) (refer to Appendix C).

The first step in determining inspection and maintenance service levels involved an examination of the risk associated with Council's road and pathway assets. Following that, a review of current

Council inspection and maintenance activities was undertaken. This examined Councils asset hierarchies and current reactive and routine maintenance activities, including response times for all works, frequencies of routine inspection or maintenance activities and the programming of renewal works.

The inspection and maintenance service levels, set out in Appendix C, define and describe the:

- Scope and frequency of Council's routine defect inspections;
- Scope and frequency of Council's routine maintenance activities;
- Response time-frames and defect intervention levels which serve as triggers to determine whether and when reactive maintenance repair works are to be carried out.

In defining it's level of service, Council has considered the role and powers of a Council (as per the *Local Government Act 2020*) in that:

- Council decisions are to be made and actions taken in accordance with the relevant law;
- Priority is to be given to achieving the best outcomes for the municipal community, including future generations;
- The economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks, is to be promoted;
- The municipal community is to be engaged in strategic planning and strategic decision making;
- Innovation and continuous improvement is to be pursued;
- Collaboration with other Councils and Governments and statutory bodies is to be sought;
- The ongoing financial viability of the Council is to be ensured;
- Regional, state and national plans and policies are to be taken into account in strategic planning and decision making;
- The transparency of Council decisions, actions and information is to be ensured.

It is expected that over time, detailed service levels will be prepared for other stages of the asset lifecycle. The identification and management of these service levels will be outlined in asset management plans developed for specific asset categories.

Implementation Inspection and Maintenance Programs

Council's approach to managing identified defects on road and road-related assets within the municipality is risk-based. This approach aims to deliver activities that reduce extreme and high risks over undertaking activities which would address less severe risks.

An assessment of public safety is used to designate the priorities when managing day-to-day maintenance activities. Council's approach to assessing public safety is defined and detailed in the RMMP (Appendix C). The approach to reactive road infrastructure maintenance is also illustrated in the RMMP.

The process outlines that an issue that is brought to the attention of Council via the public or by other means, is reviewed and assessed by an experienced officer in order to determine whether the intervention levels set out in the RMMP have been exceeded, and ultimately whether a public safety risk exists. Defects can also be identified by routine defect inspections or reactive inspections, which are undertaken by experienced Council officers. These inspection types are defined in the RMMP.

As part of the inspection process, an assessment is made to determine whether intervention levels have been exceeded. This assessment also evaluates the public safety risk present should no repair works be undertaken. Council's maintenance responses are then prioritised based on risk.

Temporary protection works will be undertaken to minimise risks identified as extreme or high. Defects deemed to have lower risk levels will be programmed for rectification within designated response time frames. In the event that asset deterioration is such that the issue cannot be rectified by a maintenance activity, the temporary protection works are undertaken and monitored until the asset can be rectified via a capital renewal program.

Performance Monitoring and Review

The service levels set out in the RMMP (Appendix C) are based on activities Council currently undertakes. A review of the service levels, documented in the RMMP is necessary to ensure that Council is working towards providing the best road management service possible and within its resource constraints. The setting of service levels is an integrated process, and it follows that they will evolve over time as they consider community expectations, changes to legislation, industry service standard and the practical constraints of Council resources. The service levels will be reassessed when this Plan is reviewed.

By documenting the service levels considered to be appropriate in order to maintain its road and road-related assets, Council can monitor its own performance via an examination of its ability

to meet these standards. Council's Asset Maintenance System (AMS) will provide data for such analysis. Through the use of the AMS, Council will record the timing of all reactive maintenance and routine defect inspection activities undertaken against each road asset. This process will provide a means to monitor compliance with the service standards described in this Plan.

Customer Requests Maintenance System

Council's Customer Service unit is the first point of contact for all persons making a complaint or requesting some form of action in relation to the road maintenance matters. Council operates a computerised Customer Request Management System to log, track and monitor the process of complaints and service requests made by residents and other persons. This system requires the request/fault to be categorised by problem type and location. Each request is dealt with in accordance with the response times listed within the schedules (RMMP) that make up the performance standards of this Plan.

Where a defect is deemed by the officer to be outside intervention levels, the officer will arrange to have the defect rectified, temporarily repaired or treated with devices (signs, bollards or other) to warn road users and/or pedestrians of the hazard.

All requests will be responded to within the allocated time frames. Requests for work outside the scope of Council responsibility will be referred to the responsible authority and the party making the request will be advised. Council may take on an advocacy role in these cases in support of the request. Council's Customer Request Management System processes related to road assets is shown in Figure B1 in Appendix B.

Appendices

Appendix A – Boundary Road Agreements

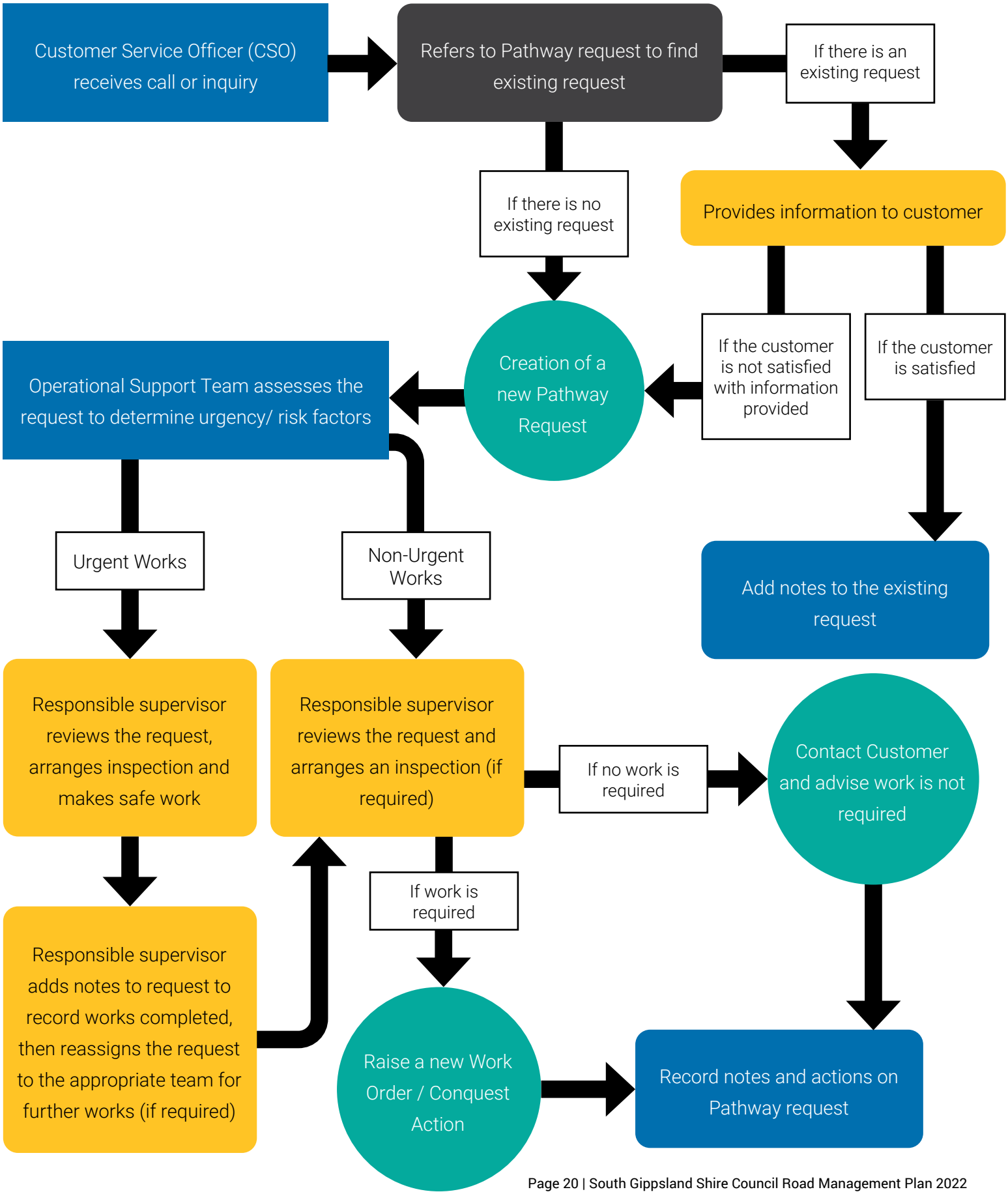
Table A1: Demarcation Agreements

This Table includes reference to current formal demarcation agreements with other Road Authorities for roads located within the municipality.

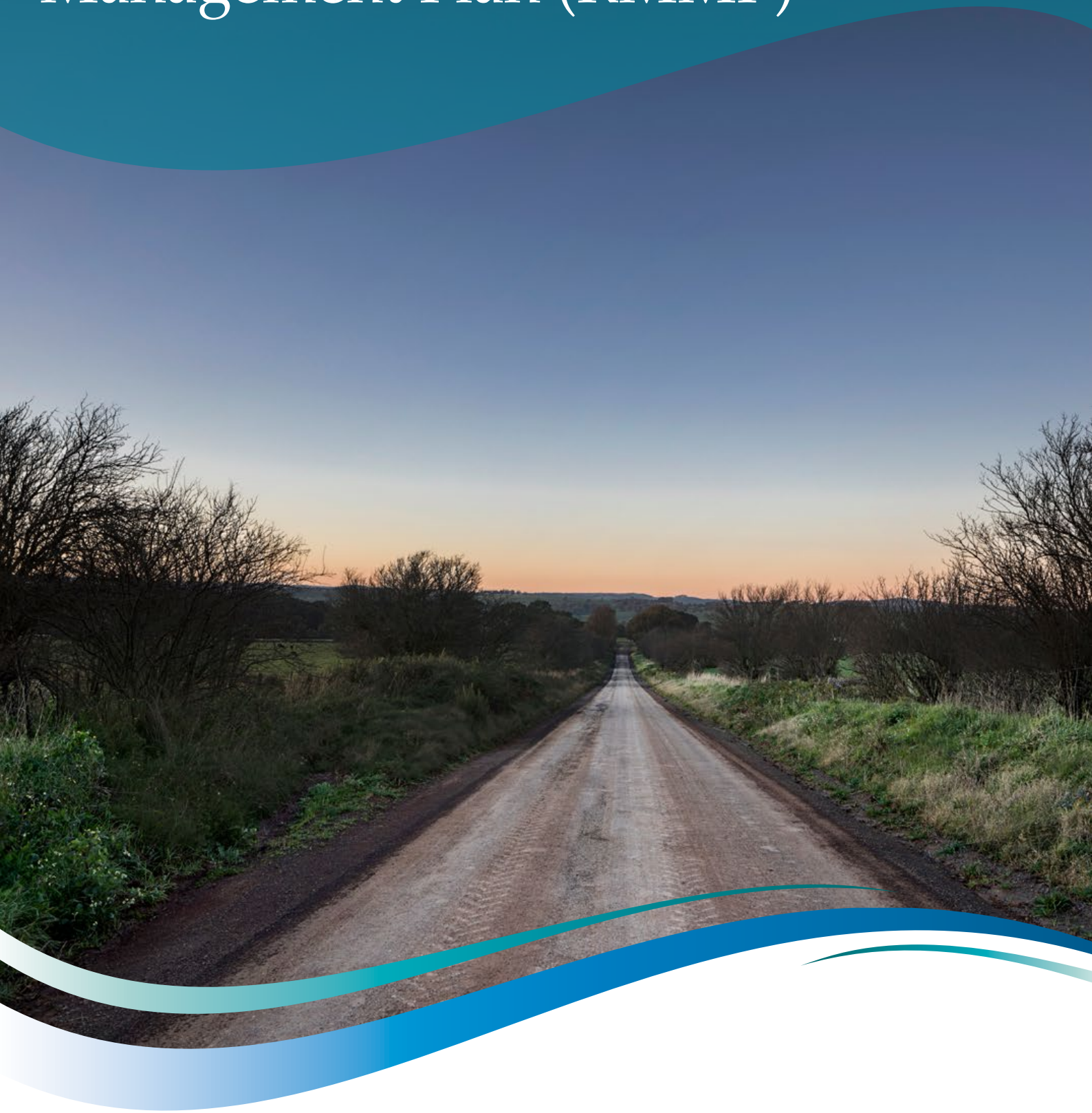
Road Authority	Council Reference	Agreement Date	Notes
VicRoads (Operational Responsibility)	D4179316	December 2004	Extract from Government Gazette – 17/12/2004
VicRoads (Service Agreement)	D8959116	September 2016	Acceptance letter from South Gippsland Shire Council
Bass Coast Shire Council	D582714	February 2014	Signed Agreement
Baw Baw Shire Council	D3280715	April 2015	Signed Agreement
Cardinia Shire Council	D3972614	August 2014	Signed Agreement
Latrobe City Shire Council	D1861914	April 2014	Signed Agreement
Department of Environment, Land, Water and Planning (DELWP)	D1997214	December 2013	Signed Agreement and procedure letter from DELWP

Appendix B – Customer Request Management System

Figure B1: Customer Request Management



Appendix C – Road Maintenance Management Plan (RMMP)



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Introduction

This Road Maintenance Management Plan (RMMP) sets out Council's policy for the inspection and repair of road and road-related assets. It describes the following:

- Routine defect inspections.
- Maintenance activities.
- Public Safety Risk Assessment Process.
- Approach to managing unexpected and renewal works.
- Normal Compliance Target and Service Delivery during Emergency Situations.

It is expected that this RMMP will be a living document, which is reviewed periodically to ensure that it is reflective of Council practices, industry requirements, risk management and community expectations.

Inspection Types

The *Road Management Act* (The Act) requires that Council proactively manages its network of road and road-related assets. To achieve this, four types of inspections have been identified and are described below:

- Proactive/Routine Defect Inspection: These inspections are intended to identify, as far as practicable, all asset defects likely to create a risk to the public, and therefore require intervention. Routine defect inspections are undertaken regularly between scheduled condition audits and complement informal reactive defect identification by staff, contractors and the general public. The Council-adopted proactive inspection scheduled is defined in Table C1 and Table C2.
- Reactive Defect Inspection: These inspections are unplanned. They are undertaken when a defect that poses a potential public safety risk is identified by staff, or contractors when undertaking other activities within the municipality.
- Condition Audits: These audits are used to determine the condition of the asset. They enable non-urgent maintenance and renewal needs to be identified and prioritised. Condition audit information enables Council to determine the remaining life of assets and predict future renewal requirements based on predicted asset deterioration rates.
- Serviceability Audits: These audits assess the ability of assets to fulfill their intended function. The appropriateness of the design, construction, capacity and other operational aspects may be assessed. For example, these audits may consider the appropriateness of intersections and local area traffic treatments or compliance with the *Disability Discrimination Act*.

Council's RMMP details the proactive defect inspection regime only. The scope and frequency of condition and serviceability audits are beyond the scope of this document and will be detailed as part of Council's future asset management plans.

Table C1: Proactive Inspection Schedule for Bridge and Major Culvert

Inspection Level	Level Description	Inspection Frequency
Level 1	A routine maintenance inspection to check the general serviceability of the structure for obvious signs of defects which might affect the immediate safety of road users; and, to identify maintenance items that require immediate action or scheduled routine maintenance.	6-month cycle.
Level 2	A visual inspection of components to assess their condition; reporting condition and extent for each component; establishing an overall condition rating for the structure; identifying need for a detailed engineering investigation (Level 3) and/or other supplementary testing; a photographic record of the structure.	3-year cycle.
Level 3	A detailed engineering investigation generally including a field investigation and a theoretical / structural analysis, such as load carrying capacity.	Generally undertaken on recommendations from Level 2 inspections.

Table C2: Proactive Inspection Schedule for Roads, Paths and Ancillary Area

Inspection Type	Inspection Frequency by Classification
Road Inspection	
Connector Street and Roads	6-month cycle
Access Street and Roads	1-year cycle
Access Place	1-year cycle
Access Track	2-year cycle
Path Inspection	
Business/Commercial	1-year cycle
Local Crossings/Collector	1-year cycle
General Access	3-year cycle
Ancillary Area	
Car Parks	6-month cycle
Scenic Lookouts	1-year cycle

Defect Intervention Levels

The defect inspector looks for and reports defects during the routine inspections. The defect intervention levels listed here indicate the severity of defects that will trigger a reactive maintenance activity. A sample photograph is provided wherever possible.

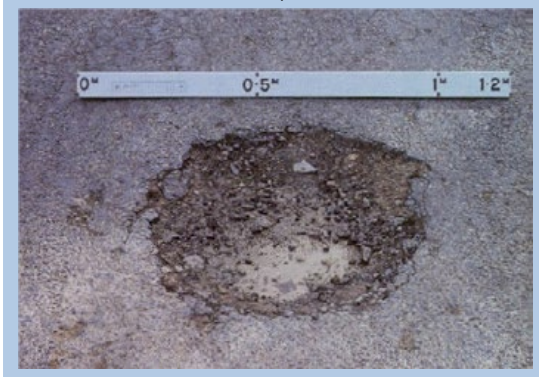
Defects identified for each asset category are listed in Table C3 below.

Table C3: Defect Intervention Levels

Sealed Roads

Potholes

Potholes >75mm deep and/or >300mm diametre.



Pavement Failures

Failure area >1m^2

Pavement Failures Other

Small isolated failed areas >50m2

Edge Breaks/Edge Drop

Edge break >1m long and >50mm deep.

High Shoulder

High shoulder causing ponding/preventing runoff.

Stripping/Bleeding Surface

Stripping/bleeding likely to result in loss of skid resistance.

High Grass

Grass Height >300mm.

Grass Height >200mm during declared fire periods.

Unsealed Roads

Rutting and Corrugation

Rutting and corrugation >100mm over 50 per cent of the unsealed road or shoulder length.

Potholes

Potholes >75mm deep and/or >450mm diametre.

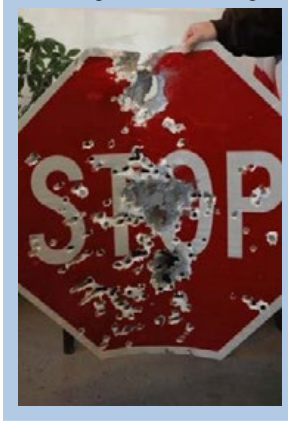
Dust Suppression

Dust restricting visibility >3 metres in either direction.

Road Signs, Lines, Guideposts, Guardrails, Flora and Fauna

Signs Maintenance

Damaged/faded signs to an extent that makes them unreadable.



Pavement Marking/ Car Park/ Parking Bay Line Marking/ Statcom Marking

When markings are less than 50 per cent visible.

Guardrails and Pedestrian Fencing

Deformed sections, loose fittings, misaligned/damaged posts, damaged end units, overgrown with vegetation, defective delineation.

Guideposts

Guideposts >50 per cent noticeably degraded.

Reflective Road Pavement Markers (RRPMs)

When more than 30 per cent of the RRPMs are missing or not reflecting on curves/barrier lines.

Roadside Vegetation (Urban/Rural)

When vegetation obstruct site distance around corners.

When vegetation obstructs traffic signs.

Obstructions to Traffic

When observed materials fallen from vehicles, dead animals, fallen trees and other slippery substances.

Accumulation of Dirt/ Granular Materials/ Water Ponding

Accumulation of substance on road surface where there is a danger to traffic.

Ponding of water >300mm deep.

Footpaths/ Bike Paths/ Paved Islands

Displacement

Vertical displacement/ tripping hazard >25mm.

Cracks

Cracks >15mm wide and 200mm long.

Kerb and Channel

Sunken/ Cracked/ Heaved Areas

Sunken and heaved >50mm that may result in ponding of stormwater on traficable areas.

Road Drainage

Culverts

Bore capacity >50 per cent obstructed.

Outfalls

Inadequate functions – when water is backing up into culverts.

Pits

Debris obstructing pit inlets.

Broken or Missing Pit Covers/ Grates

Damaged to the extent that they are hazardous to road users/ pedestrians.

Bridges and Major Culverts

General Maintenance and Cleaning (Level 1 Inspection)

When any accumulation of material causes inconvenience or danger for the bridge user.

When any accumulation of material observed to cause interruption to the escape of drainage water.

Running Surface/ Deck Repair/ Scupper Clearing

When the area of a timber deck is defective. Drainage scuppers are blocked.

Risk Assessment Process

All identified defects are given a public safety rating which is used to prioritise work and identify if temporary protection work is required. A public safety risk assessment process has been developed in accordance with (AS/NZS ISO 31000:2018-Risk Management- Principles and Guidelines) to assist staff in the consistent assessment of risks. The risk assessment process focuses on public safety risk and is consistent with Council's Safety Management System.

Public safety risk assessments are undertaken by:

- Council's routine defect inspector(s) as part of the routine defect inspections described in this document;
- Council officers with responsibility for asset maintenance when potential hazards are brought to their attention via requests logged into Council's customer service system (Pathways);
- Council officers with responsibility for asset maintenance when undertaking ad hoc inspections and other duties on site.

The public safety risk assessment process detailed below is in line with Council's Risk Management Procedures. Officers use the risk assessment processes to assess the consequences and likelihood of a potential hazard identified. The officers then assign the risk level to the relevant Works Order.

This risk level is used to determine whether temporary protection works are required to create a prioritised schedule for rectification works with the objective of ensuring that the rectification time-frames as set out in the RMMP are met and that the high risks are addressed by Council ahead of lower public safety risks.

Step One: Assess Risk Consequence Rating

CONSEQUENCE					
RATING					
INDICATORS	**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
Environment	Negligible impact or no harm.	Transient harm / impact.	Short term harm / impact. Damage of local significance.	Medium term harm / impact. Damage of state significance.	Long term harm / impact. Damage of national significance.
Financial	< $20,000	$20,000 to $100,000	$100,001 to $500,000	$500,001 to $2,000,000	> $2,000,000
Reputation	Resolved in day-to-day management through communications and discussion.	Minimal damage to brand.	Damage to brand. Widespread local community concern. Attention from public/ media.	Significant damage to brand. Embarrassment for Council. Concern from public/media.	Irreparable damage to brand. Parliamentary inquiry. Outrage from public/ media.
People	Minor dissatisfaction in Council expressed by staff, visitors, community.	Persisting dissatisfaction expressed by staff, visitors, community.	Consistently poor staff/community/ visitor feedback, widespread staff morale issues.	Successful unfair dismissal, harassment, discrimination or bullying claims.	Loss of significant group(s) of staff in short period of time.
Business Continuity	Operations are disrupted intermittently during one day.	Operations are disrupted for up to one week.	Operations are disrupted for a period of one to two weeks.	Operations are disrupted for a period of two to three weeks.	Operations are disrupted for more than three weeks.
Safety	Reportable incident that is proactive or minor in nature, does not result in injury or require any treatment.	Minor injury (or equivalent near miss) which requires minor first aid treatment.	Injury (or equivalent near miss) that requires external medical treatment or attendance by ambulance.	Serious injury (or equivalent near miss) or multiple injuries that requires hospital treatment.	Permanent disabling injury or death (or equivalent near miss).
Governance	Minor non-compliance noted and addressed in a timely manner.	Minor non-compliance identified that did not need to be reported and/or addressed.	Improvements identified in internal reviews/ audits are not implemented.	Strategic plan is not executed.	Complete failure of Governance.

Step Two: Analyse Risk Likelihood

Likelihood Ratings

LIKELIHOOD		
Category	**Definition**	**Frequency Guidelines**
Almost Certain	Event is expected to occur in the near future.	Risk is expected within six months, is already occurring or has > 75 per cent chance of occurring longer term.
Likely	It is probable that the event will occur.	Risk is expected within 12 months, will occur once per year or has a 50 to 75 per cent chance of occurring longer term.
Possible	The event may occur	Risk is expected within two years or has a 25 to 49 per cent chance of occurring longer term.
Unlikely	The event could occur in the future.	Risk is expected within five years or has < 25 per cent chance of occurring longer term.
Rare	It is improbable that the event would occur except for in exceptional circumstances.	Risk is not likely within five years and has minimal chance of occurring.

Step Three: Evaluate the Risk

Risk Evaluation Matrix

The following matrix is used to calculate the Risk Rating, taking into account the assigned consequence and likelihood assessments.

Likelihood					
Almost Certain					
Likely					
Possible					
Unlikely					
Rare					
	Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**

Consequence

Step Four: Treat the Risk

	Level	Description
	Very High	**Needs active management:** Risk is very likely to happen with severe consequences. Risk requires Audit and Risk Committee/ Executive Leadership Team to be notified in risk reports. Risk must be managed by the Executive with significant levels of control. Actions must be prioritised to reduce or eliminate risk. Reporting should demonstrate active risk treatment.
	High	**Needs proactive monitoring:** Risk is likely to happen and/or have serious consequences. Significant Management attention required to consider whether risk is necessary or to adequately control the risk. Reporting should demonstrate proactive risk management.
	Medium	**Needs periodic monitoring:** Possible that this risk could happen and/or have moderate consequences. Controls should aim to reduce risk and Management must monitor. Periodic six-monthly review required.
	Low	**Manage on best efforts:** Risk is unlikely to occur and/or will have minimal consequences. Can be managed by routine procedures. Annual review required.

This risk assessment process recognises the need for Council to mitigate all extreme and high risks, regardless of whether the defect is described in the Road Management Plan. For officers responsible for delivering day-to-day maintenance, it reinforces the importance of addressing higher-risk defects ahead of lower-risk defects given funding and other practical constraints.

Whenever a maintenance issue is rated as an extreme or high risk, Council will undertake works to mitigate the risk and provide temporary protection to the community. Temporary risk mitigation works will occur within one or seven days respectively. The target completion date for temporary works is calculated in actual days from the date the issue was identified by a routine or ad hoc defect inspection. Or, in the case of community requests, from the date a Council maintenance officer commenced the initial assessment of the request. Temporary works may take the form of providing protection from the defect through the use of signs, barriers or other temporary repair measures. When undertaking temporary works, officers recognise that the needs of all road users must be accommodated, including people with special needs.

Maintenance Activities

Reactive Maintenance

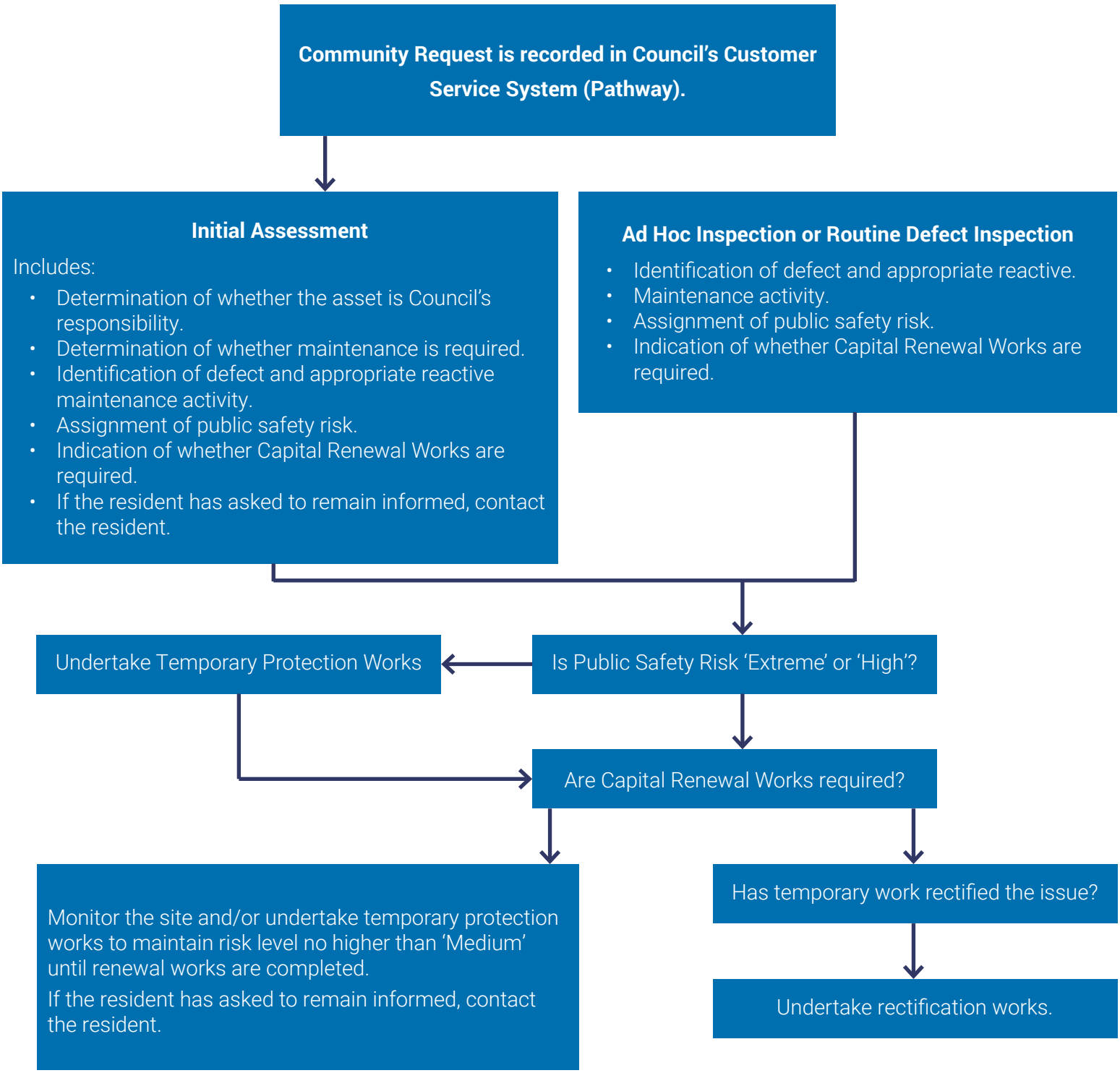
Reactive Maintenance works are undertaken to provide temporary or permanent repair to protect against potential risk and/or rectify a defect in order to restore an asset's intended functionality. Reactive maintenance activities and the associated target response time-frames for initial assessment and rectification works are indicated in the table below – Table C4. As defined in Table C4, the target response time for initial assessment is defined in accordance with risk assessment and the Priority Response Matrix.

For community requests, the target response time for completion of rectification works are calculated, in working days, from the date and time that the request was logged in Council's customer request system (Pathway). For defects identified by a routine or ad hoc defect inspection, the target response time for completion of rectification works are calculated from the date and time of the inspection.

In some instances, it may not be possible to rectify the defect within the target rectification time-frame due to the nature of the repair, the level of resources required, or the work load being experienced by the Operations Department. In these cases, appropriate temporary protection works will be provided until the permanent repair can be completed.

Council's reactive maintenance process is summarised in Figure C1 below.

Figure C1: Reactive Maintenance Process



Key

P = Program Maintenance

Table C4: Reactive Maintenance Activity

Defect and Intervention Level	Reactive Maintenance Activity	Risk Level	Response time according to Road Hierarchy and/or Risk Level			
			Connector Streets/Roads	Access Streets/ Roads	Access Place	Access Track
Obstruction to Traffic						
Materials fallen from vehicles, dead animals, fallen trees, wet clay and other slippery substances, ponding of water >300mm deep.	Removal of materials that poses a hazard to pedestrians or traffic movements.	Extreme Risk	24 hours	24 hours	24 hours	7 days
		High Risk	24 hours	7 days	7 days	P
		Medium Risk	7 days	P	P	P
		Low Risk	P	P	P	P
Accumulation of dirt or granular materials on the traffic lane of sealed roads.	Removal of materials that poses a hazard to pedestrians or traffic movements.	N/A	2 weeks	2 months	6 months	12 months
Pavement/ Surface Defects (Sealed Roads)						
Potholes Potholes in traffic lane of road pavement greater than 300mm in diametre and greater than 75mm deep.	Surface patching of potholes using bituminous material to restore the riding surface to a smooth condition.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A
Pavement Failure Deformations >1m^2	The treatment of small, isolated failed pavement areas by replacement with new approved material or by improvement of existing material. Includes reinstatement with new bituminous surface.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A

Defect and Intervention Level	Reactive Maintenance Activity	Risk Level	Response time according to Road Hierarchy and/or Risk Level			
			Connector Streets/Roads	Access Streets/ Roads	Access Place	Access Track
Edge Drop Offs Edge break >1m long and >50mm deep.	Reinstatement of edge drops that occur along the interface of a bituminous surface and the road shoulder / verge.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	24 hours	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A
Bleeding/ Stripping Roads When bleeding bitumen starts sticking to tyres or shoes. Stripping likely to result in loss of skid resistance.	Spreading of grit over spray seals with excess bitumen/stripping.	N/A	2 months	6 months	12 months	N/A
Unsealed Roads (Gravel Roads)						
Deformation Rutting and corrugation >100mm over 50 per cent of the unsealed road or shoulder length.	Grading of unsealed roads to return the pavement shape.	Extreme Risk	24 hours	24 hours	24 hours	7 days
		High Risk	24 hours	7 days	7 days	P
		Medium Risk	7 days	P	P	P
		Low Risk	P	P	P	P
Potholes Potholes >75mm deep and/or >450mm diametre.	Pothole patching in road surface using crushed rock or other appropriate material to restore the riding surface to an acceptable ride condition.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A
Dust Suppression Dust restricting visibility <3m in either direction.	Dust suppression using water trucks, tankers and sprinklers.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	24 hours	7 days	N/A
		Medium Risk	7 days	7 days	P	N/A
		Low Risk	P	P	P	N/A

Defect and Intervention Level	Reactive Maintenance Activity	Risk Level	Response time according to Road Hierarchy and/or Risk Level			
			Connector Streets/Roads	Access Streets/ Roads	Access Place	Access Track
Roadside Vegetation						
Trees, shrubs or grasses that have grown to restrict design sight distance to intersections or restrict viewing of safety signs. Vegetation which presents a physical hazard to the public over pedestrian/bicycle paths.	Grass cutting to maintain sight distance.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A
Roadside Furniture/ Signage/ Public Utilities						
Safety Signs Safety signs missing, illegible or damaged making them substantially ineffective.	Repair/ replace damaged regulatory or parking signs.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	P
		Low Risk	P	P	P	P
Guideposts Missing or damaged at a critical location making them substantially ineffective.	Repair/ replace damaged guideposts.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A
Safety Barriers and Fencing Missing or damaged at a critical location making them substantially ineffective.	Repair/ replace damaged safety barriers/ fencing.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A

Defect and Intervention Level	Reactive Maintenance Activity	Risk Level	Response time according to Road Hierarchy and/or Risk Level			
			Connector Streets/Roads	Access Streets/ Roads	Access Place	Access Track
Pavement Markings/ Line Markings Missing, illegible or confusing at a critical location.	Repair/ replace damaged or faded line marking.	Extreme Risk	24 hours	24 hours	24 hours	N/A
		High Risk	24 hours	7 days	7 days	N/A
		Medium Risk	7 days	P	P	N/A
		Low Risk	P	P	P	N/A
Traffic signals and on-road electrical assets						
Traffic signals inoperable or confusing.	Repair/ replace damaged traffic signals.		24 hours	24 hours	24 hours	24 hours

Footpaths and Shared Paths	Reactive Maintenance Activity	Risk Level	Response time according to Path Hierarchy			
			Business/ Commercial	Local/ Collector	General Access	Shared Path
Vertical Displacement/ Tripping Hazard Defective with a vertical step >25mm.	Repair/ replace areas where sunken, cracked, heaved etc.	Extreme Risk	24 hours	24 hours	24 hours	24 hours
		High Risk	24 hours	7 days	7 days	7 days
		Medium Risk	7 days	P	P	P
		Low Risk	P	P	P	P
Mounds and Depressions Footpath mounds and depressions greater than 100mm under a 1.2m straight edge.	Repair/ replace areas where sunken, cracked, heaved etc.	Extreme Risk	24 hours	24 hours	24 hours	24 hours
		High Risk	24 hours	7 days	7 days	7 days
		Medium Risk	7 days	P	P	P
		Low Risk	P	P	P	P
Surface Cracking Surface cracking >15mm wide and/or >200mm long.	Repair/ replace areas where sunken, cracked, heaved etc.	Extreme Risk	24 hours	24 hours	24 hours	24 hours
		High Risk	24 hours	7 days	7 days	7 days
		Medium Risk	7 days	P	P	P
		Low Risk	P	P	P	P

Appendix D – Schedules of Changes and Amendments

Table D1: Schedules of Changes and Amendments to the Road Management Plan 2017

Reference	Heading	Action	Description
Entire Report	All sections	Revised	The entire report has been reformatted and restructured. Few new diagrams and table have been included.
1	Introduction	Revised	All the sections have been revised to be in line with the Road Management Act and to define the clear purpose of the Plan.
2	Public Roads – Rights and Responsibilities	Deleted	The section has been deleted and required information incorporated into Section 1 (Key Stakeholders, Obligations of Road Users) and Section 2 (Register of Public Roads).
3	Road Management	Deleted	The section has been deleted and information regarding agreement with other Road Authorities incorporated into Section 2 (Asset Description and Responsibilities). The link for the demarcation and agreement with all other road authorities was revised and incorporated into a new Appendix (Appendix A – Boundary Road Agreements [Table A1]).
4	Infrastructure Maintenance System	Deleted	The section has been deleted and information regarding hierarchy incorporated in Section 3 (Road and Path Hierarchy). All other information regarding inspection and maintenance has been replaced with a new Appendix (Appendix C – Road Maintenance Management Plan [RMMP]). This Appendix has been created to describe Council's current approach to the following: • Proactive Inspection Schedule. • Reactive Maintenance Activities. • Defect Intervention Levels. • Risk Assessment Process.
5	Performance Management and Review	Deleted	The section has been deleted and necessary information incorporated into Section 4 (Road Management at Council).
6	Maintenance System	Deleted	The section has been deleted and replaced by information in a new Appendix (Appendix C – Road Maintenance Management Plan [RMMP]).
6.5	Minimum Service Level Targets (Table 5: Intervention Levels)	Deleted	The table has been deleted and replaced by information in a new Appendix (Appendix C Table C4: Reactive Maintenance Activity). This is the new service level table. Significant changes in the service level table are: • A change in the Defect Intervention Assessment – moving from size-or severity-based assessment to risk-based assessments. • A change in response times for intervention – this is based on the risk level assessment.