
ROAD MANAGEMENT PLAN



May 2017



Northern Grampians Shire Council
LIVE | WORK | INVEST | VISIT

CONTACT US

-  ngshire@ngshire.vic.gov.au
-  www.ngshire.vic.gov.au
-  (03) 5358 8700
-  PO Box 580 Stawell VIC 3380

CONNECT WITH US

-  facebook.com/ngshire
-  @ngshire
-  @northerngrampiansshire
-  #ngshire #liveworkinvestvisit #wandervictoria



SCHEDULE OF CHANGES & AMENDMENTS

Draft	02/12/04	Draft prepared in 2004 by Council officers.
V2004	13/01/05	Adopted by Council at its meeting
V2007	26/07/07	Reviewed and introduced Appendix 1 - Risk Assessment, and amended safety & deficit inspection and hazard response regimes, updated the road lengths and terminology relating to the above. Adopted by the Northern Grampians Shire Council on 26 July, 2007.
V2009	June 2009	According to section 301 (3) of the Road Management (General) Regulation 2005, Council has reviewed the existing Road Management plan.
V2013	August 2013	According to section 52 of <i>Road Management Act 2004</i> , the existing Road Management Plan should have been reviewed in 2011, but it has been on hold due to flood damage & restoration works. Draft version of RMP has been prepared for Council adoption.
V2013	Nov 2013	Road Management Plan has been adopted by Northern Grampians Shire council on 6th of November 2013
V2017-1	May 2017	Draft Road Management Plan prepared by Council officers, and taken to public consultation for comment.
V2017	June 2017	Road Management Plan has been adopted by Northern Grampians Shire Council on the 26 th of June 2017



Contents

1. Executive Summary	1
2. Policy	2
3. Objective.....	2
4. General Background.....	2
5. Funding.....	3
6. Community Expectations	3
7. Responsibilities and Stakeholders	4
7.1 General	4
7.2 Public Roads, User Rights and Responsibilities.....	4
7.3 Key Stakeholders	5
8. Partnerships	5
9. Road Hierarchy.....	5
9.1 Planning Parameters and Road Components.....	5
9.1.1 Relevant Planning Factor	5
9.1.2 Major Road Component	5
9.2 Municipal Road Classification	6
9.2.1 Rural Road Network.....	6
9.2.2 Urban Road Network.....	9
9.3 Footpath Hierarchy Classification	11
10. Inspection Regimes	12
10.1 Safety and Defect Inspections.....	12
10.2 Hazard Response.....	12
10.2.1 Defect and Maintenance Works	15
10.3 Management of Customer Requests.....	16
10.4 Asset Condition Inspection (includes sub-components).....	16
10.5 Bridge Inspection	16
11. Planning, Design, Construction and Maintenance Standards.....	17
11.1 Design and Construction Parameters	17
11.1.1 Urban Roads	18
11.1.2 Rural Roads	18
12. Asset Data and Records.....	20
13. Property Access Management.....	20
14. Register of Public Roads.....	20
15. Register of Footpaths, Bicycle Paths and Walking Ways	20
16. Register of Bridges and Major Culverts.....	20
17. Demarcation of Responsibility	21
17.1 Arterial Roads	21
17.2 Boundary and Shared Roads.....	21
17.3 Crown Land	21
17.4 Rail.....	21
17.5 Utility Service.....	21
17.6 Private Streets	21
17.7 Fire Access Tracks.....	22
18. Owner Responsibilities.....	22
18.1 Vehicle Crossings.....	22
18.2 Footpath and Overhanging Vegetation	22
18.3 Obstructing Footpath and Roads	22
18.4 Nature Strips	22
18.5 Consent to Perform Works in Road Reserve.....	22
18.6 Car Parks Management	22
19. Risk Management.....	23
20. Force Majeure.....	27
21. Audit	27
22. Review	27

1. Executive Summary

Northern Grampians Shire Council has developed this Road Management Plan in accordance with the *Road Management Act 2004* and the *Road Management (General) Regulations 2016 (S.R. No. 11/2016)*. The fundamental purpose of this Plan is to document the way in which Council manages its road infrastructure.

The *Road Management Act 2004* requires council's to be able to set reasonable maintenance standards for the management of its road infrastructure assets. Reasonable maintenance standards require community transparency to ensure that community needs and preferences have been taken into account, whilst also taking into account an appropriate balance with Council's resources, systems and funding levels.

In line with Council's Sustainable Asset Management Policy and to demonstrate compliance with the *Road Management Act 2004*, Council maintains a Road Register which contains the specific detail of the road assets for which Council has responsibility to monitor and maintain. The Road Register also details the hierarchies assigned to the road assets and comply with the item 7 in Part – 2 of the *Road Management (General) Regulations 2016 (S.R. No. 11/2016)*. The Road Management Plan documents Council's intervention levels, inspection regimes and response times for infrastructure defects. These have been publicly displayed, discussed and endorsed both internally and externally. Northern Grampians Shire Council's infrastructure service levels are based on attributes of quality, quantity, intervention, responsiveness and sustainability levels.

In developing the Plan, Council considered the following criteria:

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

Intervention levels relate to the extent of a defect, danger, problem or inconvenience at which Council's Infrastructure Operations department will repair the asset with the most appropriate way. Response times relate to the maximum allowable time within which Council will provide necessary corrective actions.

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

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

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

All service level standards have been developed in consultation with Northern Grampians' Infrastructure Operations department, to ensure that they are realistic, achievable, sustainable and measurable. The

consultation has also involved some subjective analysis of historical patterns of complaints, defects, responsiveness and quality of repairs. These standards have then been provided to Councillors for review, as well as publicly displayed by Council to invite community feedback, prior to final adoption.

2. Policy

The core business of Councils is to provide services to the community; Northern Grampians Shire Council has developed a "Sustainable Asset Management Policy" to manage the assets in a sustainable manner and to meet the needs of the community. A "Sustainable Asset Management Strategy" also developed in conjunction with the "Sustainable Asset Management Policy" and both the strategy & policy will provide the financial and operational management for the Municipal Roads. The Road Management Plan is not only a framework to ensure the objectives of Council's Asset Management Policy & Strategy are met but will also satisfy legal requirements according to the *Road Management Act 2004*.

3. Objective

The objective of the Road Management Plan is to establish a management system, according to section 1, 49, and 50 of the *Road Management Act 2004*, for the road management functions of Council to inspect, maintain and repair its public roads based on Council's policy and operational objectives having regard to available resources.

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

The key elements of the Road Management Plan include:

- Register of public roads for which Council is responsible.
- Asset management systems and processes that Council uses to manage maintenance and renewals of its public road network.
- Road and infrastructure levels of service that detail the maintenance practices used by Council and maintenance standards.

4. General Background

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

State Highways, Arterial Roads, Non-Arterial State Roads, Tourist Roads, Fire Roads / Tracks and Forest Roads are managed by other Roads Authorities such as VicRoads, CFA, Parks Victoria, DEPI & GWM Water and are not part of the Municipal Roads network.

The total area of the Shire is 5731 square kilometres and in 2017 the total approximate road length of 3,423 km comprised the following road lengths:

Table 1: Council maintained road lengths

Road Type	Road Length (km)
Sealed Road	791
Unsealed Road	2,194
Formed Roads	438
TOTAL	3,423

Note: the above data was extracted from the asset management software, called "Assetic" on 19th of April

2017 and it is expected that road lengths will be changed over time as a result of new construction and upgrading works, and for other reasons such as where roads are no longer reasonably required for public access. Please see Fig 1 for the proportion of road type maintained by Council.

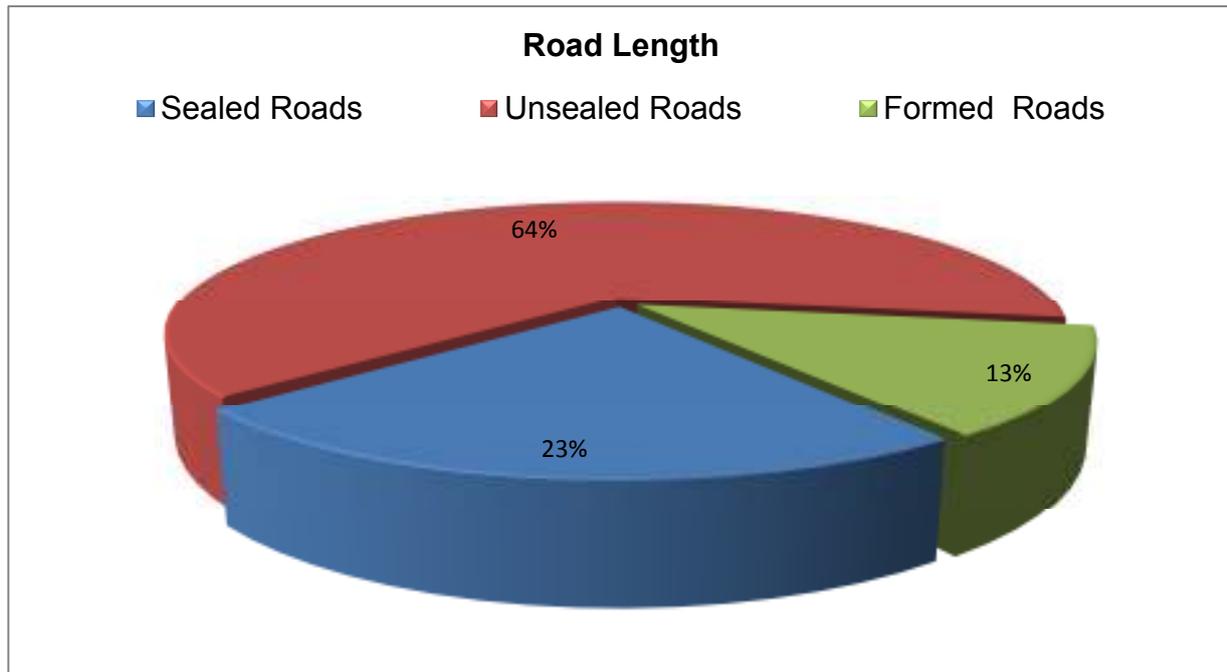


Fig 1: Proportion of road type Council maintains (April 2017)

The Road Register is constantly being reviewed because of factors such as availability of funds, property access requirements, road duplication between destinations, realignment of road reserves to accommodate changing traffic demands, past inappropriate design parameters of roads, appropriate identification of roadways and the community's expectation of uniform design and maintenance targets, all influence the development of the Northern Grampians Shire Road Management Plan to provide a safe and functional road network.

5. Funding

Road funding is generated for Local Government through municipal rates and State and Federal Government Road and untied grants. These grants, together with rate funds, are used to maintain and develop the Municipal road network.

VicRoads is responsible for the management and maintenance of the Arterial road network which includes such roads as Freeways, Highways, Main Roads and Non-Arterial State Roads. Council is responsible for the management and maintenance of the Municipal road network as included in the Road Register.

With the Road Management Plan, the full details of the existing condition of Council's whole road network is known, thus allowing Council to identify the critical roads within the network that require rehabilitation, and the required funds, necessary to satisfactorily maintain its network in a safe and functional manner. Short, medium and long term projections for funding requirements are produced for Council and community consideration.

6. Community Expectations

Community consultation has shown that road users expect a logical, well-defined, safe and economical pathway to and from their destination. The issue for Northern Grampians Shire Council is to find the balance between satisfying the immediate needs and expectations of road users as against the need to continue to plan and provide for future communities. Their expectations can vary significantly at times, and this, together with their ability to fund the road network, needs to be established through community

consultation on a regular basis.

Additional considerations that need to be made are:

- the natural environment (e.g. native vegetation) which may conflict with the requirements of the road (e.g. service authorities)
- the other users of the road network, such as pedestrians, cyclists, heavy transports, school buses, and public transport.

Finding the balance of network safety, asset preservation, continued asset function and maintenance within affordable limits is the key objective.

7. Responsibilities and Stakeholders

7.1 General

In terms of the *Road Management Act 2004*, Council has been appointed as the co-ordinating authority for Municipal roads, with the responsibility to inspect, manage, maintain and co-ordinate activities on these roads, as set out in this Plan. A key provision of the *Road Management Act 2004* is that it places much greater responsibility on the road user than previously. Road users need to be aware that external factors such as prevailing weather conditions, local traffic conditions etc., may impact on the target Level of Service as well as safety margins, and adjust their road usage accordingly.

This applies to all road users, including persons other than drivers of motor vehicles.

The relevant speed limit is the legislated maximum limits, and may therefore not necessarily be the appropriate speed under all road conditions. The onus is therefore on the road user to exercise final judgement in this regard.

7.2 Public Roads, User Rights and Responsibilities

“Public roads” are freeways, arterial roads, municipal roads and other roads that are reasonably required for general public use. Essentially, these are roads over which VicRoads or municipal councils have made formal road declarations. They do include other roads that a road authority has determined to be roads that are reasonably required for general public use.

The *Road Management Act 2004* requires the responsible road authority to keep a register of municipal public roads and any road in respect of which the road authority has made a decision that the road is reasonably required for general public use. Similarly a road authority must remove a road from its register of public roads if the road authority has made a decision that the road is no longer reasonably required for general public use.

It should be noted that not all public roads are included in the road register and as such, Council has determined that many unused road reserves, minor tracks, and similar unlicensed roads are not included in any of the Road Management Plan provisions.

The Council, as the road authority, has established a maintenance management system, to discharge its duty with respect to establishing a municipal public road register and a maintenance management arrangement for the inspection, repair and maintenance of public roads for which it accepts responsibility for.

7.3 Key Stakeholders

The key stakeholder groups of the community who are both users of the road network and/or are affected by it include:

- our community and visitors to our municipality,
- our Councilors, Leadership Team, employees and volunteers
- contractors and suppliers
- public utilities, providers of public transport or their agents
- builders, developers, contractors
- emergency services
- our insurers
- other road authorities
- the Commonwealth Government
- Victorian Government Departments, and
- transport operators.

8. Partnerships

Council and its community, in conjunction with the key stakeholders, need to work in partnership (cooperatively) to maximise the return on the available funds invested in providing and maintaining a safe and functional road network. Overloaded trucks, speeding vehicles and the use of inappropriate short cuts all place greater burden on Council's ability to fund the maintenance of its road network.

9. Road Hierarchy

9.1 Planning Parameters and Road Components

9.1.1 Relevant Planning Factor

Key issues considered in establishing a functional road classification system for the Roads Hierarchy are as follows:

- direct access to abutting properties
- direct linkage with other roads in the network
- transportation of goods/services and key traffic generator
- B-Doubles and High mass limit route
- public transport bus routes
- school bus routes
- linkage within areas of the municipality, such as agricultural /commercial/ residential
- identifiable origin and destination function served
- traffic volumes
- type of traffic use (vehicle size, type, weight, origin/destination)
- roads which may be surplus to the overall road network
- Requirement for recreational needs (bicycles, horse trails, etc.)
- vehicular access to municipal road network
- Council's responsibility of management and maintenance of the road network, and
- clear distinction between Council municipal road system, and other road authorities such as VicRoads, Parks Vic etc.

9.1.2 Major Road Component

The major components of a road which have been considered are:

- The road surface
- The road pavement
- bridge and culverts

- footpaths and walkways
- kerb and channel
- signage
- line marking and guide posts
- car parks and on-street parking
- street trees in urban areas
- protective barriers
- table drains and drainage pits
- street lighting
- roundabouts
- floodway

Council is not responsible for the maintenance of:

- rural roadside vegetation (excluding canopy clearance, sight distance maintenance, and fallen trees affecting safety on travelled roads and paths)
- rail track crossings (except approach signage and some specific associated items)
- forest and informal tracks, unmade roads, and unlicensed roads that are not included on the Road Register
- roads that have been declared for removal off from Road Register
- unlicensed roads that are in occupation by an adjoining land owner
- unlicensed roads (whether fenced or not)
- roads that are not on the Road Register

9.2 Municipal Road Classification

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

The 4-tier system is primarily based on the functions of Link, Collector, Major and Minor urban access, Residential and Property rural access. The classification below identifies each category and the criteria proposed to be used in evaluating each road in the network.

9.2.1 Rural Road Network

This includes all classes of Sealed, Gravel and unsealed types of varying condition. The following are examples and descriptions of the different classes.

Function: Rural Link

Fig 2: Landsborough Road (April 2017)

Roads of this classification primarily provide a direct linkage between significant population centres/towns, state arterial road networks and agricultural areas. These roads generally have an identifiable origin and destination. (e.g. townships and places of significance). They are predominantly sealed.

Function: Rural Collector

Fig 3: Joel South Road (April 2017)

Roads of this classification primarily provide large scale movement of traffic within towns & local areas and also connecting access roads with Link Roads. They may be sealed or unsealed.

Function: Rural Access (Resident)

Fig 4: Perry Jones Road (April 2017)

A road or laneway in this category primarily provides direct access for abutting residential or commercial properties and connect into the Link, Collector or declared road network. They generally have low traffic volume. They are generally unsealed and are included in the rural addressing program.

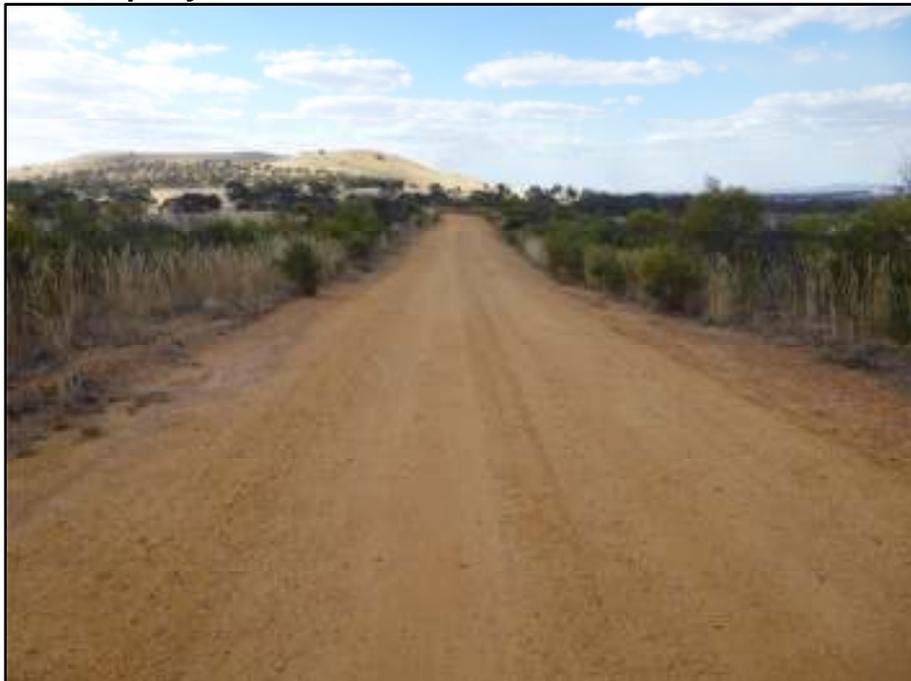
Function: Rural Access (Property)

Fig 5: Busom Lane (April 2017)

Generally allows access into farm paddocks, and may be gravel or formed only. Abutting properties generally have no rural address.

Note: Roads / streets / lanes which are not included into Council's Road Register are not maintained by Council according to Council's Road Management Plan. Council is not responsible for the maintenance of these roads, which may differ substantially in standard.

9.2.2 Urban Road Network

Generally the urban area is defined as within the 50 km.p.h zone but there may be exceptions. Generally all other areas are deemed rural according to this plan. All classes include sealed, gravel and unsealed types of road varying condition.

Function: Urban Link



Fig 6: Scallan Street (April 2017)

Roads of this classification primarily provide a linkage between significant Residential, Industrial and Commercial nodes and or the declared road network. These roads have an identifiable Origin and Destination (e.g. industrial areas or places of significance). The Urban Link Roads at this stage are all managed by VicRoads. Northern Grampians Shire Council is however responsible for certain components including some on-street parking.

Function: Urban Collector



Fig 7: Napier Street (April 2017)

Roads of this category primarily provide a route between and through residential, industrial and commercial areas and convey traffic to the Urban Link or declared road network system.

Function: Urban Access



Fig 8: Shapley Street (April 2017)

Urban Access includes a road, street, or court that primarily provides direct primar access for abutting residential, industrial, recreational, and commercial properties to their associated nodes with low traffic volume.

Function: Minor Urban Access



Fig 9: Little Dawson Street (April 2017)

Minor Urban Access are roads, streets or laneways that primarily provides secondary access to abutting residential households and where roads may not have been originally constructed to current Council Standards.

Note: Numerous streets exist in the Northern Grampians Shire are not included on Council's Road Register. Council is not responsible for the maintenance of these roads which may differ substantially in standard.

9.3 Footpath Hierarchy Classification

Category 1: Unconstructed / Informal (*Low Usage*)

Paths of this hierarchy are unconstructed, have limited usage and run adjacent to a Council road in urban areas known by council to be used by the public. They do not receive any additional maintenance other than to address the hazards identified by the public.

Category 2: Other areas of made footpaths

Constructed footpaths in residential, commercial & industrial areas other than as described Category 3 and 4.

Category 3: Specific Pedestrian Generator

These footpaths services pedestrian generators that include hospitals, schools, senior citizens centres, aged care facilities, and major community facilities.

The length classed as category 3 extends for the block containing the pedestrian generator plus one additional full block length.

Category 4: Central Business Areas & High use precincts (*High Usage*)

Footpaths in commercial/shopping strips within towns, including paths leading to central car parks, and those footpaths for the block containing a school plus one additional full block length.

10. Inspection Regimes

Asset inspections are conducted at pre-determined intervals, according to the classification. The timing of inspections is determined by a number of factors, such as seasonal weather and use, traffic type, gravel type, and may be carried out at various times throughout the year, and may vary according to the season of year.

10.1 Safety and Defect Inspections

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

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

The following table 2 summarise the Inspection Frequent according to road classification:

Table 2: Safety and defect inspection frequency for roads by classification

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

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

Table 3 summarises the inspection frequency according the classification.

Table 3: Safety and defect Inspection frequency for footpaths by classification

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

10.2 Hazard Response

Table 4 summarises response times for defect rectification works from the point of inspection. The information in Table 3 has been used to formulate the hazard response times for hazards as per the road classification. These results can be seen in Table 5.

Table 4: Road & Bridge Hazard Action Response

Response Code	Response Mechanism	Response Time
A	Inspect and rectify if possible, or provide appropriate warning, or place on maintenance program. #	Within 24 hours of inspection or notification.
B	Inspect and rectify if possible, or provide appropriate warning, or place on maintenance program. #	Within 48 hours of inspection or notification.
C	Inspect and rectify if possible, or provide appropriate warning, or place on maintenance program. #	Within 10 days of inspection or notification.
D	Inspect and rectify if possible, or provide appropriate warning, or place on maintenance program. #	Within 20 days of inspection or notification.
E	Inspect and rectify if possible, or provide appropriate warning, or place on maintenance program. #	Within 60 days of inspection or notification.
F	Inspect and rectify if possible, or provide appropriate warning, or place on maintenance program.	Within 6 months of inspection or notification.
G	Inspect and rectify if possible, or provide appropriate warning, or place on maintenance program.	Within 1 year of inspection or notification.

Where, because of the nature of the repair required, level of resources required or workload, it is not possible to rectify within the time shown, appropriate warning of the hazard, or a temporary repair may be provided until the repair can be permanently completed. Response times are based on normal working times / days, although these may be varied under exceptional circumstances.

Note: Appropriate warning could include:

- provision of warning signs
- traffic control action
- diverting traffic around the site
- installation of temporary speed limit
- lane closure
- closure of the road to use by certain vehicle (e.g. a load limit), or
- road closure.

Table 5 contains the defect categories for road, and bridges and the defects versus road hierarchy matrix provide a time frame to rectify all the identified defects.

Table 5: Hazard response by road classification

Asset Type	Description of Hazard	Urban				Rural			
		Link (Road side Car parks only)	Collector	Urban Access	Minor Urban Access	Link	Collector	Access Residential	Access Property
Road Surface and Pavements									
Road	Size of potholes are greater than 300 millimetre in diameter and 100 millimetres in depth	C	C	D	F	C	D	F	N/A
Road	Edge of sealed pavement breaks or loses material and reduces the pavement width more than 200 millimetres or has a > 100mm drop off over 20 metres of length.	E	E	F	G	D	E	F	N/A
Road	Shoving / Depressions or Rutting on road surface should be greater than 75 millimetres in depth.	F	F	F	G	F	F	G	N/A
Road	Crocodile Cracking should affect more than 3 squares metres in road pavement and surface.	F	F	F	G	F	F	F	N/A
Road	Corrugations should be more than 75 millimetres in depth and more than 20 metres in length	N/A	N/A	F	F	N/A	D	E	F
Road	Accumulation of loose materials on sealed traffic lanes	N/A	C	D	F	C	D	E	E
Road	Oil spill or water over road	A	A	A	B	A	A	B	C
Kerb & Channel	Vertical or Horizontal displacement is more than 100 millimetres or asset broken / displaced	F	F	G	G	G	G	N/A	N/A
Signs	Regulatory, warning and hazard signs missing, illegible at 100 metres distance or damaged, making them substantially ineffective.	E	E	E	F	E	E	F	G
Bollards and Guide Posts	Bent, loose, damaged, non-functional or causing injury to the general public; <ul style="list-style-type: none"> • Greater than 10 degrees off the vertical or; • Greater than 5% surface dented or; 	N/A	E	F	G	E	F	G	G

	<ul style="list-style-type: none"> Greater than 5% surface corroded /rusty. 								
Vegetation	All tree defects including intrusion into pedestrian and/or vehicle clearance zone and sight distance issues that limit clear vision	E	E	E	E	D	E	E	F
Line marking	(1)-Missing or damaged RRPM's (Reflective Raised Pavement Markers) and / or (2)- Delineation or line marking not visible or ineffective	F	F	F	G	F	F	G	G
Bridges & Major Culverts									
Bridges	In Bridges and drainage cleaning and clearing of debris from surfaces	N/A	F	F	G	E	E	F	F
Bridges	Any damaged or defective guardrail making it substantially ineffective	N/A	E	F	G	E	F	G	G

The following table 6 provides a time frame for the rectification works according to footpath classification:

Table 6: Hazard response by footpath classification

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

10.2.1 Defect and Maintenance Works

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



10.3 Management of Customer Requests

Council operates a customer request system, called “Merit”, through which customer reports of hazards, defects, or incidents, are electronically recorded and managed. This process involves documenting and recording details provided by the customer, and Council’s response.

Prioritisation and appropriate action by the Infrastructure Operations department will be determined having regard to the safety and defect inspection schedule contained in this Plan. Feedback will be provided to the customer where requested.

10.4 Asset Condition Inspection (includes sub-components)

This type of inspection is intended to provide an age or condition assessment of all components, in order to program major maintenance and renewal work. It also permits the accurate re-valuation of the asset for asset management, audit and accounting purposes. The inspections are usually performed by independent asset valuation specialists, who provide a uniform and un-biased assessment of Council roads.

Condition inspection determines the integrity of the road pavement and the seal. These inspections are carried out every 4 years.

10.5 Bridge Inspection

Bridge inspections have been classified into 4 levels. Each level is intended to fulfil a particular purpose, and range from basic annual inspections, to detailed inspections performed by bridge specialists when necessary.

Level 1: Routine User Safety

This basic inspection is usually performed in-house, and is intended to identify any immediate or urgent defects in the bridge components. Any major defects noted will be the subject of a more detailed inspection by suitably qualified staff.

Inspection frequency

Inspection frequency is in accordance with the road agency’s practices / polices for the corresponding inspections of the road asset.

This basic inspection is usually performed in-house, and is intended to identify any immediate or urgent defects in the bridge components. Any major defects noted will be the subject of a more detailed inspection by suitably qualified staff.

Level 2: Condition Assessment

The level 2 inspection checks the structural integrity. These are detailed inspections by qualified personnel, and cover every component of the bridge, and are performed according to VicRoads’ guidelines for Bridge Inspections. At this stage a comprehensive condition based asset re-valuation is also performed.

Inspection frequency

Level two inspections generally take place every 3 years normally. However, if all structural elements were in condition state 1 at the last inspection, the interval to the next inspection could be extended to up to 5 years, except for bridges in marine or aggressive environment. If the bridge is in a marine or aggressive environment, inspections can take place every 2 years. Level 2 inspections may also be initiated as a response to an incident or a community report.



Underwater inspections are as determined by the agency.

Level 3: Structural Safety Assessment

Level 3 inspections are performed by bridge specialists when concerns have been raised by past assessment.

Inspection frequency

Level 3 assessments are identified through Level 2 inspections or level 4 assessments as of concern regarding strength. Also identified by performance of bridges / bridge elements of similar type.

Note: Particularly for the more complex structures and structures with difficult or high risk access, Level 3 inspections are to be regularly, and independently of Level 1 or Level 2 inspections, at specific intervals.

Level 4: Load Capacity Assessment

Level 4 assessment are performed to solely test the load capacity of a structure.

Inspection frequency

As requested or when legal limits change.

11. Planning, Design, Construction and Maintenance Standards

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

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

11.1 Design and Construction Parameters

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

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

- functional classification
- traffic volume and type
- location of adjacent vegetation
- percentage of trucks
- bus routes, and
- location of the road e.g. industry, quarry, agricultural areas.

To meet the particular needs of the community and Council the following design and construction parameters are recommended.



All the new and upgrading works for urban and rural roads must be complied with the parameters described in Table 7.

11.1.1 Urban Roads

Specific issues such as the requirements for bicycles, disabled access, shopping centres, and potential future development, are to be included during the initial planning/design phase.

Where kerb and channel is not required a "Rural" type construction standard may be used, provided the minimum levels of service for the corresponding road classification can be achieved.

Property Access roads (Laneways) on a road reserve of less than 15 metres will not be considered for future upgrading to Residential Access roads. This is the minimum which will allow for the installation of suitable traffic lane widths, sight distance, footpath development, street lighting, and utility accommodation.

11.1.2 Rural Roads

Bus routes - a gravel pavement providing a minimum level of safety with an all-weather pavement providing all weather access in most weather conditions.

Industry access/truck route - a gravel pavement is proposed because of the high proportion of heavy vehicles traffic and to reduce the maintenance effort required, improve overall safety and reduce operating and maintenance costs to owners of those vehicles.

Residential property access - where formed road would not provide all weather residential access because of the soil type, and the road is the only access to a property, a gravel surfacing has been adopted.

Formed only roads – to provide additional property access to mainly agricultural areas, as well as being used for fire access. These are generally dry weather only roads, and are maintained to minimum standards. These roads do not include fire access tracks.

Table 7: Parameter for all new and upgrading works

Adjacent Land Planning Zone	Proposed Road Classification	Road Reserve Width (New)	Vehicles Per Day Etc.	Formation Width (metres)	Pavement Width (metres)	Seal Width (metres)	Kerb & Channel	Minimum Clearance	Line marking	Guide posts	Design Speed
Urban	Collector	20	N/A	9.0	8.0	8.0	yes #1	N/A	Centre and intersections	N/A	N/A
	Access More than 20 Houses	20	N/A	8.0	7.4	6.2	Yes	N/A	Intersections only	N/A	N/A
	Access Less than 20 Houses	20	N/A	7.0	6.2	5.0	Yes	N/A	Intersections only	N/A	N/A
	Access Industrial	20	N/A	N/A	13.2	12	Yes	N/A	Intersections only	N/A	N/A
	Minor Access	10	N/A	N/A	6.2	5	Yes	N/A	Intersections only	N/A	N/A
Rural	Link	20	more than 150	9.2	8	6.2	N/A	6m above formation	Centre and intersections	150m	120 kph (Sealed only)
	Collector	20	50 -150	8.6	6.4	6.2	N/A	6m above formation	Sealed intersections only	Culverts Only	100 kph (sealed only)
	Access residential	20	more than 50	8.6	6.4	5.0	N/A	6m above formation	Sealed intersections only	150 m	80 kph
		20	less than 50	7.4	6.4	5.0	N/A	6m above formation	N/A	Culverts Only	N/A
	Access Property Only #2	20	N/A	7.4	6.2	N/A	N/A	6m above formation	N/A	Culverts Only	N/A

#1 Kerb and channel may be replaced with sealed inverts in low drainage problem areas

#2 Council accepts no responsibility for maintenance on these tracks but may do minor works on request usually at the landowner's expense.



12. Asset Data and Records

Asset data for prioritizing maintenance and renewal work for Roads, Bridges, Footpaths, and Kerb & Channel, is collected and maintained on Council's Asset Management System database.

Detailed records of performed works, and safety inspections carried out, are maintained on databases managed by Council's Infrastructure Department.

13. Property Access Management

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

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

14. Register of Public Roads

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

- name of the public road
- date on which the road become a public road if declared after 1st July 2004
- classification of the public road
- coordination authority of the public road and
- reference to arrangements where management of road functions has transferred from one road authority to another.

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

15. Register of Footpaths, Bicycle Paths and Walking Ways

All information relating to footpaths, bicycle paths and walking paths is recorded in Council's Asset Management System database, including the footpath location, materials, dimensions, hierarchy and level of service.

16. Register of Bridges and Major Culverts

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

- location
- dimensions
- age, and
- description of type.



17. Demarcation of Responsibility

There are a number of areas where Municipal roads interface with roads or railways which are maintained by other authorities such as neighboring Municipalities, VicRoads, Parks Victoria, DEPI, GWM Water, CFA and the Railways.

There may be a differing level of service arising at this interface, due to the change in the way roads are managed by the various road authorities.

17.1 Arterial Roads

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

17.2 Boundary and Shared Roads

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

17.3 Crown Land

Numerous public roads are located on crown land managed by the Department of Environment, Land, Water & Planning, and Parks Victoria. The road may be the responsibility of the relevant Department, on some instances a road may pass through the crown land and Council may remain the responsible authority. There are many free hold / private properties that are only accessed via roads located on crown land, or via unused road reserves, and Council is under no obligation to provide or maintain access to those lots. There are also hundreds of kilometres of unused road reserves throughout the Shire that Council accepts no responsibility for, under the *Road Management Act 2004*. These road reserves are also not included in the Road Register.

17.4 Rail

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

17.5 Utility Service

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

17.6 Private Streets

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



17.7 Fire Access Tracks

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

18 Owner Responsibilities

18.1 Vehicle Crossings

The *Road Management Act 2004* provides that a road authority is not liable for private vehicle crossings (driveways) and pathways on road reserves that provide access to land adjoining a road, this responsibility being with the adjoining landowner for both the construction and ongoing maintenance.

Vehicle crossings must comply with Northern Grampians Shire Council's specifications and be kept maintained. Proposed new or altered cross overs to properties adjoining Arterial Roads require a Planning Permit under the *Environment and Planning Act 1986* before any works can commence.

18.2 Footpath and Overhanging Vegetation

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

18.3 Obstructing Footpath and Roads

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

- tables, chairs, shop displays and signs on footpaths in commercial areas
- obstructions on nature strips, and
- weeds / trees affecting visibility.

18.4 Nature Strips

Council maintains urban nature strips in accordance with the Urban Tree and Nature Strip Management Plan. Due to potentially high costs Council does not maintain nature strips to a high standard.

18.5 Consent to Perform Works in Road Reserve

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

18.6 Car Parks Management

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

- types of Car Park (e.g. regional, town, local)



- types of usage (e.g. shopping, commercial, recreational)
- leases and committees of management agreements
- design and maintenance

19. Risk Management

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

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

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

Maintenance Risk Assessment

Through the identification of the sources of risk and areas of impact, a framework for risk identification and analysis can be prepared for Council's day-to-day exposure.

The tables below provide a simple approach, when assessing the likelihood and consequence of risk pertaining to Northern Grampians Shire Council's road assets. These tables allow Council to prioritise potential risk exposures and as a result adopt performance standards to reduce its exposure to risk.



Table 8: Qualitative Measure of Consequence AS/NZS 4360:2004

LEVEL	DESCRIPTOR	DETAILED DESCRIPTION
1	Insignificant	<ul style="list-style-type: none"> • First Aid only required; minimal loss to organisation • Able to be rectified using management processes • Financial impact easily manageable within jurisdictional budget
2	Minor	<ul style="list-style-type: none"> • Some medical treatment required; medium loss to organisation • Success measures able to be achieved with some effort • Some reworking of jurisdictional budget required
3	Moderate	<ul style="list-style-type: none"> • Significant injury involving medical treatment or hospitalization; high loss to organization • Some success measures affected with considerable effort necessary to rectify • Minor reworking or corporate budget or significant reworking of jurisdictional budget required • Moderate impact on Council's reputation
4	Major	<ul style="list-style-type: none"> • Severe injuries or fatality to individual; very high loss to organisation • Most success measures threatened or one severely affected • Significant reworking of corporate budget, including cuts to items • Major impact on Council's reputation
5	Catastrophic	<ul style="list-style-type: none"> • Multiple fatalities/extensive long term injuries; worse case loss • Event/project/activity could never be carried out again • Financial impact could not be managed within corporate budget

Table 9: Qualitative Measure of Likelihood AS/NZS 4360:2004

LEVEL	CRITERIA	DEFINITION
A	Almost certain	Expected to occur most times during normal operations
B	Likely	Will probably occur at some stage based on evidence of previous incidents
C	Possible	Not generally expected to occur but may under specific circumstances
D	Unlikely	Conceivable but not likely to occur under normal operations
E	Rare	May occur, but only ever under exceptional circumstances

Table 10: Risk Rating Matrix

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

Table 11: Road Defect Risk Assessment

Asset Type	Hazard Description	URBAN												RURAL											
		Link (Parking)			Collector			Access			Minor			Link			Collector			Access Residential			Access Property		
		Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
ROAD PAVEMENT & SURFACE																									
Road	Size of potholes are greater than 300 millimetre in diameter and 100 millimetres in depth	C	5	E	C	5	E	C	3	H	C	2	M	C	5	E	C	3	H	C	2	M	-	-	-
Road	Edge of sealed pavement breaks and reduces the pavement width more than 200 millimetres over 20 metres of length.	D	3	M	D	3	M	C	2	M	C	2	M	C	3	H	D	3	M	C	2	M	-	-	-
Road	Shoving / Depressions or Rutting on road surface should be greater than 75 millimetres in depth.	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	D	3	M	-	-	-
Road	Crocodile Cracking should affect more than 3 squares metres in road pavement and surface.	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	-	-	-
Road	Corrugations should be more than 75 millimetres in depth and more than 20 metres in length	-	-	-	-	-	-	C	2	M	C	2	M	-	-	-	C	3	H	D	3	M	C	2	M
Road	Accumulation of loose materials on sealed traffic lanes	-	-	-	C	5	E	C	3	H	C	2	M	C	5	E	C	3	H	D	3	M	D	3	M
Road	Oil spill or water over road	B	3	H	B	3	H	B	3	H	D	3	M	B	3	H	B	3	H	D	3	M	C	5	E
Kerb & Channel	Vertical or Horizontal displacement is more than 100 millimetres or asset broken / displaced	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	-	-	-	-	-	-
Signs	Regulatory, warning and hazard signs missing, illegible at 100 metres distance or damaged, making them substantially ineffective.	D	3	M	D	3	M	D	3	M	C	2	M	D	3	M	D	3	M	C	2	M	C	2	M
Bollards and Guide Posts	Bent, loose, damaged, non-functional or causing injury to the general public; <ul style="list-style-type: none"> Greater than 10 degrees off the vertical or; Greater than 5% surface dented or; Greater than 5% surface corroded /rusty. 	-	-	-	D	3	M	C	2	M	C	2	M	D	3	M	C	2	M	C	2	M	C	2	M



Vegetation	All tree defects including intrusion into pedestrian and/or vehicle clearance zone and sight distance issues that limit clear vision.	D	3	M	D	3	M	D	3	M	D	3	M	C	3	H	D	3	M	D	3	M	C	2	M			
Line marking	(1)-Missing or damaged RRPM's (Reflective Raised Pavement Markers) and / or (2)- Delineation or line marking not visible or ineffective	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M	C	2	M
BRIDGE & MAJOR CULVERTS																												
Bridges	In Bridges and drainage cleaning and clearing of debris from surfaces	-	-	-	C	2	M	C	2	M	C	2	M	D	3	M	D	3	M	C	2	M	C	2	M	C	2	M
Bridges	Any damaged or defective guardrail making it substantially ineffective	-	-	-	D	3	M	C	2	M	C	2	M	D	3	M	C	2	M	C	2	M	C	2	M	C	2	M

Table 12: Footpath Defect Risk Assessment

Asset Type	Hazard Description	Category 4 Central Business Area & High use precinct			Category 3 Specific Pedestrian Generator			Category 2 Other areas of made footpath			Category 1 Unconstructed / informal (Low Usage)		
		Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
Footpaths	<ul style="list-style-type: none"> Footpath lips or trip hazards greater than 40 millimeters in height difference. Mounds or depressions greater than 100 millimeters under a straight edge. Cross falls steeper than 1 in 20. Asphalt footpath affected by tree roots, lifted or depressed greater than 40 millimeters in height difference and cracked or potholed more than 20 millimeters in width and 200 millimeters in diameter respectively. 	C	3	H	C	3	H	D	3	M	-	-	-
Footpaths	Concrete bay is cracked or broken more than 20 millimetres in width.	D	3	M	D	3	M	C	2	M	-	-	-
Footpaths	Gravel Path potholed greater than 200 millimetres in diameter and 50 millimetres in depth and depressed by 25 millimetres.	-	-	-	-	-	-	C	2	M	-	-	-

20. Force Majeure

Council will make every endeavour to meet all aspects of its Road Management Plan.

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

In the event that the Chief Executive Officer of the Council has to, pursuant to section 83 of the above Act, consider the limited financial resources of the Council and its other conflicting priorities, meaning Council's Plan cannot be met, they will write to Council's officer in charge of its 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 Chief Executive Officer 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 the timeframes for each part of the Plan to be reactivated.

21. Audit

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

22. Review

This Plan will be reviewed every 4 years or earlier if circumstances require. Changes will be gazette as required by the *Road Management Act 2004*.