COUNCIL POLICY

Policy Name	Footpath, Kerb and Gutter and Off-Road Cycleway Risk Management

Abstract

Dates	Policy or amendment approved	20 Jul 2011
	Policy or amendment takes effect	20 Jul 2011
	Policy is due for review (up to 4 years)	20 Jul 2015
Endorsed by	Council	
Approved by	Gunnedah Shire Council at its Ordinary Meeting held on 20 Jul 2011 Resolution number: 18.1	
Policy Custodian	Manager Works	
Relevant to	Council	
Superseded Policies		
Related documents		
Related legislation		

1. PURPOSE

Council's document titled **Footpath, Kerb and Gutter and Off-Road Cycleway Risk Management Policy** outlines the need to manage risk and to formalise maintenance practice in relation to footpath, kerb and gutter and off-road cycleway assets. Capital works, renewal works and routine maintenance works are the mechanism by which the condition of footpath, kerb and gutter and off-road cycleway assets are maintained and improved. While capital works are eventually required, routine maintenance must keep the footpath, kerb and gutter and off-road cycleway assets essentially safe. To achieve this, identification, assessment, monitoring and rectification of hazards and their potential consequences are required.

The procedure controls the process of identifying hazards, assessing the type and severity of the hazard and the level at which Council considers action to repair or remove the hazard. The procedure also sets priorities and the timeframe that repairs should be undertaken on Council footpaths, kerb and gutter and off-road assets within Council's budget.

While this document outlines many of the required processes, it should be noted that service level agreements, and other accepted standards are not superseded. These procedures are supplementary to the many processes of asset management.

2. OBJECTIVES

These Footpath, Kerb and Gutter and Off-Road Cycleway Risk Management Procedures in conjunction with the Footpath, Kerb and Gutter and Off-Road Cycleway Risk Management Policy document are the available resources of Council to:

- Provide safe Footpath, Kerb and Gutter and Off-Road Cycleway for use by pedestrians and road users;
- Provide a system of proactive maintenance;
- Identify areas that require maintenance;
- Establish a priority system for carrying out maintenance on Council Footpath, Kerb and Gutter and Off-Road Cycleway;
- Provide information to assist Council in allocating resources where they are required and
- Allow Council to schedule maintenance where required.

3. DEFINITIONS

Risk Management

Risk Management is the systematic application of management policies, procedures and practices to the tasks of identifying, analysing, assessing, treating and monitoring risks.

Footpaths

A footpath is a thoroughfare intended for use by pedestrians but not by motorized vehicles. The term is often for paths within an urban area that offer shorter, quieter routes for pedestrians; they may also provide access to the surrounding countryside or parks. Footpaths in this plan do not include unformed footpaths, gravel footpaths, nature trails and walking trails.

Kerb and Gutter

Kerb and gutter is the edge where a raised pavement/sidewalk/footpath, road median, or road shoulder meets an unraised street or other roadway. Typically made from concrete, the purpose is twofold: first as a gutter for proper drainage of the roadway, and second for safety, to prevent motorists from driving onto the shoulder, median, sidewalk, or pavement.

Off-Road Cycleway

Off-road cycleways are a thoroughfare intended for use by pedestrians and cyclists. The term is often for paths within urban areas and they are generally 2m wide or greater.

4. SCOPE

This document covers programmed and routine maintenance and renewal work on Footpath, Kerb and Gutter and Off-Road Cycleway, and any other physical item that has an impact on the safety and amenity of Footpath, Kerb and Gutter and Off-Road Cycleway users within the land maintained by Council.

5. DISCUSSION

Council has a duty of care under common law to ensure that Footpath, Kerb and Gutter and Off-Road Cycleway assets are as safe for users as they can be made within the reasonable resources of Council. To achieve this, implementation of Record Management Procedures, Inspection Management, Renewal Management and Maintenance Management Systems are needed to control Council Assets. These aim to strike a balance between optimal maintenance, minimised whole of life costs, user amenity and value for money in a risk management context.

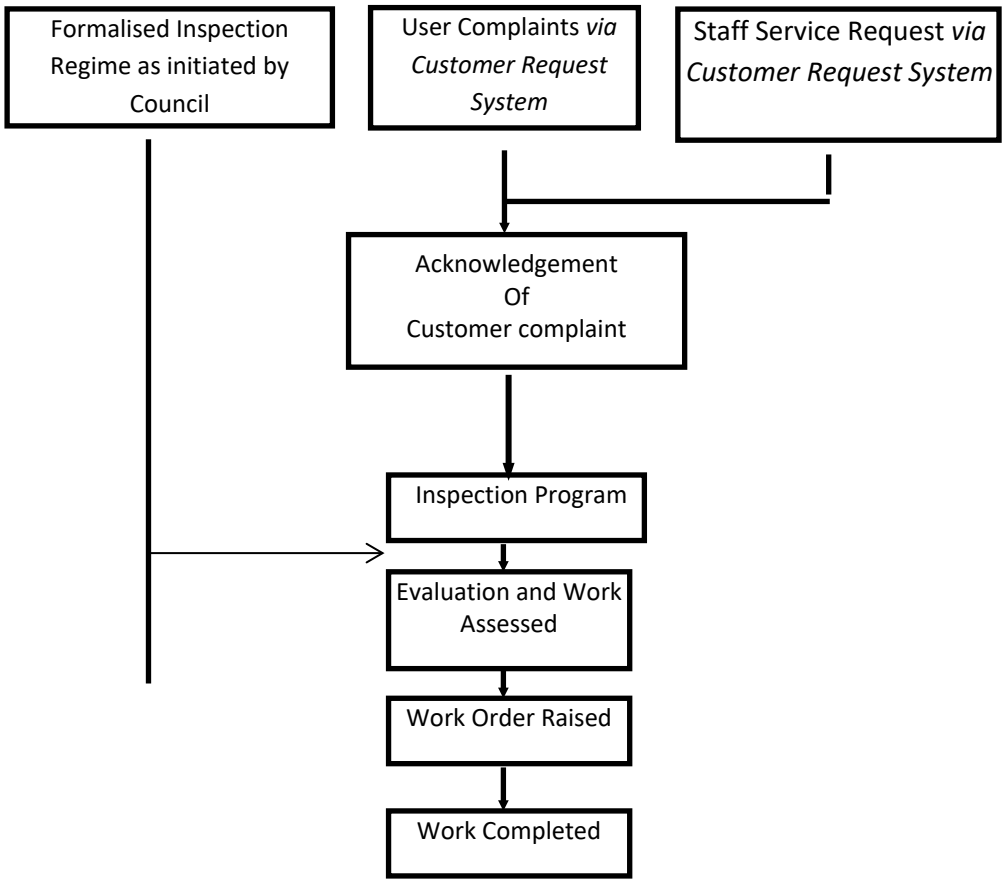
Footpaths, Kerb and Gutter and Off-Road Cycleways vary considerably in their construction and the environment in which they are required to function, hence the requirements to maintain and repair them also vary. The main concern for users of Council Footpath, Kerb and Gutter and Off-Road Cycleway assets is defects, which can limit access or can compromise user safety.

Competing demands for resources across the full range of Council services means that the resources available to carry out pro-active and reactive maintenance and renewals to Footpath, Kerb and Gutter and Off-Road Cycleway assets are not always sufficient to fully address all the identified defects. Council must be aware of its legal responsibility in regard to maintaining and repairing the Footpath, Kerb and Gutter and Off-Road Cycleway assets.

In terms of budget allocation, Council will generally allocate funding to routine and programmed maintenance in consideration of the total funds available in a financial year and historical data available from previous years and the asset management plans associated with these assets.

Council will have in place a system for maintaining and repairing Footpath, Kerb and Gutter and Off-Road Cycleway assets that reduces the possibility of error or omission and thus reduce the possibility of a public liability claim being made, or in the event of such a claim, increase Council's likelihood of successfully defending the claim. **Figure 1** is a simplified but typical flowchart showing the process for repair, renewal and maintenance of Footpath, Kerb and Gutter and Off-Road Cycleway assets.

Figure 1. Simplified Typical Maintenance, Renewal and Repair Flowchart



This procedure has been compiled to specifically address the process of determining the level of hazards that require consideration for repair and within what time frame the repair should be undertaken.

6. FOOTPATH, KERB AND GUTTER AND OFF-ROAD CYCLEWAY ASSETS

Gunnedah Shire Council maintains Footpath, Kerb and Gutter and Off-Road Cycleway assets in **Table 1** below:

Table 1 – Footpath, Kerb and Gutter and Off-Road Cycleway Assets

Asset Type	Quantity
Concrete footpaths	35,258.4m2
Bitumen sealed footpaths	2675.4m2
Paved footpaths	13,644.41 m3
Traffic island	4,445m2
Kerb and Gutter	132,998m

7. INSPECTIONS

As part of the Risk Management process, inspections are carried out as a formalised and independent assessment of Footpath, Kerb and Gutter and Off-Road Cycleway assets, looking for hazards that may require asset renewal, repair and maintenance. Knowledgeable and skilled personnel carry out the inspections with due regard to standards and safety principles. A copy of the general defects found on these assets (**Appendix 1**) is to be recorded in Council's MMS.

Footpath, Kerb and Gutter and Off-Road Cycleway assets will be inspected in accordance with the program in **Table 1**. The information gathered by this program shall be used as the main method of identifying all the known hazards and risks associated with footpath, kerb and gutter and off-road cycleway assets.

Generally speaking, an inspection program will be initiated through one of the following mechanisms:

- Formal inspection, initiated by Council
- Service requests from users, the general public or Councillors, and
- Service reports received from Council employees

7.1 FORMAL INSPECTIONS

The purpose of these formal inspections is to identify:

a) Those assets that have defects
b) The severity of these defects
c) The location of the defect
d) The work activity needed
e) The ranking of works, and
f) To generate a works order/programme for repair of defects

The inspections are to be recorded and stored in Council's Maintenance Management System. These inspections are to be completed detailing the defects shown in **Appendix 1** and the Defect report is attached in **Appendix 2**.

7.2 SERVICE REQUESTS FROM THE COMMUNITY

Service requests from the community are a valuable source of knowledge about the condition of assets between inspections.

Each request is registered using Council's Customer Request System. The request is acknowledged in the appropriate form.

Each request is then assigned to a staff member who will then investigate the request by way of making a physical inspection of the site and recording the details of the inspection.

7.3 SERVICE REQUESTS FROM STAFF

Council staff regularly use these assets. During this use Council staff are encouraged to inspect and report any defects encountered using Council's Customer Request System. Once a Customer Request is logged it is handled as any other request.

8. ASSESSMENT

The control of the risk exposure is a very specific issue. The type and style of control technique adopted will depend on the resources, facilities and expertise available to Council. There are two considerations to be taken into account when deciding on the control measures to be adopted. They are the type of control measure that should be adopted and the time in which to respond.

These two considerations are the location of the defect and the type of defect. Table 2 shows the location risk rating.

Table 2 – Footpath, Kerb and Gutter and Off-Road Cycleway Location Risk Rating

Category	Risk Rating	Description
High	3	CBD, adjacent to aged care facilities, adjacent to hospital
Medium	2	Cycleways, adjacent to schools
Low	1	Other footpaths

Table 3 outlines the risk rating for hazards found on this infrastructure.

Table 3 – Hazard Risk Rating

Description of Hazard	**Hazard risk rating**				
	1	**2**	**3**	**4**	**5**
Obstructions on Footpath/Off-Road Cycleway					
Small sized object with a maximum dimension of < 100mm	**X**				
Medium sized object with a maximum dimension between 100 and 200mm		**X**			
Large object with a maximum dimension of greater then 200mm			**X**		
Obstructions in Gutter					
Reduces water movement			**X**		
Trip points kerb and gutter					
Small sized object with a maximum dimension of < 100mm Medium sized object with a maximum dimension between 100 and 200mm		**X**			
Large object with a maximum dimension of greater then 200mm Small sized object with a maximum dimension of < 100mm			**X**		
Medium sized object with a maximum dimension between 100 and 200mm				**X**	
Trip Points – footpath and off-road cycleway					
Trip point 10 to20mm and lighting good				**X**	
Trip point 10 to 20mm and lighting poor					**X**
Trip point between 20 and 50mm and lighting good			**X**		
Trip point between 20 and 50mm and lighting poor				**X**	
Trip point between greater than 50mm and lighting good		**X**			
Trip point between greater than 50mm and lighting poor			**X**		
Edge Drop and joints for all associated infrastructure					

Description of Hazard	Hazard risk rating				
	1	2	3	4	5
Drop less than 50mm and < 15m long.	X				
Drop greater than 50mm and < 15m long.			X		
Drop > 200mm and < 15m long.					X
Drop greater than 50mm and > 15m long.		X			
Drop greater than 50mm and > 15m long.				X	
Slip - footpath or off-road cycleway					
Slippery			X		
Trees overhanging footpath or off-road cycleway					
Tree overhangs asset with less than 2.4m clearance	X				
Build up of loose material - footpath or off=road cycleway					
Loose surface			X		
Roots - footpath, kerb and gutter or off-road cycleway					
See trip points					

In order to determine the risk of a defect identified on footpath, kerb and gutter or off-road cycleway, the following formula is to be used.

Defect risk rating = location risk rating * hazard risk rating

9. CONTROL

Control of risk exposure requires control measures to be implemented. Some of the control measures that Council will be able to use to lessen Council's exposure to risk are as follows:

- Use of warning signs and lights to alert road users of the potential hazard that exists ahead
- Erection of temporary barriers or barricades and lights around the area until it can be repaired
- Effecting temporary repair of the damaged area; or
- Planning and allocating resources for the long-term works

In order to manage Council's footpath, kerb and gutter and off-road cycleway assets, Table 4 has been developed to determine the control mechanism and response times for repair works.

Table 4 – Footpath, Kerb and Gutter and Off-Road Cycleway Risk Action Response

Risk Rating	Priority	Control Mechanism	Response Time
4 or less	No activity	No action required – monitor	As resources permit
5 – 8	Low	Programmed into maintenance works	As resources permit
9 – 12	Medium	Programmed into maintenance works. Effect temporary repair	Temporary repair within 5 working days Permanent repair within 6 months
12 – 15	High	Inspect by competent person and make safe Effect temporary repair	Temporary repair within 5 working days Permanent repair within 3 months
16 +	Urgent	Inspect by Competent Person and make safe Effect further temporary repair	Temporary repair within 1 working day Permanent repair within 1 months

Generally three temporary control measures may be taken by Council:

- Make the area safe by the erection of temporary barriers or barricades
- Effect temporary repairs of the damaged area (such as grinding away the trip point), or
- Effect replacement of the damaged area

Permanent repairs include, but are not limited to:

- Removal of defective asset and replace
- Grind trip hazard
- Fill holes and cracks to remove trip points

Risk Action Response Times are determined on the basis of priority and Council's ability to respond.

10. RESPONSIBILITIES

10.1 FORMAL INSPECTIONS

Inspections shall be programmed in accordance with the footpath hierarchy (see Table 2 and Appendix 1). Inspections shall be carried out by Council's Asset Inspection Officer or in his/her absence staff experienced in footpath, kerb and gutter and off-road cycleway asset management. Each defect shall then be assigned a Risk Rating (RR).

The Works Engineer or their delegate shall compile a priority list of defects from each inspection with a due date assigned to each defect in accordance with Table 4. The Works Engineer shall then program the works to ensure that response times are met. When work is completed the Ganger shall complete a daily running sheet indicating the date of completion.

10.2 REQUESTS FROM ROAD USERS, COUNCILLORS AND COUNCIL STAFF

When a request from a road user is received the details should be recorded using the Customer Request System. The request will be acknowledged in the appropriate form.

The person that has been assigned responsibility for the request shall do a visual inspection of the defect and shall carry out risk ranking of the defect in accordance with this procedure. The outcomes of the risk ranking shall be recorded.

After a RR has been assigned to the request the works shall then be programmed in accordance with Table 4.

11. REFERENCES

1. Australian Standard AS/NZ 4360:1995 Risk Management

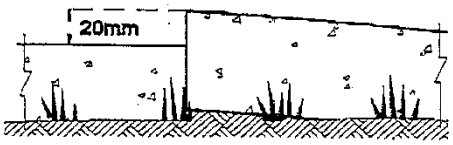
2. NAASRA Guides to Traffic Engineering Practice Part 13

3. Statewide Mutual Best Practice Manual – Footpaths, Nature Strips and Medians

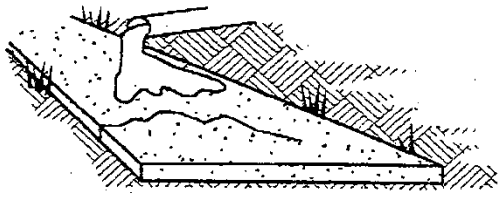
APPENDIX 1

Pathway Inspection Guidlines

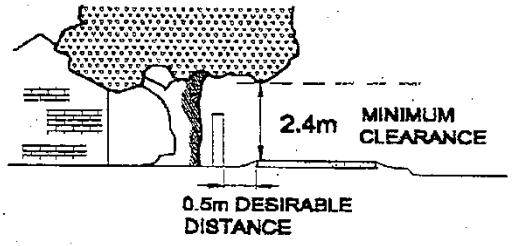
TRIP — WHERE THE PATHWAY IS *RAISED MORE THAN 20mm.*



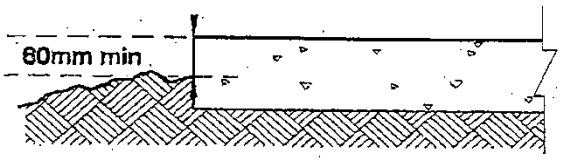
SLIP — WHERE SURFACE OF PATHWAY IS *UNSAFE OR DAMAGED.*



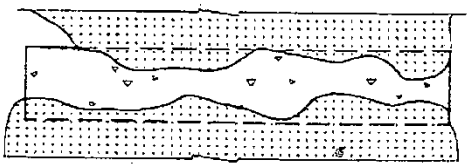
CLEAR — WHERE TREES OVERHANG PATHWAY WITH *LESS THAN 2.4m CLEARANCE.*



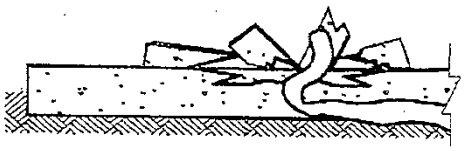
DROP — WHERE SURROUNDING GROUND LEVEL DROPS *MORE THAN 60mm.*



BUILD UP — WHERE GRASS, SAND OR DEBRIS COVERS PATHWAY *40% OR MORE.*



ROOTS — WHERE TREE *ROOTS DAMAGE OR INTERFERE* WITH PATHWAY.



Appendix 2 – Defects Register Example

Cause of Defect Comments Defect Defect Type Estimated Quantity Inspection Direction Primary Location Location Sub Location Physical Description

DN00252DROP/Pathway16.0Stock Rd Islands Winder to Goodwin94-102m from Hamilton St Surrounding ground >60mm drop

DN00251TRIP/Pathway1.0Stock Rd Islands Winder to Goodwin47m from Hamilton St Footpath raised >20mm.

Longitudinal cracking along bitumen pathwayDN00250CRACKING/Pathway1.0Stock Rd Islands Bridge to Winder through whole length.

Longitudinal cracking along bitumen pathwayDN00249CRACKING/Pathway1.0Stock Rd Islands Rodney to Bridge through whole length.

Longitudinal cracking along bitumen pathwayDN00248CRACKING/Pathway1.0Stock Rd Islands Links to Rodney through whole length.

CrackDN00247TRIP/Pathway1.0Sthn. side Stock Winder to Goodwin63m from Goodwin St Footpath raised >20mm.

Against drivewayDN00246TRIP/Pathway1.0Sthn. side Stock Winder to Goodwin50m from Goodwin St Footpath raised >20mm.

Against drivewayDN00245TRIP/Pathway1.0Sthn. side Stock Winder to Goodwin30m from Goodwin St Footpath raised >20mm.

DN00244TRIP/Pathway1.0Sthn. side Stock Winder to Goodwin28m from Goodwin St Footpath raised >20mm.

DN00243CRACKING/Pathway1.0Sthn. side Stock Winder to Goodwin25m from Goodwin St.

DN00242CRACKING/Pathway2.0BridgeGeorge to Stock26-27m from Edward St heading Nth.

DN00241CLEAR/Pathway1.0Eastern side Bridge George to Stock50m from Stock Rd Tree overhanging <2.4m clearance

DN00240CLEAR/Pathway1.0Eastern side Bridge George to Stock38m from Stock Rd Tree overhanging <2.4m clearance

Bad tripDN00239TRIP/Pathway1.0Eastern side Bridge Stock to Jensen16m from Stock Rd Footpath raised >20mm.

DN00238TRIP/Pathway1.0Eastern side Bridge Stock to Jensen9m from Stock Rd Footpath raised >20mm.

DN00237TRIP/Pathway1.0Eastern side Rodney George to Beulah152m from Beulah St Footpath raised >20mm.

Version Control and change history

Date	Version	Approved by & Resolution No.	Amendment
20 Jul 2011	1	Council Meeting 20 Jul 2011 Resolution 18.1	