

UNSEALED ROAD MANAGEMENT

Report Author: Executive Officer Infrastructure Maintenance
Responsible Officer: Director Built Environment & Infrastructure
Ward(s) affected: (All Wards);

The author(s) of this report and the Responsible Officer consider that the report complies with the overarching governance principles and supporting principles set out in the Local Government Act 2020.

CONFIDENTIALITY

This report is not confidential.

SUMMARY

This report presents a framework for the management of Council's unsealed road network. Guidance in the document is based on three key objectives:

- Optimal Maintenance
- Effective Asset Management
- Effective investment planning

The framework will support communication with community in relation to the scope and scale of unsealed roads as well as Council's role and approach to its management.

The framework complements Council's existing Road Management Plan required under legislation.

RECOMMENDATION

That Council endorse the Unsealed Roads Management Framework aligned with the following three objectives:

- (a) Optimal maintenance***
- (b) Effective asset management***
- (c) Effective investment planning***

RELATED COUNCIL DECISIONS

Council at the Forum of 21 November 2023 and 20 August 2024 provided feedback on key concerns and/or considerations to inform the development of an unsealed road management framework.

DISCUSSION

Purpose

The purpose of this report is to present the Unsealed Roads Management Framework 2024 for Council consideration and adoption.

Background

Yarra Ranges Council manages a large road network which is valued at \$389M in replacement value.

The extent of the unsealed network, along with community expectations of Council's service levels and approach to sealing, requires an overarching approach.

The framework seeks to explain to the community how unsealed roads will be provided and effectively managed by Council to provide the best service for the community within the funding landscape.

The framework draws on and connects existing document, including:

- Council Plan
- Asset Plan
- Financial Plan
- Road Management Plan
- Road Infrastructure Asset Management Plan and
- Provision of Road Maintenance and Sweeping Services contract CT6788.

Council's service provision also references the Australian Road Research Board (ARRB) *Best Practice Guide for Unsealed Roads*, which is one of a suite of guides developed for Local Government with the aim of expanding the understanding and capacity to manage road infrastructure.

Many landowners and road users prefer a sealed surface, however the cost of construction and funding remains the issue.

While an unsealed road requires more frequent maintenance and a different maintenance regime (grading) than a sealed road, it has an overall lower life cycle cost than a sealed road.

The condition of unsealed roads can deteriorate rapidly due to weather events or high traffic loads. The surface of the pavement is eroded by traffic and rainfall, and it will eventually reach a point where additional crushed rock or gravel is required to allow the road to function. This process is called re-sheeting and is completed as part of the programmed grade when required.

Yarra Ranges Council have a proactive grading program that has been refined over time to optimise balance of grading frequencies.

It is typical of rural and peri urban Councils to provide a mix of sealed and unsealed roads. Suburban and urban Councils typically do not have unsealed roads as part of their network.

There is some community perception that Councils would save money in the long run by sealing their roads. This is based on the idea that the money saved by

avoiding the need for grading and re-sheeting will exceed the capital cost of sealing the road. However, the capital costs to seal a gravel road requires a thicker and thereby stronger pavement than an unsealed road, there is also a need to consider drainage works that would be required because of the sealed surface, including the interface of resident driveways.

When the full construction costs are aggregated and the ongoing cost of resealing is considered, an unsealed road is the least expensive asset suitable for providing service to low traffic volumes, provided the roads are appropriately maintained.

The overarching unsealed roads management framework is increasingly needed following the move away from the Commonwealth funded, multi-year road sealing program.

In order to deliver a fit for purpose unsealed road network the key objectives of managing and maintaining the unsealed network are outlined below:

Objective 1: Optimal Maintenance

The main maintenance activities for unsealed roads are:

- Maintenance grading and table drains.
- Emergency response to significant pavement damage/deformation

The maintenance grading expenditure allowed for an average grading frequency of 4 times per annum. Some locations may be graded more often. This is considered a satisfactory and sustainable Level of Service and it is recommended that an annual allowance of included for the placement of gravel to isolated eroded sections in conjunction with grading operations.

Emergency response needs are difficult to predict as it is dependent on storms/weather. The grading program need to include flexibility to cover such events and if required the budget can be amended.

The unsealed network is much more dynamic than the sealed network as it responds adversely to heavy rain, periods of dry weather, peak traffic flows and heavy loads.

Objective 2: Effective asset management:

Unsealed Road Inspections (RMP)

Council undertakes two types of inspections, as set out in the Road Management Plan (RMP):

- Reactive Inspections – performed following notification to Council by a community member of a safety issue or defect.
- Proactive Inspections – performed on unsealed roads once per year to determine whether the road complies with the specified condition.

Unsealed Road Asset Condition Inspections

Council inspects the condition of its unsealed road network every three years using specialised equipment to measure the shape (crossfall), surface (corrugation, rutting,

potholes, etc) and depth of base material (for unsealed roads with an imported pavement component). A 1-5 condition score for those three elements is applied and a report generated at the road segment level.

The overall condition of Council's road network is then evaluated, and the information informs long term asset planning.

Objective 3: Effective investment planning:

The Unsealed Roads Management Framework refers to the effective investment planning, and to this end the Special Charge Scheme Policy has been reviewed and a pro-active program is to be developed based on a multi-assessment criteria applied to roads that could be justified for upgrade to sealed standard.

The funding mix should also consider scenarios whereby Landowners can elect to pay the full amount of the scheme (i.e 100%), with delivery by Council to the appropriate standards.

As well as discussing the priority assessment criteria, the Standard of Road Construction and selection of when each standard is appropriate is considered with the Special Charge Scheme process.

The list of pro-active roads is one approach to sealing roads. Petitions from the community can still be received, and Council will also continue to advocate for road sealing programs.

Figure 1:



Options considered

The Unsealed Roads Management Framework ties together an overarching direction for the ongoing management and maintenance of the unsealed roads in Yarra Ranges. Review points include:

- i. A physical assessment of all unmade rural and urban roads every three years consistent with the framework.
- ii. Periodic evaluation of service levels and maintenance standards for the remaining unsealed road network.

- iii. An annual review of unmade roads priorities, ranking in relation to functional requirements.

The Framework will help to ensure that all stakeholders have a clear understanding of how Council will manage these assets into the future. This management includes maintenance, renewal, and upgrade works.

Recommended option and justification

After Council's consideration of this report and following feedback, it is recommended that the Unsealed Roads Management Framework be adopted by Council.

FINANCIAL ANALYSIS

The development of the Unsealed Road Management Framework has taken place within existing resources.

The Annual Budget for the contracted provision of Unsealed Road Maintenance Services and table drain clearing is approximately \$6.5 M. The budgets are set based on levels of service with this work is being undertaken with a view to inform ongoing budget discussions to ensure spend is meeting community expectations.

The Capital Expenditure funding for the sealing of roads is proposed to come from the Roads to Recovery (R2R) Budget 2024 to 2029 allocation which has recently been increased from an approximate budget figure of \$10.7 M to \$18.88 M for the next 5 years. It is proposed that the \$8M (\$1.6M per annum) from the uplift in budget be allocated to road sealing projects. No change to the sealed road maintenance funding is proposed. This would be subject to Council's annual budget process.

The financial commentary within this report is consistent with Council's Asset Management Plan and Long-Term Financial Plan. It assumes current funding and service levels are satisfactory.

APPLICABLE PLANS AND POLICIES

The development of an Unsealed Road Management Framework guides management of existing assets and identifies strategic opportunities for future projects.

This Unsealed Road Management Framework aligns with Council's 'Quality Infrastructure and Liveable Places' and 'Protected and Enhances Natural Environment' Strategic Objectives, Yarra Ranges Planning Scheme, Yarra Ranges Council's Asset Management Plan, and outlines Yarra Ranges Council stance on facilitating high quality sustainable development.

Over the past four years Council's focus has been on delivering the Roads for the Community Initiative (RCI) which provided the opportunity to seal a significant number of unsealed roads within the municipality.

Under the RCI program - the Federal Government was set to provide \$150M in funds, but this has since been reduced to \$47.7M. The reduction in funding has resulted in many roads being removed from the program which now contains 32km of road, or just 4% of the unsealed network.

The reduction in the 9-year RCI program means that, unless advocacy efforts are successful, Council will need to provide service to the community through these unsealed road assets for the foreseeable future.

RELEVANT LAW

The Road Management Act 2004 clarifies the legal responsibilities for the different categories of road assets within the road reserve.

The Road Management Act 2004 was introduced with a primary objective “... to establish a coordinated management system that will promote safe and efficient road networks...”.

Council, as a road authority, explains how it manages the roads for which it has a duty to maintain through a Road Management Plan (RMP), which specifically talks about road inspections, maintenance, and repair.

During the review of the Road Management Plan (RMP), the need for a strategic condition assessment of unsealed roads was identified. This assessment has been adopted and incorporated into the inspection regime with other assets to be delivered this year and then every 3 years ongoing.

Council also provides a register of roads within the municipality, as required by the Act. This register lists roads that have been identified within the municipality, providing a road classification, and listing the authority responsible for the roadway, including when the responsible authority is a private entity rather than a local government or state Government entity. Council is responsible to maintain the roads listed on this register as public roads and required for public use.

The Road Management Plan (RMP) responds to the requirements of the Road Management Act 2004 and conveys Council’s commitment to the community in relation to the inspection, repair and maintenance of road and road related infrastructure.

The Unsealed Road Management Framework was developed to outline the specific maintenance objectives and is complementary to the existing Road Management Plan 2021.

SUSTAINABILITY IMPLICATIONS

The presence of unsealed roads results in various economic, social and environmental impacts, the significance of which varies for each individual road.

Economic Implications

The identification of strategic unsealed roads with a higher priority for upgrade works may result in the need for Council to allocate a greater proportion of funds to the construction of these roads above the standard rates. This could be offset by roads which are not identified as a higher priority receiving less funding.

An evaluation of the benefits of constructing specific unsealed roads will be undertaken to establish whether the desired benefits (e.g. reduced maintenance, improved access) are achieved after a designated time period. This could feed into future reviews of the criteria for the strategy.

Social Implications

The Unsealed Road Management Framework provides the process to continue to provide for a sustainable, safe, convenient, and efficient local road network and street environment that meets the needs of the community.

Many unsealed roads have been developed from access tracks or property accesses that develop into public roads. Consequently, pavement depths may be insufficient as initially the roads were not intended to carry the volumes they now carry. In addition, the formation may not have provided for adequate drainage or fully considered the stability of the slopes the access track traverses. As a result, it is sometimes necessary to undertake significant improvements of these routes.

Environmental Implications

The content of this report does not lead to Environmental Impacts, however projects that may be delivered into the future as an outcome of this policy discussion will be considered in the context of how they integrate with the local environment.

COMMUNITY ENGAGEMENT

Internal consultation has occurred across the Infrastructure Services Department, including staff involved in daily local area traffic management, road design and construction and road maintenance of the Yarra Ranges Road network.

The community will be informed of the Unsealed Roads Management Framework on Council's website and various communication channels, including but not limited to:

- Media release
- E-newsletter
- Social media channels and
- Direct mail

Residents will continue to be able to search for information on when their roads are being sprayed or graded on Council's website.

Any feedback or petitions received from the community in relation to their roads not being sealed will contribute towards Council's advocacy with all levels of government for available funding.

COLLABORATION, INNOVATION AND CONTINUOUS IMPROVEMENT

The development of an Unsealed Roads Management Framework would inform and maximise Council's investment and address the need for strategic direction across this area.

This strategy will also identify advocacy measures that can be implemented to state and federal for funding to upgrade roads based on the highest overall benefit for Council and users.

RISK ASSESSMENT

The regular and ongoing maintenance of unsealed roads provides the following benefits/risk reduction to users:

- Continued and safer vehicular access to and from properties.
- Improved stormwater drainage runoff control directed towards the road from abutting properties, and protection of low side properties from stormwater runoff from the road.
- Enhanced physical and environmental amenity for abutting properties and vegetation.

CONFLICTS OF INTEREST

No officers and/or delegates acting on behalf of the Council through the Instrument of Delegation and involved in the preparation and/or authorisation of this report have any general or material conflict of interest as defined within the *Local Government Act 2020*.

ATTACHMENTS TO THE REPORT

1. Unsealed Road Management Framework