



**Murrindindi Shire Council Road Advisory Group  
Session Three Summary Report**

## Contents

Background .....	3
Workshop Attendance .....	3
Workshop Summary .....	4
Discussion .....	6
Reflections on Session Two Summary Report .....	6
General .....	6
Special Charge Scheme (SCS) Policy (including proposed borrowing).....	6
SES concern regarding intersection Bon/ Aitken/ Green Street, Alexandra.....	7
Comments on 2024-25 Draft Capital Works Program for Road Assets.....	8
Road Renewal Planning - Theory .....	8
Experience with current service levels.....	9
Road Renewal Planning - Practice .....	10
Safer Local Roads and Streets Program .....	13
Setting Appropriate Service Levels.....	14
Group Activity – Critique of Current Maintenance Service Levels .....	14
Introduction .....	14
Questions\ Comments\ Clarifications .....	15
Service Response Time – What happens during that time?.....	15
Service Response Timeframes – 24 months for corrugations is too long! .....	15
Sometimes repair can't be done within the target timeframe. ....	16
Legal Liability – Council must adhere to standards in order to defend against claims.....	17
Community opinion is necessary to test the reasonableness of the current standards. ....	18
Inspections and staff reporting of issues – Are we doing enough? .....	18
Pothole patching – Can we expand resources to improve efficiency? .....	19
How do we find more resources to spend on roads? .....	19
Should the road surface type (sealed or unsealed) influence the response time?.....	20
150mm pothole depth is too deep – need warning signs and markings. ....	21
Is the Rapid Response Crew cost effective?.....	22
Is it possible to get an extra crew to fill unsealed road potholes? .....	22
Finding the right mix of reactive and proactive preventative maintenance activities.....	22
Can we establish a “Kitty” of surplus funds for emergencies?.....	22
Can we introduce a proactive routine grading program? .....	22
Next Steps.....	24
Appendices .....	25
Appendix A - Session Three Slide Presentation .....	25
Appendix B - Session Three Group Activity Worksheet .....	37

## Overview

## Background

This report summarises the third meeting of the Murrindindi Shire Council (MSC) Council Road Advisory Group (CRAG). The session was held in-person at Yea Council Chambers on Wednesday 8 March 2024 from 6.00 – 9.00pm.

Prior to the workshop, CRAG members were provided with a copy of Council's draft capital works program 2024-2025 for road assets and a summary report of the previous meeting. CRAG members were also asked to read Council's current service level targets, which are documented in the following Plans:

- MSC Road Management Plan 2021 (Table 3 pages 9–10 and Table 4 pages 12-16).
- MSC Asset Plan 2022 – 2032 (Page 16 and 30-33).

A copy of the presentation slides is provided in [Appendix A](#).

## Workshop Attendance

A list of workshop attendees is provided in the table below. Apologies were received from seven (7) CRAG members (Robyn Archer, Sarah Southam, Rebekah Grant, Michael Cook, Trevor Hedge, Robert Morgan, Martin Howden).

*Table 1: List of workshop attendees*

<b>Attendees</b>	
Chair	Sue Carpenter, Councillor
MSC team	Livia Bonazzi: Chief Executive Officer Caroline Lintott: Interim Director Assets & Environment Peter Bain: Manager Sustainability & Assets Stuart Russell: Manager Operations & Maintenance
Presenters	Caroline Lintott, Interim Director Assets and Development Fiona Marmaras, Asset Management Consultant, Integr8 Pty Ltd
CRAG members	Peter Weeks David Webb Ware Mat Luma Paul Denham Rainer Adam Brian Ahern Cameron McLay

## Workshop Summary

Councillor Sue Carpenter opened the meeting. She welcomed the CRAG members and shared an Acknowledgement of Country.

Facilitator, Caroline Lintott, Interim Director Assets & Environment, welcomed participants and provided an overview of the meeting agenda. Caroline highlighted the meeting objectives and the importance of ensuring that all participants are given an opportunity to contribute.

As part of the recap of previous CRAG sessions, Caroline provided an update on how CRAG member suggestions and opinions will influence future plans and practices. She noted that the Draft Special Charge Scheme Policy will soon be made available. Livia followed up on previous discussions, regarding Council's appetite for borrowing. She advised that the Draft 2024-25 Budget includes a small amount of borrowing to fund Council contributions to Special Charge Schemes that might arise during the year.

To provide context for discussion of Council's draft capital works program, Fiona Marmaras presented some asset deterioration and renewal planning theory. Peter Bain, Manager Sustainability & Assets, then explained Council's current approach to renewal planning and the process used to develop the Draft Capital Works Program for Road Assets. Peter also provided insight into Council's Asset Information System (ASSETIC) and provided an update on the funding support received for delivery of seven projects as part of the Safer Local Roads and Streets Program.

During the presentation, participants were invited to share their thoughts.

- Some participants took the opportunity to indicate that although they have noticed some recent improvement, there is a level of community dissatisfaction with the quality (and durability) of road works. Some repairs seem to be cursory and deteriorate almost immediately. It was agreed that if specific sample locations could be provided Council staff would investigate to determine the underlying issue.
- Most participants felt that commenting on the detail of the Draft Capital Works Program was beyond the scope of the CRAG.
- Participants expressed some level of frustration that grant funding for the Yea township pedestrian crossing was not provided as part of the Safer Local Roads and Streets Program.
- Other topics discussed included: flood recovery funding and Council's approach to collection and use of traffic data.

Details of the discussion are provided in the following [section](#) of this report.

As the main objective of the session was to provide participants with an opportunity to deliberate desired road maintenance service level targets, Caroline introduced Council's approach to setting service levels. She emphasised the importance of ensuring the service levels are not only deliverable but also reasonable from the community's perspective. Caroline went on to explain that Council reviews its maintenance service level targets every four years, when the Road Management Plan is reviewed. Recent changes, in 2021, included a reduction in the target time for removal of foliage blocking sight lines. A Rapid Response Crew was also introduced (six months ago) to enable Council to respond to community requests more quickly and efficiently.

Following a short break, the intention had been to introduce a Group Activity and split up into a couple of separate groups to work through the Group Activity Worksheet - Critique our Current Maintenance Service Levels (*Refer [Appendix B](#)*).

During the introduction, it became clear that separating out into groups was not appropriate. Most participants felt that they didn't have enough information to really critique the "reasonableness" of the current service levels.

The time allocated for the Group Activity was therefore spent discussing the documented maintenance service level targets and the rationale behind Council's current maintenance approach. Participants raised questions, shared lived experiences, highlighted concerns and provided improvement suggestions. Council officers responded to questions and explained the current approach and current constraints.

Themes discussed included:

- Service Response Timeframes
  - What happens during that time?
  - 24 months for repair of unsealed road potholes and corrugations is too long!
  - Sometimes the desired repair just can't be done within the target timeframe.
- Legal Liability
  - Council must adhere to standards in order to defend against insurance claims.
- Community opinion is necessary to test the reasonableness of the current standards.
- Inspections and staff reporting of issues.
  - Are we doing enough?
- Unsealed road pothole patching
  - Can we expand resources to improve efficiency?
- How do we find more resources to spend on roads?
- Should the road surface type (sealed or unsealed) influence the response time?
- 150mm pothole depth is too deep.
  - Need warning signs and markings.
- Is the Rapid Response Crew cost effective?
- Is it possible to get an extra crew to fill unsealed road potholes?
- Finding the right mix of reactive and proactive preventative maintenance activities.
- Can we establish a "Kitty" of surplus funds for emergencies?
- Can we introduce a proactive routine grading program?

Details of the discussion are provided in later in this report (Refer [Group Activity – Critique of Current Maintenance Service Levels](#))

At the conclusion of the discussion, Caroline outlined the next steps. It was agreed that participants would reflect on the discussion and aim to complete the Worksheet as "homework" in preparation for the next meeting in May.

Councillor Carpenter thanked participants for contributing to a lively, interesting and helpful discussion and closed the meeting

## Discussion

This section provides detail of the Group discussion under the following headings:

- Reflections on Session Two Summary Report
  - General
  - Special Charge Schemes (including proposed borrowing)
  - SES concern regarding intersection Bon/ Aitken/ Green Street Alexandra
- Comments on 2024-25 Draft Capital Works Program for Road Assets
  - Road Renewal Planning - Theory
  - Experience with current service levels.
  - Road Renewal Planning – Practice
  - Safer Local Roads and Streets Program
- Setting Appropriate Current Service Levels
- Group Activity - Critique of Current Maintenance Service Levels
  - Introduction
  - Questions\ Comments\ Clarifications

## Reflections on Session Two Summary Report

### General

- Caroline asked participants if they had any questions or comments on the Session Two Summary Report. She indicated that Council wants to be sure that all participants are comfortable that they are being heard and that we haven't missed anything.
- No concerns were raised by participants.
- Caroline explained that there are a number of ways that Council intends to use the outcomes of discussions that are had during the CRAG meetings:
  - We will try to make the documents more user friendly; easier to read. We will update the 10-year Asset Plan (the one with the purple cover) to include clearer Guiding Principles and a clearer preamble.
  - We will propose changes to the Road Hierarchy Classification of some roads.
  - Peter Bain is in the process of redrafting Council's Special Charge Scheme Policy.
  - In a month or so, a draft of the Special Charges Scheme (SCS) Policy will be distributed to CRAG members.

### Special Charge Scheme (SCS) Policy (including proposed borrowing)

- Paul suggested that (as discussed at the previous meeting) the SCS Policy needs to be fairer.
  - We should consider making the contribution proportionate to the land owner's ability to pay. He suggested that richer people on a street (have large property frontages) and can probably afford to pay but the poorer people living on the same street can't afford it. So, unless its fair, projects will keep coming up every four years and won't go ahead because there won't be enough support.

- Peter Bain and Caroline confirmed that:
  - CRAG members will definitely be given opportunity to comment on the draft SCS Policy before it goes to Council for endorsement.
  - Council is limited with regard to what Policy changes can be made because we can only do what is allowed under current legislation and regulation.
- Livia provided an update on Council's position in response to questions raised during the previous session regarding borrowing to fund Council's contribution to SCSs.
  - In preparing the draft budget Council has agreed to borrow a small amount to go towards Council's contribution to Special Charge Schemes (SCS).
  - In April Council will be asking the community to provide feedback on the draft budget (including how the community feels about Council borrowing the proposed small amount).
- Participants expressed a range of opinions regarding borrowing:
  - Some participants were supportive of borrowing, provided the projects being funded are a worthwhile upgrade (that cannot be funded any other way).
  - Other participants felt that borrowing was a "dangerous path". All debts need to be repaid regardless of whether it is considered "good or bad" debt.
- Livia provided reassurance that Council is listening to the opinions and concerns of this Group and Council will hear community submissions regarding the draft budget in April.

**SES concern regarding intersection Bon/ Aitken/ Green Street, Alexandra**

- Peter Weeks (SES) raised a concern regarding poor visibility for trucks at this intersection that needs to be addressed.
  - Truck drivers have reported to SES that a sign blocks vision for truck drivers onto Aitken Street.
- Peter Bain agreed to investigate and address risks following investigation.

## Comments on 2024-25 Draft Capital Works Program for Road Assets.

### Road Renewal Planning - Theory

- Fiona provided an explanation of the theory of asset deterioration, to provide some context for a discussion of Council's Draft Capital Works Program.
- Key points included:
  - All roads deteriorate (even if they are graded when corrugated and if potholes are patched).
  - The condition (and rate of deterioration) is impacted by a range of factors including weather, traffic, the quality of maintenance and the original road design and road construction method and materials.
  - Regardless of how much patching is done, there comes a time when road maintenance repair no longer works. The only way to restore the original condition of the road is via renewal (i.e. resealing, or re-sheeting and major patching to strengthen weak spots in the underlying pavement).
  - At Murrindindi Shire Council, the aim is to time the renewal so that the overall average condition of the road network is "Fair" - which means that at any point in time there will be some roads that are in poor and very poor condition.
  - Road surface renewal (including resealing, re-sheeting and removal of weak spots) restores the condition of the road and is much longer lasting than road maintenance (like grading and pothole patching).
  - Renewal is more durable, but it is also much more expensive than maintenance.
  - Renewal funding is not used to upgrade the roads (e.g. to increase the width or improve the drainage). But, through the use of modern materials, machinery and techniques (e.g. polymer stabilisers and geofabrics), we get some improvement above the condition of the original road.
- Livia explained that the recovery funding that Council receives (for example after the October 2022 floods) does not allow for "betterment" of the assets.
  - State and Federal Government Funding is typically not provided for us to build back better. It is just enough for like for like replacement. This approach is a false economy because it prevents us from improving asset resilience when we reconstruct the damaged assets.
  - Through extensive advocacy, the Federal Government is shifting its understanding. Recognising the need to fund "betterment" so we can build resilience, but it wants the State Government to contribute too.
  - Ideally, we should aim to try to time upgrades (asset betterment) with renewals so that we can improve the assets for the benefit of the whole community. It is more cost effective for all ratepayers.
  - It is only via advocacy that Council has been able to get a small amount of funding support (\$1 M) for betterment (upgrades) to improve resilience as part of the recovery from the October 2022 floods.
    - \$1M is not enough but it's a step in the right direction.

### **Experience with current service levels.**

- Some participants expressed dissatisfaction with the quality and durability of road repair undertaken by Council and contractors.
  - Brian noted that he had spoken to others (e.g. at Men's Shed, Murrindindi Hub) about their opinions on Council's current service levels:
    - There seems to be a bit of an improvement recently.
    - People have noticed more road works happening since December.
    - Quality of repairs is just not good enough. Potholes are repaired, including large areas of disturbed / damaged road. Works are done but they deteriorate almost immediately.
    - It's a waste of money. We need to do something more than a cursory repair.
    - We need to do better so the repair lasts, maybe use polymer stabilisers.
    - Current standards are grossly inadequate. The repair seems cursory.
    - Signage is confusing, and often in the wrong place. Sometimes the deterioration is worse where there is no sign.
  - Paul indicated that he is sick of hearing about the poor quality of work from people living in Buxton. People are not feeling heard when they report that the repairs are not adequate. Paul suggested Council should ask residents after the work is completed if they are satisfied.
  - Paul listed locations (Aroona Drive, Dyes Lane, Gypsy Lane) where "re-sheet" work had been done and the spoil from the table drains has been added to the road.
  - He suggested that the contractors doing the work must be inexperienced. (e.g. Gypsy Lane – couldn't drive on it for a week after it was graded)
  - Cameron asked whether Council inspects the roads to check the quality of work done. Road repairs (like building a house) need to have someone check that they have done the job properly. Does anyone from Council check the quality of the work?
- Council officers provided responses to key concerns raised:
  - Livia explained that some of the repairs that we do are temporary in nature. The first step is to make safe and keep the road trafficable. We act to reduce the risk and keep the road open, knowing that we need to come back at a later date to do a proper repair.
  - Stuart asked Brian if he could provide some sample locations where the repair is considered inadequate so that the underlying cause can be investigated. He recognised that it may be difficult for Brian to specify exact locations.
  - Stuart explained that we have many different programs being delivered across the Shire, so we really need specific examples in order to investigate the cause and determine if the issue is current or historic and what (if anything) can be done to improve.
  - Peter Bain clarified that some of the locations listed by Paul have not been re-sheeted. The recently re-sheeted roads look orange. For the roads mentioned the challenge we have is that the roads haven't been re-sheeted for a long time so there is not enough gravel to grade the surface. A heavy grade with the addition

of some gravel is what has been done to improve the surface a little bit until the roads mentioned can be re-sheeted/ renewed.

- Peter Bain explained that our roads simply don't have enough underlying pavement layers. This makes it difficult to repair them. We simply don't have enough layers to work with. We are now resealing our sealed roads using double seals, with small and large stones. The surfaces will be more durable, but it will take time for us to work through the renewal of all the roads.
- Peter also explained that we have recently introduced a major patching program, so we are able to dig out and patch some of the larger failed areas with multiple potholes up to 10 square meters before the road is resurfaced. But with all the work from the floods it is difficult to deliver.
- Stuart advised that Council absolutely does inspect the roads.
  - We have a road asset inspector that does the Road Management Plan inspections,
  - Capital works have responsible Project Officers who check the renewal work done by contractors.
- Stuart advised that Council have been looking into using solutions like polymers to improve durability of pothole repairs. Council trialled polymer stabilisation in Flowerdale and Limestone. It takes longer to do the repair and it does seem to last longer. But filling potholes in winter is just a band-aid solution. The repair simply doesn't last, so sometimes all that can be done is provision of warning signs.

### **Road Renewal Planning - Practice**

- Peter Bain talked the participants through a presentation that explained Council's Asset Management Information System (ASSETIC) and the current approach to developing the Capital Works Program.
  - The ASSETIC system is geospatial. It includes all road segments and their attributes. Road Segments start where there is a change in surface type, pavement width or traffic volume.
  - Requests for maintenance are managed using the system.
  - Requests come from the Road Management Plan Inspector, customer requests and requests from others such as utility companies. Council staff also report issues when out on site.
  - Work Orders are created for maintenance works.
  - Every four years we do a condition audit. It is an expensive exercise that tells us where we are on the asset deterioration curve.
  - PREDICTOR is the application we use to model asset deterioration and to develop the renewal program.
  - In preparing our current road renewal program we used our latest condition audit data (which is 2 years old) and made some adjustments to reflect the impact of the floods.
  - The modelling uses traffic data including the total number of vehicles and the % of heavy vehicles to predict deterioration.
  - It was explained that traffic volume and the proportion of heavy vehicles (trucks) is what has the biggest impact on condition. Speed can also cause corrugations if the pavement base is weak.

- Other factors used by the PREDICTOR model are the depth and strength of the road pavement layers and the treatment unit rate costs.
- Given that traffic volumes are one of the factors that impact the rate of deterioration, participants had a number of questions and opinions. There was a lengthy discussion regarding the quality of Council's traffic data.
  - Questions were raised regarding whether Council collects reliable traffic data and whether the locations of the traffic counters are appropriate for measuring speed.:
    - We have an annual traffic data collection program.
    - Sometimes the counters are at the ends of the road segment so that we can get data on traffic volumes. When the focus is on speed the data collection point is at the midblock.
    - We use traffic data for lots of things including grant funding submissions.
    - Speed data is very important. It validates road safety hotspots and together with accident statistics enables us to secure funding to improve road safety.
    - The counters collect data for 7 days.
    - Seasonal demand, like the traffic during holiday periods or other events is managed by combining data collected at different times across multiple years.
  - Is there is an upward trend in traffic volume? Yes
  - If the speed limit is reduced, wont that reduce deterioration?
    - Not really, the condition of unsealed roads is impacted by the weather.
    - Condition is mainly affected by changes in speed, not so much the overall speed itself. Deterioration tends to be worse where vehicles accelerate and decelerate suddenly.
    - Speed contributes to the loss of the top layer of gravel.
    - Speed of heavy vehicles contributes to corrugations if the underlying pavement is weak.
    - The most significant contributor to deterioration is the volume of heavy vehicles.
  - Council can only apply to Department of Transport and Planning to change speed limits and provide detailed evidence to meet the change criteria.
- Peter Bain explained the Draft Capital Works Program for Road Assets including the three categories of capital works projects.
- Peter noted that we have changed our approach. We will now renew whole roads. We will no longer stop re-sheeting at the end of the road segment (in the middle of a road).
- Peter explained that we have an upcoming challenge that will impact the budget in 10 years or so when the assets built during the bushfire recovery effort are aged and require replacement.

- Participants raised some questions and concerns regarding the Draft Capital Works Program:
  - Mat questioned whether the proposed budget costs are accurate? Some project costs seem very low compared to his own experience paying for a private driveway. Are we paying too little and therefore ending up with poor quality work?
    - Peter explained that Council is able to get much better prices per kilometre compared with the general public.
  - Mat asked - Do we have a goal of what renewal we should get done?
    - Yes, the 10-year Asset Plan tells us how much renewal we have predicted that we need to do. There is then an internal negotiation during budget preparation. We try to maximise the renewal for roads and other assets within the budget parameters.
    - Each year we develop our renewal program based on the grant funding received the previous year. That way we can be confident that we can afford to do the work in the program. If we get more funding, we do more.
  - Some participants felt that commenting on the details of the Draft Capital Works Program was beyond the scope of the CRAG.
    - The Group should be focusing on how do we get more money for the roads? Our roads are our biggest and most important asset. We should be working on how we respond to the community survey issues raised.
  - Other participants indicated that they appreciated the opportunity to see the Program to be aware of the spread of projects. But were not in a position to comment.
- Livia clarified that the Draft Capital Works Program was just provided for information. We thought it was a good idea to show this to the group and to demonstrate the planning process and that the budget is focused on road renewal.
  - We are not expecting this Group to get into the details.
  - It is Council's job to continue to work out how to get more money for roads.
  - The whole budget is tight. Developing a budget is difficult. There is really no opportunity to take money from other assets to spend on roads.
  - In the 2024-25 budget we only have one "nice to have" project the major upgrade of the Splash Park and that is mostly funded by State and Federal government grants. Council's contribution to the project is funded from the sale of land.
  - The draft budget is open for community comment in April.

## **Safer Local Roads and Streets Program**

- Caroline and Livia explained the funding support that Council has received under the Safer Local Roads and Streets Program is an example of how Council has been successful in getting more money to improve our roads.
  - We were able to secure funding because we were proactive.
  - Two years ago, we had worked with Strathbogie Shire Council and so we had the Study results ready, showing that we had the worst road safety statistics in the State.
  - We are currently working on developing a holistic Road Safety Strategy and Action Plan.
  - We have taken the fatality and accident data to the TAC and the Department of Transport and advocated that something needs to change.
  - We received funding support for 7 out of 8 projects. Yea township pedestrian crossing was the only project not supported.
- Caroline and Livia explained that to get support the Minister needs to be convinced that the community will support the project. If we can demonstrate that the community are supportive, we are more likely to get the necessary funding.
- Participant comments included:
  - What is a “mass action curve treatment” e.g. at Skyline Road?
    - Peter Bain explained that it means any type of crash barrier meant to slow a vehicle down.
  - Speed limit reduction is necessary, but a program of traffic surveillance (including speed and truck behaviours) by the Police is also necessary.
    - Police have recently increased surveillance.
  - A pedestrian crossing at the Yea Shire Town Hall is needed.
    - It is a main shopping area.
    - it looks like a crossing and there are so many near misses.
  - Need to be careful to reduce speed only where it makes sense to do so.
- Livia and Peter noted that Council is definitely in favour of pedestrian safety and pedestrian crossings:
  - We have put in requests for the locations mentioned and other hotspots like Pheasant Creek, Kinglake – Whittlesea Road is a State managed road.
  - It costs a lot to get Vicroads Regional Roads Victoria to reduce a speed limit.
  - The speed reduction needs to be assessed by the Department of Transport as warranted by the volume and type of traffic.

## Setting Appropriate Service Levels

- Caroline provided a brief recap. She emphasised that the main purpose of this CRAG meeting (session 3) was to critique our current service levels and to begin to set out “where do we want to be?”
- Caroline highlighted that hearing from participants regarding their experience with the current service and their thoughts on what we should consider changing was very important to make sure the service levels are reasonable from the community’s perspective.
- She noted that reviewing our current service levels was probably going to be a difficult task and that Council were comfortable to continue discussions at the next CRAG meeting.
- Caroline indicated where the current service levels are documented. She explained that the service levels are reviewed every 4 years as part of the Road Management Plan Review. She explained that recent changes have included:
  - Reduced target times for removal of foliage obstructing visibility.
  - Introduction of a Rapid Response Crew
- Introduction of a Rapid Response Crew has been very beneficial.
  - It involved extra Council investment to fund vehicle and resources to improve the service level.
  - Previously if there was a tree fallen over a road, the grading crew would be dragged off their job to attend to the request. This was very inefficient; equipment would sit idle, and the grading would be delayed by half a day as crews had to pack up the site and travel to the issue (which could be on the other side of the Shire).
- A question was raised about Council’s policy regarding planting on nature strips and what is allowed.
  - Council wants to encourage community to look after the nature strip – but it needs to be done safely so as not to obscure sightlines.
  - Our guidelines need to be updated. It is one of the things Vito was working on and that Caroline’s team will do.
  - We have a selection of suitable trees but there is more work to be done to develop clear nature strip guidelines.
- Before stopping for a short break, Caroline highlighted the key things we all need to be aware of (keep in mind) when reviewing the current service levels:
  - Service levels must be deliverable, reasonable and considerate of community need.
  - We need to minimise safety risk and be as efficient as possible.

## Group Activity – Critique of Current Maintenance Service Levels

### Introduction

- To introduce the Group Activity, Fiona explained the current maintenance service levels documented in Table 4 of the Road Management Plan using two examples

(Drop-off from edge of seal and Rough surface unsealed road). Key points made included:

- Council's current response depends on the defect size and defect type and the Road Maintenance Standard Classification where 1 = Sealed Link Road, 2 = Sealed Collector, 3 = Unsealed Collector or Sealed Access Road, 4 = Unsealed Access Road and 5 = Access Track)
- The Service Response Time (e.g. 4 weeks) starts when the issue has been confirmed on site not when the request was received from Council.
- Council has given itself extra time to confirm the issue on site depending on the nature of the issue reported. 4 hours for emergencies. 5 days for less urgent issues and up to 28 days for issues routine in nature
- Fiona explained that in this Group Activity Council is asking participants for their opinion (as community representatives). Whether you think what is documented is reasonable. Do you think the timeframes, defect types and sizes are reasonable? Is something missing?

### **Questions\ Comments\ Clarifications**

#### *Service Response Time – What happens during that time?*

- Cameron indicated the approach makes sense but asked what happens during that “8 weeks” (i.e. the service response time) How is that time taken up? We need to know to be able to comment.
  - Stuart explained that the 8 weeks (or other service response time) is the time that we have allowed ourselves to program the work and get it done.
    - Alongside a request about rough surface, we have other customer requests and the Roads Inspector going around in each area, inspecting around 50 roads a day (depending on the area) and finding defects that also need to be fixed within the relevant time frame.
    - Defects found by the inspector generate the works programs for the crews. So, they are working through the areas on defects logged by the inspector.
    - When a customer request comes in, say for a pothole to be patched. The Work Order gets logged and the crews working in that area can see the request (on the system) and they action those as well.
    - Every defect has a timeframe for it. Things like a tree down blocking a road has a much shorter timeframe than a rough surface access road.
    - We try to balance a reasonable response time with the need to be efficient. We try to program the jobs (all the different activities) so that the staff are not jumping from one place to another wasting time.
    - We have tried to set the timeframe to be consistent with the risk of the defect type.

#### *Service Response Timeframes – 24 months for corrugations is too long!*

- David pointed to inconsistencies in the pothole sizes that are treated and highlighted the dilemma facing us that if we don't repair small defects quickly enough, they will get much worse.

- He pointed out that we have different defect sizes for potholes in unsealed roads. Potholes in traffic lanes (500mm and 150 mm deep) and groups of potholes 75mm deep for Rough surface unsealed roads.
- He emphasised that 24 months to address corrugations and potholes on unsealed roads is just way too long. The road will deteriorate by then. The corrugations will become big potholes.
- Fiona explained that:
  - Currently the larger pothole defect (potholes in traffic lanes) is a trigger for the pothole to be patched.
  - A road with the smaller size potholes (75mm) will just go onto a grading program.
  - If a pothole or corrugation is, left for 24 months and if gets worse, and becomes a 500mm 150 deep pothole it will then be patched.
  - Only potholes on low traffic roads (4 = Unsealed Access Roads & 5 = Access Tracks) will be left for 24 months before grading.
- David re-emphasised that the 24-month timeframe is too long even for low traffic roads.
- Mat asked whether there is a process for the road to get reinspected during the 24 months?
  - Yes, roads get re-inspected on a cycle according to the Road Management Plan frequencies. Except for category 5 (Access Tracks) which are only inspected on request.
  - So, if the defect is not repaired and gets worse it will be picked up by the inspection? Yes
- Caroline explained that the service response times are the maximum time that Council has to respond to a defect. A defect might be fixed earlier than the target.
  - If it can't be fixed warning signs will be put out to make sure people are cautious and drive to the conditions

*Sometimes repair can't be done within the target timeframe.*

- Paul provided an example of a road with scouring of the culvert (that the Catchment Management Authority is responsible for) to illustrate that in some circumstances the timeframes are meaningless because sometimes the necessary permanent repair can't be done in the timeframe.
  - Peter Bain explained that a temporary repair, warning sign or road closure is sometimes all that can be done.

*Legal Liability – Council must adhere to standards in order to defend against claims.*

- Livia explained that If we don't adhere to the documented standards, we are exposed to insurance claims for not complying with our Road Management Plan
  - We have to be careful not to set unachievable standards, we have to say what we can realistically deliver, because we have to be 100 % compliant.
    - If we say we will act in 4 weeks and we act in 4 weeks and 2 days, we are exposed to claims.
  - We have tried to stay on the safe side and document what is achievable, but we always aim to respond faster whenever we can.
  - During the October 2022 floods we suspended the RMP for good reason to tell the community we wouldn't be able to adhere to the standards because we had too many requests for repair. We had more work than we could handle. We needed to deal with the impacts of the floods, including potholes and trees down. Basically, we advised the community that they need to be cautious, and that Council cannot be sued for not adhering to the standards during that period.
- Peter Weeks asked for clarification about when and what Council would be found liable for.
  - If for example, someone has an accident on a motorcycle and they decide to blame the condition of the road they can lodge an insurance claim seeking reimbursement from Council for their medical bills, time off work, damage to their property.
  - To defend itself Council has to prove compliance with the documented RMP service levels. We will be asked: When did you do the inspection, what defects did you find, what did you do about them, and when?
  - Council would be found liable/ exposed if we said in our RMP that we would do something in 4 weeks and we only did it in 4 weeks and 2 days.
  - This is why we have the # on our service response times and say *Remedial action may include provision of warning signs, traffic control action or temporary repair*. Because sometimes all you can do is put out a sign.
    - Melba Highway is an example of this –Filling the potholes with cold mix just won't last, so Vicroads are just warning us to drive to the conditions, because the defects can't be fixed, until the road is resurfaced.
- Paul suggested that Council can never be liable because the Road Safety Act says drivers must drive to the conditions.
  - Councils have been found liable.
  - Stuart noted that when investigated Council's needs to show 3 years of inspection records and one Council only missed its annual footpath inspection frequency by a day or two and was found liable. Paid over \$280,000 in damages for a footpath fall.

### *Community opinion is necessary to test the reasonableness of the current standards.*

- Fiona emphasised that the opinions of this Group regarding reasonableness of the standards is really important. Because the service levels need to not only be deliverable, but the standards also need to meet community needs.
- Caroline suggested that participants ask questions and propose changes. Tell us if we have missed anything. We can then look at your suggestions in terms of what is deliverable – or what the implications will be.
  - If for example you think 24 month is too long. Tell us and we might find that when we look at the historic data, we have been able to achieve a shorter timeframe and an adjustment might be possible.
- Livia also asked participant to please tell us how they think Council is performing – we are now achieving only 90% of our targets.
  - Cameron noted that yes Council might only be at 90% but you are trying to improve. For example, by adding the Rapid Response Crew to deal with urgent issues and become more efficient.
  - Paul asked whether we have data to measure our performance?
    - Yes, We have data on the timeframes that we are achieving. We tend to achieve the high-risk short-term targets, but we slip up on the lower risk longer duration targets for example we might be overdue by 1 week on a 6- or 12-month target.
- Recognising that commenting on the service levels is a difficult task Caroline suggested we could email the worksheets out to participants, and we can have another discussion next time.

### *Inspections and staff reporting of issues – Are we doing enough?*

- Paul asked whether staff are required to report issues and expressed some doubts, whether they are reporting all issues that they should:
  - Stuart explained that staff are required to log issues that they see and that those issues get allocated to the appropriate crew. For example, the grading crew might report a blocked drainage issue.
  - Staff can see from the system if an issue is already reported and programmed for action.
  - If the asset that needs repair belongs to a water authority it would be reported to the relevant authority.
- Are there enough inspectors?
  - Yes, we are able to deliver the current Road Management Plan inspection frequencies.
  - Ensuring our inspections are thorough/ accurate and on time is essential for our defence against claims.

### *Pothole patching – Can we expand resources to improve efficiency?*

- David sought clarification on how the road maintenance crews operate and what can be done to stop potholes from becoming a bigger problem. How many people are fully committed to pothole repair?
  - Stuart explained that on unsealed roads we have a team of six. Split into grading teams. Traditionally from September to April they are focused on grading. If it's too wet to grade the crews just fix potholes, getting gravel into potholes just to keep the roads trafficable until the roads are graded.
- David felt that the pothole response times are too long because of the potential damage as they are going to get worse if we don't get onto them quickly enough.
  - He provided an example of what he has seen as an appalling waste of labour- 3 guys and a tip truck filling potholes, when they run out of gravel all 3 guys and the truck disappear for however long to go and get more gravel.
    - Suggested 4 guys and 2 tip trucks so we don't waste time and resources travelling for gravel. The team could then keep working on filling potholes while someone goes to pick up more gravel.
    - We would need to fund the extra crew and truck.

### *How do we find more resources to spend on roads?*

- David emphasised that more needs to be spent on roads:
  - State survey and our community survey both say we need to do more and spend more on roads, bridges. That we need to redirect funds to roads?
  - Roads are our biggest most important asset and has to be maintained. So how do we get more resources. For example, how many crew work on Parks and Gardens?
- Stuart explained that:
  - There are 12 Open Space Crew, but there is not double the number of people working on parks and gardens compared to roads because there are other road crews that supplement the crew of six that work on grading and unsealed pothole patching.
  - To create the 4 crew 2 truck pot hole patching crew, suggested by David, we would need extra staff and vehicles.
    - Vehicles need to come out of capital budget and staff come out of operations budget. Budgets and staff levels are capped.
    - We now have the Rapid Response Crew and a separate Tree Crew, that we didn't have before. With these resources we no longer take staff off works like grading or pothole filling in order to remove trees over roads or attend other urgent requests. This enables the pothole filling grading crew to save time be more efficient and get more done.
    - This coming winter we will better understand the benefits of the Rapid Response Crew, what efficiencies have we actually got. How much more pothole patching can the existing crew get done.
    - At the moment there is no geographical split the unsealed teams cover the whole Shire. We are looking at an East West split of the Shire with the Ranges through the middle. If that goes ahead crews will save travel time and we will get more work done with the existing resources.

- Right now, we don't yet have the data to demonstrate that we would benefit from 4 guys and 2 trucks or 6 guys and 2 trucks.
  - We can't just get more staff and buy extra vehicles.
- Livia explained that:
  - Open Space Crews not only look after beautiful parks and gardens they also look after public toilet maintenance, empty public bins and do tree maintenance.
  - The open space maintenance budget is less than \$2M per year compared to roads which is much higher, over \$5M. Biggest ticket item in the operating budget is infrastructure maintenance and most of that goes to roads.
  - This Council has increased spending on roads and equipment.
  - It takes 2 years to buy additional equipment – there is a long lead time.
    - Increases in equipment have a big impact on the budget and they need to be maintained.
    - We need to make sure we have the labour to get utilisation of our expensive equipment.
  - We are looking at opening a second depot to improve efficiency by reducing travel time of the crews.
- Mat suggested we need to be careful if we pull resources away from other assets (e.g. Open Space) to improve our roads. We then risk ending up with two poor quality asset groups.
- Paul also suggested that we shouldn't take resources from one asset to give to another.
  - The Buxton community want quality reserves as well as good condition roads to drive to the reserve. Maybe they have to negotiate a few potholes in order to access well-maintained reserves. Let's not rob one part of the budget to pay for the other.
- Peter Bain explained that we will be more efficient if we introduce preventative maintenance (like grading on a cycle) and find efficiencies so we can repair the defects that are a bit too big for normal maintenance (say damaged pavement up to 10 square metres). It has been difficult to improve efficiencies given the amount of flood damage we are dealing with.

*Should the road surface type (sealed or unsealed) influence the response time?*

- Peter Weeks highlighted that the pothole sizes are currently different for potholes in sealed and unsealed roads, but the current response timeframes are the same. Does that make sense?
  - Category 3 = Unsealed Collector Roads are repaired at the same time as Category 3 = Sealed Access Roads.
- Livia posed the question - Does a sealed road need more prompt intervention?
  - Participants had mixed opinions.
    - Some felt strongly that the road surface type should impact the response time.
    - Others thought other factors like speed, traffic volume (number of people using the road) were the more important factors.

- Likelihood of cost escalation if the defect gets worse was seen as important.
  - It was suggested Council should be considering the risk to the user and the inconvenience to the user.
    - Inconvenience needs to be given less importance than safety.
  - Degree of risk for each defect is what is most important. If the defect (whatever defect it is) is likely to kill someone it should be dealt with fast, regardless of the road surface.
- Are sealed or unsealed roads more costly to maintain?
  - Sealed roads are generally cheaper to maintain because they don't need to be regularly graded.
    - Unsealed roads tend to get more requests, potholes, dust, loose gravel.
    - Both sorts of roads need inspection, sign and other maintenance
  - Sealed roads are prohibitively expensive to construct.
    - Need at least 250 vehicles per day for the investment in sealing an unsealed road to be considered worthwhile.
    - Other things like the need for widening and drainage upgrades impact whether it is worthwhile.

*150mm pothole depth is too deep – need warning signs and markings.*

- Cameron expressed dissatisfaction with the intervention standard for a pothole being 150mm deep.
  - Absurd to let pothole get to 150mm deep – damage to tyres, wheel rims and car.
  - Suggested we add a column to the table to say that rapid response crew go straight out and mark the pothole and put a traffic hazard sign until it is fixed.
  - Livia noted that by the time someone is sent out to put out the sign they could fill the pothole – So it would be inefficient to put out a sign unless we have more potholes that we can fill in time.
  - Stuart reminded everyone that the current service levels were written four and a half years ago. Before the rapid response crew existed. Now when we review the RMP again we will be able to adjust the time frames knowing we now have the rapid response crew.
- Paul emphasised concern that a pothole is just as dangerous on a Track, so needs to be repaired.
  - If there is a track that gets a lot of traffic 100vpd (even if it's just on the weekends) then we should increase its priority.
  - For other tracks servicing just a couple of properties the risk is lower and so the pothole should also be a lower priority.
  - It's not just potholes that matter, mounds of gravel can also be an issue for drivers.
- Stuart and Livia expressed the importance of hearing this community feedback. It is important because in the past the community hasn't been really involved.

### *Is the Rapid Response Crew cost effective?*

- Yes. Before the Rapid Response Crew, we had to pull crews (such as the grading crew) off jobs to respond to customer requests and patch potholes. This no longer happens.
- The Crew includes 2 staff and one vehicle. So, it does come at a cost to the operating budget.
- Since they were established about 6 months ago. The Crew have been actively involved in responding to recent emergency situations.

### *Is it possible to get an extra crew to fill unsealed road potholes?*

- Stu explained that to get any extra crews or vehicles (e.g. to enable the 4 people two trucks for pothole patching) – the proposal for extra resources needs to be assessed against all new initiative budget bids which come from across all areas of Council.

### *Finding the right mix of reactive and proactive preventative maintenance activities.*

- Fiona highlighted the importance of trying to strike the right balance between reactive corrective maintenance (responding to defects when they occur) and preventative proactive maintenance (like routine grading to maximise the life of the asset) and renewal to restore the condition.
  - Council currently proactively inspects the roads and waits for a defect to appear then repairs them. All other road related maintenance activities are a reactive response to an identified defect.
  - Council recognise that we need to think about doing more proactive preventative maintenance – e.g. Grade the roads and clean the roadside drains on a regular cycle to prevent (or minimise the likelihood) of defects.
  - Becoming more proactive will be more cost effective.
  - We need to find the sweet spot.
    - Not enough preventative proactive maintenance means we spend more on responding to defects as they arise.
    - Too much preventative maintenance, we end up overservicing and wasting money.

### *Can we establish a “Kitty” of surplus funds for emergencies?*

- Cameron suggested having a “kitty” to put any left-over money for when we need it for example floods and storms events.
  - Budgets are always over spent so there would be no money to put in a kitty.
  - Livia explained that we don’t need a kitty for “declared events” we get money for recovery from storm events and other natural disasters – not immediately but eventually we get the funding from the State and Federal Governments

### *Can we introduce a proactive routine grading program?*

- Paul expressed surprise that Council doesn’t have a routine grading program.
  - It’s not that we never grade our roads – we grade based on inspections. Proactive inspections identify defects and determine whether a grade is needed or not.

- Stuart explained that now that the rapid response crew is in place, we can move towards having a proactive routine grading program.
  - The question for us now is how often our roads should be graded – we need to find a balance between overservicing and preventing deterioration.
- Cameron provided examples of locations where Council hasn't graded all the roads.
  - The crown on some roads is so high that you can't drive in the centre of the road they are not touched.
    - Caroline suggested that is the sort of feedback we need and to please provide this information on the homework worksheet. – So, we can then look into what can be done in future.

## Next Steps

- Caroline/ Peter Bain to distribute a copy of the draft Special Charge Scheme Policy for CRAG member feedback.
- Peter Bain to investigate and respond to Peter Weeks regarding truck visibility concerns regarding Bon/ Green/ Aitken Street Alexandra
- If possible, Brian to provide Stuart Russell with sample locations where there are concerns about the quality of repair so that the underlying issue can be investigated.
- Caroline to advise Paul the meaning of Road Maintenance Standard Class 1, 2 ,3 for Pathways documented in the Road Management Plan
- Caroline to distribute a copy of the Group Activity Worksheet via email to all CRAG members no later than 12 March 2024.
- CRAG members to complete the Group Activity Worksheet and return it to Caroline Lintott via return email no later than 5pm Wednesday 10 April 2024.
- Next meeting will be scheduled for early May 2024 and will provide opportunity for further deliberation on potential changes to Council's current road management service levels.

# Appendices

## Appendix A - Session Three Slide Presentation

Murrindindi Shire Council



### Road Asset Management Plan Review

Council Road Advisory Group (CRAG) - Session Three  
Wednesday 6 March 2023  
6 – 9 pm

Murrindindi Shire Council

### Welcome and Acknowledgement of Country

Councillor Sue Carpenter (Chair)



Arbore 3064 | 1595934697

## Meeting objectives

- Improve Council's understanding of community needs.
- Review the 2024-25 Draft Capital Works Program for road assets
- Work together to **identify desired service level targets** for:
  - Inspections
  - Maintenance
  - Renewal
- Begin to **consider the implications of making changes** to current service levels:
  - Community benefits
  - Costs and risks

## Meeting Agenda

- |               |  |
|---------------|--|
| 6:00 pm       | Welcome, Introductions & Acknowledgement Of Country  |
| 6:05 pm       | Housekeeping   |
| 6:10 pm       | Session Two Recap - Reflections From The Group   |
| 6:30 pm       | 24-25 Draft Capital Works Program for Roads Assets – Comments from the Group                         |
| 7:00 pm       | Presentation and Group Discussion – Discuss experiences with current Service Levels (SLs)            |
| <b>7:30pm</b> | <b>Break</b>   |
| 7:50 pm       | Group Activity - Critique current SLs and propose alternative service level targets or other changes |
| 8:20 pm       | Groups Report Back – Suggested changes and vote on key priorities                                    |
| 8:50 pm       | Next Steps and Concluding Remarks  |
| 9:00 pm       | Thank you  |

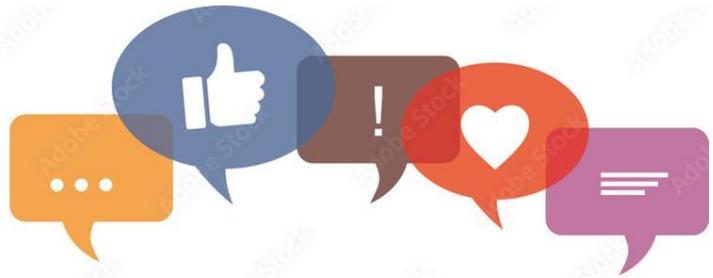
## Housekeeping



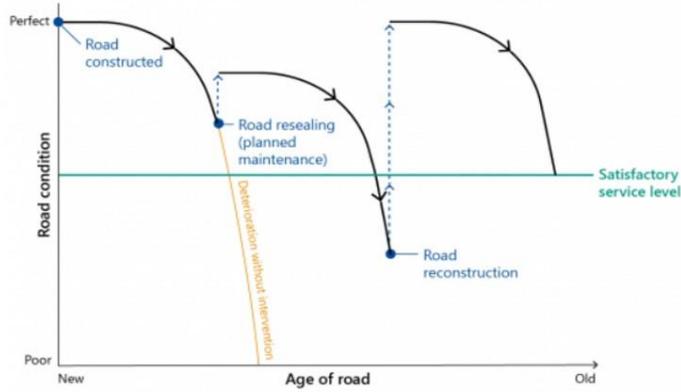
- Allow everyone an opportunity to be heard.
- Park complex or off-topic questions or comments for Officers to respond to on paper placed around room.

## Session Two Recap and Reflections

- Session Two Summary Report
- Key messages



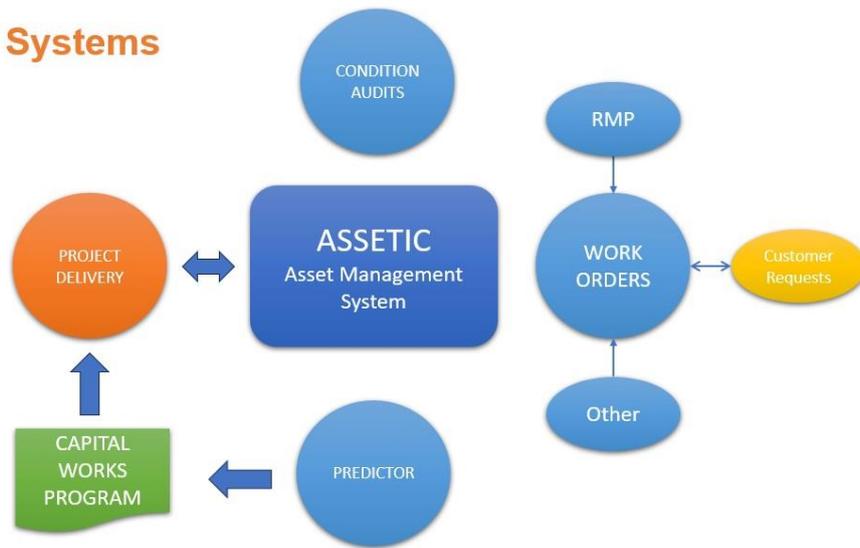
## Developing the Capital Works Program for Road Assets



Road condition profiles

Source: VAGO, based on ARRB and Audit New Zealand.

## Asset Systems



## Road project categories



## Safer Local Roads and Streets Program

Examination of crash statistics within the Murrindindi Shire identified the following:

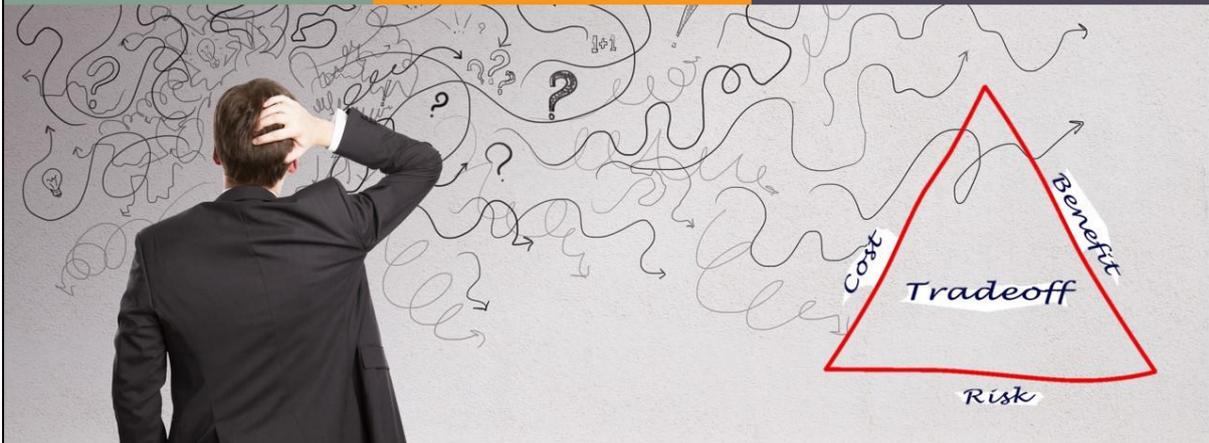
- Murrindindi Shire had higher overall crash numbers than all small rural shires and 15 out of the 19 large rural shires in Victoria
- 72% of persons involved in crashes resided outside the shire
- 56% of crashes occurred on weekends with more than half of all crashes involving a motorcyclist
- A very high crash rate per capita. This includes a much higher average fatality rate per capita compared to Victoria

The Safe Local Roads and Streets program provides an opportunity to improve road safety within Murrindindi Shire.

This will also complement work currently underway on developing a wholistic plan within the shire for a road safety strategy and action plan.

### Safer Local Roads and Streets Program

<b>Project 1</b>	Whanregarwen Road – speed limit reduction and curve treatments at high-risk curves	\$ 121,000
<b>Project 2</b>	Skyline Road – speed limit reduction, mass action curve treatments	\$ 404,000
<b>Project 3</b>	Extons Road – speed limit reduction, mass action curve treatments	\$ 114,000
<b>Project 4</b>	Yarck Road – speed limit reduction, curve treatments and barrier	\$ 294,000
<b>Project 5</b>	Jerusalem Creek Road – mass action curve treatments	\$ 70,000
<b>Project 6</b>	Ghin Ghin Road – speed limit reduction, mass action curve treatments	\$ 249,000
<b>Project 7</b>	Yea township – two raised pedestrian crossings	\$ 624,000
<b>Project 8</b>	Kinglake township – new raised pedestrian crossing	\$ 300,000
	<b>Total Estimated Investment</b>	<b>\$ 2,176,000</b>



### Setting Appropriate Service Level Targets

### Context – RAMP Content



### Our Current Service Level Targets



**ROUTINE DEFECT INSPECTIONS**  
Table 3 pages 9-10

**REACTIVE MAINTENANCE SERVICE LEVELS**  
Table 4 pages 12-16



**RENEWAL SERVICE LEVEL**  
Page 16  
Tables pages 30-33

## Service level changes identified



Att. 6 - page 62 -77

- ✓ Introduction of a Rapid Response Crew
- ✓ Reduction in time to remove sucker tree growth in shoulders
- Adjust:
  - Hierarchy classifications
  - Routine defect inspection frequencies
  - Defect intervention levels
- Introduce a routine proactive grading program
- Define defects that trigger a renewal response

## Objectives when reviewing our current service levels

- Our actions must:
  - Aim to **minimise public safety risk**
  - Be considerate of **community needs**
  - Demonstrate **good governance**
- Our maintenance service levels must:
  - be seen as “**reasonable**” and “**appropriate**” in a court of law
  - be **consistently delivered**, 100% of the time (except under declared “Abnormal Circumstances”)





## Group Discussion - Levels of Service

- Discuss experiences with current service levels

OFFICIAL

Defect and Response	Intervention Standard	Road Maintenance Standard	Service Response Time*
<b>Drop-off from edge of seal to shoulder and edge breaks.</b> Restore unsealed shoulder to correct profile	Edge drop-offs greater than 100mm measured with a 1.2 straightedge.	1 & 2	Take remedial action* within 1 week of confirmation of damage and program repairs as per response times below
		3, 4 & 5	Not applicable
	Edge drop-offs between 75mm and 100mm measured with a 1.2m straightedge.	1	4 weeks
		2	6 weeks
		3	8 weeks
		4 & 5	Not applicable.
<b>Rough surface unsealed road.</b> Restore the riding surface of an unsealed road to a smooth even condition.	Scouring exceeding 150mm deep measured with a 1.2m straight edge, <b>OR</b> Corrugations, roughness or group of potholes exceeding 75mm deep on bends or 100mm deep on straights.	All	Take remedial action* within 1 week of confirmation of damage
		Effect permanent repairs	
	1	4 weeks	
	2	6 weeks	
	3 & 4	3 months	
	5	6 months	
	Any scouring exceeding 75mm deep measured with a 1.2m straight edge <b>OR</b> Corrugations, roughness or multiple potholes exceeding 75mm deep measured with a 1.2m straight edge AND over <ul style="list-style-type: none"> <li>• 20% of any length of road greater than 100mm OR</li> <li>• 50% of any length of road between 10m &amp; 100m</li> </ul>	1	3 months
2 & 3		6 months	
	4 & 5	24 months	



## Time for a Break

7:30 to 7:50 pm



### Break out into three groups

- Critique current service levels
- Propose alternative service level targets or other changes

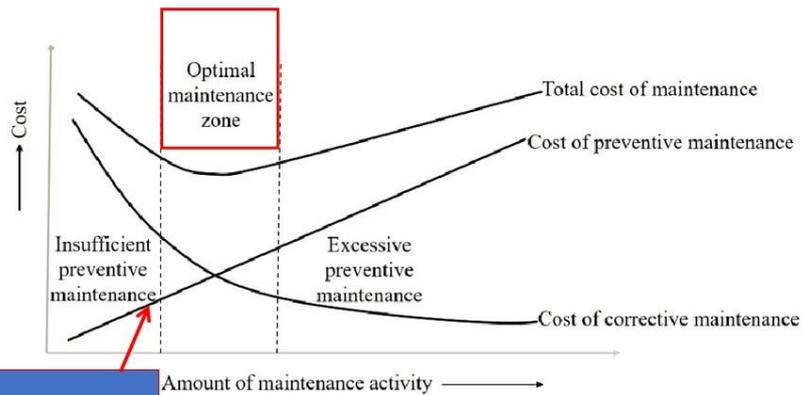


### Report Back

- Suggested changes
- Vote on key priorities

OFFICIAL

### The theoretically optimal maintenance zone



#### WE ARE HERE

We focus on reactive work to repair defects that exceed intervention.

We don't spend as much on renewal and sweeping is our only proactive preventative maintenance activity

## Next Steps and Concluding Remarks

Adobe Stock | #250987671



**Councillor Sue Carpenter (Chair)**

## Appendix B - Session Three Group Activity Worksheet

OFFICIAL



### CRAG Session 3 - Group Activity Worksheet

#### Please Critique our Current Maintenance Service Levels

Please consider the maintenance service levels documented in the Road Management Plan (2021) and reproduced in the table below.

Tell us whether the intervention standards and response times seem to be reasonable or is there any areas that need to be improved. Provide suggestions for what it should be. Have we missed anything?

Provide suggestions for what it should be. Have we missed anything?

Page | 1

OFFICIAL

Page | 2

OFFICIAL

Page | 3

OFFICIAL

<b>Defect and Response</b>	<b>Intervention Standard</b>	<b>Road Maintenance Standard</b>	<b>Service Response Time</b> *	<i>In your opinion, is the current service level reasonable or needs improvement? If improvement required, what should the service level be?</i>
<b>Obstacles in traffic lanes.</b>  Remove obstructions.	Obstacle which prevents the passage of vehicles, and where there is no alternative access.	All	24 hours	
	Obstacles which encroach onto a traffic lane, and which would require a driver to have to deviate.	All	Take remedial action# within 1 week of confirmation of obstacle.	
<b>Potholes in traffic lanes.</b> Patch potholes in traffic lanes using appropriate materials to repair the damage and restore the riding surface to a smooth condition.	Greater than 300mm diameter and greater than 100mm deep (sealed pavement) OR Greater than 500mm diameter and greater than 150mm deep (unsealed pavement)	All	Take remedial action# within 1 week of confirmation of damage	
		Undertake permanent repairs		
		1	4 weeks	
		2 & 3	6 weeks	
		4	3 months	
5	6 months			

Page | 4

OFFICIAL

<i>Defect and Response</i>	<i>Intervention Standard</i>	<i>Road Maintenance Standard</i>	<i>Service Response Time</i> <sup>*</sup>	<i>In your opinion, is the current service level reasonable or needs improvement?</i> <i>If improvement required, what should the service level be?</i>
Non-Reflective Regulatory signs and Hazard Marker signs and guideposts Replace Sign.	Missing signs or failing to reflect light.	All	Replace sign within 6 weeks of confirmation of damage.	
Drop-off from edge of seal to shoulder and edge breaks. Restore unsealed shoulder to correct profile.	Edge drop-offs greater than 100mm measured with a 1.2m straightedge.	1 & 2	Take remedial action <sup>#</sup> within 1 week of confirmation of damage and program repairs as per response times below	
		3, 4 & 5	Not applicable.	
	Edge drop-offs between 75mm and 100mm measured with a 1.2m straightedge.	1	4 weeks	
		2	6 weeks	
		3	8 weeks	
4 & 5	Not applicable.			

OFFICIAL

<i>Defect and Response</i>	<i>Intervention Standard</i>	<i>Road Maintenance Standard</i>	<i>Service Response Time</i> <sup>*</sup>	<i>In your opinion, is the current service level reasonable or needs improvement?</i> <i>If improvement required, what should the service level be?</i>
Rough surface unsealed road. Restore the riding surface of an unsealed road to a smooth even condition.	Scouring exceeding 150mm deep measured with a 1.2m straight edge, <b>OR</b>	All	Take remedial action <sup>#</sup> within 1 week of confirmation of damage.	
		Effect permanent repairs		
	Corrugations, roughness or group of potholes exceeding 75mm deep on bends or 100mm deep on straights.	1	4 weeks	
		2	6 weeks	
		3 & 4	3 months	
	Any scouring exceeding 75mm deep measured with a 1.2m straight edge <b>OR</b> Corrugations, roughness or multiple potholes exceeding 75mm deep measured with a 1.2 m straight edge AND over • 20% of any length of road greater than 100m OR • 50% of any length of road between 10m & 100m.	1	3 months	
2 & 3		6 months		
4 & 5		24 months		
Trees or limbs intruding into road.	Trees or limbs which encroach onto a traffic lane or shoulder	ALL	Take remedial action <sup>#</sup> within 1 week of confirmation of defect.	

OFFICIAL

<b>Defect and Response</b>	<b>Intervention Standard</b>	<b>Road Maintenance Standard</b>	<b>Service Response Time *</b>	<i>In your opinion, is the current service level reasonable or needs improvement? If improvement required, what should the service level be?</i>
Maintain clear line of sight and clear road canopy.	Foliage interfering with line of sight at intersections and to road signs.	1 & 2	6 weeks	
		3, 4 & 5	12 weeks	
	Sucker tree growth within road shoulder or verge, <b>OR</b> Trees or limbs encroaching into clear zone (1.5m behind edge of shoulders and minimum 5m height clearance over road pavement and shoulders).	1, 2 & 3	12 weeks	
		4 & 5	24 weeks	
Kerb & channel(sealed pavement)	When kerb & channel is damaged and causing water to pond over the trafficable road surface to a depth greater than 50mm.	All	Rectify within 12 months	
Surface drains & culvert to maintain flow of water and protect road and roadside from scouring.	When there is a blocked surface drain or culvert preventing the free flow of water away from the road pavement	1	Clear or cleanout within 6 months	
		2		
		3		
		4,5	Clear or cleanout within 12 months	

Page | 7

OFFICIAL

<b>Defect and Response</b>	<b>Intervention Standard</b>	<b>Road Maintenance Standard</b>	<b>Service Response Time *</b>	<i>In your opinion, is the current service level reasonable or needs improvement? If improvement required, what should the service level be?</i>
Culvert or pit repairs Repairs or replacement of road culverts or pits.	Where a culvert or pit is a hazard to road users	All	Take remedial action within 24 hours of confirmation of defect.	
		1	Repair within 6 months	
	2			
	3			
Where road culverts or roadside pits are damaged or have deteriorated through age to the extent where they are not able to function adequately, or where they are likely to become a hazard	4,5			
	Bridge maintenance (Routine repairs to structure) Routine tasks associated with bridge maintenance	Repair of defects as identified	1,2,3	Rectify within 6 months
		4,5	Rectify within 24 months	

# Remedial action may include provision of warning signs, traffic control action or temporary repair.

\* All response times are measured from the time that the imperfection is confirmed on site by a Council officer to exceed the stated intervention level.

Page | 8