



Asset Management Plan

SEALED ROADS

Policy: AMP-01/19

Endorsed by Council: 28/11/2019

Next Review: November 2022

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1. Executive Summary

Central Desert Regional Council (CDRC) is responsible for municipal services of nine communities in the remote Central Australian region. Each of these communities have sealed internal roads that require ongoing maintenance and resealing.

Condition data assessments have been carried out to confirm reseal timelines and Asset Maintenance Plans compiled in order to carry out routine maintenance schedules.

Council budgeting should reflect requirements of this plan to ensure road renewal is maintained over time.

2. The Purpose of this Plan

This plan shall detail all CDRC sealed road assets with lengths and widths and planned treatments to maintain road renewal over time and detail estimated costings to achieve this.

3. Asset Description

Assets referred to within this plan are either Spray Sealed (aggregate with binder) road surfaces that are under CDRCs asset list in each of its nine remote communities namely: Lajamanu, Yuendumu, Yuelamu, Nyirippi, Willowra, Anmatjere, Atitjere, Laramba and Engawala.

There are also smaller outer communities attached to Anmatjere community that have sealed roads and these roads are included in table 1 below.

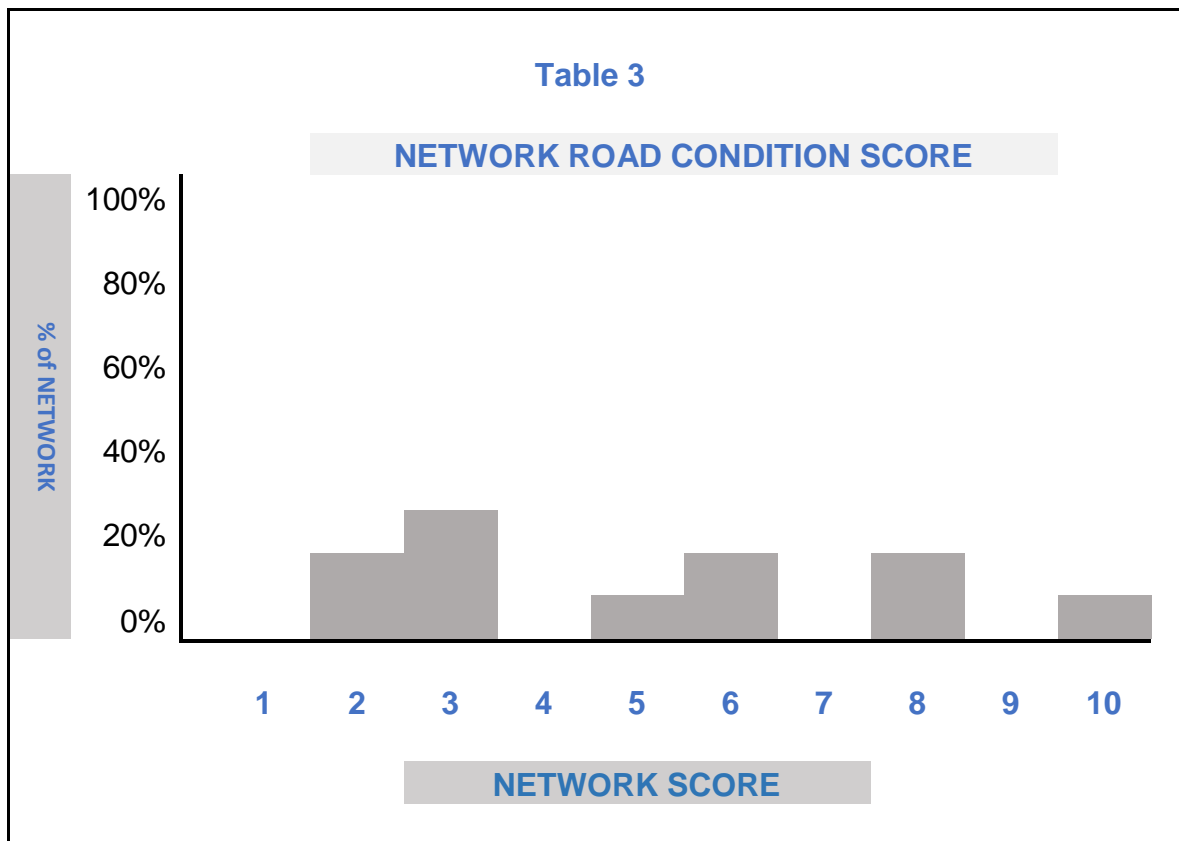
Table 1: Community Sealed Road Areas:

Community	Spray Seal Area m²	Comments
1. Anmatjere (Ti Tree)	6x2060=12360	Unknown when last reseal carried out.
Wilora	6x1510=9060	Last reseal carried out 2016.
Pmara Jatunta	6x1440=8640	Unknown when last reseal carried out.
Nturiya	6x1070=6420	Unknown when last reseal carried out. Exceptionally poor seal quality, to the point of having to remove seal layer and carry out new seal.
2. Atitjere	6x4140=24840	Last reseal carried out 2017.
3. Engawala	6X1400=8400	Last reseal carried out 2017.
4. Lajamanu	6x5280=31680	Unknown when last reseal carried out.
5. Laramba	6x1500=9000	Last reseal carried out 2016.
6. Nyirripi	6x2880=17280	Unknown when last reseal carried out.
7. Willowra	6x4740=28440	Last reseal carried out 2016.
8. Yuelamu	6x2500=15000	Unknown when last reseal carried out.
9. Yuendumu	6x10250=61500	Last reseal carried out 2009/10.

Table 2: Reseal Condition Score:

Community	Spray Seal Condition Report	Road Seal Condition Score 1 = Good-10=Poor
1. Anmatjere (Ti Tree)	Due for reseal	5
Wilora	Resealed in 2016.	3
Pmara Jatunta	Due for reseal	5
Nturiya	Overdue for reseal	10
2. Atitjere	Resealed in 2017.	2
3. Engawala	Resealed in 2017.	2
4. Lajamanu	Surface has deteriorated badly.	8
5. Laramba	Resealed in 2016.	3
6. Nyirripi	Due for reseal	6
7. Willowra	Resealed in 2016.	3
8. Yuelamu	Due for reseal	6
9. Yuendumu	Resealed in 2010 but surface has been badly damaged from a kerbing project and suffered from normal deterioration.	8

Table 3: Network Road Condition Score



3.1 Level of Service

Community expectations are mainly concerned with ride ability and dust control. However as the service provider responsibilities include:

- All weather access
- Traffic management
- Safety of the road user
- Visual amenity

Scoring of bitumen running surfaces include:

- Aggregate quality
- Residual bitumen
- Life of remaining bitumen

- Cracking
- Aggregate loss
- Deformation

4. Reseal Costing

To enable future planning for budgeting purposes and to maintain this asset in a sustainable way, expert consultants have inspected all of CDRC's sealed network to ascertain intervention times and treatment options.

This planning work should enable CDRC staff to compile reseal dates into the future with today's costing attributed to each asset. This will further enable annual budgeting to fund the intervention treatments required to maintain the asset.

Consultants have determined with the aid of Australian Standards and best practice, a return period of 15 years as a cycle to intervene with a reseal treatment to all spray seal assets. However (refer to Renewal Statement section 7) given local conditions in Central Australia renewal periods are of a lower return period.

Reseal timing and quantity are also affecting in the remote Central Australian area by mobilisation costs. This means that to ensure best economy of works, that a larger community, or if a smaller network of roads exists, possibly two communities shall be resealed during one reseal programme.

Currently some road networks have not had any maintenance carried out way beyond the seal life cycle. This will mean that catch up sealing works and possibly a two coat seal (14mm/7mm aggregate) may be required to bring the road sealed surface back to serviceability. Once this seal is completed then 7mm reseals can be carried out approximately every 12 years.

Usually reseal works shall be carried out in conjunction with ancillary road works such as table drain repairs, road shoulder repair works and any other drainage works, however this Asset Management Plan does not look as these peripheral costs.

A forward programme for reseal works will be developed and reviewed by Council annually as part of the budget process.

5. Plan Framework:

The guiding documents for this AMP are:

Council's Asset Management Policy

Council's Asset Management Strategy

This AMP sets out to provide direction on:

- Future Budgeting for Sealed Roads
- Level of Service for Sealed Roads
- Project Direction
- Life Cycle Management of Sealed Roads

6. Strategic and Corporate Goals

This AMP sets out to formulate guidelines to manage sealed road assets in a sustainable manner for present and future stakeholders. Key elements are:

- Managing Risk
- Financial Responsibility
- Level of Asset Service
- Life Cycle Approach
- Responsible Asset Management for Future Generations

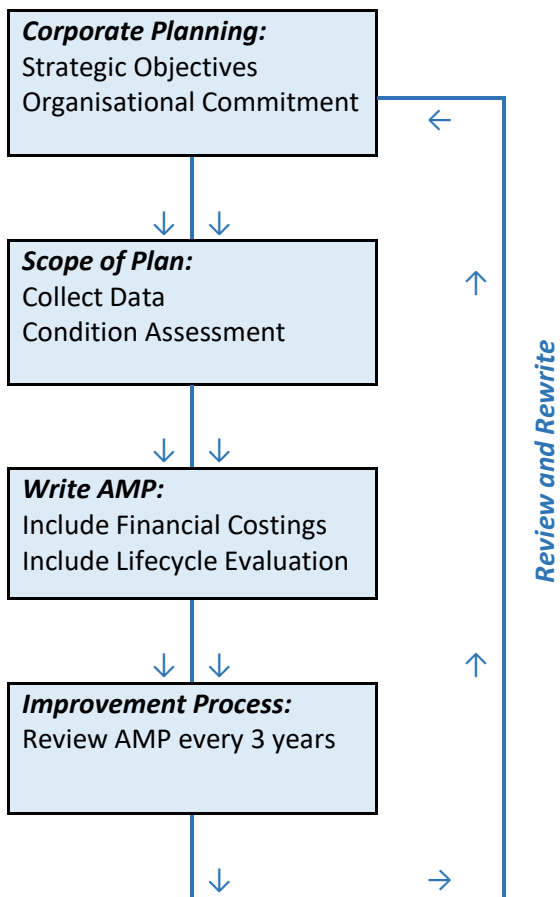
7. Renewal Statement:

Given the hot dry and sandy conditions in Central Australia and the low traffic volumes, it is estimated that return periods for spray seal reseals should occur every 12 years on average. CDRC has 12 Communities that have sealed roads and the most economic reseal programme would be to seal two communities/Outstations annually. It would also be economically advantageous to network with Northern Territory Government staff to determine their reseal timing for Central Australian. This would enable CDRC to make a saving on mobilisation of a seal crew. This saving could be in the order of \$40,000 for one mobilisation.

It is estimated at current reseal rates that an annual expenditure of \$400,000 should be budgeted within CDRC's annual budget and LTFP to ensure asset management is maintained.

8. The Circle of Asset management

Table 4: AMP Lifecycle



9. AMP Review

Refer Table 5 above. This AMP should be reviewed every 3 years to account for data changes. AMP processes should be improved and financial costing and budgeting updated.

Plan Written by Director Council Services (CDRC): November 2019

Review Date: November 2022

Plan Endorsed by Central Desert Regional Council CEO:

CEO: Diane Hood: _____ Date: 28 / 11 /2019