



District Council of Cooper Pedy

Infrastructure & Asset Management Plan 2021 to 2030



V1.1

February 2020

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1 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

Asset management planning is a comprehensive process to ensure that Council manages its non-current assets to support the delivery of Council services in the most efficient and effective way possible.

1.2 Scope of the Plan

This plan covers a ten-year period up to 2029/30. It includes assets that are used in the delivery of the following services:

- Road maintenance;
- Waste management;
- Street lighting;
- Building and planning control;
- Environmental health;
- Footpath maintenance;
- Stormwater maintenance;
- Supply of potable water;
- Treatment of wastewater;
- Supply of electricity;
- Childcare centre;
- Swimming pool;
- Administrative services;
- Visitor Information Centre;
- Recreational services;
- Public toilets;
- Public order (animal control); and
- Parks and gardens.

Council maintains some of the Kanku-Breakaways assets on a contract basis. The Board's assets are not included in this Infrastructure and Asset Management Plan.

The swimming pool, child care centre and library are not included in the plan because they are owned by the Education Department.

1.3 Asset Description

The assets comprise;

- Land;
- Buildings;
- Outdoor cinema;
- Airport;
- Roads and footpaths;
- Water plant;
- Sewerage treatment plant;
- Stormwater drains;
- Electricity distribution assets;
- Furniture and equipment;
- Playground equipment
- Vehicles; and
- Plant and machinery.

These infrastructure assets have significant value estimated at \$45.2m.

1.4 Levels of Service

Our present, funding levels are sufficient to continue to provide existing services at current levels in the long term.

1.5 Future Demand

The main demands for new services are created by:

- Population levels;
- Number of visitors to the town;
- Community expectations, and
- Regulatory requirements.

1.6 Financial Summary

What we will do

Council's priorities include;

- A focus on maintaining existing assets to extend asset lives;
- Minimising the introduction of new assets that may take funding away from existing assets and required future maintenance; and
- Communicating asset management plans with the community.

This plan does not provide for new services or new assets. Existing services will be delivered by maintaining and upgrading existing assets.

Estimated available capital funding for this period is \$20,598,703 or \$2,059,870 average per year as per the long-term financial plan. This is 100% of the cost to sustain the current level of service at the lowest lifecycle cost.

The reality is that Council can only fund assets that are included in the Long Term Financial Plan (LTFP).

1.7 Asset Management Practices

Our systems to manage assets include;

- Synergy Soft Corporate system, and
- Spreadsheet records of assets.

Council has used a combination of data from the Asset Register, knowledge of the Assets, and professional judgment to determine the renewal program.

2. INTRODUCTION

2.1 Background

This IAMP identifies the basic actions required for the management of assets and the funds required over a 10-year planning period.

The IAMP is to be read in conjunction with Council's other planning documents including Council's LTTP.

Table 2.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value \$'000 (2018)
Transportation	11.6 km road pavement 30.8 km road seal	9,819
Water	98.6 km water pipes	14,909
Stormwater	708m pipes	249
Electricity	117.45 km cabling	8,670
Waste water assets	6.0 km pipes	2,098
Buildings	62 structures	7,712
Plant	38 vehicles	1,812
TOTAL		45,269

2.2 Goals and Objectives of Asset Ownership

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost-effective manner for present and future consumers. The key elements of an asset management are:

- Providing a defined level of service and monitoring performance;
- Managing the impact of growth through demand management and infrastructure investment;
- Taking a lifecycle approach to develop cost-effective management strategies for the long-term that meet the defined level of service;
- Identifying, assessing and appropriately controlling risks; and
- Linking to a long-term financial plan which identifies required and affordable expenditure, and how it will be allocated.

Other references to the benefits, fundamentals, principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 1
- ISO 550002

2.3 Core and Advanced Asset Management

This Infrastructure and Asset Management Plan is prepared as a 'core' infrastructure and asset management plan over a 10 year planning period in accordance with the International Infrastructure Management Manual³. Core asset management is a 'top-down' approach where analysis is applied at the system or network level. An 'advanced' asset management approach uses a 'bottom-up' approach for gathering detailed asset information for individual assets.

¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

² ISO 55000 Overview, principles and terminology

³ IPWEA, 2015, IIMM.

Further work will be undertaken to review and document the service levels provided by assets, documentation of the regulatory requirements and assessment of the risks associated with assets.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

This 'core' asset management plan is prepared to facilitate consultation prior to adoption by Council. Future revisions of the plan will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and stakeholders in matching the level of service required with the community's ability and willingness to pay.

3.2 Strategic and Corporate Goals

This plan is informed by Council's vision, mission, goals and objectives.

As stated in the 2013 – 2018 Strategic Plan the Council's vision is:

- **With our heart in a strong mining industry** ... we will be a pivotal provider of services to the mining community. •
As the most prolific opal region in the world ... we will have nurtured the opal mining industry to meet demand from national and international markets.
- **As a globally unique tourist destination** ... we will offer a satisfying outback experience with transport links to other Australian icon destinations.
- **As a home town to our local community** ... we will have created an environment where our residents have a sense of personal safety and social wellbeing, and are able to access health, housing, education, childcare, policing, sporting facilities and recreation services that meet the expectations of young people, young families and an ageing population, ensuring a high standard of living in a prosperous local economy.
- **As a remote township** ... we will have a culture of proud independence, freedom and autonomy while working together across the community for the common good.
- **As one of Australia's most ethnically diverse populations** ... our inclusive attitude, seen in our social programs and community governance, will be a model to all."

Relevant goals and objectives and how these are addressed in this asset management plan are:

Table 3.1: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in AM Plan
(5) Sustain local government services	(5.2) Asset management	(5.2.1) Manage Council's assets in accordance with the Asset Management Plans (5.2.1) Manage Council's assets in accordance with the Asset Management Plans
(5) Sustain local government services	(5.6) Community Wastewater Management System (CWMS)	(5.6.1) Continue to progress the Community Wastewater Management System project

Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this Asset Management Plan.

4. FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in Table 4.1.

Table 4.1: Demand Drivers, Projections and Impact on Services

Demand drivers	Projection	Impact on services
Population levels	Expected to maintain current level	No impact.
Number of visitors to town	Recent increase in tourism numbers, expect further increase. Highly variable.	Increased demand for water and electricity. Increased demand on transportation assets.
Community expectations	Expected to remain consistent with current levels.	No impact
Regulatory requirements	Expected to increase.	Unknown
Provision for plant hire to community	Significant increase in the level of private works.	Plant will need to be maintained at a higher level than it is now.

4.3 New or expanded Council services

This plan does not identify any new or upgraded assets, nor does it cater for new services. In the future, should Council consider the provision of new services, this plan will need to be updated in order to assess the extent of new assets required to deliver those services, and the whole-of-life cost of maintaining those assets.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service while managing life cycle costs.

5.1 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

- Council has used a combination of data from the Asset Register, knowledge of the Assets, and professional judgement to determine the renewal program.

5.1.1 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures have been forecast on the basis described in 5.1 above. The expenditure required is shown in Fig 5.1 below. Note that all amounts are shown in 2019 dollars.

Figure 5.1: Projected Capital Renewal and Replacement Expenditure

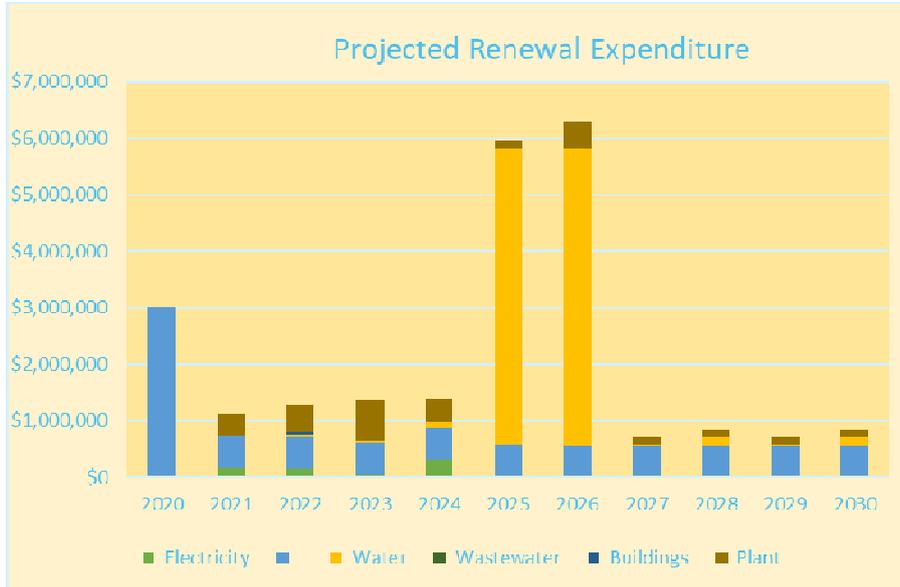


Table 5.1: Projected Capital Renewal and Replacement Expenditure by function

System	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Municipal	3,016,000	906,000	1,086,000	1,206,000	906,000	686,000	1,036,000	686,000	686,000	606,000	606,000
Electricity	-	201,000	146,000	130,000	294,000	11,000	-	-	-	80,000	-
Water	-	-	40,000	25,000	200,000	5,250,000	5,250,000	15,000	150,000	20,000	230,000
CWMS	-	12,923	-	-	-	-	-	-	-	-	-
Total	3,016,000	1,119,923	1,272,000	1,361,000	1,400,000	5,947,000	6,286,000	701,000	836,000	706,000	836,000

The projected capital renewal and replacement program is shown in Appendix A.

Table 5.2: Projected Capital Renewal and Replacement Expenditure by Asset Class

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Electricity	-	166,000	146,000	50,000	294,000	11,000	-	-	-	-	-
Transportation	3,016,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000
Water	-	-	40,000	25,000	120,000	5,250,000	5,250,000	15,000	150,000	20,000	150,000
Wastewater	-	12,923	-	-	-	-	-	-	-	-	-
Buildings	-	-	50,000	-	-	-	-	-	-	-	-
Plant	-	375,000	470,000	720,000	420,000	120,000	470,000	120,000	120,000	120,000	120,000
Total	3,016,000	1,119,923	1,272,000	1,361,000	1,400,000	5,947,000	6,286,000	701,000	836,000	706,000	836,000

The IAMP has been developed in conjunction with the LTFP. Not only is it necessary to identify when assets need to be replaced, but it is also necessary to ensure there are funds available to enable fund their replacement. Significant loan funds have been predicted for the renewal of water assets in 2025 and 2026.

For Transportation assets (i.e. roads and footpaths) asset condition data was used to determine the amount of capital expenditure that is required to be spent on renewal of the asset in the next ten years. The asset condition data provides a good overview of the condition of assets but it did not provide a program of works, The base data needs to be adjusted to ensure it was not illogical (e.g. road base replaced with no expenditure for the road to be sealed) and was consistent with operational capacity.

This expenditure was spread evenly across each of the years of the plan to ensure an adequate financial provision was made for the renewal of transportation assets. A detailed plan on the most efficient and effective way to manage the Transportation assets will be developed and fed into future revisions of the Asset Management Plan.

The planned asset renewal is based on the best estimates of the future condition of assets and the future costs of replacing the assets. As the planned date for renewing the asset approaches, staff will refine their estimates and renewal plans to ensure that the projected renewal activities are undertaken efficiently. This may entail changing the order in which assets are renewed.

Renewal and replacement expenditure in the capital works program will be accommodated in the Long Term Financial Plan. This is further discussed in Section 6.

5.2 Creation/Acquisition/Upgrade Plan

New works are those that create a new asset that did not previously exist, or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost.

No new or upgraded assets are included in the Asset Management Plan.

5.3 Disposal Plan

No significant class of assets has been identified for disposal. Disposal includes any activity associated with the decommissioning of an asset including sale, demolition or relocation.

The plan includes the substantial renewal of Council heavy plant, and as part of that renewal, old plant will be sold when it is replaced. The only exception will be if the net value of retaining the asset exceeds the sale value.

6. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all of the information presented in the previous sections of this plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

6.1 Financial Indicators

The following indicators will be used to assess and monitor the financial performance of Council's assets:

- Asset renewal funding ratio - the amount required to renew assets as a percentage of the renewal amount funded in the LTFP. The ratio⁴ is 100% for the life of the plan which means that over the next 10 years Council expects to have 100% of the funds required for the optimal renewal and replacement of assets.
- Plant and machinery utilization rate – the extent to which Council's plant and machinery is utilized and returning a profit;
- Sustainability ratio – the extent to which operating expenditure and capital expenditure funds the running costs and depreciation of its assets.

⁴ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

6.1.1 Asset valuations

The best available estimate of the value of assets included in this Asset Management Plan are shown below. Assets are valued at fair value as at 30th June 2018.

Gross Replacement Cost	\$45.2m
Depreciated Replacement Cost ⁵	\$28.1m
Annual Average Asset Consumption	\$1.1m

6.1.2 Sustainability of service delivery

The key indicator for service delivery sustainability that has been considered in the analysis of the services provided being is the asset renewal funding ratio. The ratio⁶ is 100% for the life of the Plan. This means that over the next 10 years Council expects to have 100% of the funds required for the optimal renewal and replacement of assets.

Another indicator of service delivery sustainability is the asset sustainability ratios which compares the amount of capital renewal and replacement expenditure with depreciation expense. This ratio is 191% for the life of the Plan. This means that the service potential provided by the assets will increase.

6.2 Funding Strategy

Funding for assets is provided from the budget and LTFP.

Council's financial strategy determines how funding will be provided, whereas the Asset Management Plan communicates how and when funds will be spent.

6.3 Valuation Forecasts

Asset values will increase in line with the CPI as they are regularly revalued. The stock of asset is not expected to change significantly.

7. RISK MANAGEMENT IMPLICATIONS

Council is in the process of developing a Risk Management Plan which covers strategic and operational risks. Once the Risk Management Plan is finalised, the Asset Management Plan will be updated to reflect the necessary actions to minimise the risks in relation to the ownership and maintenance of assets.

8. PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices⁷

8.1.1 Accounting and financial data sources

Financial information recorded in Synergy Soft.

8.1.2 Asset management data sources

⁵ Also reported as Written Down Value, Carrying or Net Book Value.

⁶ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

⁷ ISO 55000 Refers to this the Asset Management System

Asset data recorded in spreadsheets.

8.2 Improvement Plan

Table 7.1: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Review of Accounting Policy as it relates to assets	Finance Manager	Internal	30 June 2020
2	Develop Asset Management Plans for each class of asset	Managers	Internal	30 June 2020
3	Investigate the utilisation of an asset management system to record assets	Finance Manager	Internal	30 June 2020
4	Undertake community consultation on asset service levels	Managers		30 Sep 2020

8.3 Monitoring and Review Procedures

This Infrastructure and Asset Management Plan will be reviewed during the annual budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The plan will be updated annually to ensure that it represents current service levels, asset values, projected operations, maintenance required, capital renewal and replacement, capital upgrade/new, asset disposals.

The Infrastructure and Asset Management Plan has a life of 10 years and must be revised and updated within two years of each Council election.

9. REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney
- District Council of Coober Pedy Strategic Plan 2013/14 – 2017/18

10. APPENDICES

Appendix A Projected 10 year Capital Renewal and Replacement Works Program

Appendix A Projected 10-year Capital Renewal and Replacement Works Program

This list of predicted asset expenditures is not a commitment by Council to undertake these specific projects. It is an indication of the projects that will be considered during the development of the Annual Business Plan each year.

Electricity

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Electricity											
Sewerage Treatment Plant - H	-	116,000	-	-	-	-	-	-	-	-	-
LED replacement	-	50,000	-	-	-	-	-	-	-	-	-
Mckenzie Raod LV restring	-	-	96,000	-	-	-	-	-	-	-	-
LED replacement	-	-	50,000	-	-	-	-	-	-	-	-
North West Ridge Road HV &	-	-	-	-	294,000	-	-	-	-	-	-
LED replacement	-	-	-	50,000	-	-	-	-	-	-	-
Replace security lights with LE	-	-	-	-	-	11,000	-	-	-	-	-

Water

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water											
Valve replacement 8 @ \$5000	-	-	40,000	-	-	-	-	-	-	-	-
STP decant tank increase in c	-	-	-	25,000	-	-	-	-	-	-	-
Southern cross no 1 repair	-	-	-	-	120,000	-	-	-	-	-	-
Degaser and pressure vessel	-	-	-	-	-	-	-	15,000	-	-	-
RO replacement inc shed	-	-	-	-	-	-	-	-	150,000	-	-
Network pipe and distribution n	-	-	-	-	-	5,250,000	-	-	-	-	-
Network pipe and distribution n	-	-	-	-	-	-	5,250,000	-	-	-	-
Bore and pump overhaul	-	-	-	-	-	-	-	-	-	20,000	-
Generator replacement at bore	-	-	-	-	-	-	-	-	-	-	150,000

Wastewater

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Wastewater	-	-	-	-	-	-	-	-	-	-	-
Chlorination Pump	-	12,923	-	-	-	-	-	-	-	-	-

Buildings

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Buildings											
Sporting Courts resurface	-	-	50,000	-	-	-	-	-	-	-	-

Plant

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Plant											
Replace Water Truck	-	120,000	-	-	-	-	-	-	-	-	-
Replace Bitument spray cart	-	-	50,000	-	-	-	-	-	-	-	-
Refurbish EWP	-	35,000	-	-	-	-	-	-	-	-	-
Replace Mono pumps and manholes	-	-	-	-	-	-	-	-	-	-	-
Water Truck (deferred ex 2018)	-	-	-	-	-	-	-	-	-	-	-
Bitumen Spray cart (deferred ex 2018)	-	-	-	-	-	-	-	-	-	-	-
Utilities 2 per year	-	80,000	-	-	-	-	-	-	-	-	-
Utilities 2 per year	-	-	80,000	-	-	-	-	-	-	-	-
Utilities 2 per year	-	-	-	80,000	-	-	-	-	-	-	-
Utilities 2 per year	-	-	-	-	80,000	-	-	-	-	-	-
Utilities 2 per year	-	-	-	-	-	80,000	-	-	-	-	-
Utilities 2 per year	-	-	-	-	-	-	80,000	-	-	-	-
Utilities 2 per year	-	-	-	-	-	-	-	80,000	-	-	-
Utilities 2 per year	-	-	-	-	-	-	-	-	80,000	-	-
Utilities 2 per year	-	-	-	-	-	-	-	-	-	80,000	-
Utilities 2 per year	-	-	-	-	-	-	-	-	-	-	80,000
Vacuum Truck	-	100,000	-	-	-	-	-	-	-	-	-
Garbage Compactor	-	-	-	400,000	-	-	-	-	-	-	-
Grader - second hand trade in	-	-	300,000	-	-	-	-	-	-	-	-
Grader - second hand trade in	-	-	-	-	300,000	-	-	-	-	-	-
Tandem Tipper - second hand	-	-	-	200,000	-	-	-	-	-	-	-
Loader, second hand, trade-in	-	-	-	-	-	-	350,000	-	-	-	-
Small Plant	-	40,000	-	-	-	-	-	-	-	-	-
Small Plant	-	-	40,000	-	-	-	-	-	-	-	-
Small Plant	-	-	-	40,000	-	-	-	-	-	-	-
Small Plant	-	-	-	-	40,000	-	-	-	-	-	-
Small Plant	-	-	-	-	-	40,000	-	-	-	-	-
Small Plant	-	-	-	-	-	-	40,000	-	-	-	-
Small Plant	-	-	-	-	-	-	-	40,000	-	-	-
Small Plant	-	-	-	-	-	-	-	-	40,000	-	-
Small Plant	-	-	-	-	-	-	-	-	-	40,000	-
Small Plant	-	-	-	-	-	-	-	-	-	-	40,000

Transportation

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Transportation	-	-	-	-	-	-	-	-	-	-	-
Renewal estimate	-	566,000	-	-	-	-	-	-	-	-	-
Renewal estimate	-	-	566,000	-	-	-	-	-	-	-	-
Renewal estimate	-	-	-	566,000	-	-	-	-	-	-	-
Renewal estimate	-	-	-	-	566,000	-	-	-	-	-	-
Renewal estimate	-	-	-	-	-	566,000	-	-	-	-	-
Renewal estimate	-	-	-	-	-	-	566,000	-	-	-	-
Renewal estimate	-	-	-	-	-	-	-	566,000	-	-	-
Renewal estimate	-	-	-	-	-	-	-	-	566,000	-	-
Renewal estimate	-	-	-	-	-	-	-	-	-	566,000	-
Renewal estimate	-	-	-	-	-	-	-	-	-	-	566,000