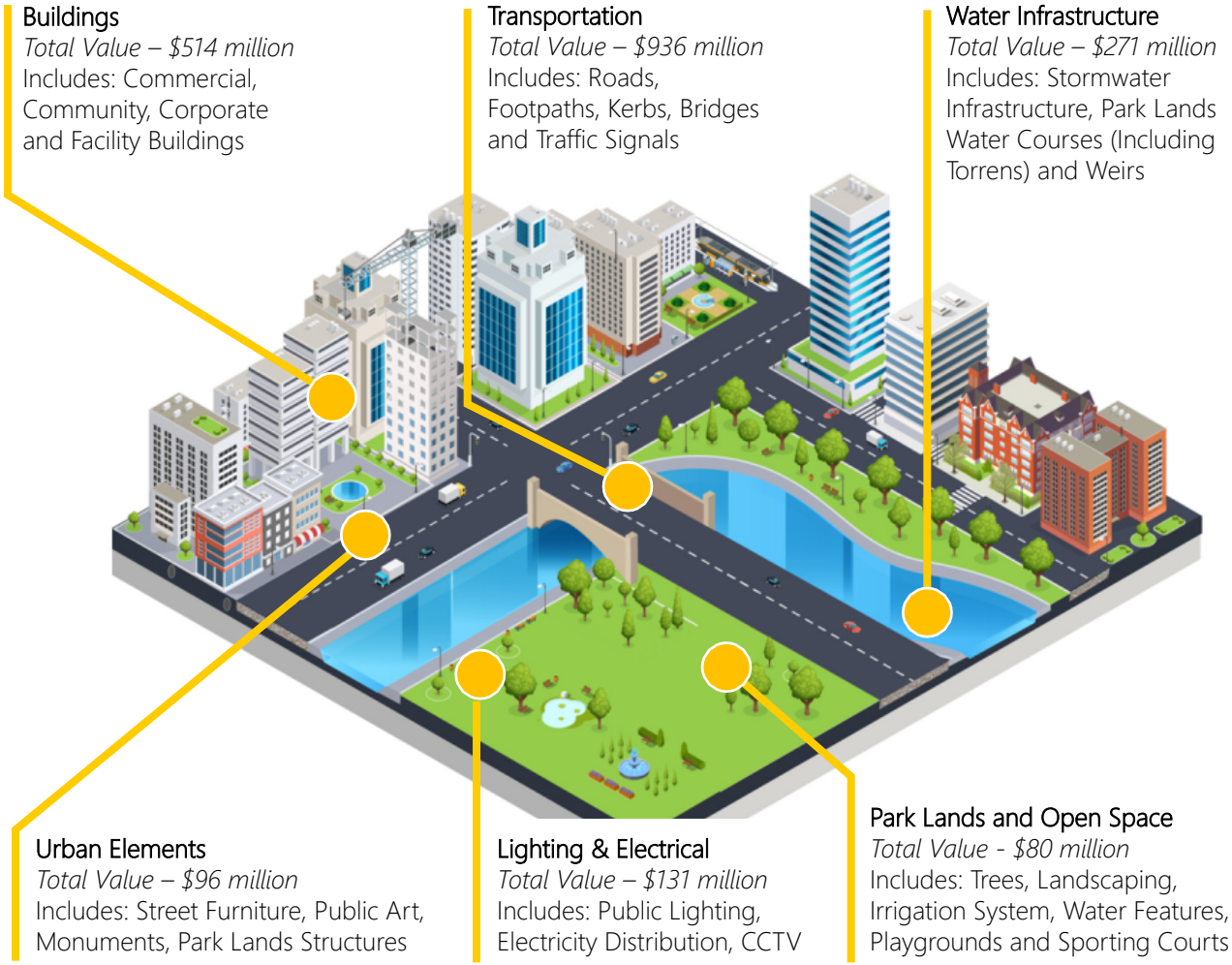
Asset Management Plans & Maintenance Standards

Asset Management
Overview

Asset Management enables an organisation to forecast and understand the immediate, medium, and long-term requirements of our assets. Sound Asset Management promotes good stewardship and enables us to:

- Improve the cost efficiency by looking at the whole of lifecycle costs
- Target critical assets to ensure performance is maintained and risk is managed
- Understand what level of service can be achieved and at what cost
- Ensure infrastructure networks are appropriately funded for the long term
- Improve customer satisfaction by aiming to match services with community's expectations

The purpose of an Asset Management Plan is to forecast the cost and timing of required lifecycle activities to manage our assets to the agreed level of service while managing any associated risks.



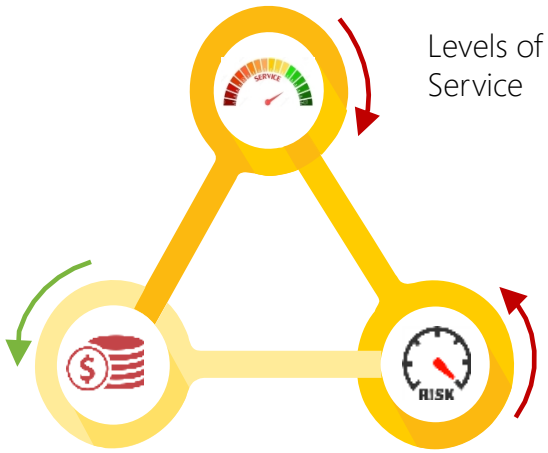
Levels of Service
Overview

Asset management planning requires the relationship between cost of service and level of service to be understood.

Levels of service guide the level to which our assets are maintained, inform when intervention works such as replacement will occur as well as define the nature of replacements (e.g. whether an asset should be renewed, upgraded or disposed).

Levels of service are generally driven by:

- Customer expectations
- Legislative requirements (minimum requirements)
- Availability of resource / financial constraints



Customer Levels of Service

How our customer receives the service

Examples:

- Footpaths are clean
- Footpaths are safe
- Footpaths meet user needs

Customer levels of service are generally measured through customer service requests and customer satisfaction surveys

Technical Levels of Service

How we provide the service

Examples:

- Footpaths are cleaned every week
- Footpaths are inspected every year
- Footpaths are maintained within response time KPI
- Footpaths are renewed at condition state 4

Technical levels of service are measured and monitored through internal systems and reporting.

It is important to routinely monitor reporting outputs to understand whether resourcing is sufficient, or if we need to consider adjusting budgets or levels of service

Asset Lifecycle Overview

Activity	Description	Example	Intervention
Operations	Ongoing activities including inspection, planning, cleaning and utility costs.	Maintenance Inspections, street sweeping, linemarking reapplication, lawn mowing	Informed by intervention levels outlined in Operations & Maintenance Plans and funded through BP&B
Maintenance	Works that retain an asset as near as practicable to an appropriate service condition	Road patching, footpath paver adjustments, building and structure repairs	Informed by intervention levels outlined in Operations & Maintenance Plans and funded through BP&B
Renewal	Works that return the service capability of an asset up to that which it had originally provided	Road resurfacing, footpath reconstruction, pipeline replacement	Informed by intervention levels outlined in Asset Management Plans and funded through BP&B
Upgrade	Works associated with providing a higher level of service	Widening a footpath, upgrading footpath materials, increasing the size and amenity of a building	Informed by Strategic Documents, and prioritised and funded through BP&B Process
Acquisition/New	Works associated with providing a new service	Building a new public toilet or creating a new pathway connection	Informed by Strategic Documents, and prioritised and funded through BP&B Process
Disposal	Works associated with decommissioning an asset that is removed from service	Decommissioning Adelaide Aquatic Centre	Informed by Strategic Documents, and prioritised and funded through BP&B Process

Asset Inspection Types

Condition Audits

- Typically undertaken every 4 years
- Inform remaining life estimates for assets
- Inform asset renewal planning and asset management plans (legislative)
- Inform asset revaluation (legislative)

Maintenance Inspections

- Undertaken more frequently and between condition audits based on risk management
- Inform asset maintenance planning
- Defects evaluated against intervention levels
- Inform maintenance programs
- Ability to escalate into capital works

Asset Renewal Planning Overview

Condition 1 - Excellent

Very Good: asset is free of defects with no or minimal maintenance required

Condition 2 - Good

Good: minor defects, increasing maintenance required such as crack sealing and asphalt patching

Condition 3 - Fair

Fair: asset requires preventative road resurfacing or has defects requiring significant maintenance intervention

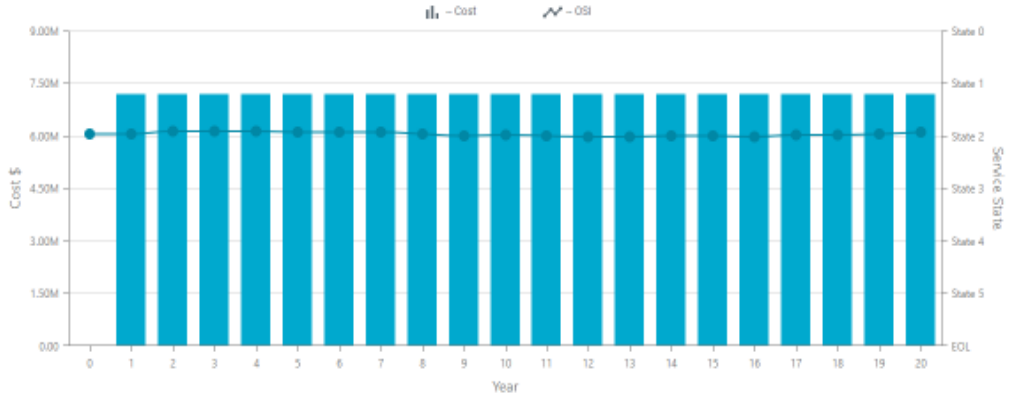
Condition 4 - Poor

Poor: significant defects, higher order cost intervention for pavement rehabilitation

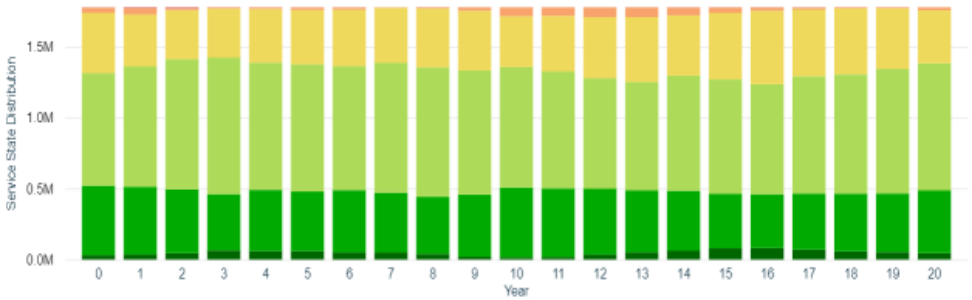
Condition 5 – Very Poor

Very Very Poor: physically unsound and/or beyond rehabilitation, full reconstruction may be required

Annual Renewal Investment



Network Condition Distribution



Operations and Maintenance Overview

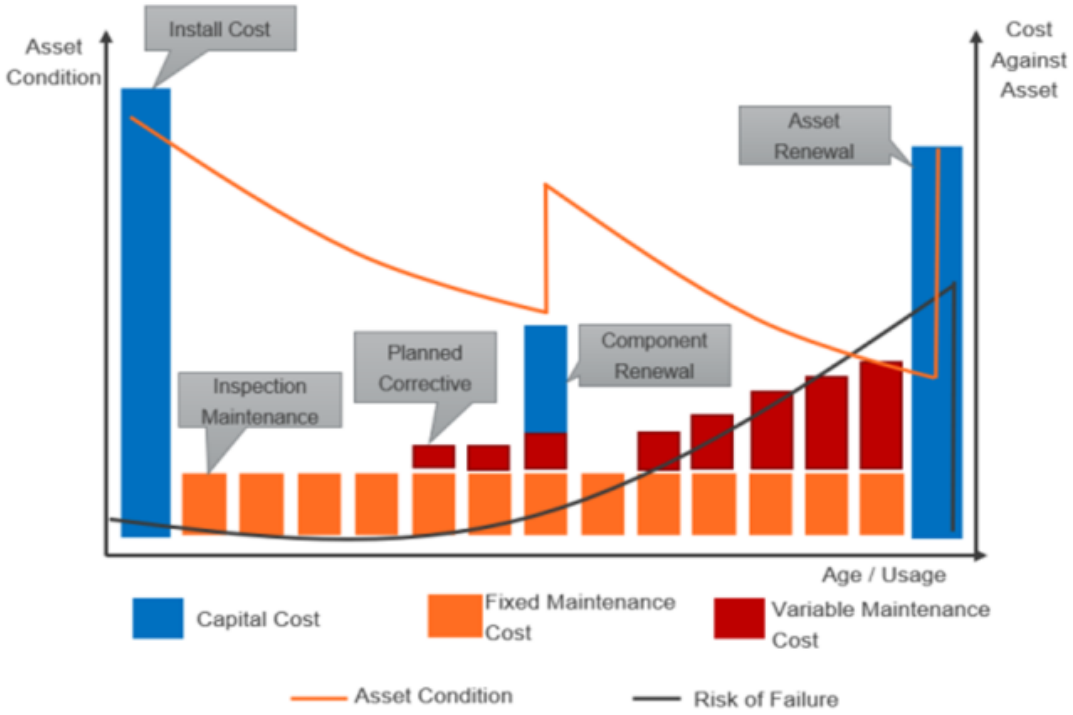
Maintenance and operations are the fundamental activities that we need to undertake on an ongoing basis to ensure our assets provide services to the community in line with their expectations and enable us to minimise whole of life costs.

Operational activities such as inspections, street sweeping and gardening are generally relatively consistent throughout an asset's life.

Maintenance activities such as footpath repairs and road patching are generally delivered following maintenance inspections or customer service requests and are scheduled through proactive and reactive programs.

Generally, an assets maintenance costs will increase over time and renewal works are required when it is no longer cost effective to maintain the asset to the agreed level of service.

Ensuring maintenance programs are well planned and appropriately resourced enables us to reduce risk, optimise the lifespan of our assets and reduce whole of life costs.



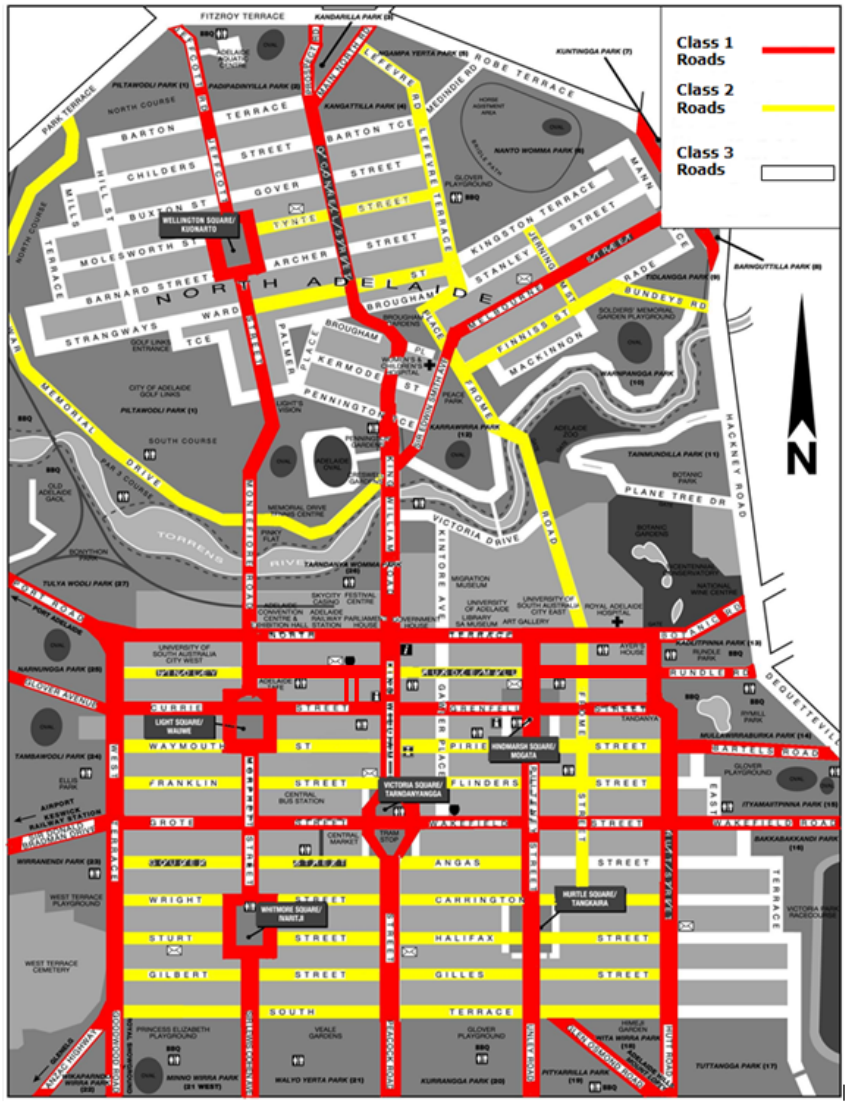
Operations and Maintenance Plans – Example of Best Practice

Operations and Maintenance Plans are technical documents which outline the ongoing inspection programs and operational and maintenance activities required to appropriately manage an asset throughout its life.

Generally, Operations and Maintenance Plans are developed for networks of assets, with management strategies varying across specific asset hierarchies, however at times Operations and Maintenance Plans will be developed for individual critical assets.

Key elements of operational and maintenance plans are:

- Organisational roles and responsibilities
- Asset inspection frequencies (scheduled and reactive)
- Identification of key failure modes and typical repair types
- Programmed maintenance frequencies
- Reactive and proactive maintenance intervention levels and response times
- Criteria to escalate maintenance issues into capital works program



Maintenance Intervention Levels & Response Times – Example of Best Practice

Potholes & Delamination

What we look for in Maintenance Inspections:

Small bowl-shaped depressions that penetrate all the way through the asphalt surface down to the base course.

A loss in a discrete section of the wearing course layer.

Intervention Level	Recommended Process	Performance Requirements	Make Safe Response Time	Full Repair Response Time	Service Performance Targets
Depth greater than 50mm	• Inspection, determine intervention level, enter job into RAMM • Make safe - Place hot mix asphalt in pothole or area where surface has delaminated and compact to remove differential • Full repair - Area <1m², saw cut affected area and reinstate patch with asphalt • Full repair - Area >1m², profile to a depth of 50mm in the affected area and reinstate asphalt	• The repair shall comprise materials that are compatible with, or of better quality than existing pavement. • The finish of the final surface shall match the existing surface • The repair shall ensure water resistance • Surplus material shall not impede surface drainage or be left on the shoulders or verge	Class 1 Roads - 2 days Class 2 Roads - 2 days Class 3 Roads - 2 days	Class 1 Roads - 60 days Class 2 Roads - 90 days Class 3 Roads - 90 days	90%
Depth between 25mm & 50mm			Class 1 Roads - 2 days Class 2 Roads - 2 days Class 3 Roads - Full Repair	Class 1 Roads - 60 days Class 2 Roads - 90 days Class 3 Roads - 90 days	90%
Depth less than 25mm			Class 1 Roads - Full Repair Class 2 Roads - Full Repair Class 3 Roads - Full Repair	Class 1 Roads - 60 days Class 2 Roads - 180 days Class 3 Roads - 180 days	90%

Work to Date & The Journey Ahead

We are currently in the process of transforming our Asset Management and Asset Maintenance to align with industry best practice.

Work to date:

- Implementation of new Asset Management System (Assetic) in 2020
- Renewal Programs within Asset Management Plans are being developed using predictive scenario modelling

Currently Underway:

- Asset Management Plans are being prepared for community consultation and Council adoption within 2023/24 FY
    - All Plans to be adopted by Council by 30 June 2024 (ESCOSA Review)
    - Transportation and Urban Elements – Q2
- Enhanced mobile application, cost tracking and reporting for maintenance management (AM2 Project)

Journey Ahead:

- Staged review and update of Maintenance Standards and Operations and Maintenance Plans
- Incorporation of updates into future revisions of Asset Management Plans and Long-Term Financial Plan
- Continual monitoring and review of response time KPI, to assess proposed changes to budgets, intervention levels or response times
- Delivery of CEO KPI
    - Conduct four (4) public realm condition audits
    - Quarterly reports on public realm condition audits presented to Council
    - Develop a program to implement the findings by end June 2024