



# Transport Infrastructure Asset Management Policy

Version 3 August 2018

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# Policy Statement

***The Department of Transport and Main Roads (TMR) will manage the state transport infrastructure assets sustainably over the long term.***

The Department of Transport and Main Roads (TMR) has a strategic role in leading a safe and accessible transport system that contributes to our economic development and enhances the quality of life for all Queenslanders. Long-term sustainable asset management is essential to fulfilling this role and delivering cost-effective transport infrastructure and services.



This policy outlines TMR's approach to asset management and demonstrates how transport investments will be maximised to ensure Queenslanders receive value for money.

The policy will support the department's vision of ***Creating a single integrated transport network accessible to everyone – Building prosperity*** by prioritising investments that facilitate growth and improved productivity; as well as foster opportunities for regional development through innovative management techniques and stakeholder collaboration.



## Context

This policy introduces an integrated Asset Management System (AMS) across all transport asset classes and transport modes as shown in Figure 1.

Asset Class	Asset Sub-Class	Asset Type	Roads	Busways	Maritime	Light Rail	Active Transport
Road Infrastructure (including busways)	Roads	Pavement	✓	✓			
		Surfacing	✓	✓			✓
		Earthworks	✓	✓			
		Line Marking	✓	✓			✓
		Traffic Management Devices	✓	✓			
	Drainage	Open Drains	✓	✓			
		Kerb and Channel	✓	✓			
		Pits	✓	✓			
		Minor Culverts	✓	✓			
	Mechanical and Electrical	ITS Assets	✓	✓	✓		
		Mechanical and Electrical	✓	✓	✓		
		Lighting	✓	✓	✓		
		Traffic Signals	✓	✓	✓		
	Roadside	Signs	✓	✓			
		Slopes	✓	✓			
		Fences (noise barriers)	✓	✓			
		Pathways					✓
		Road barriers	✓	✓			
	Structures	Bridges	✓	✓			
		Major Culverts	✓	✓			
Retaining Walls		✓	✓				
Other Structures		✓	✓	✓			
		Tunnels	✓	✓			
Rail Infrastructure	Light Rail				✓		

**Figure 1: Asset Management Policy: Asset Classes and Transport Modes**

The AMS adopted for each asset class will be consistent with international standards and commensurate with the size and importance of those asset classes.

## Policy Principles

The following principles collectively guide the current management and future development of TMR's transport infrastructure assets.

<p><b>Implement international best practice benchmarks for asset management</b></p> <p><i>Utilising the international standard ISO 5500x suite of documents, guided by the Austroads Guide to Asset Management (2018)</i></p>	<p><b>Deliver a 'fix it first' approach.</b></p> <p><i>Utilising the full potential of existing assets by proactively repairing or rehabilitating networks rather than replacing them.</i></p>
<p><b>Provide fit for purpose transport solutions</b></p> <p><i>Maintain existing assets sustainably and define appropriate, affordable levels of service which balance performance, costs and risks throughout an asset's life</i></p>	<p><b>Ensure whole-of-life costs are factored into transport infrastructure developments</b></p> <p><i>Capital expansion programs and projects will be accompanied by a clear position on the ongoing funding required to maintain and operate the new assets and services.</i></p>

## Policy Implementation

TMRs Infrastructure Investment Committee (IIC) will oversee the development, implementation and continuous improvement of all components of the AMS with annual reporting of progress.

TMR will measure and report on the Asset Sustainability Ratio as a key performance indicator on an annual basis. The department will also benchmark its progress against ISO 55000 requirements on a regular basis.

The General Manager (Portfolio Investment and Programming) is a member of IIC and is responsible for the overall design, maintenance, documentation, review and improvement of TMR's AMS.

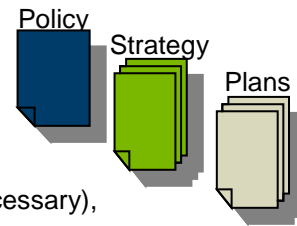
The asset management strategy for each Asset Type will be implemented through the Investment Program which has the vested responsibility for asset management for that particular Asset Type. Table 1 shows the linkages between Investment Programs and Asset Type.

Investment Program	Asset Types	Steering Group
Maintenance, Preservation and Environment	<ul style="list-style-type: none"> <li>Roads</li> <li>Busways</li> </ul>	Maintenance, Preservation and Operations Steering Committee
Road Operations	<ul style="list-style-type: none"> <li>Light Rail</li> </ul>	
Maritime	<ul style="list-style-type: none"> <li>Maritime</li> </ul>	Marine Infrastructure Steering Committee
Active Transport	<ul style="list-style-type: none"> <li>Active Transport</li> </ul>	Active Transport Steering Committee

**Table 1: Working Group Support for Asset Management**

The components of the AMS will include

- Asset management policy,
- Asset management strategies and objectives,
- Asset management plans (including asset-specific plans, where necessary),
- High level action plans for improvement of asset management practice across TMR in an Asset Management Strategy Action Plan
- Performance monitoring, reporting and review processes.



## Background

Infrastructure asset management is defined as the systematic and coordinated activities and practices through which the Department optimally and sustainably manages its assets and asset systems, their

## International Asset Management Standard and Austroads Guide to Asset Management (2018)

International asset management specifications highlight the importance of corporate asset management policies as part of an integrated suite within an Asset Management System. The contents of this policy conform to the direction and intent of the ISO 55000 suite of international asset management standards.

ISO 55001 specifies that an organisation shall establish, implement, maintain and continually improve an asset management system, including the processes needed and their interactions. In addition, an organisation shall develop a Strategic Asset Management Plan which includes documentation of the role of the asset management system in supporting achievement of asset management objectives.

The Austroads Guide to Asset Management (2018) has been structured to provide road agencies with industry-specific practical advice to align organisational practices to ISO 55001.



## Legislative Requirements

This policy will align TMR with international best practice and conforms to requirements of the:

- Transport Infrastructure Act 1994
- The Queensland Government's Financial and Performance Management Standard 2009
- Financial Accountability Act 2009

# Scope

This policy covers the physical assets that comprise the state-owned transport infrastructure network and the integrated asset management system including data, processes, information system, governance, knowledge and capability.

The Department's transport infrastructure asset classes covered by this policy include:



roads – including earthworks, pavements, road furniture, traffic control and intelligent transport systems, minor culverts and surfaces



road structures – including bridges (concrete, timber, steel; deck unit, girder/beam, box girder), tunnels, major culverts (box culvert, arch, slab deck, pipe)



busways (roads, structures, ITS and electrical, busway stations, park'n'ride)



light rail systems



active transport infrastructure



maritime infrastructure, including physically smaller assets such as buoys and beacons.

This policy does not apply to non-transport infrastructure assets such as buildings, plant, and current assets.

Although human factors such as leadership, motivation and culture are not directly addressed within the scope of this policy, they are critical to successfully achieving optimised and sustainable asset management and require due consideration. This is applicable to the Department's managers, employees, contractors and suppliers.

# Objectives

The objective of this policy is to set the direction and framework required for infrastructure asset sustainability, and to include:

- ensuring that the Department’s transport infrastructure assets are managed in a sustainable manner, with appropriate levels of service that balance the needs of customers and the environment within available funding and consistent with the Department’s risk framework.
- safeguarding the Department’s transport infrastructure assets and employees by implementing effective asset management strategies and providing the necessary financial resources for those assets.
- meeting legislative requirements for asset management
- ensuring resources required and operational capabilities are identified and responsibility for asset management is allocated
- assigning clear responsibilities and accountabilities for the ownership and control of the Department’s transport infrastructure assets and the associated reporting responsibilities
- maximising value-for-money, taking into account the full costs of providing, holding, using, maintaining and disposing of assets throughout their lifecycles
- optimising the infrastructure solutions through improved management and economies of scale
- demonstrating transparent and responsible asset management processes that align with established best practice.

# Benefits

The benefits to the Department of implementing this policy include developing of a comprehensive asset management system that provides optimised lifecycle asset management across the transport system. This will enable quantifiable outcomes as detailed in Table 1.

Outcome	How will this be measured?
Delivery of TMR strategic objectives	Achieved in accordance with listed requirements under the TMR Benefits Categorisation Framework (BCF)
Sustainable asset management systems and practices accord with international asset management standards	Benchmarked through independent assessment (minimum three years)
Transport infrastructure assets managed in a sustainable manner with an appropriate level of service to provide for present and future generations	Current Asset Sustainability Ratio (ASR)

**Table 2: Transport Infrastructure Asset Management Policy Outcomes**



# Risk Management

All components of the Asset Management System shall be developed in line with the principles of the Department's Risk Management Framework.

# Performance Assessment and Improvement

TMR is committed to continual improvement in asset management practices and asset management performance.

TMR will define, through its Asset Management Strategy Action Plan (AMSAP), mechanisms for performance assessment and continual improvement of asset management system and practices that will include a reporting and review framework managed through the Infrastructure Investment Committee, or delegated authority including:

- performance and condition monitoring
- investigation of asset-related failures, incidents and non-conformities
- evaluation of compliance
- audit
- improvement actions
- records

TMR will develop Asset Management Plans for each of its asset classes that will:

- define performance measures for the asset based on corporate objectives, TMR priorities, asset management objectives and recognised best practice
- review available resources
- identify performance gaps if any
- define options to close the gaps based on sustainability principles and risk
- outline improvements to the asset required to achieve sustainability.

# References

References include, but are not limited to:

- International Organisation for Standardisation (ISO), ISO 55000, 55001 and 55002
- Austroads Guide to Asset Management (2018)
- IPWEA International Infrastructure Management Manual 2011 version 4
- Queensland Financial Accountability Act 2009
- Queensland Government Financial Management Performance Standard 2009
- Australian Accounting Standard AASB116 compiled June 2014 – property, plant and equipment
- Queensland TMR Risk Management Framework 2011 version 1.4
- Transport Infrastructure Act 1994

## **Approval**

This policy has been endorsed by the Infrastructure Investment Committee (IIC) and approved by the Director-General on 29 August 2018.

## **Policy Review**

This policy shall be reviewed on a biennial basis. The next review of this policy is due on 31 July 2020.