

DOCUMENT CONTROL

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INTRODUCTION

Whitsunday Regional Council is committed to providing sustainable, efficient and cost-effective services to its community. These services are essential for the maintenance of the lifestyle, economy, affordability and public health of the region. Through the adoption of a Strategic Asset Management Plan, Council recognises the importance of its role and is striving to further improve its service capacity through the establishment of sound, long term planning for the communities' assets.

This Asset Management Plan (AMP) identifies the specific service requirements for Transport network assets, and the expectations of those accountable for the asset performance outcomes, planning, acquisition, operations maintenance and renewal of the assets.

The Whitsunday Region transport network is comprised of over 6,000 assets with a replacement value of \$483,000,000. Transport network infrastructure plays a vital role in ensuring access and mobility for the community and industry in the Whitsunday Region. The cost of providing and maintaining transport infrastructure is significantly higher than other public infrastructure, and public expectation is that budgets will be spent responsibly in accordance with the Local Government Act 2009.

Council's transport assets deliver essential community services and are a significant component in supporting the economic prosperity of the region. Transport corridors are a prominent feature that attract community feedback when the slightest change is made to the service provided, as well as having a visual impact on the amenity and liveability of the area. Recognising the importance of the transport network, the Roads and Drainage team are developing an Integrated Transport Strategy that will define the strategic network development, identify the gaps within the existing transport network and develop forward works plans to support the network in the future. Implementation of this strategy in conjunction to the adoption of the Transport AMP will provide direction for all facets of asset management inclusive of renewals, upgrades and new infrastructure construction.

Following on from the work completed so far on the Integrated Transport Strategy and Transport AMP, the Roads and Drainage team have collected a suite of information on gaps within the existing network through the work that has been completed so far on the Integrated Transport Strategy. The cycle network assessment alone has identified approximately \$8,067,000 of new and upgraded infrastructure that will be required within the next 8 years.

In the future, all assets within the Transport AMP will be assessed for gaps in the level of service on the physical network and services provided. The ITS and Transport AMP will provide guidance as to how these will be managed within the available budget, resources and community expectations. This will include better understanding what it costs to operate, maintain, renew and upgrade assets and whether the 10 year financial plan provides enough funding to provide this service. A risk assessment of the gap between the desired Level of Service and the funding available will be undertaken, and scenarios developed for Council adoption on how to mitigate these risks.

The key assets covered by this AMP are all assets associated with the transport network located within the road reserve for which Whitsunday Regional Council is the responsible road authority including sealed and unsealed roads, fences, carparks, footpaths, lighting, kerb and channel and bus stops.

Service Planning Alignment

Planning for the delivery and management of Council's transport infrastructure is undertaken in parallel to Council's strategic and economic visions. The establishment, maintenance and upgrade of infrastructure gains justification from land use and economic drivers, and their impact on the function of the road.

To better understand the infrastructure needs of the region, the Roads and Drainage team are progressively assessing the existing issues with the network, undertaking consultation with residents to understand their needs from the network and liaising with internal and external stakeholders that influence and inform strategic transport network planning for our Region.

Forefront of strategic network planning for the Whitsunday Region is Council's Corporate Plan. The Corporate Plan objectives represent the desired outcomes for the delivery of transport infrastructure, and are listed as follows:

- 3.1 Our built environment is well planned, effectively managed and protects our region's heritage and character;
- 3.2 Our natural environment is valued and sustainable;
- 3.3 Our region is accessible and connected;
- 3.4 Our infrastructure supports our region's current and future needs; and
- 4.1 Our infrastructure enables economic development and facilitates investment opportunities.

To meet these objectives, this AMP will apply the following principles:

- Assets are managed to conditions which are appropriate for intended use in terms of legislation and community expectations, within the budget;
- The delivery of infrastructure represents the needs of the region, with a strong economic development influence;
- Operational plans are working towards the most sustainable level of service and whole of lifecycle management;
- The immediate and long-term budget requirements, together with the consequences of budget variations, are explicit; and
- Risks associated with asset use are managed, recognising the duty of care owed to the public, with emphasis given to safety and minimising environmental impacts.

Transport asset management is a comprehensive and structured approach to the long-term provision and maintenance of physical road infrastructure through sound engineering, economic, business and environmental principles to facilitate the effective delivery of community benefits. All aspects of this AMP, current and future strategies are being developed holistic of total asset management.

Overview of the Assets Included in the Plan

The transport network in the Whitsunday Region generates a moderate to high amount of transport demand for a regional area. Economic drivers of the region, such as tourism, mining and agriculture, generate a large proportion of the traffic demand, including the use of Type 1 Road Trains in the Collinsville region. Growing industries within the region are placing more demand than ever on our assets, including vehicles much larger than what the current network can sustain.

Council advocates strongly for the increased use of alternative transport options such as active travel. In recent years, Council has been successful in securing 50/50 funding of shared paths to the value of \$1,000,000 which has provided an additional 4km of pedestrian and cycle infrastructure to the network.

To provide a network that can support demand, Roads and Drainage must deliver and maintain infrastructure that is fit-for-use. This AMP details all existing assets that provide for transportation within the region, as well as a brief commentary on future requirements. These assets include:

- Sealed and unsealed roads
- Roadside Infrastructure (fences, bus shelters, retaining walls, medians and signage)
- Roundabouts
- Carparks
- Pathways (including bicycle paths)
- Kerb and channel

Assets that are not covered by the AMP are as follows:

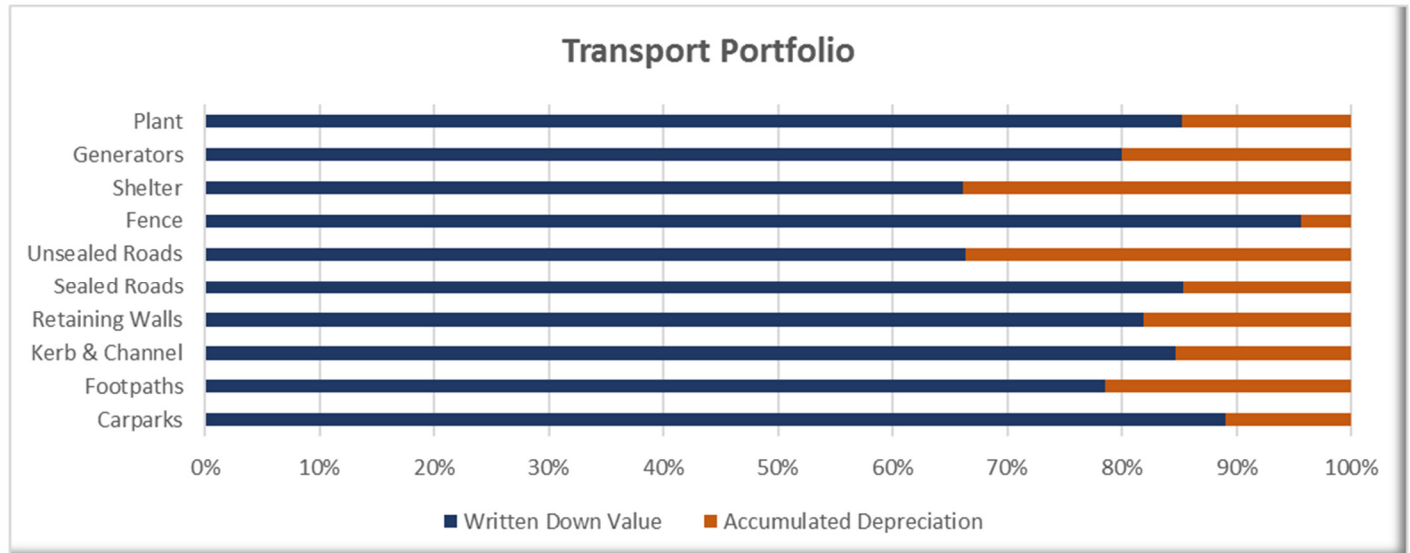
1. Bridges
2. Stormwater
3. Coastal
4. Vehicular Crossings (these are the responsibility of the property owner)
5. Street trees including landscaping (refer to the Parks and Open Spaces Asset Management Plan)
6. Street lighting that is owned by other entities
7. Artwork within the road reserves
8. Private roads, laneways and carparks that are privately owned
9. Vehicular and pedestrian crossings that intersect with railway tracks, including all other ancillary assets of which are within 0.6m of the outer tracks, which are the responsibility of the Railway Operators.

Asset Management Plan

Transport

FINANCIAL OVERVIEW

The current network size, replacement value and written down value in the table below are correct as of 30th June 2018.



Transport Portfolio

Asset Portfolio	No of Assets	Replacement Value	Written Down Value	Accumulated Depreciation	Ave Useful Life (years)	Average Remaining Life (years)
Carparks	72	\$ 4,189,511	\$ 3,729,540	\$ 459,970	94.44	89.11
Footpaths	827	\$ 22,038,535	\$ 17,309,525	\$ 4,729,010	49.64	38.10
Kerb & Channel	2071	\$ 46,484,725	\$ 39,374,008	\$ 7,110,717	60.30	51.24
Retaining Walls	14	\$ 1,483,331	\$ 1,214,482	\$ 268,848	51.79	44.73
Sealed Roads	1871	\$ 252,496,886	\$ 215,395,492	\$ 37,101,394	113.66	105.43
Unsealed Roads	1285	\$ 155,396,776	\$ 103,082,003	\$ 52,314,773	337.46	299.27
Fence	6	\$ 83,494	\$ 79,868	\$ 3,626	26.67	25.55
Shelter	47	\$ 437,738	\$ 289,612	\$ 148,127	32.34	18.77
Generators	1	\$ 11,400	\$ 9,116	\$ 2,284	15.00	11.99
Plant	18	\$ 217,157	\$ 185,102	\$ 32,054	5.00	4.50
Total	6212	\$ 482,839,552	\$ 380,668,748	\$ 102,170,804		

Table 1 - Asset Overview

A large percentage of the transport assets are defined by the sealed and unsealed roads networks. These are generally the assets that are most prominent when referring to the transport AMP. The representation of the assets does not determine their criticality of importance to the network. Further detail on this area is detailed in the Asset Criticality section.

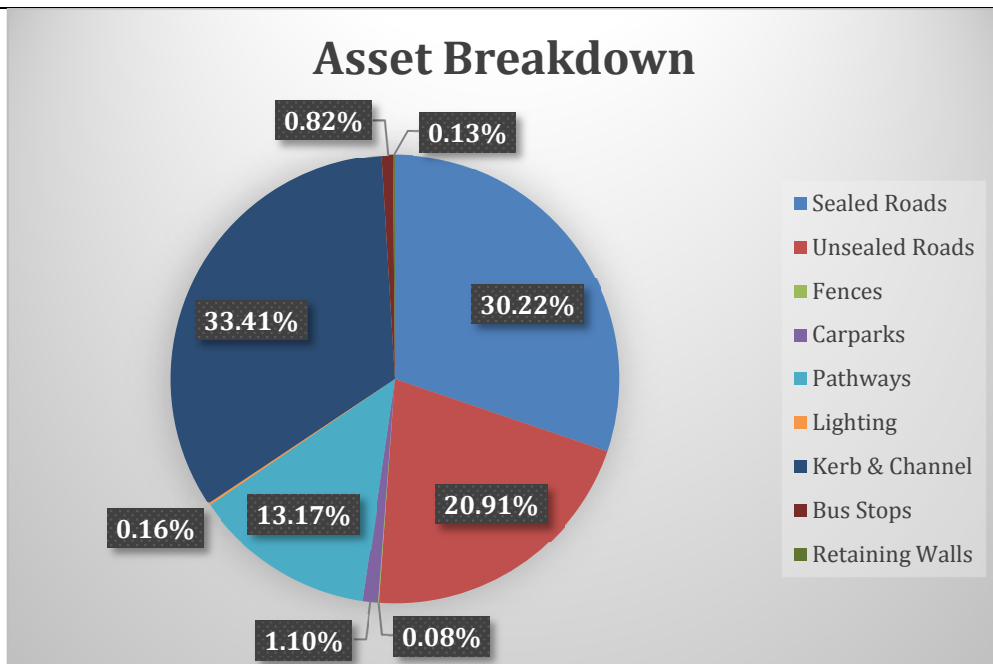


Figure 1 - Asset Breakdown

ASSET MANAGEMENT DRIVERS

Council Strategies and Commitments

To ensure transport networks are delivered representative of their function, alignment to a series of strategic plans is necessary. The delivery of transport infrastructure for Council's transport network is reflective of:

- Whitsunday Regional Council Planning Scheme 2017 (including Development Manual and LGIP)
- Whitsunday 2020 Corporate Plan 2014-2019
- Bowen Local Catchment Flood Study
- Don River Flood Risk and Mitigation Study
- Proserpine Sustainability and Future Growth Master Plan
- Ernst & Young Forensic Report
- Economic Development Strategy
- Whitsunday Disaster Management Plan

The Roads & Drainage strategic vision is to be captured in a range of service plans that combine to create a 10-year Capital Works Plan. These plans include:

- Transport Asset Management Plan
- Coastal Infrastructure Asset Management Plan
- Stormwater Asset Management Plan
- Bridges Asset Management Plan
- Integrated Transport Strategy
- Stormwater Management Plan

Statutory Requirements

The provision of transport infrastructure is regulated by industry and Australian standards. As a result, there are multiple influencing statutory requirements that must be adhered to for design and construction works. Verification of projects meeting the required standards is provided by a Registered Professional Engineer of Queensland (RPEQ) or another delegated person.

Statutory Documents:

- Transport Infrastructure Act 1994
- Professional Engineers Act 2002
- Australian Standards
- Local Government Act 2009
- Local Government Regulation 2012
- Disability Discrimination Act 1992
- Workplace Health and Safety Act 2011
- Cost Sharing Based on Responsibilities within State-controlled Roads (Transport and Main Roads)
- Sustainable Planning Act 2013
- Planning Act 2016

Asset Management:

- Austroads Guide to Asset Management series
- International Infrastructure Management Manual (IIMM) 2015
- National Asset Management Framework Legislation 2010
- Australian Accounting Standards
- ISO 55000 Asset Management Fundamentals

Response to Growth

Future demand for transport infrastructure is influenced by several factors including changes in community expectations, technology changes, population growth and economic changes¹. Demand for additional transport infrastructure based on land-use planning and economic drivers will be catered for in the Integrated Transport Strategy (ITS). Each mode of transport (roads, footpaths, cycleway, heavy vehicle & public transport) will be detailed in network plans outlining existing and future corridor requirements. Gaps within the network in terms of existing deficiencies and where new infrastructure is required will be identified as projects in individual forward works plans in line with Council's Project Management Framework. The forward works plans for each mode of transport combined with renewal forecasts from the AMP will form the Roads and Drainage 10-year Capital Works Program.

Trunk infrastructure from these categories that require upgrade or where new assets are required to support growth are also detailed within the Local Government Infrastructure Plan (LGIP).

Currently, the Cycle Network Plan is the only strategy to be developed in full. This strategy was completed before all other as the timing aligned with the State Governments focus on developing the Queensland Cycling Strategy and the Department of Transport and Main Roads implementation of the Principle Cycle Network Plan. By aligning to both strategies within the Cycle Network Plan has enabled Council to benefit from \$1,000,000 worth of grant funding to construct new shared paths within the region. The development of an integrated cycle network will deliver benefits to the liveability and

¹ IPWEA, International Infrastructure Management Manual, International Edition 2015, pg 4-37

healthy lifestyle for residents within the region, as well as providing an alternative transport option to the standard vehicular choices.

Economic drivers within the region are generating larger and heavier vehicles to support efficiency within their operations. Recognising the needs of these industries, Roads and Drainage have undertaken an investigation of the Heavy Vehicle Network to determine existing constraints and deficiencies. The investigation report is currently being used to inform upgrades on roads that form the heavy vehicle network, but also directing heavy vehicles to use routes that are safe and able to support the level of vehicle through the National Heavy Vehicle Regulator approval process.

The Heavy Vehicle Network Plan will be written in conjunction to the Road Hierarchy Plan to ensure any reiterations to the existing designated heavy vehicle route is appropriate for use considering projected growth within the region.

The ITS will continue to be developed in consultation with internal and external stakeholders including other Council departments, residents, industry users and State Government bodies. As such, responses to changes in community expectations, technology changes and economic changes will all be catered for within these plans.

Industry Trends

Mining and agriculture industries within the Whitsunday Region continues to trend towards heavier, wider and longer vehicle choices that are more efficient to their commercial operations. Changes in traffic composition involving heavier vehicle loads or greater volumes of traffic than those anticipated in the original design and provision of roads and bridges will have a significant impact on the structural integrity of the existing assets. These factors in turn influence planned renewal or upgrade of these assets as Council needs to consider being able to provide upgraded assets to support the demand.

High productivity vehicles, such as B-Doubles and vehicles at Higher Mass Limits, are important to the economy of the local region. The larger the capacity of these vehicles reduces the number of vehicles required to transport a given amount of freight. The extent of the potential benefit of these vehicles is related to the degree of access to the road network.

Supporting high productivity vehicles will be considered in developing the Heavy Vehicle Network Plan. A cost benefit analysis will be undertaken to determine if it is reasonable to upgrade the existing network in terms of demand for the service.

Other industries within the region such as tourism and retail are generally able to be catered for within existing standards for transport routes.

General demand for active transport options has continued to increase in locations where it is reasonable to walk or ride to the persons intended destination. Catering for this demand will be managed through the Cycle Network Strategy and funded through the 10 year financial plan with supplemented external funding where available.

As electric vehicles become more affordable, the demand for charging stations is increasing across the State. Roads and Drainage staff are working with the Department of State Development, Manufacturing, Infrastructure and Planning to determine further appropriate sites for the installation of electric vehicle charging stations within the region, in addition to the existing site on Santa Barbara

Parade in Bowen. Whilst the department retains ownership of the charging stations, Roads & Drainage will undertake maintenance of the carparking area.

Autonomous vehicle initiatives are recognised as being an industry trend that may affect transport assets in the future. The transport existing network would not support these types of vehicles and it is not proposed to make the necessary modifications to the network at the time of writing this plan.

Community Expectations

Community consultation has been undertaken previously for the development of the Cycle Network Plan and Heavy Vehicle Network Plan. Roads and Drainage formed a Bicycle Advisory Committee for the development of the Cycle Network Plan inviting a wide range representation of community bodies to be involved in the development of the document. Valued feedback and participation was gained through this committee and is reflected in the plan.

Targeted industry consultation was undertaken for the Heavy Vehicle Network Plan. This consultation will be reviewed for its currency prior to the finalisation of the document, and further consultation undertaken if necessary.

As both the ITS and Transport AMP grow in maturity to define the standard of infrastructure that will be provided and levels of service of maintenance applied to that infrastructure, it will be important to communicate these factors to Council and residents. This is part of managing the expectations of customers in a consistent and transparent manner that will assist in managing the network more efficiently in the future. Current responses to customer requests are reactive and not based on providing response times and treatment options that relate to the functional hierarchy of the road. This may have led to customer expectations that are too high in some areas. Defining the response times and treatment types can be found in the Level of Service – Transport document which is supplementary to this AMP.

Improvement initiatives will focus on managing community expectations through the definition of appropriate response messages in line with Councils Customer Service Charter.

LEVELS OF SERVICE OBJECTIVES

Overarching Service Objective

This asset management plan is prepared under the direction of the Council's vision, mission, values and objectives. Council's vision is "Natural beauty, global attraction. We have it all." Council's mission is "We are committed to providing the Whitsunday region with strong and responsive local government and achieving an innovative, efficient and sustainable organisation."

Council's values are:

- **Accountability** – being open, diligent and ethical in our decisions and actions
- **Unity** – working together to get things done
- **Trust** – in our team mates, our service partners and our customers
- **Community** – building pride, strength and confidence amongst our region, residents and ratepayers
- **Continuous Improvement** – always looking for solutions and ways to do things better

Asset Management Plan

Transport

Transport infrastructure must provide for a safe and efficient environment, which forms the overarching objective of this plan. Each individual asset category has assigned LOS for aimed at meeting three broad classifications of service requirements being Statutory, Function and Technical. Statutory LOS define the legislative responsibility in providing transport infrastructure, Functional LOS seek to ensure the service provided is appropriate for use, accessible to users, affordable for Council to provide and relevant to strategic transport planning objectives. Technical LOS ensure the asset meets Industry Standards and Australian Standards.

Further detail on the provision of transport levels of service can be found in the Level of Service – Transport document.

Statutory Level of Service		
Performance Measure Category	Level of Service Expectations/Outcomes	Current/Intended Performance Measure
Standard	Infrastructure is fit-for-use	Assets are designed and constructed as per Industry and Australian Standards as confirmed by a RPEQ
Road Register	Council keeps and maintains a road register of all road assets within the region	Road register is current and readily available for use
Functional Level of Service		
Performance Measure Category	Level of Service Expectation/Outcome	Current Performance Measure
Quality	Infrastructure is fit-for-purpose Well maintained network	<200 request / complaints per annum received or lodged to Council with respect to the transport infrastructure asset portfolio. <i>NB: This excludes requests which are as a result of natural disaster events.</i>
Service Function	Infrastructure is suitable for its intended purpose	Audits, inspections and As Designed As Constructed (ADAC) surveys confirm that infrastructure provided meets technical standards.
Capacity	Infrastructure is able to meet the demand	Degree of Saturation as per technical standards is not exceeded.
Safety	Infrastructure provided is safe for all users	Total people affected (killed, seriously injured) Fatalities and serious injuries per journey-km Condition assessment on average is 2.5 (out of 5) or better for all assets
Accessibility and Availability	People and goods can move freely around the network	<200 request / complaints per annum received or lodged to Council with respect to the transport infrastructure asset portfolio. <i>NB: This excludes</i>

		<i>requests which are as a result of natural disaster events.</i>
Sustainability/ Affordable	Management of the assets is undertaken within the interests of current and future generations	Network strategies are to be developed in consultation with residents and stakeholders.
Environmental	Network is resilient to network disruption	Critical assets are managed appropriately as per technical standards and risk to community.

Gaps in Level of Service

Known Gaps

The above LOS statements are a general description of the service objectives of the Roads and Drainage department. The technical LOS document presented in the last revision of this AMP were not tested for reasonableness, and as such were not adopted by the department for use.

There is a known gap in the customer (functional) LOS expectations as only information available through the CRM system. Customer research is required to determine the level of service for transport infrastructure as expected by the community. Council's CRM system can be used to gauge an understanding of the expected responses and timeframes to defects within the transport network infrastructure. However, these requests are only representative of where individuals believe a response has not been dealt with effectively within their timeframe.

Community expectations need to be managed in line with Council's ability to provide a level of service. The development of service levels that prioritise infrastructure and response times accordingly may reduce the amount of feedback received through the CRM system, but it will also provide the Roads and Drainage team with the ability to respond accordingly.

Projected Change

Major changes are expected to the way in which Roads and Drainage provide a LOS for transport infrastructure. The implementation and testing of a LOS document that is holistic of statutory, functional and technical LOS will bring increased service delivery and efficiency to the way in which assets are managed.

Implementation of the Reflect system will provide an efficient defect and response system based on a hierarchy of infrastructure priority.

The implementation of the ERP system will also influence a change in the way the LOS is delivered.

LIFE CYCLE MANAGEMENT APPROACH

Growth and Demand Management

The demand for new assets can be effectively managed through integration with the modal plans described in the Integrated Transport Strategy.

The purpose of the Integrated Transport Strategy is to set a vision that will guide the development of transport infrastructure in the Whitsunday Region. The focus of the strategy will be on sustainable transport systems to better meet current and future transport needs and ensuring economic drivers for

the region are supported by the transport network, which is a vital component to the continued development and sustainability of our region.

Federal and State Government funding may be used to offset the delivery of new infrastructure where the project meets the funding guidelines. The need for new infrastructure should be referred back to projects already defined in the relevant strategy.

Other new assets required to meet growth will be acquired by Council from land developments which are typically constructed by private developers who then gifted the assets to Council, after a 12-month maintenance period. Acquiring these new assets will commit the Whitsunday Regional Council to fund ongoing operations and maintenance costs for the period that the service is provided by these assets which is typically indefinitely. Given the long life-cycle of the road assets, the impact of this growth (future renewal costs) is only likely to be material after ten years.

Risk Approach

Future iterations of the Transport AMP will focus on the funding required to deliver the required level of service to the entire network, what the available funds can deliver and how Roads & Drainage will manage the gap between these two budget scenarios.

There is a body of work required to classify the transport network appropriately, assign a level of service to the hierarchy classification and determine the financial cost of providing that level of service. The improvement initiatives table at the end of this document outlines the actions required for this task.

It is important to the maturity of the AMP that Council is made aware of the ratio of network that the available funding can service and what the consequences are of not being able to provide a service to the entire network.

Managing the gap between funding and the LOS in the interim can be undertaken through Engineering initiatives. Where larger renewal projects are not able to be funded, the deterioration of the asset can be managed through defect repairs. To identify defects in the network that may occur over the life of the asset, asset condition inspections are undertaken. These are generally undertaken by external parties every 2-3 to provide condition reports on specific assets as required by Council.

Field observations of all assets are also undertaken on a regular basis by Councils Asset Inspectors. Significant defects are reported, and maintenance requests generated for actioning within set timeframes as outlined in the Level of Service – Transport document. The Roads and Drainage team are working towards collecting this information at the frequency specified utilising internal resources, only employing external contractors every 5 years as part of a validation/peer review process. Condition inspections provide data reports which are uploaded into MyData for asset management use.

Generally, condition inspections are requested for the following assets:

1. Sealed Roads;
2. Unsealed Road;
3. Carparks; and
4. Footpaths.

An assessment of the risks associated with managing the gap between the desired level of service and available budgets has identified several areas where Council will be put at risk. Utilising the risk assessment procedure as outlined in the Enterprise Risk Management (ERM) Policy, the below table

identifies credible risks with regards to the likelihood of the risk event occurring, the consequences should the event occur, existing controls to manage the risk, a residual risk rating and develops a risk treatment plan for non-acceptable risks.

Table 2 - Road Asset Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Existing Controls	Risk Rating	Actions
Roads	Road deteriorating past safe operating level resulting in risk to road user.	Inspections are undertaken to identify and act on road defects in a prioritised manner.	High	Resources and budget to be assigned accordingly to provide the correct renewal treatment so that roads remain fit-for-use.
Footpaths	Pedestrian tripping whilst walking on footpath network due to trip hazards.	Inspections are undertaken annually.	High	Resources and budget to be assigned accordingly to provide the correct renewal treatment so that pathways remain fit-for-use.
Footpaths	Older sections of footpaths do not have disability compliant pram ramps of which affect the elderly and disabled residents from being able to use footpath network safely.	All new works are constructed to disability standards.	High	Council to undertake review of footpath network to identify all non-compliant pram ramps for inclusion in Capital Forward Works Program.
Shared paths/cycleways	Loose surface material can become slippery and increase risk of accident occurring.	Inspections are undertaken annually.	Moderate	Resources and budget to be assigned accordingly to provide the correct renewal treatment so that pathways remain fit-for-use.
Kerbs	Pedestrian tripping whilst existing or entering their vehicle due to trip hazards.	Inspections are undertaken along with road inspections.	Moderate	Resources and budget to be assigned accordingly to provide the correct renewal treatment so that pathways remain fit-for-use.

Asset Criticality

Whilst all assets within the Region play an important role with respect to their function within the network, some assets are deemed 'critical' assets as they are vital transport links. These are the assets that customers depend on most for service continuity. The definition of criticality has been based on the following factors:

- Roads and bridges on important routes where there are limited alternatives
- Disaster Management routes
- Linking places and centres of population

- Key route for economic prosperity
- Significant tourism destinations

An in-depth asset criticality assessment has not been undertaken at the time of writing this document. Based on the below factors, a list of the most critical assets known to the Roads and Drainage is as follows.

Assessment factors:

1. Carry high volumes of traffic or freight
2. Vital to social/economic well-being
3. Have no other alternate route
4. Provide access to other critical infrastructure
5. Provide linkages between transport modes
6. Critical for commercial imperatives
7. Critical to maintaining law and order

Critical Assets:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Lower Don Road • Woodlands Road • Herbert Street • Richmond Road • Livingstone Street • Leichhardt Street • Argyle Park Road • Railway Road • Stanley Street • Scottville Road • Strathmore Road • Renwick Road | <ul style="list-style-type: none"> • Hinschen Street • Paluma Road • Abell Road • Lascelles Avenue • Riordanvale Road • Island Drive • Coral Esplanade • Main Street (Airlie Beach) • Airlie Esplanade • Port Drive • Jubilee Pocket Road • Dingo Beach Road |
|--|--|

The above assets will be noted as critical assets in the LOS document. They are designated as assets that are too important to fail, given the high or extreme consequences of service loss that could occur. Accordingly, responses to maintenance and renewals, such as early intervention or proactive monitoring, will be prioritised.

Modelling of the network is expected to occur prior to December 2018. A review of the critical asset list will be undertaken at that time as further assets are identified.

Asset Performance / Condition

Recent condition inspections undertaken on Council's road network, as well as network investigations for certain assets have identified the network is in an average condition.

Council employs Asset Inspectors in all the depots who undertake road inspections based on a set program. Reflect is used to capture defects and record when a response action has been undertaken.

Roads and Drainage are currently developing a tender specification for the collection of road condition data, as the last condition inspection was undertaken in 2016. Consultation on the requirements for the

specification is being undertaken between Roads & Drainage, Assets and Disaster Recovery Departments. The intent from this condition inspection is to provide sufficient and relevant information for asset management use, as well as data required to satisfy Queensland Reconstruction Authority requirements for Natural Disaster Relief and Recovery Arrangements should an event occur after the condition inspection has been undertaken.

Approach to Operations and Maintenance

Roads and Drainage are currently transitioning from a largely adhoc and reactive approach to maintenance scheduling and delivery, to one based on proactive identification and risk-based task allocation.

A corner stone of this initiative is the expansion of the use of software to incorporate Council's local roads, bridges, pathways and stormwater networks. The fundamental elements of this approach are a network wide, structured inspection program aimed at proactively identifying isolated defects across the various asset base. This proactive program will be supplemented by reactive inspects as a result of customer requests.

Dedicated operational staff will routinely review the risk-based defect backlog and allocate works to specific crews based on risk and team specialisation. Ongoing review of the success of this approach will be based around factors such as; unit rates of completed works, response times to complete log defects and customer satisfaction.

Capital Response

New and Upgraded Assets

New and upgrade works are those that create an asset that did not previously exist or works which upgrade or improve an existing asset beyond its existing capacity. The requirement for new assets to be constructed will generally be dependent on the forecast growth in the region and will be identified in the 10-year capital works program with further commentary on the need for upgraded and new assets available in the Integrated Transport Strategy.

Council has identified several assets that need to be upgraded due to increased demand on the asset above its current design standard. Roads of which perform a trunk infrastructure function within the Priority Infrastructure Area² are planned for upgrade as detailed in the Local Government Infrastructure Plan³ (LGIP) over a 15 year program.

These roads include:

Abell Road	Argyle Park Road	Bootooloo Road
Beach Road	County Court	Dalrymple Street
Golf Links Road	Jasinique Drive	Leichhardt Street
Mt Nutt Road	Queens Road	Links Drive
Riordanvale Road	Chapman Street	Richardson Road
Erromango Drive		

Major projects that are planned to occur within the 18/19 financial year that will renew, and upgrade existing transport assets include (but not limited to):

² Priority Infrastructure Area is the area within the Whitsunday Region that has been prioritised for the provision of trunk infrastructure.

³ LGIP is the part of the Planning Scheme that identifies the Local Government's plans for trunk infrastructure

1. Proserpine Main Street Upgrade
2. Beautiful Bowen Project

New infrastructure projects that are identified solely from funding opportunities need to be assessed prior to entering into the funding agreement to ensure they meet the transport network strategies, objectives and that the whole of life costs can be funded in the future. The addition of infrastructure of which Council has not planned financially to cover for the life of the asset will force budgets to be expanded or other assets to be disposed of to cover the costs.

New roads requested to be added to the road register need to also be assessed for whole of life costs.

The acquisition of new assets will also include those from new developments. These assets will be constructed to the standards as required under Council's Development Manual and included into future condition inspections to determine the overall condition of the acquired asset.

Asset Renewals

Renewal expenditure is major work which does not increase the assets design capacity, but restores, rehabilitates, replaces or renews an existing asset to its original required service potential. Work over and above restoring an asset to original service potential is new or upgrade expenditure.

Renewal plans are determined with the use of prediction models that, from asset condition data, determine long-term funding scenarios. Renewal programs for footpaths, kerbs, sealed roads and unsealed roads network are detailed in the 10-year Renewal Forecast Report (Appendix 1).

Cyclone Debbie in 2017 severely damaged a percentage of Council's transport infrastructure. Through the Natural Disaster Relief and Recovery Arrangements (NDRRA) program, these assets will be reinstated to the pre-cyclone hierarchy standard.

Carparks have been excluded from the predictive modelling and will be included in future iterations.

Operational Maintenance Response

Operational response times are defined within the Level of Service – Transport document. With the implementation of Asset Edge software, the Roads & Drainage team have adopted a prioritised response timeframe and treatment type approach. The desired outcome is to develop maintenance responses that are sustainable and promote a safe transport environment.

Disposal Strategy

Disposal is any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal will be further re-investigated to determine the required levels of service and see what options are available for alternate service delivery, if any.

Roads and Drainage have not identified any transportation assets within its network that are excess to requirements or not required for possible decommissioning and disposal at this stage. However, this is a continuous process which will be reviewed on an as required basis.

Key Roles and Responsibilities

Director of Engineering Services – provide strategic direction and approve allocation of resources for the Transport Asset Management Plan

Executive Manager Roads and Drainage - management of the assets and its associated budget.

Manager Road Assets and Strategy – co-ordinate asset management program and direct resources for the delivery of the renewals program.

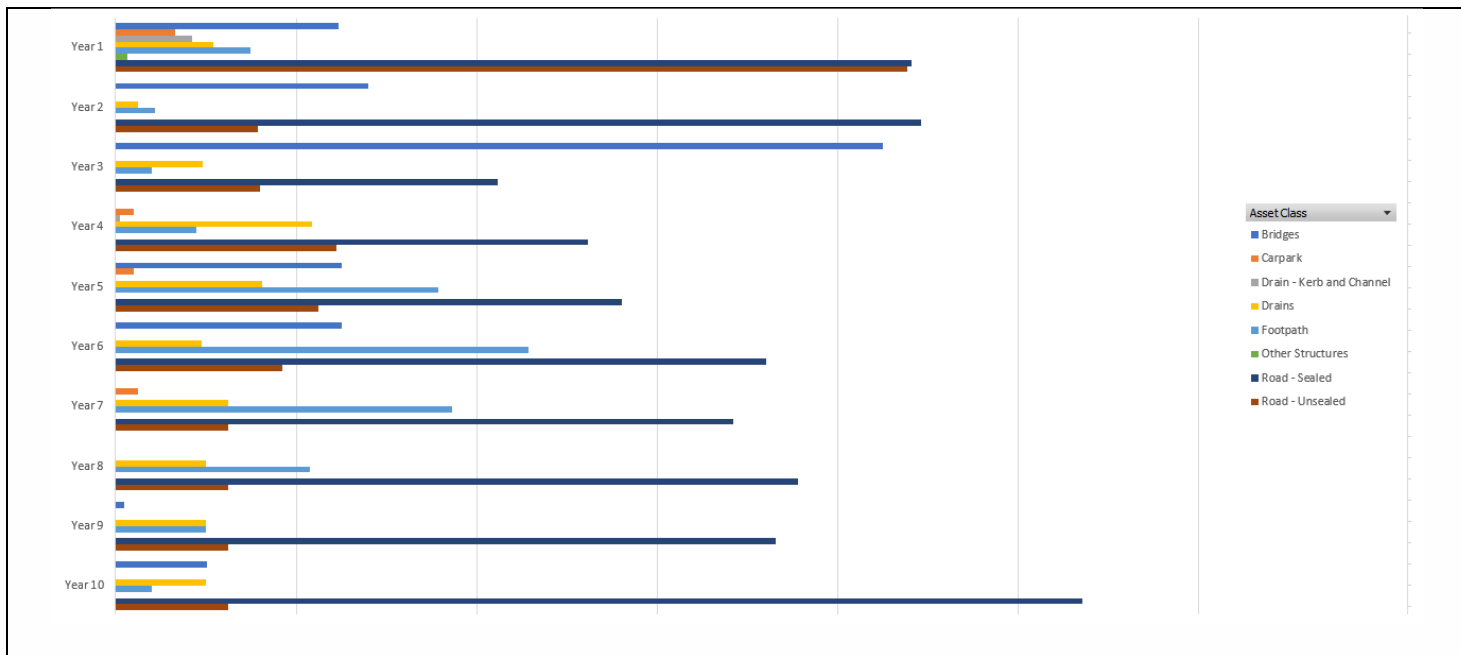
Specialist Transport Infrastructure Systems – manage transport infrastructure asset and network data to enable effective decision making relating to; whole of life costing, asset renewal programs, long term financial forecasting, 10-year capital works program development and service level agreements.

FINANCIAL IMPLICATIONS

Forecast 10 yr Capital Expenditure

Year	Bridges	Carpark	Drain - Kerb and Channel	Drains	Footpath	Other Structures	Road - Sealed	Road - Unsealed	Grand Total
Year 1	2,474,333	656,000	850,000	1,088,000	1,490,000	134,000	8,817,887	8,773,882	24,284,102
Year 2	2,800,000			250,000	430,000		8,920,000	1,575,000	13,975,000
Year 3	8,500,000			970,000	400,000		4,235,000	1,600,000	15,705,000
Year 4		200,000	50,000	2,170,000	900,000		5,236,643	2,450,000	11,006,643
Year 5	2,500,000	200,000		1,625,000	3,575,000		5,605,858	2,250,000	15,755,858
Year 6	2,500,000			950,000	4,575,000		7,204,827	1,850,000	17,079,827
Year 7		250,000		1,250,000	3,725,000		6,847,121	1,250,000	13,322,121
Year 8				1,000,000	2,150,000		7,564,258	1,250,000	11,964,258
Year 9	100,000			1,000,000	1,000,000		7,316,793	1,250,000	10,666,793
Year 10	1,013,674			1,000,000	400,000		10,714,732	1,250,000	14,378,406

Asset Class	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
⊖ Bridges										
General Revenue		1,400,000	4,250,000		1,250,000	1,250,000			100,000	456,837
NDRRA (REPA)	2,474,333									
Subsidy / Grants (State)		1,400,000	4,250,000		1,250,000	1,250,000				556,837
⊖ Carpark										
General Revenue	656,000			200,000	200,000		250,000			
⊖ Drain - Kerb and Channel										
Carry over Reserves	200,000									
General Revenue	650,000			50,000						
⊖ Drains										
Carry over Reserves	350,000									
General Revenue	738,000	250,000	970,000	2,170,000	1,625,000	950,000	1,250,000	1,000,000	1,000,000	1,000,000
⊖ Footpath										
Carry over Reserves	240,000									
Cycle Network Funding (Comm)	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
General Revenue	450,000	230,000	200,000	675,000	625,000	3,775,000	3,150,000	1,950,000	800,000	200,000
Subsidy / Grants (State)				25,000	2,750,000	600,000	375,000			
W4Q(works for Qld)	600,000									
⊖ Other Structures										
General Revenue	47,000									
Subsidy / Grants (State)	87,000									
⊖ Road - Sealed										
Carry over Constrained Works Reserve	400,000									
Carry over Reserves	100,000									
Contributions / Reserves (LGIP)	75,000	675,000	150,000	1,296,503	2,005,858	1,644,827	1,847,121	2,960,000	1,372,500	3,916,924
General Revenue	4,498,000	6,135,000	3,125,000	3,040,140	2,140,000	4,100,000	3,540,000	3,144,258	4,484,293	5,337,808
NDRRA (REPA)	2,267,887									
R2R (Comm)	627,000	750,000	490,000	450,000	740,000	740,000	740,000	740,000	740,000	740,000
TIDS (State)	850,000	1,360,000	470,000	450,000	720,000	720,000	720,000	720,000	720,000	720,000
⊖ Road - Unsealed										
General Revenue	1,375,000	1,575,000	1,100,000	1,890,000	2,250,000	1,850,000	1,250,000	1,250,000	1,250,000	1,250,000
NDRRA (REPA)	7,398,882									
R2R (Comm)			250,000	290,000						
TIDS (State)			250,000	270,000						
Grand Total	24,284,102	13,975,000	15,705,000	11,006,643	15,755,858	17,079,827	13,322,121	11,964,258	10,666,793	14,378,406



MONITORING AND IMPROVEMENT

Monitoring Approach

The Asset Management Leadership Advisory Group (AMLAG) leads the monitoring and reporting on the performance of Council's asset management system, including the delivery of adopted asset management plans and the achievement of established levels of service. The AMLAG will provide regular summary performance reports to the Council.

Internal and external auditors will assess and report on the performance of the asset management plans. Asset custodians are responsible for ongoing monitoring of asset performance against the established levels of service.

Improvement Initiatives

Task No	Task	Responsibility	Timeline
1	Assess the structure and resources within Council, to ensure that the TAMP can be effectively implemented.	Executive Manager Roads & Drainage	End Dec 2018
2	Develop a Level of Service document to ensure all assets are accounted for and have defined thresholds to determine response times and treatment types based on hierarchy classifications for asset type.	Specialist Transport Infrastructure Systems	End Dec 2018
3	Establish an ongoing cyclic testing regime to collect condition information for the entire road network to refine prediction models, utilising Council's data collection manuals.	Specialist Transport Infrastructure Systems	End Dec 2018

Asset Management Plan

Transport

4	Review componentisation of assets for relevance to current operations.	Specialist Transport Infrastructure Systems Engineer – Network Strategy & Major Projects	End Dec 2018
5	Undertake critical analysis assessment using Austroads or similar model for roads, carparks, footpaths and kerb & channel.	Engineer – Network Strategy & Major Projects	End March 2019
6	Review and document transport infrastructure data collection processes and update Level of Service document.	Specialist Transport Infrastructure Systems	End May 2019
7	Modify/Review finance system to capture expenditure against all types of maintenance – whether proactive or reactive.	Specialist Transport Infrastructure Systems Asset Coordinator	End June 2019
8	Provide training where required for Asset Edge software, MyData and new programs in ERP.	Executive Manager Roads & Drainage	End August 2019
9	Develop Integrated Transport Strategy to integrate with Transport AMP and produce a detailed 10yr Capital Works Program.	Engineer – Network Strategy & Major Projects	End September 2019
10	Interface/Integrate AM and Financial system for valuation and annual depreciation purposes	Specialist Transport Infrastructure Systems Asset Coordinator	End Dec 2019
11	Test the current levels of service, to determine 'a confidence level' for reasonableness.	Specialist Transport Infrastructure Systems	End June 2020
12	Test the current levels of service to determine if they are achievable for current budgets.	Specialist Transport Infrastructure Systems	End June 2020
13	Undertake a review of all transport asset detail in the corporate asset register and update where data is considered to be lacking.	Specialist Transport Infrastructure Systems Asset Coordinator	End June 2020
14	Review prediction modelling and lifecycle costing analysis to inform this plan.	Specialist Transport Infrastructure Systems Asset Coordinator	Ongoing
15	Utilise the myData Asset Register to continue to address the accurate gazettal of roads.	Specialist Transport Infrastructure Systems Asset Coordinator	Ongoing
16	Review demand management plan and incorporate into future revisions of this TAMP.	Engineer – Network Strategy & Major Projects	Ongoing