NORTHERN MIDLANDS COUNCIL

TRANSPORT

Asset Management Plan

Adopted by Council: 20 September 2021

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2	August 2021	Complete document update for Council review	VB	MB	NMC

This Asset Management Plan is a supporting document used to inform Council's overarching *Strategic Asset Management Plan.*

Contents

1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan details information on how Council manages its transport assets. It details actions required to provide an agreed level of service in the most cost-effective manner, while outlining associated risks. The plan defines the services to be provided, how the services are provided, and what funds are required over the 20 year planning period. The Asset Management Plan links to a Long Term Financial Plan which typically considers a 10 year planning period. Council endeavours for continuous improvement in its asset management practices and this document is scheduled to be updated at regular intervals.

1.2 Asset Description

This plan covers all Council owned or maintained transport infrastructure assets.

The transport network comprises:

Asset Category	Length/Number of Assets	Replacement Value
Sealed Pavements (Roads)	574.88 km	$170,817,558
Unsealed Pavements (Roads)	385.45 km	$12,752,897
Sealed surface	574.88 km	$21,343,095
Bridges (incl. major culverts)	178	$37,406,212
Sealed road formation	574.88 km	$33,079,988
Unsealed road formation	385.45 km	$17,554,638
Pipe culverts (>600 mm Ø)	73	$2,254,701
Footpaths	71.49 km	$10,301,145
Kerb and channel	139.13 km	$16,951,956
TOTAL	-	**$322,462,190**

The above transport assets have significant total renewal value estimated at **$322,462,190.**

1.3 Levels of Service

The allocation in the planned budget is insufficient to continue providing existing services at current levels over the planning period.

The main service consequences of the planned budget are:

- Levels of service may be impacted over the planning period due to the current shortfall between forecast lifecycle costs and planned budget.
- In some cases, low priority assets may not be improved over the planning period.
- Asset management maturity is not expected to improve significantly over the planning period.
- There is a general increase in risk (refer 1.6.3)

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population and demographic changes
- Upgrades to Tasmanian Municipal Standard Drawings

- Climate change (and associated increase in frequency of extreme weather events)
- Heavy vehicle numbers
- Tourism

These demands will be approached using a combination of managing existing assets, upgrading assets and providing new assets to meet demand (where it exists). Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

- Population and tourist numbers to be monitored over the next five years
- Identify upgrades required to meet with current municipal standard drawings, prioritise these accordingly, and include in the planned budget
- Identify list of strategic improvements to reduce the risk of ongoing damage due to increased frequency of extreme weather events
- Monitor heavy vehicle use

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this Asset Management Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the Asset Management Plan may be prepared for a range of time periods, it typically informs a Long Term Financial Planning period of 10 years. Therefore, a summary output from the Asset Management Plan is the forecast of 10 year total outlays, which for transport assets is estimated as **$66,232,076** or **$6,623,208** on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is **$63,950,000** or **$6,395,000** on average per year as per the Planned Budget. This is **96.55 %** of the cost to sustain the current level of service at the lowest lifecycle cost.

The reality is that only what is funded in the Long Term Financial Plan can be provided. The Informed decision making depends on the Asset Management Plan emphasising the consequences of Planned Budgets on the service levels provided and associated risk.

The anticipated Planned Budget for transport assets leaves a shortfall of **$228,208**, on average per year, when compared to the forecast lifecycle costs required to provide services in this Asset Management Plan. This is shown in the figure below.

Forecast Lifecycle Costs and Planned Budgets

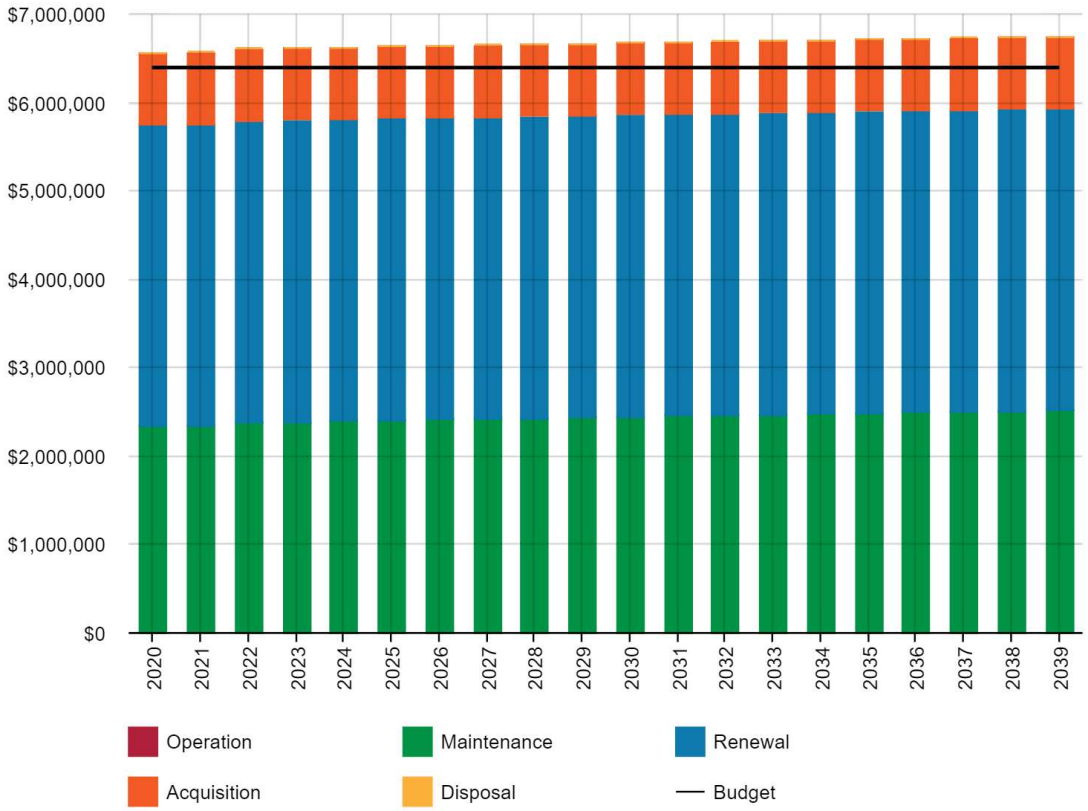


Figure values are in current dollars.

We plan to provide the following:

- Operation, maintenance, renewal and acquisition of all transport infrastructure assets, endeavouring to meet service levels set by Council.
- Within the 10 year planning period: maintain an annual reseal program; undertake a resheeting program for unsealed pavements; continue with a road reconstruction program; maintain bridges; upgrade and extend the street footpath program; improve and extend kerb and channel assets where appropriate.

1.6.2 What we cannot do

We currently do **not** allocate enough budget to sustain all services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Upgrade of unsealed pavements to sealed pavements.
- Provision of footpaths on both sides of streets.
- Upgrade of single lane bridges to dual lane.
- Although we can undertake the majority of the forecast lifecycle costs, we cannot undertake operation, maintenance and renewal activities at the rate required to maintain the current level of service for all assets, over the planning period.

1.6.3 Managing the Risks

Our present budget levels are insufficient to manage all risks in the medium term. Major risks identified are:

- Loss of knowledge due to departure of key staff
- Reduced level of service due to shortfall between forecast costs and planned budget (underfunding causing delayed completion of lifecycle activities)
- Recurrent damage to assets due to increased frequency of flood/storm events
- Acquisition of assets (major assets and cumulative effect of acquisitions)

We will endeavour to manage these risks by:

- Developing a succession plan for key staff, documenting knowledge, providing training, appropriate expertise in strategic roles, and improved record keeping
- Allocating budget to allow best practice asset management
- Ensure prioritised maintenance, renewals and acquisitions are budgeted for (works plan)
- Improve vulnerable assets (where appropriate)
- Ensure lifecycle costs are considered prior to acquiring new assets
- Undertaking regular condition assessments of assets and maintain assets appropriately

1.7 Asset Management Planning Practices

Key assumptions made in this Asset Management Plan are:

- External funding (e.g. *Roads to Recovery* and *Auslink* funding) will continue to be a major source of funding for renewals, noting a known gradual reduction in some of these grants over the planning period.
- Future demand assumptions as mentioned in Section 4.0.
- Asset construction costs to remain stable in real (current dollar) terms - If asset construction costs rise faster than the general rate of inflation, then Council's projected future asset renewal costs will be higher than indicated by this plan.
- Financial data used in the development of this plan was from the end of the 2020-21 financial year.
- Bridge data used in the development of this plan has assumed the existing *Maloney Asset Management System* register is current, though reference is made to the improvement plan in Section 8.0 regarding recommended future use of the *AusSpan* bridge asset register.
- Assume no additional unplanned major transport infrastructure assets will be acquired by Council in the next 10 year period. If this changes the Asset Management Plan is to be updated to reflect this, with full condition and detailed lifecycle costing knowledge and allocation in planned budget to meet these costs. (Note: Due to the Perth Bypass being completed, Main Street, Drummond Street, Youl Road, Haggerston Road and Haggerston Farm Road are expected to be taken over from the State Government during 2021/22 – these are currently included in the acquisition forecasts in this plan).
- Several assumptions were required in the derivation of planned budget and lifecycle forecast figures. This is due to the nature of long term forecasting.
- All figures are presented in current day dollars.

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.

The combination of the Asset Register and Alternate Method was used to forecast the renewal lifecycle costs for this Asset Management Plan.

The estimated confidence level for and reliability of data used in this Asset Management Plan is considered to be in **Medium** (refer Table 7.5.1).

1.8 Monitoring and Improvement Program

The next steps resulting from this Asset Management Plan to improve asset management practices are:

- There are two existing bridge asset registers (*Maloney* and *AusSpan*) – recommended to adopt *AusSpan* asset register, as this is current and contains all required best practice asset management information.
- Customer service requests tracked by asset category so numbers can be tracked and included in asset management plans.
- Asset register improvements to properly inform work plan.
- Improve confidence in condition ratings for all assets.
- Develop strategic maintenance and capital works programs for upcoming years (using renewal ranking criteria). Use to inform future Asset Management Plan and Long Term Financial Plan updates.
- Collect asset data for missing assets such as barrier fencing (roadside, pedestrian rails etc.) and street furniture (including street signs, roundabouts, and traffic islands etc).
- Improve confidence in useful lives within asset register, ensure correlates well with assessed condition.
- Break up 'operation and maintenance' lifecycle activity into 'operation' and 'maintenance' in finance system.
- Improve confidence in financial data used in Long Term Financial Plan and Asset Management Plan (e.g. renewal costs)
- Continue to improve accuracy of budget breakdown to include acquisitions, maintenance, operations, renewals and disposals. Aim for improved transparency.
- Undertake scheduled condition assessment of roads, footpaths, kerb and channel in May 2023
- Community/Council consultation required to ensure appropriate levels of service are being provided (reduce/improve level of service accordingly)
- Continually improve correlation between Long Term Financial Plan and Asset Management Plan
- Increase confidence and maturity of Asset Management Plan

2.0 Introduction

2.1 Background

This Asset Management Plan communicates the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period.

This Asset Management Plan is to be read alongside Council's other key planning documents, being the:

- *Northern Midlands Strategic Plan – 2017-2027*
- *Asset Management Policy* and *Asset Management Strategy*
- *Strategic Asset Management Plan* (in development)
- *Northern Midlands Council Strategic Risk Register*
- *Long Term Financial Plan 2020-2030*
- *Financial Management Strategy*
- *Annual Plan* (for current year)
- *Annual Report* (for current year)

Council is continually improving its asset management practices to ensure they adhere to the *Local Government Act 1993* and best practice asset management. Part of this process is the regular updating and use of asset management plans, such as this document, and the above mentioned strategic documents. Council first began developing key asset management documents in 2011. Since then, Council has continually updated, maintained, improved, and created new documents as required, endeavouring to achieve best practice asset management.

This Asset Management Plan covers all Council transport assets.

The transport network comprises:

- Sealed Roads
- Unsealed Roads
- Bridges (incl. large box and pipe culverts)
- Footpaths
- Kerb and channel

For a detailed summary of the assets covered in this Asset Management Plan refer to Table 5.1 in Section 5.

The transport infrastructure assets included in this plan have a total replacement value of **$322,462,190.**

Key stakeholders in the preparation and implementation of this Asset Management Plan are shown in Table 2.1.

Table 2.1: Key Stakeholders in the Asset Management Plan

Key Stakeholder	Role in Asset Management Plan
Councillors	■ Represent needs of community/shareholders, ■ Allocate resources to meet planning objectives in providing services, while managing risks, ■ Ensure service is sustainable, ■ Make informed decisions, in the best interests of the community.
General Manager	■ Custodian of the assets ■ Maintain a proactive approach to holistic asset management practices and ensure staff do the same. ■ Inform Councillors to enable educated decisions to be made.
Works Manager	■ Manage acquisition, operation, maintenance, renewal and disposal of assets. ■ Maintain a proactive approach to holistic asset management practices. ■ Ensure the Asset Management Plan is used and updated regularly. ■ Inform Councillors to enable educated decisions to be made.
General Public	■ Report shortcomings, damage, safety concerns and other issues with current transport infrastructure.
Community and Industry Groups	■ Assist with the maintenance, planning and performance of relevant transport infrastructure.
Users	■ Providing input for the management and upkeep of the asset stock.
State and Federal Government	■ Provision of funding to assist with management of the network

Our organisational structure for service delivery from infrastructure assets is detailed below,

Works Manager >> ***Works Supervisor*** >> ***Leading Hands - Roads***

2.2 Goals and Objectives of Asset Ownership

Our goal for 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 infrastructure 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 developing 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, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are

- Levels of service – specifies the services and levels of service to be provided,
- Risk Management,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

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

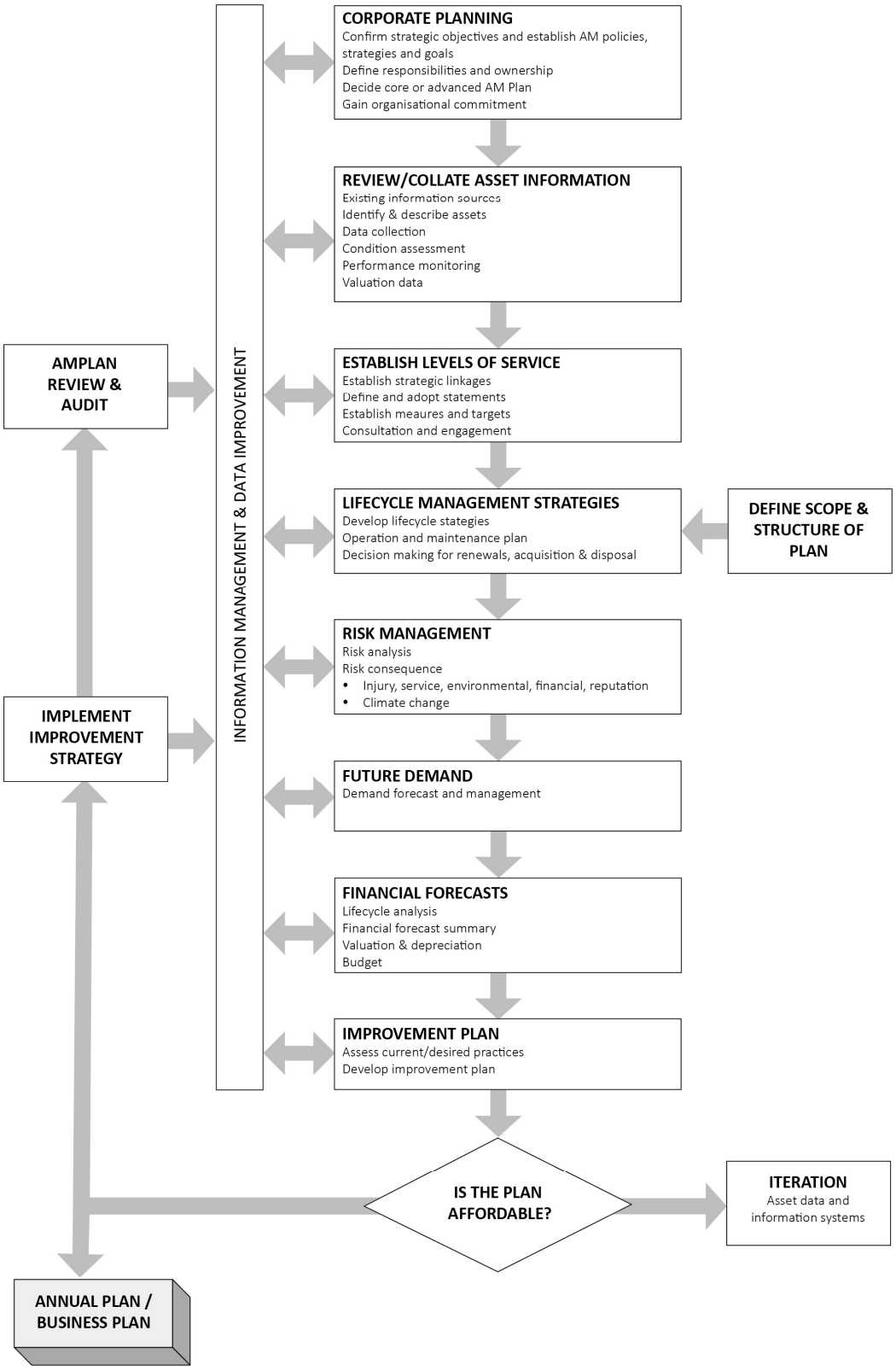
- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

A road map for preparing an Asset Management Plan is shown below.

[1] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[2] ISO 55000 Overview, principles and terminology

Road Map for preparing an Asset Management Plan

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11



3.0 LEVELS OF SERVICE

3.1 Customer Research and Expectations

This Asset Management Plan is prepared to facilitate consultation prior to adoption of formal levels of service by Council. Council has traditionally worked to the provision of a level of service that is assumed to be the community's expectation (refer 3.5). During any future consultation process Council will test this assumption.

Future revisions of the Asset Management Plan will incorporate any customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the community's ability and willingness to pay for the service.

Council undertakes community consultation for proposed developments and also receives vast community feedback on the services and facilities it currently provides. Council's customer request system is also used to determine trends in community expectations. Budget submissions are invited from local district committees and community groups for Council consideration. Council operates a Local District Committee Structure for the towns and villages of Ross, Campbell Town, Avoca/Rossarden, Perth, Longford, Cressy and Evandale. These forums provide Council advice on a wide range of issues. Information obtained from the above is used in developing key planning documents and in allocation of budget resources.

3.2 Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of the Northern Midlands Council vision, mission, goals and objectives.

Our vision is:

Northern Midlands is an enviable place to live, work and play. Connected communities enjoy safe, secure lives in beautiful historical towns and villages. Our clean, green agriculture products are globally valued. Local business and industry is strongly innovative and sustainable.

Our mission is:

Leadership – *Serve with honesty, integrity, innovation and pride*

Progression – *Nurture and support economic health and wealth*

People – *Build a vibrant society that respects the past*

Place – *Nurture our heritage environment*

Municipal Goals:

- *Bold leadership guides innovation and growth*
- *Economically sound and flexible management*
- *Sustainable progress creates a vibrant future*
- *We strategically plan and deliver infrastructure*
- *Our culture respects the past in building the future*
- *Our historical landscapes are cherished and protected*
- *Connected communities are strong and safe*
- *The municipality is diverse and innovative*

Council's strategic goals and objectives, and how these are addressed in this Asset Management Plan, are summarised in Table 3.2.

Table 3.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the Asset Management Plan
To provide safe and reliable transport infrastructure for the community to enjoy.	Maintain and develop transport infrastructure to appropriate standards.	Continue to develop and maintain regular inspection of asset condition, defects and develop maintenance and capital works programs for inclusion in the Asset Management Plan.
Good Governance	Provide asset management services in a sustainable manner. Deliver services effectively and efficiently.	Constant review, use and updating of asset management plans (this plan)
Appropriate service levels	Identify current service levels and target sustainable levels	An ongoing task that will be monitored and improved. Refer Section 8.
Improved risk management	Identify and address all known high risk items relating to transport infrastructure assets	Implement a structured approach to identify and manage significant risks. Refer Section 6.
Financial sustainability	Identify financial inefficiencies and optimise lifecycle costs	Implement a structured approach to identifying financial inefficiencies and optimisation opportunities. Alignment of Asset Management Plan with Long Term Financial Plan.

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of *Transport* service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Work Health and Safety Act 2012	Sets out the roles and responsibilities to secure the health, safety and welfare of persons at work.
Vehicle and Traffic Act 1999	Details rules, responsibilities and enforcement.
Road and Jetties Act 1935	Provides for the appointment of a Commissioner of Highways and provisions for the construction and maintenance of roads and associated assets.
Local Government (Highways) Act 1982	Sets out roles and responsibilities regarding highways, notably with respect to roads open to the public.
Australian Road Rules	The Australian Road Rules are incorporated into the State Traffic Regulations under the Road Traffic Act.

The risk of claims against a council for negligence in the undertaking of road maintenance work is an issue that is gaining prominence within Australia. A High Court decision of 2001 relating to the 'loss of Immunity' for Highway Authorities has initiated many of the discussion papers on road legislation responsibilities and the law of negligence. The law of negligence is a fault-based system where a person who carelessly causes injury or loss to another person should compensate that person. The High Court decision has ruled that this should also apply to a road authority that does not maintain its assets to an appropriate standard.

In Tasmania, the *Local Governments (Highways) Act 1982* provides non-feasance protection for road authorities but reliance solely on legislative protection is considered inappropriate and the development of this asset management plan is considered more responsible. Development of this plan will assist in minimising risk by providing a policy defence in negligence claims. The plan establishes a management system for road functions that is based on policy and operational objectives.

In addressing the "duty of care" issue, it is fundamental that a corporate management process be present to ensure that all asset management activities are linked to an effective and well structured asset management plan.

3.4 Customer Values

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
A safe transport network	Number of customer service requests	Some safety concerns raised from community	Expected to remain similar to existing, however isolated improvements to be identified and targeted for improvement.
A smooth riding transport network	Number of customer service requests	Seasonal customer service requests regarding condition of several unsealed rural roads	Expected to remain similar to existing

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Condition How good is the service? What is the condition or quality of the service?

Function Is it suitable for its intended purpose? Is it the right service?

Capacity/Use Is the service over or under used? Do we need more or less of these assets?

In Table 3.5 under each of the service measures types (Condition, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %'s) to provide a balance in comparison to the customer perception that may be more subjective.

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Quality of transport network	Conditions in asset register and number of customer service requests	**67.4 %** of overall asset replacement value in **'Very Good'** or **'Good'** condition **4.4 %** of overall asset replacement value in **'Fair'** condition **0.3 %** of overall asset replacement value in **'Poor'** or **'Very Poor'** condition **27.9 %** of overall asset replacement value in '0' condition (refer 5.1.3 for explanation) Number of customer service requests not currently tracked by asset category. Note improvement task in Section 8.0	Asset condition is expected to remain relatively constant over the planning period. A reduction in unknown condition ratings is expected.
	Confidence levels		Medium (refer Table 7.5.1)	Medium (refer Table 7.5.1)
Function	Appropriate transport infrastructure in accordance with relative standards	Staff assessment and number of customer service request	Transport infrastructure generally consistent with municipal or other relevant standards, with some assets requiring improvement	Expected to remain similar to existing.
	Confidence levels		Medium (refer Table 7.5.1)	Medium (refer Table 7.5.1)
Capacity	Appropriate amount/dimensions of transport assets	Number of customer service requests and road traffic counter data	Based on customer service requests and demand drivers, existing service level considered adequate	Expected to remain similar to existing.
	Confidence levels		Medium (refer Table 7.5.1)	Medium (refer Table 7.5.1)

Council has previously assumed customer levels of service requirements. These assumptions have been that the transport network will provide for:

- reasonably direct traffic routes between important centres of community interest;
- ease of access to major traffic routes;

- normal heavy vehicle traffic to be limited to Arterial Roads managed by the State through State Growth where possible;
- access to the municipal road network by heavy vehicles to be limited to those necessarily using the municipal roads (i.e. for business within the municipal area) and then for them to use only Link and Collector Roads other than when immediately accessing properties in order to minimise maintenance on local access roads;
- limited through access directed along residential streets;
- minimal conflict between various road user groups/vehicle types (e.g. cars, trucks, motor cyclists, cyclists, pedestrians, children and people with disabilities);
- suitable traffic control devices in dangerous locations especially where there is potential conflict between user groups (e.g. pedestrian crossings, road and street intersections);
- people with disabilities, the aged, mothers with children, etc in relation to potential hazards and obstructions such as road crossings, location of street furniture, light poles, sign posts, etc.
- road surfaces that create minimal adverse noise conditions in residential areas, are smooth riding, accessible and safe in all the prevailing local weather conditions (i.e. non-slippery when wet) and free-draining;
- street lighting in urban areas provides good visibility at night;
- all road structures (e.g. pavement base, surface, bridges, and traffic devices) to be maintained in a safe, workable condition;
- street and roadside trees selected to maximise aesthetic benefit but with minimal ongoing problems with hazards caused by root movement and droppings (e.g. berries);
- nature strips to be suitable for easy maintenance by adjoining property owners;
- town street signage adequate to facilitate access for non-locals.

3.6 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- **Acquisition** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).
- **Operation** – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.[3]

Table 3.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this Asset Management Plan.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition	Acquire assets that align with Council's strategic objectives	Number (or value) of acquisitions	Council acquires assets generally via external funding (state/federal), self funded construction or via developer contribution (e.g. new subdivision road, footpath etc.) Council currently allocates $812,000 a year for constructing new transport infrastructure assets.	Only acquire assets that align with Council's strategic objectives and that Council can afford to acquire, maintain, operate, renew and/or dispose of (must consider full asset lifecycle costs)
		Budget	***$812,000 (5-year average)***	***$812,000 per year (on average)***
Operation	Keep roads and footpaths clear of debris – e.g. street sweeping and keeping drains clear.	Number of customer service requests	Varying frequency based on a number of factors, but primarily weather/season.	Current performance is considered adequate based on user feedback
	Provide timely emergency response to assist public and minimise disruption caused by temporary loss of use of asset	Community feedback	User feedback suggests current performance is adequate	Current performance is considered adequate based on user feedback
		Budget	***(Included in 'maintenance' below)***	***(Included in 'maintenance' below)***
Maintenance	Keep transport assets serviceable	Frequency and type of maintenance undertaken	Combination of preventative (planned) and reactive (unplanned) maintenance. Varies based on	An improved preventative (planned) maintenance program be developed based on condition and road

[3] IPWEA, 2015, IIMM, p 2|28.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
			weather/season and number of customer service requests.	hierarchy. Optimise maintenance costs.
	Keep transport assets safe.	Frequency of maintenance	Reactive minor repairs and minor upgrades are undertaken	An improved preventative (planned) maintenance program be developed based on condition and road hierarchy. Optimise maintenance costs.
		Operation & Maintenance Budget	***$2,333,000 per year (on average)***	***$2,393,919 per year (on average)***
Renewal	Ensure transport assets remain in a serviceable condition	Frequency of renewal	Assets are renewed on a priority basis depending on asset condition, hierarchy and customer service requests.	An improved strategic renewal program is developed for the planning period (using renewal priority ranking criteria – refer Table 5.3.1), updated yearly.
	Ensure transport assets remain in accordance with current standards	Frequency of renewal (including component renewal – e.g. bridge guardrail)	Assets are renewed on a priority basis depending on asset condition, hierarchy and customer service requests.	An improved strategic renewal program is developed for the planning period (using renewal priority ranking criteria – refer Table 5.3.1), updated yearly.
		Budget	***$3,250,000 per year (on average)***	***$3,417,289 per year (on average)***
Disposal	Identify assets and activities that do not align with Council's core purpose	Number of assets and activities identified for disposal	No disposals are currently planned	Continue to monitor assets for potential disposals that do not align with Council's core purpose.
	Dispose of assets and activities that do not align with Council's core purpose	Number of identified asset and activity disposals undertaken	No disposals are currently planned	Continue to monitor assets for potential disposals that do not align with Council's core purpose.
		Budget	***$0 per year***	***$0 per year***

Note: * Current activities related to Planned Budget.

** Expected performance related to forecast lifecycle costs.

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

4.0 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 have been identified and documented.

Population of the Northern Midlands Local Government Area was last estimated in 2020 to be 13,598 (*Australian Bureau of Statistics*). Figure 4.2 below shows the 2019 projected population over the planning period. Analysis of this figure shows a gradual projected rise in population of approximately 200 people from 2021 to around 2032, and then a gradual decline of approximately 100 people by the end of the planning period (2040). The discrepancy between the 2020 estimate and the 2019 projection line can be put down to greater than expected population growth over the last two years. Saying this, the magnitude of the projected rise is the best current source of information for population growth in the region, hence it is considered that a population of around 13,800 can be projected for 2032. Given current projections, it is anticipated that there will be little need for change to the adopted 'Levels of Service' relating to population growth. However, saying this, the rate of population increase is to be monitored regularly by Council to ensure the above projections remain valid.

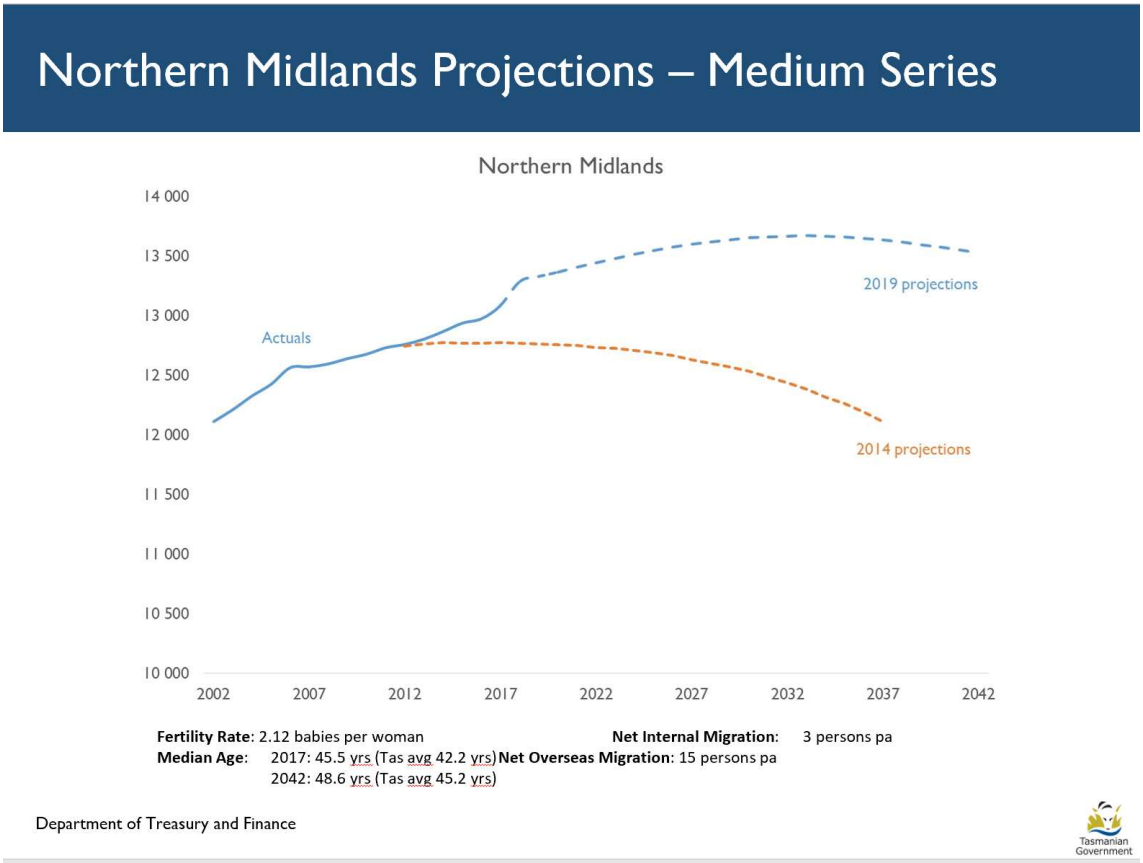


Figure 4.2 – Department of Treasury and Finance – Northern Midlands population projections (medium series).

It is considered that the existing capacity of the transport network is sufficient to meet demands over the planning period. There is however, a general expectation within the community for ongoing improvement to basic services. This is particularly relevant for transport infrastructure where Council receives a number of requests for upgrades and improvements, notably to its road network. Council's Long Term Financial Plan

ensures that significant and appropriate funds are provided in relation to the renewal of all transport infrastructure assets in order to cater for these community expectations.

Northern Midlands Council has the longest total length of maintained road out of all the Tasmanian Councils (960 km), with the majority of roads being rural roads.

Further to the above, there are some specific transport infrastructure concerns for Council at present, these being:

(a) Maintenance of Limited Local Access Roads (Category 1 – refer Table 5.2.2) – where Council maintains a road or section of road serving a small number of properties, especially where this is only one or two properties. This generally refers to longer roads of several hundreds of metres, or kilometres, in length, where there is a significant maintenance cost to Council.

(b) Forest harvesting, agriculture and other industrial/heavy vehicle use - where the harvesting of forests, agriculture or other heavy industry generates significant increased volumes of heavy vehicles (e.g. trucks) on specific roads. The additional loadings placed on these roads results in increased maintenance costs and the premature failure of pavements in some instances, especially during wet periods. An example of this is Royal George Road.

4.3 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this Asset Management Plan.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	13,598 people (2020 estimate).	Refer Figure 4.2	Increase in population is not foreseen to require any significant increase in transport infrastructure services	No significant impact to services, hence management plan is not currently required.
Demographic	Median age of 45.5 years (2017)	Increase in median age to approx. 49 years by 2040	The change is not foreseen to impact services.	No impact to services, hence management plan is not required.
Climate change	Experiencing more extreme weather patterns and events - Very susceptible to flood damage (significant damage during 2011 flood event)	Continue to experience increased frequency and intensity of extreme weather events	Increased maintenance and renewal costs due to flood damage.	Identify list of strategic improvements to reduce the risk of ongoing damage.

Upgrade in Tasmanian Municipal Standard Drawings	Currently unaudited	Some upgrades required over planning period	Increased renewal costs to meet with current standards	Identify upgrades required to meet with current municipal standards, prioritise these accordingly and include in the planned budget.
Tourism	Tourist region	Tourist visitation expected to increase over planning period	Increased safety, signage and overall standard of road infrastructure.	To be monitored over next five years.
Heavy vehicles	Significant agriculture and timber industry traffic throughout region, in conjunction with other heavy vehicle use of road network.	Considered to remain relatively constant over the planning period.	Continued heavy vehicle use will require increased maintenance and renewal frequencies in some instances.	Identify list of strategic improvements to reduce the risk of ongoing damage.

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the Northern Midlands Council to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the Long Term Financial Plan (Refer to Section 5).

4.5 Climate Change Adaptation

The impacts of climate change have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change impacts on assets varies depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.[4]

As a minimum we consider how to manage our existing assets given climate change impacts for our region.

Risk and opportunities identified to date are shown in Table 4.5.1

Table 4.5.1 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Increased frequency and intensity of extreme rainfall events	Upgrade to transport infrastructure	Increased drainage upgrade and maintenance costs	Prioritise susceptible sites for improvement works to reduce vulnerability
Flooding	Increase in flood heights and peak flows	Serviceability of some transport assets threatened by projected increases	Develop a register of assets likely to be affected by the projected rises and plan for

[4] IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

			resilience building when due for renewal. Refer also *Urban Stormwater System Management Plan*

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint

Table 4.5.2 summarises some asset climate change resilience opportunities.

Table 4.5.2 Building Asset Resilience to Climate Change

New Asset Description	Climate Change impact These assets?	Build Resilience in New Works
Roads	Increased flood damage	Flood resilient road renewals where practicable
Bridges	Greater flood risk to bridges	Ensure bridges are renewed allowing for climate change forecasts (increased design flows due to increased intensity and frequency of rainfall events)

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this Asset Management Plan.

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Northern Midlands Council plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this Asset Management Plan are shown in Table 5.1.1.

Table 5.1.1: Assets covered by this Plan

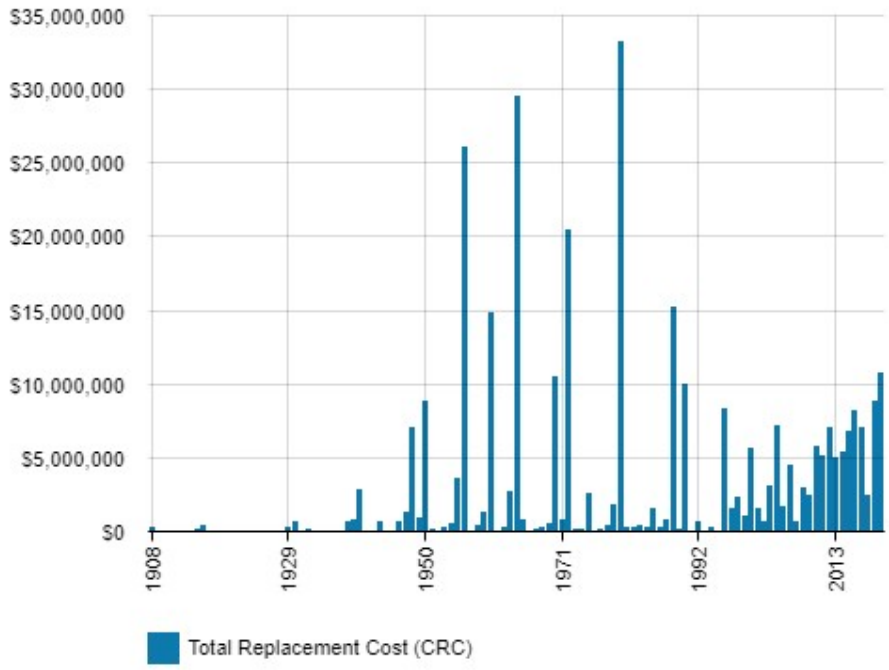
Asset Category	Length/Number of Assets	Replacement Value
Sealed Pavements (Roads)	574.88 km	$170,817,558
Unsealed Pavements (Roads)	385.45 km	$12,752,897
Sealed surface	574.88 km	$21,343,095
Bridges (incl. major culverts)	178	$37,406,212
Sealed road formation	574.88 km	$33,079,988
Unsealed road formation	385.45 km	$17,554,638
Pipe culverts (>600 mm Ø)	73	$2,254,701
Footpaths	71.49 km	$10,301,145
Kerb and channel	139.13 km	$16,951,956
TOTAL	-	**$322,462,190**

At this stage, data is incomplete for the following road asset categories:

- Barrier fencing (roadside guardrails, pedestrian rails etc)
- Street furniture (including street signs, roundabouts, and traffic islands etc).

The age profile of the assets included in this Asset Management Plan are shown in Figure 5.1.1.

Figure 5.1.1: Age Profile for Transport Assets



All figure values are shown in current day dollars.

The ages shown in Figure 5.1.1 have been derived based on the assets current condition and expected remaining life compared to the standard expected useful life for each asset category.

This graph can help outline past peaks of investment that may require peaks in future renewals.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Heavy Vehicle Access	Many roads in the municipality are not constructed to an appropriate design width and strength to cater for modern heavy vehicles resulting in premature failure of such roads where there is significant heavy vehicle usage.
Urban areas	Footpaths, kerb and channel required to 'missing link' segments within townships.
Several locations	Condition 5 (very poor) assets. Refer renewal plan in Appendix C.

The above service deficiencies were identified from discussion with key staff, recent condition assessments and user feedback.

Council services are generally provided to meet design standards where these are available.

There are a number of assets within the road reserve that Council does not have an obligation to maintain. However, Council has a duty of care to ensure that these assets are in a safe condition for the public in general and may serve a notice on the property owner to have defects repaired. They are often a point of conflict with residents who have an expectation that Council will maintain them as they are within the road reserve.

These assets and the responsibility for addressing their defects are as follows:

A. Vehicle crossings/driveways

The portion of a vehicle crossing located between the carriageway and the property boundary is the responsibility of the adjoining property owner to maintain.

This area should only be repaired by council if council activities have caused damage to it or it is part of a reinstatement operation. Works carried out on a vehicle crossing at the owners' request shall be treated as private works or be in accordance with Council's Policy no. 16 to ensure consistency in construction of driveways.

B. Single property stormwater drains

These stormwater drains are constructed within the reserve from the property boundary to a discharge outlet in the kerb or into the drain. They are there to benefit the property and as such are the responsibility of the owner of the property being served to maintain.

C. Nature strip and infill areas within urban areas

These are those residual areas between the edge of the road or back of the kerb and the property boundary not occupied by the footpath and private road crossings. These are normally sown to grass with responsibility for maintenance of the grass generally being left to the property owner. Street trees are controlled by Council.

Where the adjoining property owner has 'landscaped' or otherwise created a situation that is hazardous to the public using the nature strip area Council may after inspection require the property owner to rectify it.

D. Responsibility for defect rectification

Where, on any of these areas within the road reserve for which Council has a responsibility, there is a defect that is liable to cause any injury to a member of the public it must be repaired.

In such instances, the owner must be notified and directed to make the area safe and repair the defect within a period of 2 weeks and that in the event that the defect is not repaired Council will repair it as a charge against the property.

Where the owner does not undertake the work in the timeframe allowed, appropriate remedial measures action must be followed up as a matter of urgency.

There are also assets located in the road reserve that are clearly the responsibility of other agencies. These include:

- Railway level crossings
- Utility assets such as water, sewer, telecommunications and electricity

5.1.3 Asset condition

The most recent condition assessment of Council roads, footpaths, kerb and channel was undertaken by asset management consultants *Maloney Asset Management Systems* in May 2019. This involved inspecting the transport network, and assigning condition based on visual inspection. This condition assessment was then fed back into Council's *Maloney Asset Management* system. This type of comprehensive road condition assessment has generally been undertaken every four years, hence the next comprehensive assessment will be due in 2023. Council's bridge condition inspection program is undertaken annually by *AusSpan,* with all bridges visually

inspected, and updates made to the asset register. This is a well-structured inspection program, which has led to the development of a high quality asset register and no 'poor' or 'very poor' condition ratings currently present.

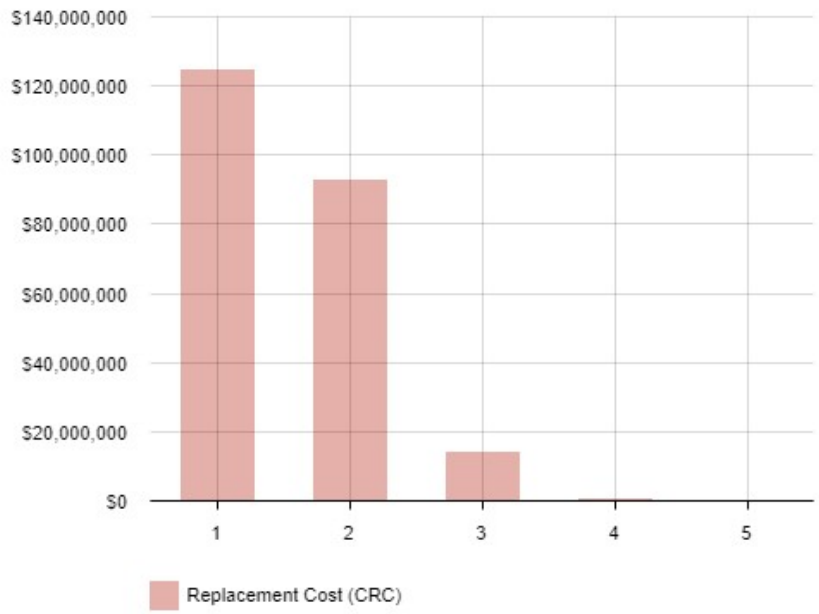
Condition is measured using a 1 – 5 grading system[5] as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the Asset Management Plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
1	**Very Good**: free of defects, only planned and/or routine maintenance required
2	**Good**: minor defects, increasing maintenance required plus planned maintenance
3	**Fair**: defects requiring regular and/or significant maintenance to reinstate service
4	**Poor**: significant defects, higher order cost intervention likely
5	**Very Poor**: physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our transport assets is shown in Figure 5.1.3.

Figure 5.1.3: Asset Condition Profile



All figure values are shown in current day dollars.

Figure 5.1.3 shows **67.4 %** of Council's total transport infrastructure asset value is in **'very good'** or **'good'** condition (refer Table 5.1.3), **4.4 %** in **'fair'** condition, **0.3 %** in a **'poor'** or **'very poor'** condition and **27.9 %** currently assigned as condition '0' rating (this includes road formation replacement value which is not depreciated, hence condition is not required. It also includes several newly acquired assets which have not yet

[5] IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

been assigned a condition rating, or older assets that may not have a condition rating assigned – this is noted for improvement in Section 8.0). There is approximately **$225,500** of asset value currently in **'very poor'** condition that currently requires renewal.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include cleaning, street sweeping, asset inspection, and utility costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include pipe repairs, asphalt patching, and equipment repairs.

The trend in operation and maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Operation and Maintenance Budget Trends

Financial Year	Operation & Maintenance Budget $
2019/20	$2,126,000
2020/21	$2,333,000
2021/22	$2,372,000

Operation and maintenance budget levels are deemed adequate to meet projected service levels, which may be less than or equal to current service levels. Where operation and maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this Asset Management Plan and service risks considered in the *Northern Midlands Council Strategic Risk Register.*

Operation activities or services are those that do not physically alter an asset, but are required to provide the appropriate level of service, for example, street sweeping/cleaning, or the provision of street lighting and the associated energy costs.

Maintenance may be classified as preventative maintenance or reactive maintenance, and physically changes the asset, e.g potholing or unsealed road grading. Essentially, preventative maintenance is planned maintenance, and reactive maintenance is unplanned.

Asset hierarchy

An asset hierarchy provides a framework for structuring data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 5.2.2. Refer Appendix F for photographic examples of each road category.

Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Definition	Service Level Objective
Category 5 – Arterial Road	Department of State Growth 'arterial' roads, which generally form 'main roads' through townships where they form part of highway or 'A' transport routes. Function is to carry the heaviest volumes of traffic, including commercial vehicles, and provide	▪ These **<u>are not</u>** Council roads.

	the principal routes for traffic flows in and around the municipality.	
Category 4 – Link and Industrial Roads	Council's most important roads. Highest traffic volumes roads which link significant areas in the municipality, but are generally limited to roads within each of the townships (excludes Category 0 roads). Higher number of heavy vehicles use these roads.	▪ **Functionality** –Must function as intended at all times, with no down time tolerated. ▪ **Financial** – Maximum efficiency of maintenance is required, to minimise expenditure in achieving the desired outcomes.
Category 3 – Collector Road	Carry moderate volumes of traffic and provide access by linking urban areas to Link or Industrial (Category 4) and Arterial (Category 5) roads. They may also provide links between various Collector roads. They generally carry limited through traffic.	▪ **Functionality** – Must function as intended at all times, with a low probability of interruption to service. ▪ **Financial** – Primary aim is to maximise the long term economic performance of the asset. Renewal and maintenance planning should ensure level of service is maintained.
Category 2 – Local Access Road	Those roads whose primary function is to provide access to a number of properties and they cater for relatively short distance travel to higher Category (3-5) roads.	▪ **Functionality** – Minor failures/defects, excluding those which bring a threat to safety or security, can be tolerated. ▪ **Financial** - Primary aim is to maximise the long term economic performance of the asset. Renewal and maintenance planning should be in a strategic framework, and decision taken on a life cycle basis.
Category 1 – Limited Local Access Road	Those roads whose primary function is to provide access to a small number of properties, sometimes even just one property, and have minimal traffic (less than Local Access Roads). Generally these are 'no through roads'.	▪ **Functionality** – Minor failures/defects, excluding those which bring a threat to safety or security, can be tolerated. ▪ **Financial** – Single vehicle access only. Limitation of short term maintenance costs is the primary objective.
Footpaths - High Use - Category 3	Shopping Zones Footpaths in central shopping areas in each of the towns	▪ **Functionality** –Must function as intended at all times, with no down time tolerated. ▪ **Financial** – Maximum efficiency of maintenance is required, to minimise expenditure in achieving the desired outcomes.
Footpaths - Moderate Use - Category 2	Footpaths serving pedestrian generators that include hospitals, schools, senior citizens centres, aged care facilities, major community facilities.	▪ **Functionality** – Minor failures/defects, excluding those which bring a threat to safety or security, can be tolerated.

	The length classed as category 2 extends for the block containing the facility and one additional full block length.	▪ **Financial** - Primary aim is to maximise the long term economic performance of the asset. Renewal and maintenance planning should be in a strategic framework, and decision taken on a life cycle basis.
Footpaths - Low Use - Category 1	Footpaths in residential, commercial and industrial areas.	▪ **Functionality** – Minor failures/defects, excluding those which bring a threat to safety or security, can be tolerated. ▪ **Financial** – Limitation of short term maintenance costs is the primary objective.

The purpose of the hierarchy categories is to enable works to be prioritised and programmed in a rational manner when undertaking maintenance and correcting defects. Asset hierarchy assists best practice strategic decision making.

Bridges, culverts, and kerb and channel assets have the same service hierarchies as the roads they are on. This hierarchy is based on road function, user type, location, and vehicular traffic volumes. For the footpaths the hierarchy is based on pedestrian traffic numbers.

There is a classification of roads within Tasmania that was established in the 1980's by the Road Direction and Signs Advisory Council as a guide for tourism. This is still used on TasMap and Tourism maps. 'A' roads are Primary Roads (State Highways), 'B' roads are Secondary roads (Main Roads) and 'C' roads are Minor roads (Council roads).

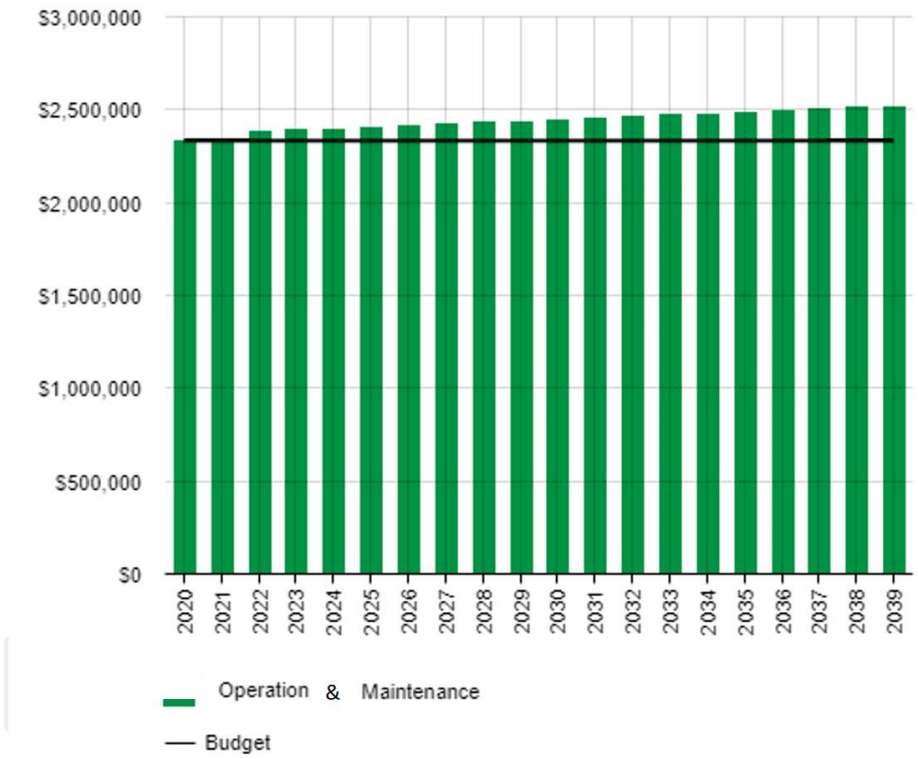
Council's Category 4 and 3 roads are generally 'B' and 'C' roads under this state government classification. However, the classification has not been updated in recent times, as there are instances where importance of some roads has significantly diminished since their original nomination. An example within the Northern Midlands Council area is Rossarden Road which is classed as a 'B' road (B42), however Council currently classifies this road as a *Local Access Road* (Category 2 road). At the time of the 'B' nomination Rossarden was a busy mining town, however has since declined, hence Council's Category 2 nomination.

Council's hierarchy is based on functional requirements as outlined above and as shown by the Rossarden example, there will be instances where it is at variance with the tourism classification.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

As can be seen in Figure 5.2, operation and maintenance cost forecasts are equal to the planned budget at the start of the planning period, however progressively increase above the planned budget over the planning period. The progressive increase in these costs is due to additional costs associated with acquisitions made over the planning period. Figure 5.2 highlights that Council does not currently have sufficient planned budget to undertake forecast operation and maintenance.

Deferred maintenance (i.e. works that are identified for maintenance activities but unable to be completed due to available resources) should be included in Section 6.0 of this plan where this poses a 'high' or 'very high' risk to Council – Refer Table 6.2.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, 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 acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed in 2019 by *Maloney Asset Management Systems.*

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Roads:	-
Category 4 – Link and Industrial Roads:	-
Pavement (sealed)	80 years
Seal (surface)	18-30 years
Unsealed Pavement	10 years
Category 3 - Collector Roads	-
Pavement (sealed)	80 years
Seal (surface)	18-30 years
Unsealed Pavement	20 years
Category 2 - Local Access Roads	-
Pavement (sealed)	80-100 years
Seal (surface)	18-30 years
Unsealed Pavement	20 years
Category 1 - Limited Access Roads	-
Pavement (sealed)	100 years
Seal (surface)	18-22 years
Unsealed Pavement	25 years
Bridges:	-
Concrete bridges	100 years
Steel bridges	100 years
Timber bridges	20 years
Culverts (≥ 600 mm Ø)	100 years
Footpaths:	-
Concrete Footpaths	70 years
Asphalt Footpaths	30 years
Bitumen Seal Footpaths	20 years
Paved Footpaths	70 years
Gravel Footpaths	15 years
Kerb and channel	100 years

The estimates for renewals in this Asset Management Plan were based on a combination of both the asset register and alternate methods.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or

- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a playground).[6]

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.[7]

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 5.3.1. It is to be noted that these are general criteria and weightings and in some instances these will change. Refer also to the Capital Project Business Case Form in Appendix J.

Table 5.3.1: Renewal Priority Ranking Criteria

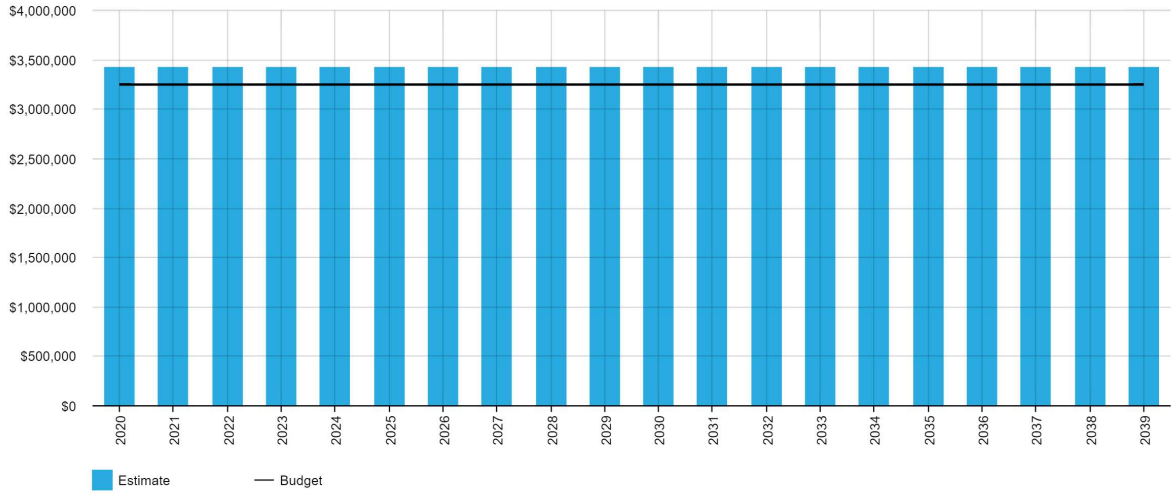
Criteria	Weighting
Condition	30 %
Usage/demand	30 %
High maintenance costs that could be reduced significantly by renewal	20 %
Risk/safety/failure consequence	20 %
Total	**100%**

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix D.

[6] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.
[7] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

Figure 5.4.1: Forecast Renewal Costs



All figure values are shown in current day dollars.

The forecast renewal costs are greater than the proposed renewal budget over the planning period, this is highlighted in Figure 5.4.1.

The lifecycle forecast is essentially the total foreseen renewal costs over the planning period, divided by the planning period (20 years) to give an annual average. There are some assets that are currently overdue or due for renewal and these have been prioritised in the renewal works plan, refer Appendix C.

Renewal forcasts for bridge components is based on the estimated average useful life. This figure is currently derived from the condition assessment performed by *Moloney Asset Management Systems* (note improvement Task 1 in Section 8.0 regarding bridge asset registers).

Council's general approach to asset management is to renew an asset just prior to spending significant maintenance expenditure that would not prolong the life of the asset sufficiently to recover the annualised replacement cost had that asset not been replaced.

Renewals forecasts are accommodated in the Long Term Financial Plan.

Deferred renewal (assets identified for renewal and not scheduled in capital works programs) should be included in Table 6.2 of this plan where this poses a 'high' or 'very high' risk to Council.

Renewal work is carried out in accordance with the following:.

- *Municipal Standard Drawings – IPWEA Tasmanian Division*
- *Municipal Standard Specifications – IPWEA Tasmania Division*
- *Workplace Health and Safety Act 2000 and Regulations*
- *Traffic Control Act*
- *Department of State Growth standards and specifications*
- *Australian Road Research Board Publications*
- *Northern Midlands Council: Workplacel Health and Safety Policy*
- Other documents may be referred to where additional information or direction is required.

5.5 Acquisition Plan

Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to the Northern Midlands Council.

5.5.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.5.1. It is to be noted that these are general criteria and weightings and in some instances these will change. Refer also to the Capital Project Business Case Form in Appendix J.

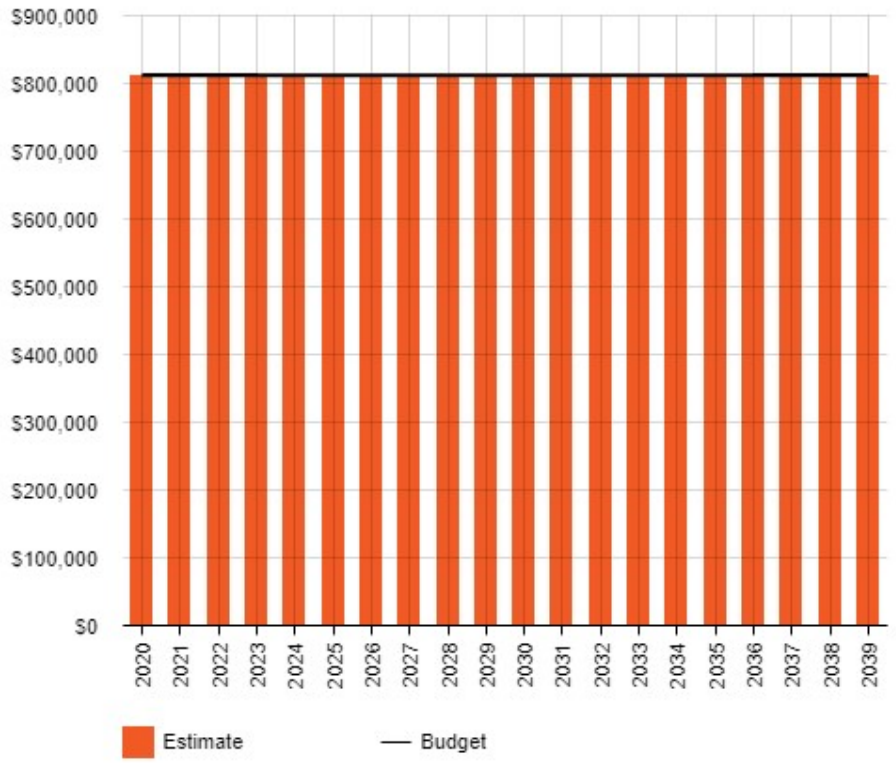
Table 5.5.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Risk/Safety Risk priority is assessed in accordance with Councils' Infrastructure Risk Management Plan which is based on the probability and consequence of failure.	25%
Technical Technical priority is assessed based on the project's ability to improve the road condition and function	20%
Corporate Corporate priority is linked to whether the projects are commitments through a Council resolution or included in Council policy and strategic plan. E.g. extending infrastructure from the town centres out.	20%
Transport – Road Category Is related to the specific road category in Council's road hierarchy of the asset.	15%
Social/Community Impact Priority based on the amount of community benefit through project completion	10%
Environment Environmental impact is assessed based on the significance of the surrounding environment, including the appearance of the built environment.	10%
Total	**100%**

Summary of future asset acquisition costs

Forecast asset acquisition costs are summarised in Figure 5.5.1 and shown relative to the planned budget. The forecast acquisition capital works program is shown in Appendix A.

Figure 5.5.1: Acquisition (Constructed) Summary

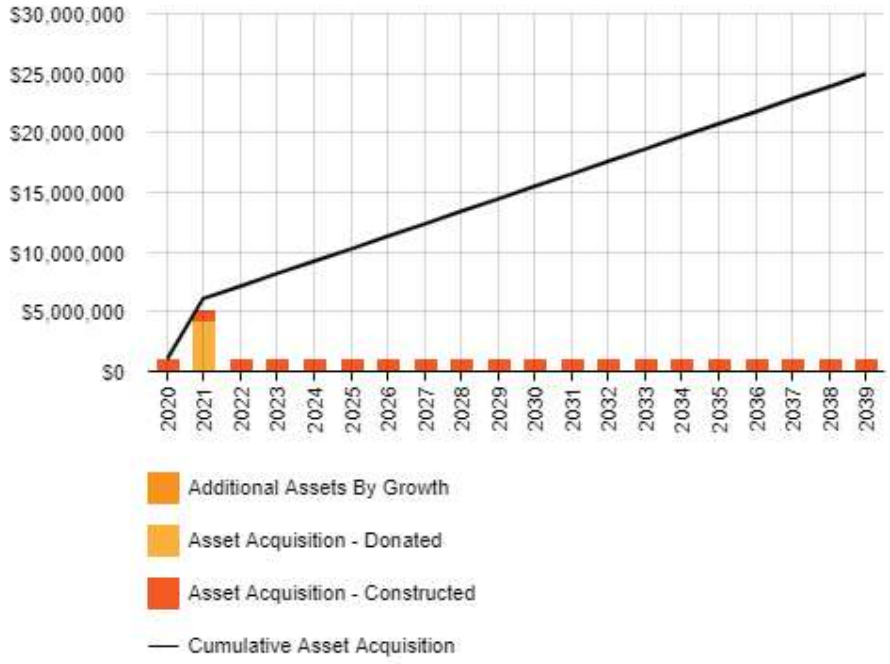


All figure values are shown in current day dollars.

Forecast acquisition costs are accommodated in the Long Term Financial Plan, but only to the extent that there is available funding. Forecast acquisitions are further discussed in Appendix A.

When Council commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by Council. The cumulative value of all acquisition work, including assets that are constructed and contributed is shown in Figure 5.5.2.

Figure 5.5.2: Acquisition Summary



All figure values are shown in current dollars.

Referring to Figure 5.5.2, the donation spike in 2021 relates to approximately 10 km of road, plus two roundabouts that will be transferred to Council ownership (from the Department of State Growth) following the completion of the Perth Bypass. The 'constructed' forecasts are assumed at $812,000 per year over the planning period and the other 'donated' forecasts are estimated at $235,000 per year (subdivisions).

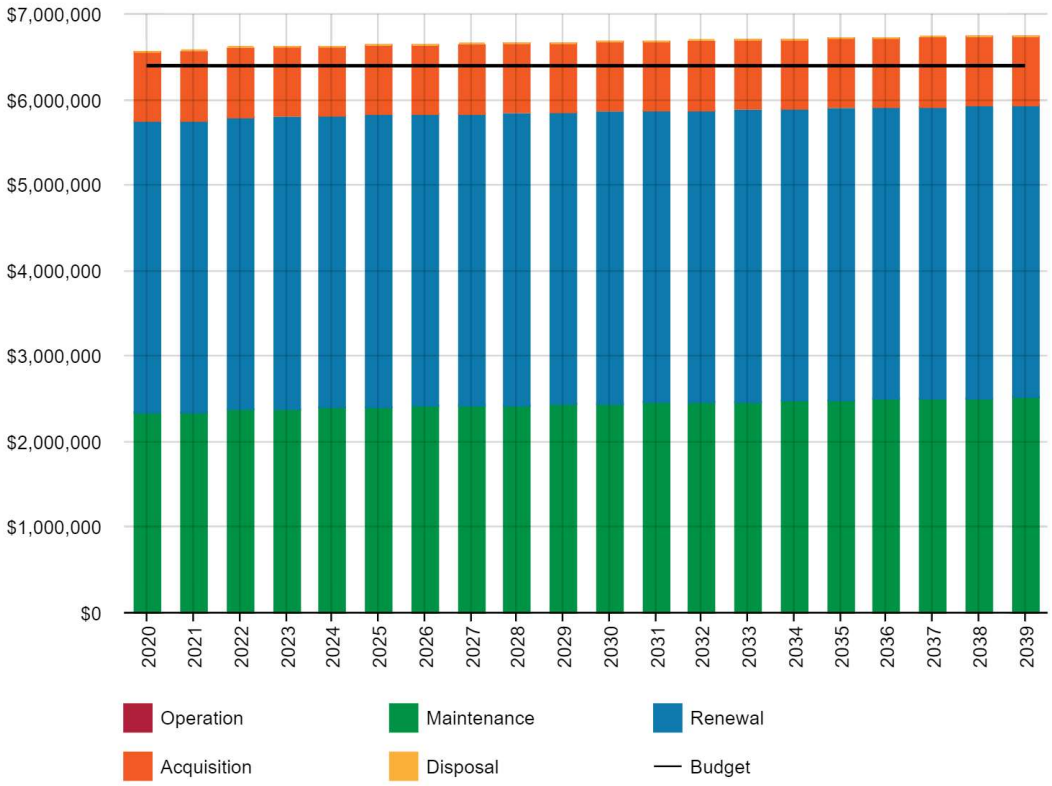
As can be seen in Figure 5.5.2, $25M in accumulated acquisitions is forecast to be added to Council's asset stock over the planning period. These acquisitions will commit the funding of ongoing operations, maintenance and renewal costs over the asset service life.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.5.3. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.5.3: Lifecycle Summary



All figure values are shown in current day dollars.

As can be seen in Figure 5.5.3, the forecasted lifecycle costs exceed the planned budget (black line). The forecast lifecycle costs for renewal is the main reason for the shortfall between the planned budget and the lifecycle costs. Gradual increases in the operations and maintenance lifecycle costs also lead to a greater shortfall over the planning period, due to increased costs associated with acquired (donated and constructed) assets.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in Table 5.6. Any costs or revenue gained from asset disposals is included in the Long Term Financial Plan.

Table 5.6: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Costs	Operations & Maintenance Annual Savings
Nil	N/A	N/A	N/A	N/A

6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'[8].

An assessment of risks[9] associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Link and industrial roads and collector roads	Flooding, defects etc.	Essential transport services disrupted
Bridges	Flooding, overloading etc.	Essential transport services disrupted

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

[8] ISO 31000:2009, p 2

[9] Refer *Northern Midlands Council Strategic Risk Register*

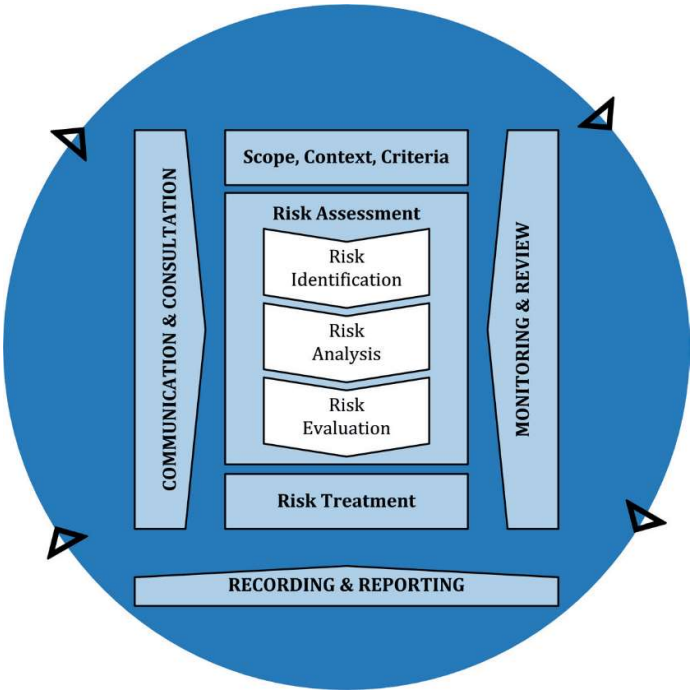


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks[10] associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management and the Councillors.

[10] Refer *Northern Midlands Council Strategic Risk Register*

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Transport Infrastructure	Loss of key staff/knowledge	H	Develop a succession plan, document knowledge and improve record keeping	L	TBC
Transport Infrastructure	Underfunding (deterioration of asset condition) and lack of resources to undertake best practice asset management.	H	Ensure prioritised renewal/acquisition works are planned, budgeted and strategic level asset management is resourced.	L	TBC
Transport Infrastructure	Increased frequency of flood damage to assets.	H	Improve vulnerable assets	L	TBC
Transport Infrastructure	Council are gifted assets with life cycle costs not accounted for in long term financial plan	H	Ensure lifecycle costs are considered (and detailed independent engineering report sought) prior to accepting and seek contribution from previous owner where appropriate	L	Project specific

*Note - The residual risk is the risk remaining after the selected risk treatment plan is implemented.

Refer to the *Northern Midlands Council Strategic Risk Register* for further information. Refer also to works level risk assessments undertaken for road and footpath assets in Appendix I.

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the Asset Management Plan.

6.4 Service and Risk Trade-Offs

The decisions made in adopting this Asset Management Plan are based on the objective to achieve the optimum benefits from the available resources.

6.4.1 What we cannot do

There are some operation, maintenance and capital works (acquisition and renewal) that are unable to be undertaken within the next 10 years. These include:

- Upgrade unsealed pavements to sealed pavements.
- Provide footpaths on both sides of streets.
- Upgrade single lane bridges to dual lane.
- We cannot undertake all forecast operation, maintenance and renewal activities at the rate required to maintain the current level of service over the planning period.

6.4.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. The service consequences will generally be a reduction in level of service provided.

6.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- A reduction to the level of service provided
- Reputational consequences

Refer also to the *Northern Midlands Council Strategic Risk Register.*

7.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this Asset Management Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the Asset Management Plan for this service area. The two indicators are the:

- asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[11] **95.1 %**

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have **95.1 %** of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget, and the cumulative shortfall, is illustrated in Appendix D.

Medium term – 10 year financial planning period

This Asset Management Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is **$5,811,208** on average per year.

The proposed (budget) operations, maintenance and renewal funding is **$5,583,000** on average per year giving a 10 year funding shortfall of **$228,208** on average per year. This indicates that **96 %** of the forecast costs needed to provide the services documented in this Asset Management Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the Asset Management Plan and ideally over the 10 year life of the Long Term Financial Plan.

7.1.2 Forecast Costs (outlays) for the Long Term Financial Plan

Table 7.1.2 shows the forecast costs (outlays) required for consideration in the 10 year Long Term Financial Plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the Long Term Financial Plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the Asset Management Plan (including possibly revising the Long Term Financial Plan).

[11] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

We will manage the 'gap' by developing this Asset Management Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in 2020/21 financial year dollar values.

Table 7.1.2: Forecast Costs (Outlays) for the Long Term Financial Plan

Financial Year	Acquisition	Operation	Maintenance	Renewal*	Disposal
2020/21	$812,000	$0	$2,333,000	$3,417,289	$0
2021/22	$812,000	$0	$2,341,062	$3,417,289	$0
2022/23	$812,000	$0	$2,379,924	$3,417,289	$0
2023/24	$812,000	$0	$2,387,986	$3,417,289	$0
2024/25	$812,000	$0	$2,396,048	$3,417,289	$0
2025/26	$812,000	$0	$2,404,110	$3,417,289	$0
2026/27	$812,000	$0	$2,412,172	$3,417,289	$0
2027/28	$812,000	$0	$2,420,233	$3,417,289	$0
2028/29	$812,000	$0	$2,428,295	$3,417,289	$0
2029/30	$812,000	$0	$2,436,357	$3,417,289	$0
2030/31	$812,000	$0	$2,444,419	$3,417,289	$0
2031/32	$812,000	$0	$2,452,481	$3,417,289	$0
2032/33	$812,000	$0	$2,460,543	$3,417,289	$0
2033/34	$812,000	$0	$2,468,605	$3,417,289	$0
2034/35	$812,000	$0	$2,476,667	$3,417,289	$0
2035/36	$812,000	$0	$2,484,729	$3,417,289	$0
2036/37	$812,000	$0	$2,492,791	$3,417,289	$0
2037/38	$812,000	$0	$2,500,852	$3,417,289	$0
2038/39	$812,000	$0	$2,508,914	$3,417,289	$0
2039/40	$812,000	$0	$2,516,976	$3,417,289	$0

*Renewal costs are shown as the average cost over the 20 year planning period.

7.2 Funding Strategy

The proposed funding for assets is outlined in Council's budget and Long Term Financial Plan.

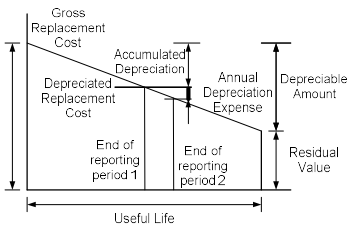
The financial strategy of the entity determines how funding will be provided, whereas the Asset Management Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of transport assets included in this Asset Management Plan is shown below:

Replacement Cost (Current/Gross)	**$322,462,190**
Depreciable Amount	**$322,462,190**
Depreciated Replacement Cost[12]	**$187,148,512**



[12] Also reported as Written Down Value, Carrying or Net Book Value.

Annual Depreciation Expense **$4,548,690**

7.3.2 Valuation forecast

Asset values are forecast to increase over the planning period as additional assets are acquired by Council (generally donated from land developers as new sub-division road infrastructure assets are constructed, or new assets are constructed by Council).

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this Asset Management Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this Asset Management Plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- External funding (e.g. *Roads to Recovery* and *Auslink* funding) will continue to be a major source of funding for renewals, noting a known gradual reduction in some of these grants over the planning period.
- Future demand assumptions as mentioned in Section 4.0.
- Asset construction costs to remain stable in real (current dollar) terms - If asset construction costs rise faster than the general rate of inflation, then Council's projected future asset renewal costs will be higher than indicated by this plan.
- Financial data used in the development of this plan was from the end of the 2020-21 financial year.
- Bridge data used in the development of this plan has assumed the existing *Maloney Asset Management System* register is current, though reference is made to the improvement plan in Section 8.0 regarding recommended future use of the *AusSpan* bridge asset register.
- Assume no additional unplanned major road infrastructure assets will be acquired by Council in the next 10 year period. If this changes the Asset Management Plan is to be updated to reflect this, with full condition and detailed lifecycle costing knowledge and allocation in planned budget to meet these costs.
- Several assumptions were required in the derivation of planned budget and lifecycle forecast figures. This is due to the nature of long term forecasting.
- Professional judgement has been applied in the absence of good quality data, however where applied, it has been noted for improvement in Section 8.0.
- All figures are presented in current day dollars.

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this Asset Management Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[13] in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%

[13] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

Confidence Grade	Description
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this Asset Management Plan is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in Asset Management Plan

Data	Confidence Assessment	Comment
Demand drivers	Medium	Requires Council input, review and acceptance
Growth projections	Medium to High	State government provided projections used
Acquisition forecast	Medium	Some estimates and assumptions made. Average estimated acquisition cost over planning period.
Operation forecast	Low to Medium	Not separated out from combined 'operations and maintenance' tracking. Requires review on provision and improvement of financial data.
Maintenance forecast	Low to Medium	Not separated out from general 'operations and maintenance'. Requires review on provision and improvement of financial data.
Renewal forecast - Asset values	Medium to High	Refer *Maloney Asset Management Systems* update in 2019.
- Asset useful lives	Medium	Refer *Maloney Asset Management Systems* update in 2019.
- Condition modelling	Medium	Four yearly *Maloney Asset Management Systems* inspection for roads, footpaths, kerb and channel (last inspected 2019). *AusSpan* undertake yearly bridge inspections.
Disposal forecast	High	No disposals are currently forecasted over the planning period

The estimated confidence level for and reliability of data used in this Asset Management Plan is considered to be **Medium** (refer Table 7.5.1).

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices[14]

8.1.1 Accounting and financial data sources

This Asset Management Plan utilises accounting and financial data. The source of the data is Council's accounting and finance software *Open Office Local Government Solutions*.

Accounting standards and regulations
Council is required to prepare its annual financial report in accordance with *Australian Accounting Standards* and other authoritative pronouncements of the *Australian Accounting Standards Board* and the *Local Government Act 1993* (as amended).

AASB 116 Property, plant and equipment, AASB 136 Impairment of Assets, AASB 140 Investment Property and AASB 5 Non-current Assets held for Sale and Discontinued Operations are applied when preparing Council's annual financial statements.

The cost method of accounting is used for the initial recording of all assets acquired. Cost is determined as the fair value of the assets given as consideration plus cost incidental to the acquisition including architects fees, engineering design fees, consulting fees, administration charges and all other costs incurred in getting the assets ready for use. In addition the cost of non-current assets constructed by Council, 'cost' includes all material used in construction, direct labour used on the project and an appropriate proportion of overheads.

Non-monetary assets received in the form of grants and donations are recognised as assets and revenues at their fair value at the date of receipt. Fair value means the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

Capitalisation threshold
Generally maintenance, repair costs and minor renewals are charged as expenditure when incurred unless the total value exceeds 10% of the assets written down value, or increases the economic life by more than 10%. For example, road reseals, reconstructions, and resheeting are capitalised. Whereas, road shouldering, roadside drainage and hotmix patching are expensed.

Expenditure is capitalised when it provides a future economic benefits which extends beyond one year and can be measured reliably. The following limits apply to the recognition of the acquisition of new assets:

Table 8.1.1: Capitalisation threshold

Asset Class	Capitalisation threshold
Transport Infrastructure	$5,000

8.1.2 Asset management data sources

This Asset Management Plan also utilises asset management data. The source of the data is generally from Council's *Moloney Asset Management* system, but also utilises data from *Intramaps* (Geographic Information System), *Technology One 'ECM' Customer Request System*, and individual asset registers.

The *Moloney Asset Management* system is not linked to, however is constantly reconciled to, the *Open Office Local Government Solutions* accounting system.

The ongoing responsibility of Council's Asset Management system is primarily that of the Asset Management Officer, however strategic oversight and provision of required resources for best practice asset management is the responsibility of the General Manager, the Corporate Services Manager, and the Works Manager.

[14] ISO 55000 Refers to this as the Asset Management System

8.2 Improvement Plan

It is important that an entity recognise areas of their Asset Management Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this Asset Management Plan is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	There are two existing bridge asset registers (*Maloney* and *AusSpan*) – recommended to adopt *AusSpan* asset register, as this is up to date and contains all required best practice asset management information.	Works Manager, Corporate Services Manager	Internal	August 2021
2	Draft work plan in Appendix C is generated from the asset register, however inaccuracies in some renewal dates is noted for improvement. Refer also Task 5.			
3	Customer service requests tracked by asset category so numbers can be tracked and included in asset management plans.	Corporate Services Manager	Internal	August 2021
4	Improve confidence in condition ratings for all assets. (Refer also Task 8)	Works Manager	Internal	June 2022
5	Develop strategic maintenance and capital works programs for upcoming years (using renewal ranking criteria). Use to inform future Asset Management Plan and Long Term Financial Plan updates.	Works Manager, Works Supervisor	Internal	June 2022
6	Assess yearly performance (budgeted vs. actual costs) and update Asset Management Plan and Long Term Financial Plan accordingly.	Corporate Services Manager, Works Manager	Internal	June 2022
7	Collect asset data for missing assets such as barrier fencing (roadside, pedestrian rails etc.) and street furniture (including street signs, roundabouts, and traffic islands etc).	Works Manager	Internal	June 2022
8	Improve confidence in useful lives within asset register, ensure correlates well with assessed condition.	Works Manager	Internal	June 2022
9	Undertake scheduled condition assessment of roads, footpaths, kerb and channel	Works Manager	*Maloney Asset Management Systems*	May 2023
10	Break up 'operation and maintenance' lifecycle activity into 'operation' and 'maintenance' in finance system.	Corporate Service Manager	Internal	June 2023
11	Improve confidence in financial data used in Long Term Financial Plan and Asset Management Plan.	Accountant/Corporate Services Manager	Internal	June 2023
12	Community/Council consultation required to ensure appropriate levels of service are	General Manager	Internal	2025

	being provided (reduce/improve level of service accordingly)			
13	Continue to improve accuracy of budget breakdown to include acquisitions, maintenance, operations, renewals and disposals. Aim for better transparency.	Accountant/Corporate Services Manager	Internal	Ongoing
14	Continually improve correlation between Long Term Financial Plan and Asset Management Plan. (Conduct regular meetings of responsible persons – aim for 'high' confidence level)	General Manager, Corporate Services Manager, Works Manager	Internal	Ongoing
15	Increase confidence and maturity of Asset Management Plan	Corporate Services Manager, Works Manager	Internal	Ongoing
16	Develop appropriate Risk management plans	General Manager	Internal	Ongoing

8.3 Monitoring and Review Procedures

This Asset Management Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The Asset Management Plan will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are to be incorporated into the Long Term Financial Plan once completed (if not already).

The Asset Management Plan has a maximum life of 4 years and is due for complete revision and updating within 6 months of each Council election.

8.4 Performance Measures

The effectiveness of this Asset Management Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this Asset Management Plan are incorporated into the Long Term Financial Plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the Asset Management Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 – 100%).

9.0 REFERENCES

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- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- *Northern Midlands Strategic Plan 2017 – 2027*
- *Northern Midlands Council Annual Plan: 2021-2022*
- *Northern Midlands Council Budget Report: 2021-2022*

10.0 APPENDICES

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

A key assumption in the writing of this Asset Management Plan is that no major standalone unplanned acquisitions are forecast to be undertaken during the planning period (e.g. acquisitions where full lifecycle costs have not been allocated in the Long Term Financial Plan.

The 'donated' acquisition forecast summary estimate is based on the completion (by others/developers) of land subdivision assets, each year over the planning period.

Several estimates and assumptions were required to be made in the acquisition forecast figures due to the extent of information currently available. This has been noted for improvement in Section 8.0.

A.2 – Acquisition Project Summary

The acquisitions included in this plan and accommodated in the Long Term Financial Plan are detailed in Table A3 below. The spike in donated assets ($4M greater than average) in 2021/22 relates to approximately 10 km of road, plus two roundabouts that will be transferred to Council ownership (from the Department of State Growth) following the completion of the Perth Bypass. The 'constructed' forecasts are assumed at $812,000 per year over the planning period based on financial assumptions, and the other 'donated' forecasts are estimated at $235,000 per year (for general subdivision assets donated to Council by developers).

A.3 – Acquisition Forecast Summary

Table A3 displays the forecast acquisition value each year over the planning period.

Table A3 - Acquisition Forecast Summary

Financial Year	Constructed	Donated
2020/21	$812,000	$235,000
2021/22	$812,000	$4,235,000
2022/23	$812,000	$235,000
2023/24	$812,000	$235,000
2024/25	$812,000	$235,000
2025/26	$812,000	$235,000
2026/27	$812,000	$235,000
2027/28	$812,000	$235,000
2028/29	$812,000	$235,000
2029/30	$812,000	$235,000
2030/31	$812,000	$235,000
2031/32	$812,000	$235,000
2032/33	$812,000	$235,000
2033/34	$812,000	$235,000
2034/35	$812,000	$235,000
2035/36	$812,000	$235,000
2036/37	$812,000	$235,000
2037/38	$812,000	$235,000
2038/39	$812,000	$235,000
2039/40	$812,000	$235,000

Appendix B Operations and Maintenance Forecast

B.1 – Operation and Maintenance Forecast Assumptions and Source

Several estimates and assumptions were required to be made in the operation and maintenance forecast figures. This has been noted for improvement in Section 8.0.

B.2 – Operation and Maintenance Forecast Summary

Table B2 displays the forecast operation and maintenance costs each year over the planning period. Ideally this would be separated into separate 'operation' and 'maintenance' categories. This is noted for improvement in Section 8.0.

Table B2 – Operation & Maintenance Forecast Summary

Financial Year	Operation & Maintenance Forecast	Additional Operation & Maintenance Forecast	Total Operation & Maintenance Forecast
2020/21	$2,333,000	$8,062	$2,333,000
2021/22	$2,341,062	$38,862	$2,341,062
2022/23	$2,379,924	$8,062	$2,379,924
2023/24	$2,387,986	$8,062	$2,387,986
2024/25	$2,396,048	$8,062	$2,396,048
2025/26	$2,404,110	$8,062	$2,404,110
2026/27	$2,412,172	$8,062	$2,412,172
2027/28	$2,420,233	$8,062	$2,420,233
2028/29	$2,428,295	$8,062	$2,428,295
2029/30	$2,436,357	$8,062	$2,436,357
2030/31	$2,444,419	$8,062	$2,444,419
2031/32	$2,452,481	$8,062	$2,452,481
2032/33	$2,460,543	$8,062	$2,460,543
2033/34	$2,468,605	$8,062	$2,468,605
2034/35	$2,476,667	$8,062	$2,476,667
2035/36	$2,484,729	$8,062	$2,484,729
2036/37	$2,492,791	$8,062	$2,492,791
2037/38	$2,500,852	$8,062	$2,500,852
2038/39	$2,508,914	$8,062	$2,508,914
2039/40	$2,516,976	$8,062	$2,516,976

Appendix C Renewal Forecast Summary

C.1 – Renewal Forecast Assumptions and Source

The renewal forecast of $3,417,289 per year is based on the total sum of the forecasted renewal costs over the planning period, averaged over 20 years (the planning period). Refer improvement plan in Section 8.0.

C.2 – Renewal Project Summary

The renewal plan shown in C.4 is extracted from the transport infrastructure asset register and shows assets forecast for renewal in the next 10 years of the planning period. Further professional judgement will be required in prioritising the below renewals over the 10 year period, refer also Table 5.3.1 for renewal ranking criteria.

C.3 – Renewal Forecast Summary

Table C3 displays the forecast renewal costs and planned budget each year over the planning period. The renewal forecast is $167,289 (per year) higher than the forecast renewal budget.

Table C3 - Renewal Forecast Summary

Financial Year	Renewal Forecast*	Renewal Budget
2020/21	$3,417,289	$3,250,000
2021/22	$3,417,289	$3,250,000
2022/23	$3,417,289	$3,250,000
2023/24	$3,417,289	$3,250,000
2024/25	$3,417,289	$3,250,000
2025/26	$3,417,289	$3,250,000
2026/27	$3,417,289	$3,250,000
2027/28	$3,417,289	$3,250,000
2028/29	$3,417,289	$3,250,000
2029/30	$3,417,289	$3,250,000
2030/31	$3,417,289	$3,250,000
2031/32	$3,417,289	$3,250,000
2032/33	$3,417,289	$3,250,000
2033/34	$3,417,289	$3,250,000
2034/35	$3,417,289	$3,250,000
2035/36	$3,417,289	$3,250,000
2036/37	$3,417,289	$3,250,000
2037/38	$3,417,289	$3,250,000
2038/39	$3,417,289	$3,250,000
2039/40	$3,417,289	$3,250,000

*Renewal forecasts are shown as the average over the 20 year planning period.

C.4 –Renewal Plan

A draft 10 year renewal plan is provided below, extracted from the transport infrastructure asset register. As noted in C.2 further prioritisation works will be required as to when each renewal is scheduled to take place over the 10 year period. Refer also Table 5.3.1 for renewal ranking criteria. The 2021/22 planned budget works are also noted below.

2021/22 Planned Budget Works

<u>Roads ($8.275 M)</u>

Reconstruction of Barton Road, Campbell Town and Glen Eks Road, Nile ($900,000);
Kerb and reconstruction of Queen Street, Campbell Town ($244,0000), Hobhouse Street, Hay Street, Park Street and the Sports Centre carpark at Longford ($236,000); sections of George Street, Drummond Street, Youl Road,

and Recreation Ground carpark at Perth ($592,000), urban street design at Campbell Town ($900,000), at Longford ($1,400,000), at Perth including roundabouts ($1,200,000), and annual reseal, resheeting and footpath programs.

Bridges ($751,000)

Replacement of three bridges with concrete structures on Bryants Lane, Gulf Road, and Lake River Road; replacement of guard rail on bridges at Saundridge Road and Delmont Road, and new footbridge at William Street Reserve, Perth ($270,000).

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
3734	Bridge	Elphinstone Road	1.06	Box	39,474	5.0	TBC
4523	Bridge	Glen Connell Road	1.59	Pipe	57,276	5.0	TBC
5262	Culvert	Delmont Road	7.11	Pipe	27,090	5.0	TBC
4840	Bridge	Blackwood Creek Road		Box	33,901	5.0	TBC
923	Pavement	New St Campbell Town	0	227	240,786	4.1	2021
160	Pavement	Bond St Ross	532	767	75,670	3.8	2021
421	Pavement	Eskleigh Perth Nursing Home Rd	185	1,065	161,304	3.5	2021
1567	UNPavement	Clare St	449	600	3,398	4.5	2022
235	Pavement	Carins St	0	200	106,715	3.5	2023
802	Seal	Main St Cressy	1,952	2,053	2,259	4.2	2023
1071	Pavement	Rossarden Rd	3,950	5,570	347,490	3.5	2023
112	UNPavement	Bedford St	937	1,050	7,119	4.0	2024
1020	UNPavement	Portugal St	0	105	2,268	4.0	2024
1284	UNPavement	Tunbridge La	4,225	10,315	164,430	4.0	2024
1524	UNPavement	Wellington St Ross	134	307	6,278	4.0	2024
1573	Pavement	Gay St	151	250	47,124	3.5	2024
1496	Seal	Bridge Access Rd	50	116	2,370	3.7	2025
186	Seal	Bridge St Ross	0	226	11,029	3.3	2025
923	Seal	New St Campbell Town	0	227	15,479	3.7	2025
676	UNPavement	Lakeview Rd	1,440	2,500	38,160	4.0	2025
737	UNPavement	Long Marsh Rd	11,210	12,100	24,030	4.0	2025
276.4	Footpaths	Church St Ross	The Boulevards	Badagos	900	3.0	2026
562.4	Footpaths	High St Ross	Church St	Bond St	3,210	3.0	2026
495	Pavement	Glenesk Rd	0	970	226,980	3.1	2026
1322	Pavement	Valleyfield Rd	8,505	10,410	371,475	3.2	2026
1447	Seal	Chintah Rd	6,385	7,240	25,137	3.3	2026
1446	Seal	Chintah Rd	7,240	8,130	26,166	3.3	2026
310	Seal	Conara Rd	1,495	1,626	3,595	3.3	2026
433	Seal	Fairtlough St	0	260	12,965	3.4	2026
511	Seal	Goderich St	531	630	3,828	3.3	2026
865	Seal	Merrywood Rd	5,490	5,690	5,194	3.3	2026
1229	Seal	Tooms Lake Rd	13,240	14,060	19,698	3.3	2026
1525	UNPavement	Waterloo St	0	215	7,403	3.5	2026
295	Pavement	Clarendon Station Rd	0	1,740	407,160	3.1	2027
525	Pavement	Green Rises Rd	9,600	10,590	193,050	3.0	2027
532	Pavement	Haslewood St	0	1,105	241,332	3.1	2027
1118	Pavement	Saundridge Rd	11,530	13,235	365,723	3.1	2027
20	Seal	Armstrongs La	3,575	4,560	27,763	3.1	2027
21	Seal	Armstrongs La	4,560	5,555	26,328	3.0	2027
43	Seal	Ashby Rd	1,170	1,730	13,843	3.0	2027
109	Seal	Bedford St	212	269	670	3.0	2027
141	Seal	Blackwood Creek Rd	885	1,715	21,148	3.0	2027
160	Seal	Bond St Ross	532	767	5,067	3.0	2027
205	Seal	Brumby St	2,660	3,260	16,464	3.0	2027
260	Seal	Chintah Rd	2,550	3,730	34,251	3.0	2027
263	Seal	Chintah Rd	6,040	6,385	9,467	3.2	2027
1445	Seal	Chintah Rd	8,130	8,500	10,878	3.2	2027
309	Seal	Conara Rd	1,152	1,495	9,916	3.2	2027
417	Seal	English Town Rd	5,945	6,100	4,776	3.4	2027
444	Seal	Fitzroy St	0	220	4,065	3.2	2027
464	Seal	George St Longford	0	71	4,655	3.0	2027
495	Seal	Glenesk Rd	0	970	27,092	3.0	2027
543	Seal	High St Campbell Town	1,102	1,211	3,029	3.0	2027
545	Seal	High St Campbell Town	1,306	1,501	13,759	3.0	2027
577	Seal	Hobhouse St	549	720	8,044	3.1	2027

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
579	Seal	Hobhouse St	897	1,064	7,746	3.2	2027
701	Seal	Liffey Rd	5,700	7,525	44,713	3.0	2027
870	Seal	Mona Vale Rd	170	610	11,211	3.0	2027
906	Seal	Murfett St	102	303	5,515	3.0	2027
1108	Seal	Saundridge Rd	1,750	4,205	77,310	3.0	2027
1183	Seal	Storys Creek Rd	12,675	14,720	64,131	3.1	2027
1184	Seal	Storys Creek Rd	14,720	15,345	20,825	3.2	2027
1226	Seal	Tooms Lake Rd	10,485	10,825	8,330	3.0	2027
1269	Seal	Truelands Rd	3,180	4,074	21,027	3.2	2027
1319	Seal	Valleyfield Rd	4,860	6,810	47,775	3.0	2027
1320	Seal	Valleyfield Rd	6,810	7,605	19,478	3.0	2027
1365	Seal	West St Campbell Town	303	496	4,350	3.0	2027
1367	Seal	West St Campbell Town	870	960	2,029	3.0	2027
81.4	Footpaths	Badajos St	Church St	Seal Change	450	2.5	2028
82.4	Footpaths	Badajos St	Seal Change	Bond St	2,760	2.5	2028
89.4	Footpaths	Barclay St	High St NBL	Murray	3,927	2.5	2028
91.2	Footpaths	Barclay St	Cambock East	Seal Change	2,940	2.5	2028
107.4	Footpaths	Beaufront St	Bridge St EOS	Bond St EOS	3,570	2.5	2028
159.4	Footpaths	Bond St Ross	Badajos St	High	3,060	2.5	2028
187.4	Footpaths	Bridge St Ross	Church St	Seal Change	484	2.5	2028
188.4	Footpaths	Bridge St Ross	Seal Change	Beaufort	660	2.5	2028
302.4	Footpaths	Collins St Evandale	Huxtables WBL	High St	6,510	2.5	2028
320.2	Footpaths	Cox St	Nile EBL	End	2,682	2.5	2028
562.2	Footpaths	High St Ross	Church St	Bond St	3,210	2.5	2028
999.4	Footpaths	Paton St	Burghley St	End of Seal	600	2.5	2028
1058.2	Footpaths	Rodgers La	Macquarie	Russell	885	2.5	2028
1354.4	Footpaths	Wellington St Longford	Pultney	Malcombe	4,050	2.5	2028
1361.3	Footpaths	West Cambock La	Main Rd NBL	Segment	852	2.5	2028
50	Pavement	Ashby Rd	5,765	6,705	219,960	3.0	2028
116	Pavement	Bellevue Rd	2,660	3,210	90,090	3.0	2028
119	Pavement	Bellevue Rd	4,805	6,665	344,097	3.0	2028
340	Pavement	Deddington Rd	1,233	3,075	431,028	3.0	2028
341	Pavement	Deddington Rd	3,075	4,770	396,630	3.0	2028
369	Pavement	Devon Hills Rd	1,105	2,235	264,420	3.0	2028
370	Pavement	Devon Hills Rd	2,235	3,345	261,788	3.0	2028
496	Pavement	Glenesk Rd	970	2,525	333,548	3.0	2028
550	Pavement	High St Evandale	444	812	82,432	3.0	2028
614	Pavement	Isis Rd	20	835	174,818	3.0	2028
616	Pavement	Isis Rd	1,520	3,285	344,175	3.0	2028
664	Pavement	Lake River Rd	7,265	8,395	220,350	3.0	2028
665	Pavement	Lake River Rd	8,395	9,050	149,994	3.0	2028
849	Pavement	Marlborough St Longford	5,345	6,125	182,520	3.0	2028
931	Pavement	Nile Rd	4,845	5,705	228,072	3.0	2028
979	Pavement	Panshanger Rd	520	2,140	347,490	3.0	2028
1006	Pavement	Perth Mill Rd	0	1,660	453,180	3.0	2028
1072	Pavement	Rossarden Rd	5,570	6,630	248,040	3.0	2028
1080	Pavement	Royal George Rd	720	2,065	314,730	3.0	2028
1086	Pavement	Royal George Rd	8,100	8,800	150,150	3.0	2028
1087	Pavement	Royal George Rd	8,800	9,750	203,775	3.0	2028
1450	Pavement	Valleyfield Rd	0	200	46,118	3.0	2028
1368	Pavement	West St Campbell Town	960	1,025	27,300	3.1	2028
1379	Pavement	White Hills Rd	1,180	2,030	232,050	3.0	2028
1411	Pavement	Woolmers La	730	3,225	603,291	3.0	2028
62	Seal	Auburn Rd	3,085	3,465	8,379	2.8	2028
64	Seal	Auburn Rd	3,670	5,300	37,034	2.9	2028

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
67	Seal	Auburn Rd	6,630	8,500	43,556	2.7	2028
68	Seal	Auburn Rd	8,500	9,045	13,620	2.7	2028
148	Seal	Blackwood Creek Rd	9,460	11,580	57,330	2.9	2028
149	Seal	Blackwood Creek Rd	11,580	12,670	29,376	2.8	2028
150	Seal	Blackwood Creek Rd	12,670	14,050	37,191	2.8	2028
158	Seal	Bond St Ross	0	298	6,717	2.7	2028
174	Seal	Brickendon St	760	1,460	19,208	2.8	2028
179	Seal	Bridge St Campbell Town	621	782	10,970	2.7	2028
220	Seal	Bulwer St	1,031	1,183	7,150	2.7	2028
223	Seal	Burghley St	510	950	12,289	2.7	2028
225	Seal	Burghley St Longford	155	380	10,576	2.9	2028
242	Seal	Catherine St	657	675	700	2.7	2028
246	Seal	Catherine St	1,139	1,531	14,249	2.7	2028
1562	Seal	Chintah Rd	2,220	2,550	8,894	2.7	2028
261	Seal	Chintah Rd	3,730	4,195	12,987	2.9	2028
265	Seal	Chiswick Rd (Northern Access	0	48	3,363	2.7	2028
307	Seal	Conara Rd	295	900	41,382	2.8	2028
320	Seal	Cox St	0	259	8,416	2.7	2028
329	Seal	Cromwell St	73	252	4,323	2.7	2028
353	Seal	Deddington Rd	13,325	13,545	5,929	2.7	2028
359	Seal	Delmont Rd	0	505	12,373	2.7	2028
368	Seal	Devon Hills Rd	0	1,105	38,165	2.8	2028
369	Seal	Devon Hills Rd	1,105	2,235	32,668	2.8	2028
376	Seal	Drummond St	0	168	3,259	2.7	2028
438	Seal	Falls Ct	0	35	5,544	3.7	2028
1609	Seal	Falmouth St Extension	0	106	5,392	2.7	2028
453	Seal	Franklin St	295	568	6,284	2.6	2028
465	Seal	George St Longford	71	207	8,530	2.7	2028
475	Seal	George St Perth	572	673	4,149	3.1	2028
518	Seal	Green Rises Rd	0	1,190	31,203	2.7	2028
522	Seal	Green Rises Rd	5,260	5,760	12,250	2.7	2028
523	Seal	Green Rises Rd	6,730	8,300	38,465	2.6	2028
532	Seal	Haslewood St	0	1,105	30,321	2.8	2028
540	Seal	Herberts Rd	0	237	6,201	2.7	2028
546	Seal	High St Campbell Town	1,501	1,671	11,662	2.9	2028
558	Seal	High St Longford	567	741	8,355	2.7	2028
559	Seal	High St Longford	741	784	1,686	2.7	2028
563	Seal	High St Ross	345	441	1,632	2.8	2028
573	Seal	Hobhouse St	0	168	6,821	2.9	2028
574	Seal	Hobhouse St	168	245	2,666	2.8	2028
578	Seal	Hobhouse St	720	897	8,846	2.6	2028
608	Seal	Howick St	386	510	5,448	2.7	2028
702	Seal	Liffey Rd	7,525	8,330	20,117	2.7	2028
707	Seal	Liffey Rd	14,100	14,140	1,078	2.7	2028
754	Seal	Macquarie River Rd	9,570	10,680	29,915	2.7	2028
787	Seal	Macquarie St Cressy	401	806	9,526	2.9	2028
824	Seal	Malcombe St	434	606	9,280	2.7	2028
825	Seal	Malcombe St	606	775	8,840	2.8	2028
827	Seal	Malcombe St	794	957	8,306	2.7	2028
828	Seal	Malcombe St	957	1,105	4,418	2.8	2028
846	Seal	Marlborough St Longford	1,895	2,985	29,910	2.6	2028
872	Seal	Mona Vale Rd	610	1,145	12,517	2.8	2028
873	Seal	Mona Vale Rd	1,145	1,890	18,983	2.9	2028
876	Seal	Mona Vale Rd	1,890	2,780	22,241	2.7	2028
877	Seal	Mona Vale Rd	2,780	3,450	15,102	2.9	2028

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
903	Seal	Munden La	0	1,965	49,987	2.6	2028
905	Seal	Murfett St	0	102	2,869	2.9	2028
907	Seal	Murfett St	303	480	4,552	2.7	2028
972	Seal	Pakenham St	0	295	17,160	2.7	2028
974	Seal	Pakenham St	515	660	5,613	2.7	2028
975	Seal	Pakenham St	660	745	3,832	2.7	2028
988	Seal	Park St Ross	925	1,250	6,370	2.8	2028
990	Seal	Pateena Rd	40	160	4,351	2.9	2028
1032	Seal	Powranna Rd	13,295	13,800	14,600	2.8	2028
1043	Seal	Queen St	28	191	11,260	2.8	2028
1096	Seal	Royal George Rd	20,590	22,060	40,337	2.7	2028
1150	Seal	Spencers La	0	109	5,504	2.8	2028
1180	Seal	Storys Creek Rd	6,015	7,900	58,190	2.8	2028
1181	Seal	Storys Creek Rd	7,900	10,990	95,388	2.9	2028
1182	Seal	Storys Creek Rd	10,990	12,675	52,016	2.7	2028
1193	Seal	Swan Av	0	85	1,725	2.7	2028
1202	Seal	Tasman St Pt 1	0	125	3,020	2.9	2028
1208	Seal	The Stock Route	0	85	1,916	2.9	2028
1210	Seal	Tooms Lake Rd	0	965	44,216	3.1	2028
1215	Seal	Tooms Lake Rd	3,510	3,765	6,372	2.9	2028
1216	Seal	Tooms Lake Rd	3,765	3,900	3,175	2.7	2028
1217	Seal	Tooms Lake Rd	3,900	4,030	3,249	2.7	2028
1224	Seal	Tooms Lake Rd	9,770	10,315	13,353	2.7	2028
1227	Seal	Tooms Lake Rd	10,825	12,185	31,321	2.8	2028
1228	Seal	Tooms Lake Rd	12,185	13,240	24,814	2.9	2028
1235	Seal	Tooms Lake Rd	16,080	16,530	11,466	2.7	2028
1254	Seal	Top Rd	0	70	1,749	2.7	2028
1537	Seal	Torlesse St	557	850	6,891	2.7	2028
1321	Seal	Valleyfield Rd	7,605	8,505	22,050	2.9	2028
1322	Seal	Valleyfield Rd	8,505	10,410	46,673	2.7	2028
1359	Seal	Wellington St Ross	0	24	1,323	2.9	2028
1360	Seal	Wellington St Ross	24	134	1,779	2.7	2028
229	UNPavement	Burghley St Longford	1,074	1,214	5,040	3.0	2028
445	UNPavement	Fitzroy St	220	235	486	3.0	2028
448	UNPavement	Forest Hall Rd	2,050	2,990	29,610	3.5	2028
675	UNPavement	Lakeview Rd	1,240	1,440	7,200	3.5	2028
689	UNPavement	Lewis St West	0	150	4,050	3.0	2028
1569	UNPavement	Portugal St South	0	53	1,431	3.0	2028
1063	UNPavement	Rossarden Rd 101	0	248	6,858	3.0	2028
1610	UNPavement	Tasman St Pt 2	185	345	3,456	3.0	2028
1283	UNPavement	Tunbridge La	2,355	4,225	50,490	3.0	2028
1385	UNPavement	Wilderness Tk	685	3,400	85,523	3.5	2028
31.3	Footpaths	Arthur St Evandale	Macquarie	Leopold	460	2.0	2029
83.4	Footpaths	Badajos St	Bond St	Park St	1,416	2.0	2029
89.1	Footpaths	Barclay St	High St NBL	Murray	595	2.0	2029
90.1	Footpaths	Barclay St	Murray	Cambock East	27,979	3.5	2029
91.4	Footpaths	Barclay St	Cambock East	Seal Change	1,680	2.0	2029
186.2	Footpaths	Bridge St Ross	West end of	Church St	270	2.0	2029
187.2	Footpaths	Bridge St Ross	Church St	Seal Change	1,026	2.0	2029
188.2	Footpaths	Bridge St Ross	Seal Change	Beaufort	1,012	2.0	2029
320.4	Footpaths	Cox St	Nile EBL	End	3,306	2.0	2029
422.2	Footpaths	Esplanade Campbell Town	Midlands Hwy	Change	2,646	2.0	2029
423.2	Footpaths	Esplanade Campbell Town	Change	Bridge St	414	2.0	2029
548.2	Footpaths	High St Evandale	Leighlands + 12 m	Cambock La	627	2.0	2029
550.2	Footpaths	High St Evandale	Barclay	Russell	9,856	2.0	2029

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
550.4	Footpaths	High St Evandale	Barclay	Russell	15,322	2.0	2029
610.2	Footpaths	Huxtables La	Russell St	Collins St	1,680	2.0	2029
641.2	Footpaths	King St Cressy	Cressy Rd	Bend	1,886	2.0	2029
641.4	Footpaths	King St Cressy	Cressy Rd	Bend	2,180	2.0	2029
642.2	Footpaths	King St Cressy	Bend	Archer St	4,669	2.0	2029
687.4	Footpaths	Leopold St	Change	Barclay St	2,263	2.0	2029
789.4	Footpaths	Macquarie St Evandale	Barclay St SBL	Arthur	1,060	2.0	2029
909.4	Footpaths	Murray St	Barclay St SBL	Arthur	546	2.0	2029
1351.2	Footpaths	Wellington St Longford	Seal Change	Seal Change	4,728	2.0	2029
1352.2	Footpaths	Wellington St Longford	Seal Change	Swan	3,096	2.0	2029
1342.2	Footpaths	Wellington St SB C/W	Railway X-ing	Start K&C	256	2.0	2029
1361.4	Footpaths	West Cambock La	Main Rd NBL	Segment	868	2.0	2029
1362.3	Footpaths	West Cambock La	Segment Change	Change	1,560	2.0	2029
1362.4	Footpaths	West Cambock La	Segment Change	Change	4,960	2.0	2029
919.4	Kerbs	Nevis St	EBL Rossarden Rd	End Seal	3,030	2.0	2029
1045.2	Kerbs	Queen St	Glenelg St	End	570	2.0	2029
1259.4	Kerbs	Torlesse St	Seal Change	Midlands Hwy	500	2.0	2029
1260.2	Kerbs	Torlesse St	Midlands Hwy	Seal Change	420	2.0	2029
1261.2	Kerbs	Torlesse St	Seal Change	Forster St	1,010	2.0	2029
184	Pavement	Bridge St Campbell Town	2,102	2,270	16,800	3.1	2029
785	Pavement	Macquarie St Cressy	108	250	66,801	3.0	2029
1138	Pavement	Smith St	0	140	86,632	3.0	2029
1338	Pavement	Waterloo St	686	920	77,490	3.0	2029
14	Seal	Archer St Longford	0	153	10,309	2.5	2029
19	Seal	Armstrongs La	1,590	3,575	48,633	2.4	2029
66	Seal	Auburn Rd	5,490	6,630	26,813	2.6	2029
85	Seal	Badajos St	777	1,098	5,662	2.5	2029
93	Seal	Barton Rd	0	1,670	42,552	2.4	2029
95	Seal	Barton Rd	2,670	3,625	24,333	2.4	2029
102	Seal	Barton Rd	10,450	10,750	8,526	2.4	2029
131	Seal	Bishopsbourne Rd	5,080	7,375	64,072	2.5	2029
147	Seal	Blackwood Creek Rd	7,870	9,460	38,955	2.6	2029
159	Seal	Bond St Ross	298	532	5,758	2.4	2029
161	Seal	Bond St Ross	767	922	3,342	2.4	2029
178	Seal	Bridge St Campbell Town	425	621	6,346	2.6	2029
224	Seal	Burghley St Longford	0	155	11,662	2.6	2029
243	Seal	Catherine St	675	894	11,012	2.4	2029
295	Seal	Clarendon Station Rd	0	1,740	48,598	2.6	2029
355	Seal	Deddington Rd	14,655	14,850	4,778	2.5	2029
381	Seal	Drummond St pt.2	0	26	2,133	2.9	2029
396	Seal	Edward St	252	509	8,501	2.4	2029
401	Seal	Elizabeth St pt.2	0	234	11,471	2.5	2029
406	Seal	Elphinstone Rd	4,995	5,470	12,336	2.4	2029
446	Seal	Fore St	0	117	5,218	2.6	2029
454	Seal	Franklin St	568	640	1,799	2.6	2029
455	Seal	Frederick St	0	240	14,467	2.5	2029
456	Seal	Frederick St	240	621	22,029	2.5	2029
458	Seal	Frederick St	705	951	13,733	2.4	2029
474	Seal	George St Perth	425	572	8,942	3.0	2029
485	Seal	Glen Connell Rd	2,750	3,640	20,497	2.4	2029
500	Seal	Glenesk Rd	5,660	6,810	29,302	2.4	2029
507	Seal	Goderich St	0	78	5,490	2.5	2029
508	Seal	Goderich St	78	215	8,928	2.4	2029
533	Seal	Haslewood St	1,105	2,285	32,957	2.5	2029
536	Seal	Hay St	370	500	3,822	2.5	2029

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
544	Seal	High St Campbell Town	1,211	1,306	4,951	2.6	2029
555	Seal	High St Longford	205	378	7,665	2.5	2029
556	Seal	High St Longford	378	547	9,016	2.6	2029
560	Seal	High St Longford	784	845	1,136	2.5	2029
562	Seal	High St Ross	111	345	6,446	2.6	2029
566	Seal	High St Ross	808	970	2,778	2.5	2029
609	Seal	Howick St	510	592	3,014	2.5	2029
1454	Seal	Isis Rd	15,075	15,265	3,910	2.5	2029
680	Seal	Laycock St	453	665	8,467	2.6	2029
695	Seal	Liffey Rd	0	57	1,732	2.4	2029
703	Seal	Liffey Rd	8,330	9,220	24,868	2.6	2029
708	Seal	Liffey Rd	14,140	14,450	7,747	2.6	2029
709	Seal	Liffey Rd	14,450	15,050	15,288	2.5	2029
713	Seal	Little Mulgrave St	0	146	8,111	2.4	2029
745	Seal	Macquarie River Rd	0	2,140	62,161	2.6	2029
746	Seal	Macquarie River Rd	2,140	2,945	22,878	2.6	2029
752	Seal	Macquarie River Rd	7,380	8,690	30,811	2.5	2029
761	Seal	Macquarie River Rd	17,360	18,780	37,573	2.4	2029
762	Seal	Macquarie River Rd	18,780	20,180	34,300	2.4	2029
763	Seal	Macquarie River Rd	20,180	21,095	24,659	2.4	2029
765	Seal	Macquarie River Rd	22,795	24,000	29,523	2.4	2029
766	Seal	Macquarie River Rd	24,000	25,900	46,550	2.5	2029
772	Seal	Macquarie River Rd	31,020	31,625	16,601	2.4	2029
778	Seal	Macquarie River Rd	36,520	38,200	41,160	2.5	2029
784	Seal	Macquarie St Cressy	0	108	4,540	2.4	2029
806	Seal	Main St Perth	453	618	4,582	2.9	2029
818	Seal	Maitland La	5,860	5,970	2,318	2.4	2029
851	Seal	Mason St Campbell Town	0	213	5,042	2.4	2029
887	Seal	Mount Joy Rd	5,350	6,795	35,403	2.4	2029
892	Seal	Mount Joy Rd	12,585	13,340	21,087	2.4	2029
896	Seal	Mount Joy Rd	13,720	13,845	3,063	2.5	2029
897	Seal	Mount Joy Rd	13,845	14,305	11,515	2.4	2029
933	Seal	Nile Rd	7,300	8,085	26,541	2.5	2029
991	Seal	Pateena Rd	160	1,160	36,260	2.6	2029
1026	Seal	Powranna Rd	7,125	8,240	32,781	2.5	2029
1029	Seal	Powranna Rd	11,245	12,700	42,554	2.5	2029
1030	Seal	Powranna Rd	12,700	13,070	11,785	2.4	2029
1034	Seal	Powranna Rd	15,630	16,860	35,559	2.4	2029
1060	Seal	Roseneath Rd	0	30	2,573	2.4	2029
1082	Seal	Royal George Rd	3,190	4,530	35,143	2.4	2029
1086	Seal	Royal George Rd	8,100	8,800	18,179	2.5	2029
1097	Seal	Royal George Rd	22,060	23,740	44,453	2.4	2029
1105	Seal	Saundridge Rd	0	675	20,714	2.6	2029
1124	Seal	Saundridge St East	0	164	5,653	2.5	2029
1129	Seal	Scone St Perth	0	84	3,140	2.4	2029
1130	Seal	Scone St Perth	84	349	13,203	2.4	2029
1143	Seal	Smith St	777	873	6,021	2.4	2029
1144	Seal	Smith St	873	955	5,103	2.4	2029
1155	Seal	Sprent St	177	404	5,562	2.5	2029
1201	Seal	Tannery La	585	1,570	35,233	2.5	2029
1220	Seal	Tooms Lake Rd	6,260	6,755	12,370	2.5	2029
1225	Seal	Tooms Lake Rd	10,315	10,485	4,748	2.4	2029
1261	Seal	Torlesse St	446	557	2,502	2.5	2029
1265	Seal	Truelands Rd	0	27	609	2.5	2029
1450	Seal	Valleyfield Rd	0	200	5,373	2.5	2029

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
1337	Seal	Waterloo St	546	686	2,383	2.5	2029
1357	Seal	Wellington St Longford	2,278	2,446	6,689	2.4	2029
1358	Seal	Wellington St Longford	2,446	2,797	13,974	2.5	2029
1377	Seal	White Hills Rd	0	330	9,540	2.5	2029
1388	Seal	William St Longford	0	234	15,224	2.6	2029
1389	Seal	William St Longford	234	540	17,959	2.6	2029
1401	Seal	Wilmores La	3,820	4,280	12,848	2.5	2029
270.2	Footpaths	Church St Cressy	Main	Charles St	11,640	2.5	2030
271.2	Footpaths	Church St Cressy	Charles St	Murfett	5,040	2.5	2030
922.2	Footpaths	Panec St	Start K&C	Conara Rd	11,284	2.5	2030
37	Pavement	Arthur St Perth	565	832	177,555	3.0	2030
226	Pavement	Burghley St Longford	380	609	167,482	3.0	2030
386	Pavement	East St	0	402	131,054	3.0	2030
579	Pavement	Hobhouse St	897	1,064	123,424	3.0	2030
822	Pavement	Malcombe St	0	130	93,296	3.0	2030
8	Seal	Anstey St	0	314	8,826	2.1	2030
10	Seal	Anstey St	457	840	10,474	2.2	2030
18	Seal	Armstrongs La	0	1,590	40,513	2.3	2030
33	Seal	Arthur St Perth	0	310	15,922	2.1	2030
37	Seal	Arthur St Perth	565	832	10,859	2.3	2030
34	Seal	Arthur St Perth	935	968	1,504	2.3	2030
41	Seal	Ashby Rd	84	320	5,666	2.3	2030
45	Seal	Ashby Rd	1,730	3,320	38,176	2.1	2030
46	Seal	Ashby Rd	3,320	3,550	5,635	2.2	2030
61	Seal	Auburn Rd	2,900	3,085	5,530	2.1	2030
65	Seal	Auburn Rd	5,300	5,490	4,880	2.1	2030
70	Seal	Auburn Rd	9,045	9,385	9,433	2.3	2030
71	Seal	Auburn Rd	9,385	9,710	8,281	2.3	2030
86	Seal	Badajos St	1,098	1,212	1,955	2.3	2030
88	Seal	Banksia Gr	0	100	4,178	2.2	2030
94	Seal	Barton Rd	1,670	2,670	25,480	2.1	2030
99	Seal	Barton Rd	8,090	9,050	29,780	2.1	2030
100	Seal	Barton Rd	9,050	10,230	37,583	2.1	2030
101	Seal	Barton Rd	10,230	10,450	7,007	2.1	2030
107	Seal	Beaufront St	0	188	8,911	2.6	2030
114	Seal	Bellevue Rd	1,135	1,570	8,952	2.2	2030
118	Seal	Bellevue Rd	3,985	4,805	17,679	2.1	2030
119	Seal	Bellevue Rd	4,805	6,665	43,233	2.2	2030
129	Seal	Bishopsbourne Rd	2,680	3,675	27,303	2.2	2030
130	Seal	Bishopsbourne Rd	3,675	5,080	35,799	2.1	2030
142	Seal	Blackwood Creek Rd	1,715	2,580	21,977	2.2	2030
169	Seal	Bracknell Rd	0	410	10,241	2.3	2030
184	Seal	Bridge St Campbell Town	2,102	2,270	764	2.3	2030
189	Seal	Bridge St Ross	363	692	8,061	2.2	2030
190	Seal	Bridge St Ross	692	936	5,739	2.1	2030
192	Seal	Bridge St Ross S/R	0	133	9,152	1.4	2030
201	Seal	Brumby St	0	84	2,387	2.1	2030
214	Seal	Bulwer St	172	368	8,610	2.3	2030
215	Seal	Bulwer St	368	426	1,326	2.3	2030
221	Seal	Bulwer St	1,183	1,373	5,679	2.3	2030
250	Seal	Cemetery Rd	0	247	6,099	2.2	2030
251	Seal	Charles St Cressy	0	175	11,441	2.1	2030
258	Seal	Chintah Rd	0	1,355	34,525	2.3	2030
262	Seal	Chintah Rd	4,195	6,040	52,124	2.3	2030
270	Seal	Church St Cressy	0	213	13,001	2.2	2030

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
294	Seal	Clarendon Lodge Rd	2,370	2,730	9,702	2.1	2030
296	Seal	Clarendon Station Rd	1,740	1,990	7,286	2.2	2030
297	Seal	Clayfield Rd	0	65	1,593	2.3	2030
306	Seal	Conara Rd	50	295	6,483	2.3	2030
328	Seal	Cromwell St	0	73	3,252	2.2	2030
331	Seal	Cromwell St	464	642	6,716	2.2	2030
344	Seal	Deddington Rd	5,570	8,100	74,382	2.3	2030
345	Seal	Deddington Rd	8,100	9,125	33,626	2.3	2030
351	Seal	Deddington Rd	11,880	12,035	4,177	2.1	2030
373	Seal	Drummond Cr	0	291	14,166	2.3	2030
374	Seal	Drummond Cr	291	394	3,987	2.3	2030
377	Seal	Drummond St	168	377	2,151	2.3	2030
378	Seal	Drummond St	377	607	3,043	2.3	2030
386	Seal	East St	0	402	8,376	2.3	2030
399	Seal	Elizabeth St pt.1	0	213	7,762	2.3	2030
400	Seal	Elizabeth St pt.1	213	380	5,383	2.3	2030
403	Seal	Elphinstone Rd	610	1,660	27,783	2.2	2030
404	Seal	Elphinstone Rd	2,235	3,070	21,276	2.1	2030
405	Seal	Elphinstone Rd	3,070	3,845	20,727	2.2	2030
407	Seal	Elphinstone Rd	5,470	7,450	50,450	2.3	2030
457	Seal	Frederick St	621	705	5,218	2.3	2030
460	Seal	Gatenby St	0	292	13,434	2.3	2030
463	Seal	George Hudson Pl	0	62	3,359	2.1	2030
537	Seal	Hay St	500	550	1,519	2.1	2030
547	Seal	High St Campbell Town	1,671	1,954	16,763	2.3	2030
554	Seal	High St Longford	0	205	11,683	2.3	2030
598	Seal	Hop Valley Rd	0	710	20,178	2.3	2030
657	Seal	Lake River Rd	950	2,555	41,875	2.1	2030
658	Seal	Lake River Rd	2,555	3,460	22,173	2.3	2030
711	Seal	Liffey Rd	16,295	16,740	11,339	2.2	2030
712	Seal	Liffey Rd	16,740	18,170	35,035	2.3	2030
1477	Seal	Longford Caravan Park	925	1,105	4,410	2.2	2030
747	Seal	Macquarie River Rd	2,945	3,205	6,752	2.1	2030
753	Seal	Macquarie River Rd	8,690	8,955	6,233	2.3	2030
764	Seal	Macquarie River Rd	21,095	22,795	44,149	2.3	2030
771	Seal	Macquarie River Rd	30,275	31,020	21,173	2.3	2030
777	Seal	Macquarie River Rd	35,730	36,520	24,020	2.3	2030
779	Seal	Macquarie River Rd	38,200	40,110	53,346	2.3	2030
786	Seal	Macquarie St Cressy	250	401	18,075	3.3	2030
807	Seal	Main St Perth	618	738	3,156	2.1	2030
812	Seal	Main St Perth	1,530	1,640	1,552	2.1	2030
841	Seal	Marlborough St Longford	1,044	1,280	3,354	2.2	2030
842	Seal	Marlborough St Longford	1,280	1,430	2,416	2.3	2030
845	Seal	Marlborough St Longford	1,750	1,895	8,888	2.7	2030
1472	Seal	Marlborough St West Side	825	1,044	3,327	2.3	2030
881	Seal	Mount Joy Rd	0	595	14,869	2.3	2030
884	Seal	Mount Joy Rd	2,080	3,275	33,962	2.3	2030
885	Seal	Mount Joy Rd	3,275	4,695	40,572	2.3	2030
886	Seal	Mount Joy Rd	4,695	5,350	18,615	2.1	2030
894	Seal	Mount Joy Rd	13,340	13,585	6,723	2.1	2030
899	Seal	Mulgrave St	0	227	10,122	2.1	2030
925	Seal	New St Ross	0	106	2,012	2.2	2030
928	Seal	Nile Rd	845	1,845	33,320	2.3	2030
929	Seal	Nile Rd	1,845	3,475	54,312	2.3	2030
939	Seal	Nile Rd	11,475	12,480	25,115	2.1	2030

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
984	Seal	Park St Longford	245	319	2,734	2.3	2030
986	Seal	Park St Ross	456	691	5,297	2.1	2030
992	Seal	Pateena Rd	1,160	1,680	18,855	2.1	2030
993	Seal	Pateena Rd	1,680	2,350	24,294	2.1	2030
1012	Seal	Phillip St	413	520	3,146	2.1	2030
1027	Seal	Powranna Rd	8,240	10,000	51,744	2.3	2030
1028	Seal	Powranna Rd	10,000	11,245	35,993	2.3	2030
1038	Seal	Pultney St	319	490	9,636	2.3	2030
1051	Seal	Relbia Rd Formerly Lower	2,530	3,220	19,272	2.3	2030
1052	Seal	Relbia Rd Formerly Lower	3,220	4,535	37,710	2.3	2030
1055	Seal	Ridgeside La	0	370	6,483	2.2	2030
1069	Seal	Rossarden Rd	3,410	3,690	8,506	2.3	2030
1081	Seal	Royal George Rd	2,065	3,190	28,665	2.1	2030
1106	Seal	Saundridge Rd	675	1,235	16,464	2.2	2030
1107	Seal	Saundridge Rd	1,235	1,750	15,393	2.1	2030
1121	Seal	Saundridge St	0	213	10,977	2.3	2030
1122	Seal	Saundridge St	213	328	4,452	2.3	2030
1123	Seal	Saundridge St	328	663	9,009	2.1	2030
1138	Seal	Smith St	0	140	4,281	2.3	2030
1140	Seal	Smith St	295	606	20,243	2.3	2030
1142	Seal	Smith St	626	777	8,837	2.2	2030
1145	Seal	Smith St	955	1,042	5,286	2.3	2030
1199	Seal	Tannery La	0	65	1,752	2.1	2030
1200	Seal	Tannery La	65	585	17,130	2.2	2030
1213	Seal	Tooms Lake Rd	2,800	3,160	8,996	2.2	2030
1214	Seal	Tooms Lake Rd	3,160	3,510	8,918	2.3	2030
1222	Seal	Tooms Lake Rd	8,600	9,705	49,201	2.7	2030
1230	Seal	Tooms Lake Rd	14,060	14,520	10,819	2.1	2030
1315	Seal	Valleyfield Rd	200	820	15,494	2.3	2030
1316	Seal	Valleyfield Rd	820	2,475	61,450	2.8	2030
1338	Seal	Waterloo St	686	920	5,183	2.1	2030
1339	Seal	Waterloo St	920	1,151	3,553	2.2	2030
1375	Seal	Weston St	305	500	6,174	2.1	2030
1376	Seal	Weston St	500	690	9,310	2.3	2030
1380	Seal	White Hills Rd	2,030	4,285	69,612	2.1	2030
1382	Seal	White Hills Rd	4,840	5,650	37,059	2.7	2030
1386	Seal	William St Campbell Town	0	204	6,844	2.3	2030
1394	Seal	William St Perth	677	814	4,677	2.3	2030
1402	Seal	Wilmores La	4,280	4,620	8,330	2.3	2030
1403	Seal	Wilson St	0	161	6,711	2.3	2030
1411	Seal	Woolmers La	730	3,225	75,798	2.1	2030
1415	Seal	Woolmers La	6,100	6,660	20,306	2.2	2030
1419	Seal	Woolmers La	9,560	9,930	9,972	2.2	2030
1426	Seal	Youl Rd	902	1,068	2,492	2.7	2030
6	UNPavement	Alma St	0	56	1,260	2.5	2030
175	UNPavement	Brickendon St	1,560	1,680	3,240	2.5	2030
193	UNPavement	Bridge St Ross S/R	133	180	7,614	2.5	2030
202	UNPavement	Brumby St	84	440	17,622	3.0	2030
269	UNPavement	Church La	0	150	4,266	2.5	2030
299	UNPavement	Cleveland Station Rd	0	110	2,475	3.0	2030
337	UNPavement	Davidson St	0	90	2,592	2.5	2030
442	UNPavement	Falmouth St	420	586	4,482	2.5	2030
506	UNPavement	Freelands Rd	0	1,650	44,550	3.0	2030
594	UNPavement	Honeysuckle Rd	11,260	14,280	95,130	3.0	2030
595	UNPavement	Honeysuckle Rd	14,280	16,500	69,930	3.0	2030

Asset ID	Sub Category	Asset Name	Description 1/From	Description 2/To	Renewal Cost	Condition (1-5)	Estimated Renewal Year
653	UNPavement	Kingston Rd	11,060	11,700	14,400	3.0	2030
732	UNPavement	Long Marsh Rd	3,500	5,100	57,600	3.0	2030
908	UNPavement	Murfett St	480	840	10,692	3.0	2030
1160	UNPavement	St Pauls Dome Rd	0	550	17,325	3.0	2030
1162	UNPavement	St Pauls Dome Rd	665	1,040	11,835	3.0	2030
1166	UNPavement	Stanhope Rd	0	1,500	67,500	3.0	2030
1167	UNPavement	Stanhope Rd	1,500	2,995	53,820	3.0	2030
1207	UNPavement	The Boulevards Pt 1	830	928	2,734	2.5	2030
1278	UNPavement	Tubbs Rd	440	1,126	18,522	3.0	2030
1384	UNPavement	Wilderness Tk	0	685	21,578	3.0	2030
1422	UNPavement	Yalleena Rd	0	530	16,695	3.0	2030

Appendix D Disposal Summary

D.1 – Disposal Forecast Assumptions and Source

Through discussion with the key staff and further analysis of the asset register, no major disposals with foreseen costs to Council are forecast to occur over the planning period.

D.2 – Disposal Project Summary

No major disposals with foreseen costs to Council are forecast to occur over the planning period.

D.3 – Disposal Forecast Summary

Table D3 displays the disposal forecast and disposal budget over the planning period.

Table D3 – Disposal Activity Summary

Financial Year	Disposal Forecast	Disposal Budget
2020/21	$0	$0
2021/22	$0	$0
2022/23	$0	$0
2023/24	$0	$0
2024/25	$0	$0
2025/26	$0	$0
2026/27	$0	$0
2027/28	$0	$0
2028/29	$0	$0
2029/30	$0	$0
2030/31	$0	$0
2031/32	$0	$0
2032/33	$0	$0
2033/34	$0	$0
2034/35	$0	$0
2035/36	$0	$0
2036/37	$0	$0
2037/38	$0	$0
2038/39	$0	$0
2039/40	$0	$0

Appendix E Budget Summary by Lifecycle Activity

Several estimates and assumptions were required to be made in the development of the planned budget figures shown in Table E1. This was due to the maturity of information currently available. Future improvements are noted in Section 8.0.

Table E1 – Budget Summary by Lifecycle Activity

Financial Year	Acquisition	Operation & Maintenance	Renewal	Disposal	Total
2020/21	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2021/22	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2022/23	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2023/24	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2024/25	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2025/26	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2026/27	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2027/28	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2028/29	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2029/30	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2030/31	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2031/32	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2032/33	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2033/34	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2034/35	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2035/36	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2036/37	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2037/38	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2038/39	$812,000	$2,333,000	$3,250,000	$0	$6,395,000
2039/40	$812,000	$2,333,000	$3,250,000	$0	$6,395,000

Appendix F Road Hierarchy Examples, Road Network Map and Target Design Standards

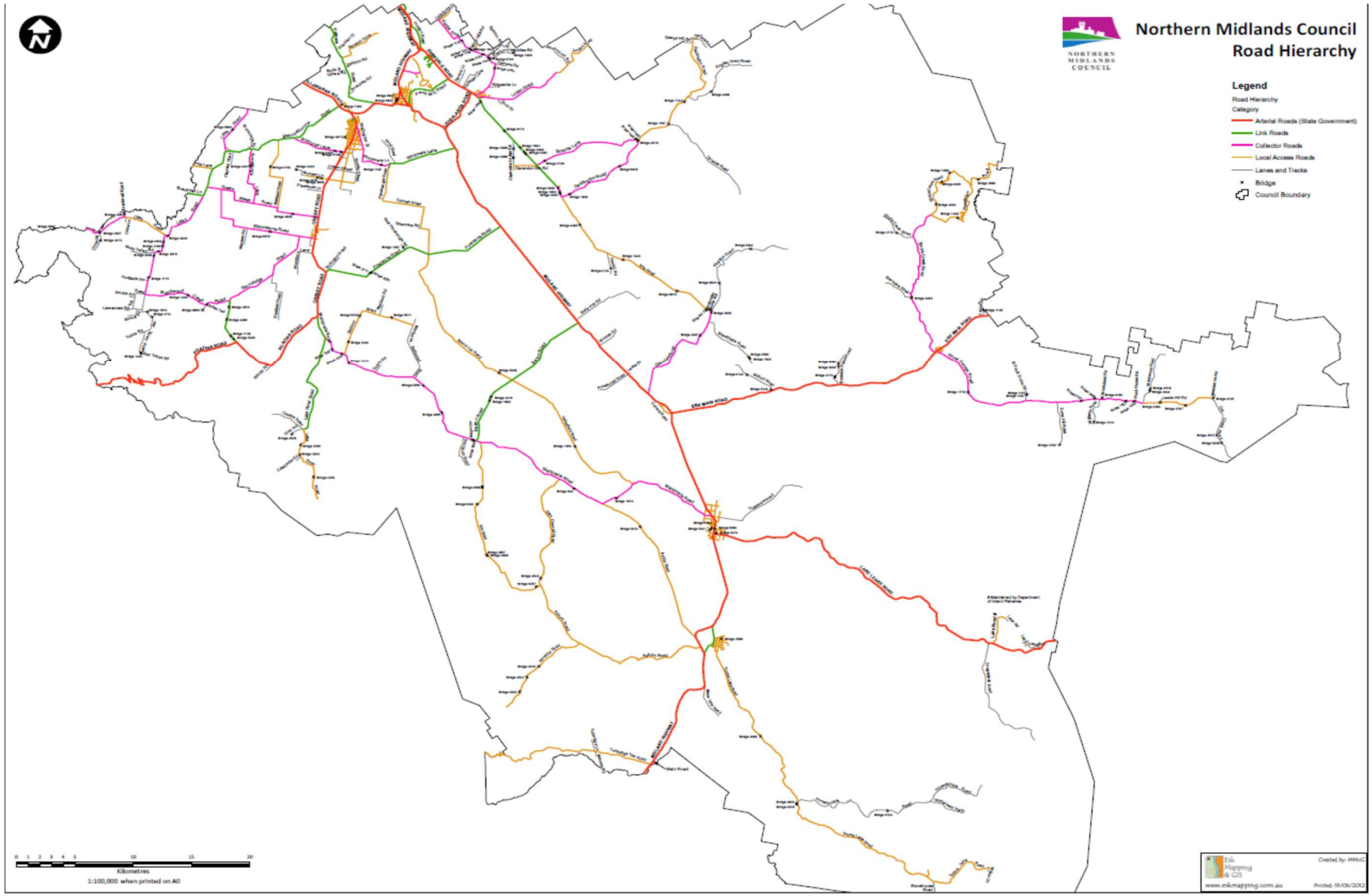
Category 4: Example of a *Link / Industrial Road*

Category 3: Example of a *Collector Road*

Category 2: Example of a *Local Access Road*

Category 1: Example of a *Limited Access Road*

Road Network Map



Road Hierarchy and Target Design Standards

Category	Road Type	Description	Design Standards
Category 5: Arterial State Govt. Responsibility	State Arterials	• Function is to carry the heaviest volumes of traffic, including commercial vehicles, and provide the principal routes for traffic flows in and around the municipality. These come under the jurisdiction of DIER and as such maintenance of the road pavement and surface is not the responsibility of Council.	• Refer DSG Standards
Category 4: Link & Industrial Roads	Link Road	• Link roads provide the linkage between centres and they are supplementary to the arterial road system within the municipal area. • Link roads generally have a relatively high vehicle count.	• 6.2m wide seal; • 1.0m wide shoulders; • Pavement designed in accordance with DSG Guide to Pavement Design, Technical Bulletin No.37
	Industrial Road	• Industrial roads provide heavy vehicle access directly to industries (including forestry) and have a high heavy vehicle count.	• 6.2m wide seal; • 1.0m wide shoulders; • Pavement depth in accordance with Technical Bulletin No.37
Category 3: Collector Roads	Collector – Sealed	• Carry moderate volumes of traffic and provide access by linking local areas to link and arterial roads. • They also provide links between the various collector roads. • They should have limited through traffic (this is not promoted or encouraged).	• 5.5m. wide seal; • Rehabilitation to existing standard; • Pavement depth in accordance with Technical Bulletin No.37
	Collector – Gravel	• Carry moderate volumes of traffic and provide access by linking local areas to link and arterial roads.	• 5.5m width pavement; • Resheeting depth 100 mm
Category 2: Local Access Roads	Access – Sealed	• Primary function is to provide access to properties; • They cater for relatively short distance travel to higher level roads.	• 4.8m wide seal; • Rehabilitation to existing standard; • Pavement depth in accordance with Technical Bulletin No.37
	Access – Gravel	• Primary function is to provide access to properties; • They cater for relatively short distance travel to higher level roads.	• 4.8m width pavement; • Resheeting depth 75 mm
Category 1: Low Maintenance Lanes and Tracks	Limited Access Roads	• Provide secondary property access	• 4.5m width pavement (sealed and gravel); • Resheeting depth 75 mm (gravel)
Non Council Responsibility	Crown Road Reserves	• In Crown or private ownership, so not a Council responsibility	
	Private Roads and Lanes	• In private ownership/control, so not a Council responsibility.	

Appendix G Asset Inspection Requirements

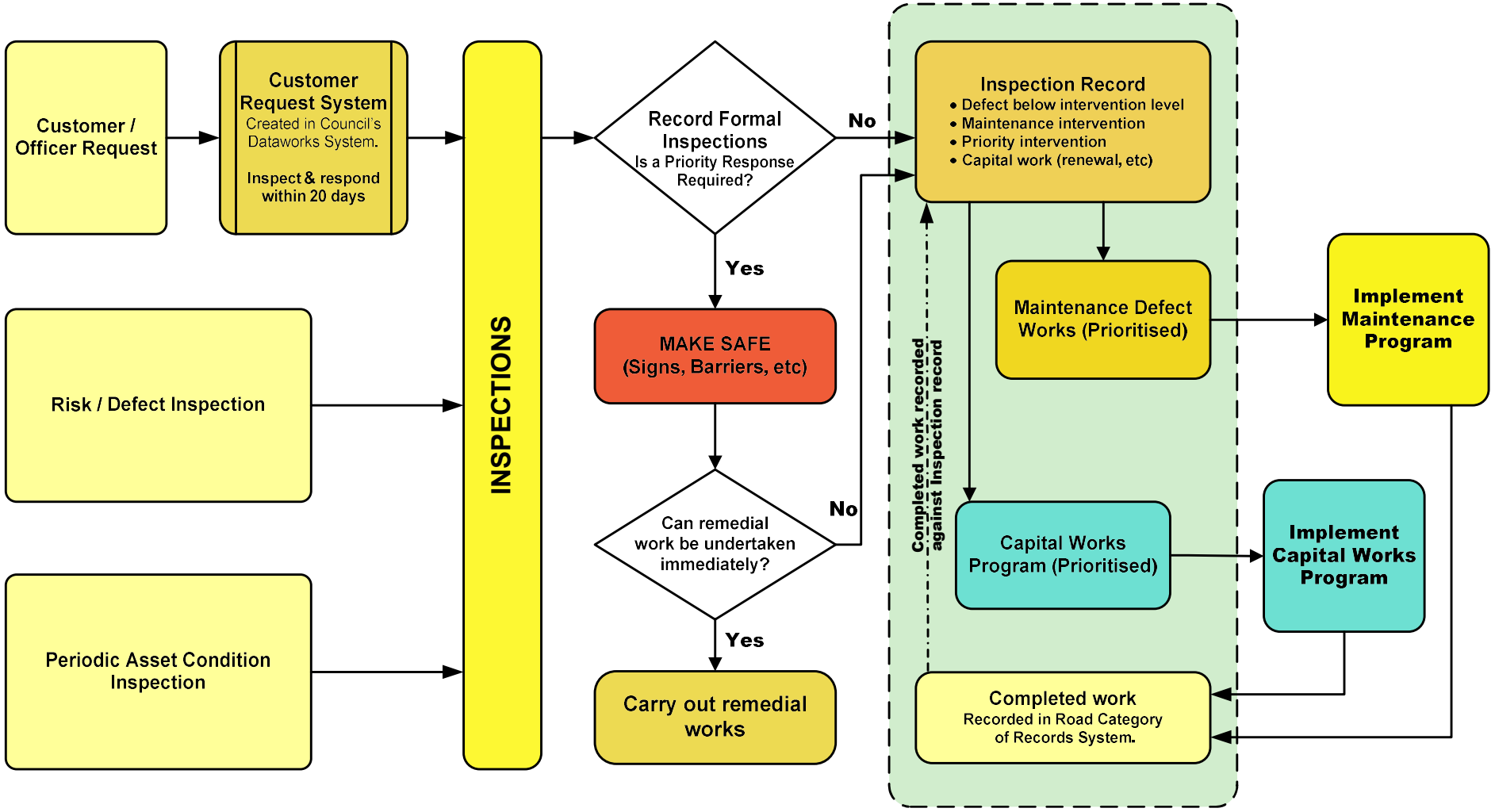
Reference sources for descriptions:
- *Road Management Act 2004 (Victoria)*
- *International Infrastructure Management Manual – Australia/NZ Edition 2002*
- *UK Highway Code of Practice for Maintenance Management 2001*

Inspection Type	Purpose	Inspection Performed by and Reporting Requirements
Risk Assessment Reactive/Safety Inspection	▪ Safety inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community. ▪ Safety issues may be detected as the result of: observation followed by notification to council either by members of the community or by council employees while undertaking their normal work duties with a subsequent safety inspection to be conducted by an appropriate council officer.	▪ Council representative with some knowledge of road maintenance techniques who may then call in a higher level of expertise if necessary. ▪ Recording to identify specific safety defect, time first reported, time inspected and by whom, subsequent action and time of completion.
Incident Inspection	▪ This inspection enables an incident condition report to be prepared for use in legal proceedings and the gathering of information for the analysis of the causes of accidents and the planning and implementation of road management and safety measures.	▪ Qualified engineer or experienced technical officer with extensive knowledge and experience in road construction and maintenance practices. ▪ Formal Incident Report prepared.
Programmed Inspection	▪ Footpaths and bridges - Inspection undertaken in accordance with a formal inspection schedule to determine if there are defects that need remedial work; ▪ Roads and kerb and channel – No formal program of inspections is undertaken to detect	▪ Engineer or technical officer with knowledge of road maintenance techniques; ▪ A record of the inspection is to be signed by the inspector for placing on council's asset database for reference purposes (NB: this may include insurance or litigation requirements).
Condition Inspection	▪ An inspection specifically to identify deficiencies in the structural integrity of the various components of the road infrastructure assets which if untreated, are likely to adversely affect network values. The deficiencies may well impact short-term serviceability as well as the ability of the component to continue to perform for the duration of its intended life span; ▪ The condition inspection process must also meet the requirements for accounting regulations and asset management; ▪ Regular or periodic assessment, measurement and interpretation of the resulting condition data is required so as to determine the need for any preventive or remedial action then development of relevant programs of rehabilitation or renewal works.	▪ Inspection undertaken under the direction of a qualified engineer or experienced technical officer with extensive knowledge and experience in road construction and maintenance practices; ▪ Specific data to be recorded is determined by requirements of the Asset Information System which is then used to assess asset component needs.

Road Asset Inspection Frequencies

Asset Group Category		Inspection Interval	
Hierarchy Category	**Sub-Category**	**Programmed Inspections**	**Condition Inspections (for Structural and Physical Integrity)**
Roads			
Category 5:	Primary Arterial	DSG responsibility	DSG responsibility
Category 4:	Link Roads	Annually	3-4 Years
Category 3:	Collector Road – Sealed	Annually	3-4 Years
	Collector Road – Gravel	Annually	3-4 Years
Category 2:	Local Access Road – Sealed	Annually	3-4 Years
	Local Access Road – Unsealed	Annually	3-4 Years
Category 1	Limited Access Road – Sealed	Annually	3-4 Years
	Limited Access Road – Unsealed	Annually	3-4 Years
Footpaths			
Category 3:	Shopping Zones	Annually	3-4 Years
Category 2:	Specific Pedestrian Generators	Annually	3-4 Years
Category 1:	Other Areas	Annually	3-4 Years
Kerb and Channel			
Category 4 Roads:	Link Roads and Industrial Roads	3 Years	3-4 Years
Category 3 Roads:	Collector	3 Years	3-4 Years
Category 2 Roads:	Local Access Roads and Streets	3 Years	3-4 Years
Category 1 Roads:	Limited Local Access Roads	3 Years	3-4 Years
Bridges/Major Culverts			
Category 4 Roads:	Link Roads and Industrial Roads	Annually	3-4 Years
Category 3 Roads:	Collector	Annually	3-4 Years
Category 2 Roads:	Local Access Roads and Streets	Annually	3-4 Years
Category 1 Roads:	Limited Local Access Roads	Annually	3-4 Years

Inspection Management Flow Chart



Appendix H Maintenance Response Levels of Service (Defect Tolerance Levels)

INTERVENTION LEVELS – SEALED ROADS					
Service Code	**Item**	**Defect Levels when Intervention is Required**	**Cat.**	**Target Rectification Response Time**	**Unit**
PH	**Pothole Patching**	Repair if conditions are wet and the hole is unsafe or likely to deteriorate. In dry conditions, repair if hole >35mm deep or 400mm diam.	4	Within 3 working days	m^2
			3	5 working days	m^2
			2	15 working days	m^2
			1	20 working days	m^2
WR	**Wheel Rutting**	Regulate if >50mm (Cat 4) or 75mm (Cat 3/2) deep under a 1.2m straight edge . Areas >25m^2	4	8 weeks	m^2
			3	16 weeks	m^2
			2	16 weeks	m^2
			1	20 weeks	m^2
CSR	**Crack Sealing**	Fill all cracks >10 mm wide and a length > 2.0m	4	6 weeks	lin.m
			3	12 weeks	lin.m
			2	12 weeks	lin.m
			1	20 weeks	lin.m
MR	**Minor Reseals**	If stripping >10m^2 and stone loss >50% without pavement failure.	4	4 weeks	m^2
			3	12 weeks	m^2
			2	12 weeks	m^2
			1	20 weeks	
DP	**Depressions**	Regulate if >50mm (Cat 4) or 75mm (Cat 3/2) deep under a 1.2m straight edge. Areas >25m^2.	4	8 weeks	m^2
			3	16 weeks	m^2
			2	16 weeks	m^2
			1	20 weeks	m^2
SW	**Sweeping**	Any area > 40m^2 that has build up that is visible in the travel path and/or is a potential hazard to vehicles or pedestrians.	4	Within 5 working days	hours
			3	2 weeks	hours
			2	3 weeks	hours
			1	4 weeks	hours

INTERVENTION LEVELS – GRAVEL ROADS INCLUDING UNSEALED URBAN ROADS					
Service Code	**Item**	**Defect Levels when Intervention is Required**	**Cat.**	**Target Rectification Response Time**	**Unit**
GPP	**Pot Holes**	Frequency of holes 75mm deep or 400mm diameter is equal to or greater than: ▪ Category 3 roads - 1% of road area in any 100m section; ▪ Category 2 roads – 5% of road area in any 250m section	4	No gravel Category 4	
			3	4 weeks	m^2
			2	12 weeks	m^2
			1	Annual	m^2
WR	**Rutting**	Rutting concentration for a length of road and average depth not exceeding 75mm: ▪ Category 3 roads - 5% of road area of $10m^2$ in any $100m^2$; ▪ Category 2 roads - 10% of road area of $50m^2$ in any $100m^2$	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
C	**Corrugations**	Corrugation concentration for a length of road and average depth not exceeding: ▪ Category 3 roads - 75mm for 10% of road area in any 100m length and within 30 m of an intersection; ▪ Category 2 roads - 75mm for 20% of road area in any 100m	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
SS	**Slippery Surface**	Any Part	4	No gravel Category 4	
			3	5 working days	m^2
			2	4 weeks	m^2
			1	4 weeks	m^2
SC	**Surface Scour**	Area if long or transverse scouring exceeds 75mm depth: ▪ Urban gravel roads 25 m^2 ▪ Category 3 rural roads 25 m^2 ▪ Category 2 rural roads 50 m^2	4	No gravel Category 4	
			3	5 working days	m^2
			2	2 weeks	m^2
			1	4 weeks	m^2
LOM	**Loss of Material**	Subgrade with 20% or more of area showing loss of material in any 100m length:	4	No gravel Category 4	
			3	2 working days	m^2
			2	5 working days	m^2
			1	2 weeks	m^2

INTERVENTION LEVELS – GRAVEL ROADS INCLUDING UNSEALED URBAN ROADS					
Service Code	**Item**	**Defect Levels when Intervention is Required**	**Cat.**	**Target Rectification Response Time**	**Unit**
GPP	**Pot Holes**	Frequency of holes 75mm deep or 400mm diameter is equal to or greater than: ▪ Category 3 roads - 1% of road area in any 100m section; ▪ Category 2 roads – 5% of road area in any 250m section	4	No gravel Category 4	
			3	4 weeks	m^2
			2	12 weeks	m^2
			1	Annual	m^2
WR	**Rutting**	Rutting concentration for a length of road and average depth not exceeding 75mm: ▪ Category 3 roads - 5% of road area of $10m^2$ in any $100m^2$; ▪ Category 2 roads - 10% of road area of $50m^2$ in any $100m^2$	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
C	**Corrugations**	Corrugation concentration for a length of road and average depth not exceeding: ▪ Category 3 roads - 75mm for 10% of road area in any 100m length and within 30 m of an intersection; ▪ Category 2 roads - 75mm for 20% of road area in any 100m	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
SS	**Slippery Surface**	Any Part	4	No gravel Category 4	
			3	5 working days	m^2
			2	4 weeks	m^2
			1	4 weeks	m^2
SC	**Surface Scour**	Area if long or transverse scouring exceeds 75mm depth: ▪ Urban gravel roads 25 m^2 ▪ Category 3 rural roads 25 m^2 ▪ Category 2 rural roads 50 m^2	4	No gravel Category 4	
			3	5 working days	m^2
			2	2 weeks	m^2
			1	4 weeks	m^2
LOM	**Loss of Material**	Subgrade with 20% or more of area showing loss of material in any 100m length:	4	No gravel Category 4	
			3	2 working days	m^2
			2	5 working days	m^2
			1	2 weeks	m^2

INTERVENTION LEVELS – GRAVEL ROADS INCLUDING UNSEALED URBAN ROADS (Continued)					
Service Code	**Item**	**Defect Levels when Intervention is Required**	**Cat.**	**Target Rectification Response Time**	**Unit**
IH	**Isolate Hazards**	All hazards to be marked – devices	4	No gravel Category 4	
		Hazards Include flood, fires, storms, traffic accidents to ensure the safety of the public and protection of the asset.	3	4 hours	hours
			2	4 hours	hours
			1	4 hours	hours
FD	**Foundation Defects**	Heaving or settlement of road surface area:	4	No gravel Category 4	
		▪ Category 2 roads > 100mm deep or high for >5m²;	3	4 weeks	m²
		▪ Category 3 roads > 100mm deep or high for >10m²	2	8 weeks	m²
			1	No action	m²
CC	**Culverts**	Waterway to be free, water build up less 50mm above I.L.	4	No gravel Category 4	
			3	Annually	m
			2	Annually	m
			1	As required	m
TDR	**Table, Mitre and Open Drains**	Covers all unlined open drains, catch drains, spoon drains, table drains and waterways that contribute to the structural integrity of the roadway.	4	No gravel Category 4	
		No build up - free to drain.	3	Annually	m
			2	Annually	m
			1	As required	m

Appendix I Risk Assessment for Roads and Footpaths

Defect Type	Level of Defect	Location	Risk Event and Potential Consequence	Consequence Rating	Road Cat.	Likelihood Ranking	Assessed Risk
Edge Breaks, Drop offs, Wheel Ruts and Depressions, and Pavement Shoving	Beyond the point where intervention is required – maintenance is now a priority.	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	D - Unlikely	H
					3	D - Unlikely	M
					2	VH - Rare	M
					1	VH - Rare	L
		Rural (higher speeds)	Loss of control causing vehicle crash, multiple fatalities	5 - Catastrophic	4	C - Possible	VH
					3	C - Possible	H
					2	D - Unlikely	M
					1	D - Unlikely	M
		Urban (lower speeds)	Loss of control causing vehicle crash, minor injuries to several people	3 - Moderate	4	D - Unlikely	H
					3	D - Unlikely	M
					2	VH - Rare	L
					1	VH - Rare	L
		Rural (higher speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	C - Possible	H
					3	C - Possible	H
					2	D - Unlikely	M
					1	D - Unlikely	L
	At intervention level	Urban (lower speeds)	Vehicle sustains damage	2 - Low	4	C - Possible	H
					3	C - Possible	M
					2	D - Unlikely	M
					1	VH - Rare	L
		Rural (higher speeds)	Vehicle sustains damage	2 - Low	4	B - Likely	H
					3	B - Likely	H
					2	C - Possible	M
					1	D - Unlikely	L
Crack Sealing	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Structural risk only	2 - Low	4	D - Unlikely	H
		Rural (higher speeds)	Structural risk only	2 - Low	4	D - Unlikely	H

Risk Assessment – Roads and Footpaths (continued)

Defect Type	Level of Defect	Location	Risk Event and Potential Consequence	Consequence Rating	Road Cat.	Likelihood Ranking	Assessed Risk
Delamination	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Vehicle sustains damage	2 - Low	4	VH - Rare	M
		Rural (higher speeds)	Vehicle sustains damage	2 - Low	4	VH - Rare	M
Stripped Seals and Slick Surfaces	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	D - Unlikely	H
		Rural (higher speeds)	Loss of control causing vehicle crash, multiple fatalities	5 - Catastrophic	4	D - Unlikely	H
Bleeding Seals	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people; also a public nuisance in urban areas	4 - Major	4	VH - Rare	M
		Rural (higher speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	VH - Rare	M

Risk Assessment – Roads and Footpaths (continued)

Defect Type	Level of Defect	Location	Risk Event and Potential Consequence	Consequence Rating	Road Cat.	Likelihood Ranking	Assessed Risk
Potholes, rutting and scouring	Beyond the point where intervention is required – maintenance is now a priority.	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	N/A	
					3	N/A	
					2	VH - Rare	M
					1	VH - Rare	L
		Rural (higher speeds)	Loss of control causing vehicle crash, multiple fatalities	5 - Catastrophic	4	C - Possible	VH
					3	C - Possible	H
					2	D - Unlikely	M
					1	VH - Rare	M
		Urban (lower speeds)	Loss of control causing vehicle crash, minor injuries to several people	3 - Moderate	4	N/A	
					3	N/A	
					2	D - Unlikely	M
					1	D - Unlikely	L
		Rural (higher speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	C - Possible	H
					3	C - Possible	H
					2	D - Unlikely	M
					1	VH - Rare	M
	At intervention level	Urban (lower speeds)	Vehicle sustains damage	2 - Low	4	N/A	
					3	N/A	
					2	D - Unlikely	M
					1	VH - Rare	L
		Rural (higher speeds)	Vehicle sustains damage	2 - Low	4	B - Likely	H
					3	B - Likely	H
					2	C - Possible	M
					1	D - Unlikely	L

Risk Assessment – Roads and Footpaths (continued)

Defect Type	Level of Defect	Location	Risk Event and Potential Consequence	Consequence Rating	Cat.	Likelihood Ranking	Assessed Risk
<u>Footpaths</u> **Edge lips, pavers dislocated, concrete bays raised or broken - where repairs can be undertaken by lip grinding**	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban	Person falls and sustains serious injury	3 - Moderate	3	A - Almost Certain	VH
					2	A - Almost Certain	VH
					1	B - Likely	H
<u>Footpaths</u> **Pavers dislocated or missing, concrete bays cracked, raised or broken, asphalt lifted by roots, depressed, cracked or potholes - where minor works and repairs can be undertaken**	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban	Person falls and sustains serious injury	3 - Moderate	3	A - Almost Certain	VH
					2	A - Almost Certain	VH
					1	B - Likely	H

Appendix J Project Prioritsation and Business Case Form

Introduction

Council has developed a system for analytically determining the priority given to a proposed capital project, by introducing a fair process of assessment for each nominated project. Adopting this method of project prioritisation ensures a justified decision-making process with respect to good practice asset management. Refer also Table 5.3.1 and Table 5.5.1.

This approach to capital project evaluation is based on the *IIMM* structured process of prioritising capital works using Multi-Criteria Analysis and Benefit-Cost Analysis. Multi-Criteria Analysis involves ranking projects individually on criteria such as Risk/Safety, Technical, Corporate, Social, Environmental impacts and also on criteria that directly applies to the particular asset category. Each criterion is nominated a ranking system which is then weighted based on the importance of the criteria. All scores are added to create a project priority percentage, which allows for comparison to similar projects, the higher percentage resulting in higher priority. Refer also Table 5.3.1 and Table 5.5.1.

The Benefit-Cost Analysis provides the link between Multi-Criteria Analysis and the projects predicted lifecycle costs to Council. The analysis results in a Benefit Cost Ratio that is comparable with similar projects in determining "value for money".

Risk Management

One of the main objectives in developing this process of project identification is the initial evaluation of risk associated with undertaking a project, or, safety/risk issues associated with NOT completing a project. Large or complex projects may involve the completion of a risk assessment in accordance with the relative Asset Management Plan and the *Northern Midlands Council Strategic Risk Register*. A similar but simplified approach may be used for smaller projects. Refer also Table 5.3.1 and Table 5.5.1.

Project Priority Rating

Several examples of priority ranking criteria are shown below.

Risk/Safety

- → Physical Risk; potential for personal damage/injury to the user if assets remain in service
- → Financial Risk; over expenditure on maintenance to sustain a serviceable asset, uncertain funding and/or conditions of the proposed project
- → Political Risk; if asset falls below service standard will attract public concern and/or political pressure for asset creation/upgrade due to community demand.

The scoring for risk/safety is to be scaled to suit the significance of each asset class and category as documented in the respective asset management plans.

Technical

Technical priority is assessed based on the current standard of the asset/s and the project's ability to improve the asset's function/condition. This may be further based on the assessed condition of the asset and the estimated remaining life to determine its priority. Improvement of the asset's function by comparing the current capacity of the existing assets to the proposed upgrade of the assets through;

- → Technology enhancement
- → Higher design standard
- → Increased serviceability

- → Condition/Life remaining
- → Improved function efficiency

Corporate
Corporate priority is linked to whether the project is a commitment through a Council resolution and/or included in the following Council approved documents:

- → Asset Management Policy
- → Risk Management Policy
- → Asset Management Plan/Strategy
- → Emergency Response Plan
- → Business Plans

Projects stated in the above Council approved documents are to be scored relative to the documented importance of the project outcome. For example, Council policy is to provide a footpath on at least one side of the road connecting all urban streets from town centres to town boundaries (resulting in streets closer to town centres gaining a higher priority for footpath construction, hence higher pedestrian use). The scoring of corporate responsibilities is to be scaled to suit the significants of each asset class and category as documented in the respective asset management plans.

Transport – Service Hierarchy of Asset
This is related to the specified road category of the asset, as documented in the *Transport Asset Management Plan*.

Social/Community Impact
This criterion is based on the perceived community benefit through project completion. This can be measured and assessed based on the number of residential properties directly affected or the potential number of users the completed project will attract.

- → Number of properties in the general area of the project
- → Public/community usage
- → Public/community perception of project outcome
- → Social community involvement

Environment
Environmental impact is assessed based on the significance of the surrounding environment, including the natural and built environment.

- → Impact on Flora and Fauna; removal of trees and significant native species
- → Impact on landscape; rural scenic character or urban town character
- → Cultural heritage
- → Pollution; residents affected by increased traffic volume, noise

An example of a Capital Project Business Case form is included below for reference only. It is the responsibility of Council's asset management team to ensure that appropriate project priority ranking assessments are undertaken for all significant lifecycle activities.

Capital Project Business Case

Capital Project Creation/Upgrade/Renewal Selection Criteria

Project Description: _____

Details:

Project Size: ☐ Small ☐ Medium ☐ Large

Date: _____

Project Origin:
- ☐ Council decision
- ☐ General Manager
- ☐ Engineering Services
- ☐ Community Body
- ☐ Resident request

Project Type:
- ☐ Creation
- ☐ Upgrade
- ☐ Renewal

Asset Class:
- ☐ Transport
- ☐ Stormwater
- ☐ Buildings
- ☐ Parks & Reserves

Asset Category:
- ☐ Road Reconstruction
- ☐ Road Reseal
- ☐ Kerb & Channel
- ☐ Footpath
- ☐ Bridges
- ☐ Carparks
- ☐ Other Road Assets
- ☐ SW
- ☐ Building Substructure
- ☐ Building Superstructure
- ☐ Building Internal
- ☐ Building Services
- ☐ .....

Project Priority Rating

	Criteria	Rating	Weighting	Score
	Risk/Safety is to be assessed in accordance with the Infrastructure Risk Management Plan, based on the likelihood and consequence of failure	/ 4	25%	/ 100
	Technical is to be assessed based on the current standard of the asset/s and the project's ability to improve the asset's condition/function	/ 5	20%	/ 100
	Corporate is linked to whether the project is a commitment through a Council resolution or included in the strategic plan or policy e.g. extending infrastructure from the town centre out.	/ 3	20%	/ 60
Asset Class (enter rating for the primary asset class only)	**Transport** - Road Category is related to the specified road category of the asset (1) Residential (2) Commercial (3) Collector	/ 3	15%	/ 45
	Stormwater - Significant Stormwater Link priority is assessed based on the significants of the project within the stormwater network	/ 3	15%	/ 45
	Buildings - Building Usage priority is based on the current building use and the effective use of the completed project	/ 3	15%	/ 45
	Parks & Reserves - Park/Reserve Usage priority is based on the current park/reserve use and the effective use of the completed project	/ 3	15%	/ 45
	Social/Community Impact community benefit through project completion e.g. number of properties affected	/ 3	10%	/ 30
	Environment environmental impact is assessed based on the significants of the surrounding environment, including the natural and built environment	/ 3	10%	/ 30
			Total	/ 365
			PROJECT SCORE	%

Capital Project Business Case

Capital Project Construction and Lifecycle Costs

Project Construction Cost Breakdown

Creation/New works which creates assets that did not previously exist	..... %	$ .....
Upgrade works that improves an asset beyond its existing capacity	..... %	$ .....
Renewal/Replacement major work which does not increase assets capacity but restores, rehabilitates, replaces or renews to original service potential	..... %	$ .....
Estimated Project Construction Cost		$

Asset Lifecycle Costs

Asset's Useful Life (years): ..... Years

the asset useful life is for the asset component with the longest lifespan
e.g. a road reconstruction is therefore based on the pavement asset as it would have the longest lifespan.

Criteria	Cost
Asset Operational Costs costs for operations including; personnel, materials, fuel, energy, management...	
Current Annual Operation Costs	$ .....
Proposed Annual Operational Costs	$ .....
Proposed Lifecycle Operational Costs	$
Asset Maintenance Costs work that does not increase service potential or life but ensures that the asset provides service for expected amount of time	
Current Annual Maintenance Costs	$ .....
Proposed Annual Maintenance Costs	$ .....
Proposed Lifecycle Maintenance Costs	$
Asset Depreciation/Renewal Costs Required capital renewals to ensure the project reaches expected useful life. E.g. Road reconstruction project requires reseals throughout pavement life.	
Current Annual Depreciation/Renewal Costs	$ .....
Proposed Annual Depreciation/Renewal Costs	$ .....
Proposed Lifecycle Depreciation/Renewal Costs	
Total Asset Lifecycle Cost	$

Project Notes: