



Asset Management Strategy 2020 - 2030

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Asset Management Strategy 2020-2030

Executive Summary

Queanbeyan-Palerang is a growing local government area, expected to reach a population around 80,000 in the next decade. With that growth comes new infrastructure and facilities constructed with new development, or expanded and upgraded assets to accommodate increased demand, patronage and load facilitated by Council. Yet, existing assets need to be maintained annually, renewed with appropriate frequency, and the asset backlog reduced.

This Asset Strategy recognizes we need to design, plan and manage our assets in a strategic and innovative way to accommodate that demand, and meet our ambitions to utilise those assets to deliver services to community, protect the environment and support business. This includes understanding the impacts of projected demographic, environmental, and technological changes. We will be guided by government policy and led by Council strategy.

A significant issue facing local government is the management of ageing assets in need of renewal and replacement, as well as balancing the operational and maintenance (lifecycle) costs to a standard expected by the community. To meet this challenge an international industry standard known as ISO55000, has been used to guide asset planning and management. Later in this Strategy is a model that illustrates the elements of the asset management framework, comprising asset policy, strategy, management plans, capability and funding. This Strategy, with a 10 year horizon, is modelled on this standard.

The Asset Strategy outlines Council's ambitions in managing its assets under the key areas of:

Customer	<ul style="list-style-type: none">i. Provide, present and maintain assets to a level that achieves broad community satisfaction (>3.25/5 ranking in biennial satisfaction surveys)ii. Acceptable levels of service is supported by assets (as disclosed in service statements)
Growth	<ul style="list-style-type: none">i. Design and extend the capacity of assets and connectivity of transport and utility networks in line with population growth forecastsii. Leverage the presence and capacity of assets to stimulate business investment, visitor activity and economic returnsiii. Utilise planning instruments and agreements to optimise connectivity to networks and capacity of infrastructure and facilities delivered through new developmentsiv. Extend or upgrade assets (such as seal/extend seal on roads) when:<ul style="list-style-type: none">a. Assets are designed and constructed to standard for planned loadsb. > 50% funded by held contributions or conditioned by current DA, andc. balance met by SRV or grant

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Standards	<ul style="list-style-type: none"> i. Apply international asset and risk standards (ISO55000 and ISO31000) to decision making and priority settings for management, maintenance, renewal and upgrade of assets ii. Build organisation asset skill and technology capability from 'Basic' to 'Advanced' maturity assessments in medium term iii. Retain health, safety, environment and quality (HSEQ) standards to sustain contracts with government and private works iv. Calibrate asset ratios (maintenance, renewal, backlog) in line with the Financial Strategy
Financial	<ul style="list-style-type: none"> i. Align asset maintenance and renewal spend to the rate of depreciation (generally expending 1% of the asset base value on annual average) ii. Establish 'infrastructure sinking fund' used to draw on, or replenish, annualised differences in the value of depreciation and maintenance and renewal spend iii. Apply generational equity principles to provision, renewal and upgrade of assets -generally raising debt, securing development contributions or procuring grants to renew, upgrade or expand assets and networks iv. Appropriately assign dividends as ROI from utilities assets (QBN water, sewer, waste) to renewal and upgrade of other infrastructure and facilities in Queanbeyan v. Align asset ratio forecasts to financial capacity (expressed in LTFP) vi. Rank decisions to extend, renew or replace assets on best value (in line with asset life cycle, cost of finance and organisation capability) vii. Resource cadet, apprentice and trainee staffing to augment asset management and operational capability, and mitigate loss of expertise through retirement and competition viii. Establish pricing strategies for asset patronage and usage, including price setting for behaviour management (to align to Pricing Policy) ix. Work with CRJO to introduce procurement strategies to obtain best value supply and service contracts
Risk	<ul style="list-style-type: none"> i. Design and monitor performance of assets to adapt to expected risk associated with anticipated climatic changes, natural disasters and known changes in environmental standards ii. Rank decisions on investment or disposal of assets on the risk posed to health, business or the environment
Priority Setting	<ul style="list-style-type: none"> i. Guide upgrade and new infrastructure expenditure on priorities established with key strategies – such as Integrated Transport, Integrated Water Cycle Management, Local Strategic Planning Statement, Planning Agreements – designed to ensure ten years of forward planning and delivery for infrastructure networks and facilities is available ii. Provide resources to enable infrastructure designs and estimates to be one year in advance of scheduled delivery, to enable take up of grant or developer sponsored infrastructure funding iii. Renewal and investment in assets is financially and environmentally sustainable, and focussed on safety and prosperity for

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	<p>the LGA</p> <p>iv. Consider the economic, social, environmental and financial impacts of investment or decline in assets - including expanding sealed road network and effects on maintenance and backlog; or design of new carparks on type, cost, pricing consequences and behaviour influences</p>
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1 Context

1.1 Strategy Development Framework

QPRC Resourcing Strategies (including the Asset Management Strategy) are developed within the Driver-Pressure-State-Impact-Response Framework (DPSIR), which considers the causal relationships between social, economic, environmental and governance factors.

The diagram below illustrates that drivers (such as legislation) and pressures (such as population growth), may result in higher standards or increased loads on the assets (influencing their condition or state), in turn impacting on the expected life and serviceability of the asset. In response, Council may use its resources (financial, workforce, technology) and partners (government, developers) to mitigate its risk exposure through interventions such as:

- (a) increasing organisation capability
- (b) managing service demands and expectations
- (c) changing operation and maintenance practices
- (d) renewing or augmenting assets
- (e) acquiring new assets

This approach will enable Council to ensure that the Asset Management Strategy will result in:

- (a) An informed decision-making process that uses a quadruple bottom line approach
- (b) An appropriate balance of asset and non-asset solutions to support service needs
- (c) A sustainable (financially, technically, and environmentally) portfolio of assets
- (d) A service delivery regime that is affordable, accessible, and resilient

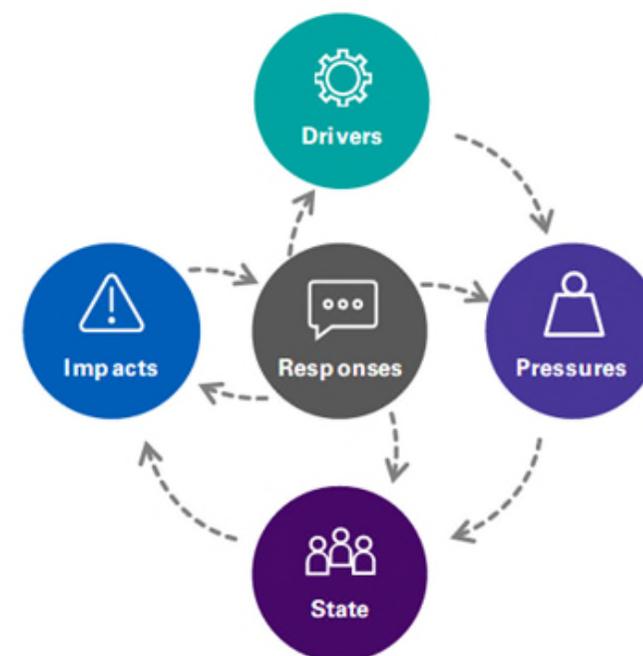


Figure 1 DPSIR Strategy Framework

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1.2 Integrated Planning and Reporting Guidelines

Figure 2 illustrates the approach (framework) the NSW Government requires councils to adopt in delivering services to the community under the *Local Government Act 1993*. Within this framework there are two key components; the Community Strategic Plan and the Resourcing Strategy, which informs it. The Resourcing Strategy comprises several elements including the Asset Management Strategy (AMS). The AMS is critical in that it helps to:

- Ensure council's assets, and their management, provide an adequate platform for service delivery
- Provide a sound basis for developing council's four-year delivery program and annual operational plan.

In so doing, the AMS enables councils to better account for their services to the community and minimise their exposure to risk, be it regulatory, financial, environmental, or reputation.

The QPRC AMS has been developed in accordance with the Integrated Planning and Reporting Guidelines and aligns to the Australian Standard for Asset Management, AS ISO 55000:2014, Asset management - Overview, principles, and terminology. Previous studies have also been considered, and where appropriate their observations and recommendations incorporated. These studies include:

- Percy Allan, 2016, Asset and Financial Sustainability Review, Percy Allan and Associates
- Stephen Bunting, 2020, Asset Management Maturity Assessment, Morrison and Low Pty Ltd

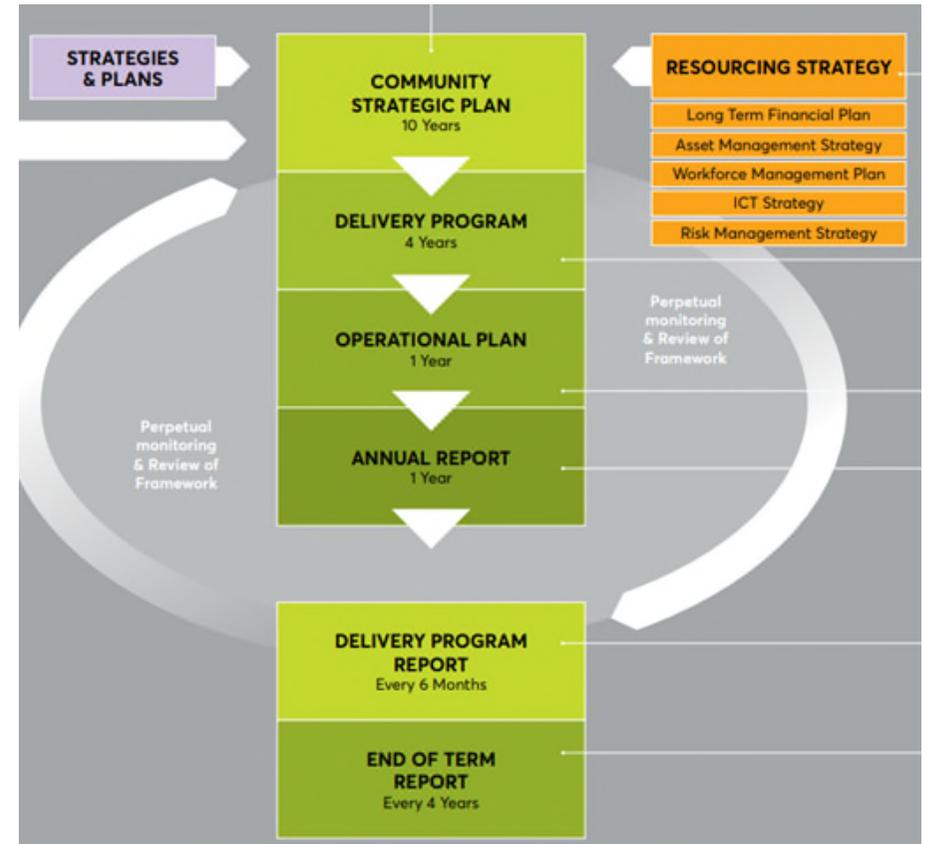


Figure 2 Integrated Planning & Reporting Framework

1.3 QPRC Community Strategic Plan

The QPRC Community Strategic Plan (CSP) addresses the five strategic (service) pillars formed from the ambitions and expectations of the Queanbeyan-Palerang community. These pillars are consistent with NSW Government policy¹, which encourages councils to:

- (a) **Community:** Engage with the community about level of services
- (b) **Choice:** Allow for choice of service options and outcomes
- (c) **Character:** Enhance the character and promote growth of the LGA
- (d) **Connection:** Acquire assets that are accessible, and meet needs
- (e) **Capability:** Ensure assets are capable of sustaining services

In effect, the five CSP pillars inform and shape the Asset Management Strategy to ensure it aligns to QPRC's vision and goals for service delivery. The primary pillars relating to assets, its management and the services supported by assets is 'Connection' and 'Character'

Error! Reference source not found. summarises how the key elements of the Asset Management Strategy map to the five pillars of the Community Strategic Plan.



Figure 3 The QPRC Five Pillars of Community Service

¹ Note re where government makes such statements see IPR Manual, Asset Mgt Policy, etc – note asset management policy may not be directly applicable to LGA but does indicate the direction of NSW Govt thinking on the matter

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1.4 QPRC Asset Management (AM) Framework

QPRC has developed an Asset Management Framework which is an integral part of the overall QPRC management and governance system. The purpose of the framework is to set the principles and guidelines for undertaking asset management in Council in support of its service delivery. The framework is consistent with industry approaches and standards such as:

- (a) NSW Govt, 2013, Integrated Planning and Reporting Manual
- (b) NSW Govt, 2018, NSW Information Management Framework
- (c) ISO AS 55000:2014 Asset management – Overview, principles, and terminology
- (d) IPWEA, 2015, International Infrastructure Management Manual
- (e) IPWEA, 2015, Australian Infrastructure Financial Management Manual

The Asset Management Strategy is a high-level plan that describes how QPRC will manage its assets to comply with regulatory standards and community expectations.

The Asset Management Framework (policy, directives, procedures, strategies, etc) is underpinned by various technology platforms including: the maintenance management system (MMS), customer request system (CRS), the enterprise asset management system (EAMS), the GIS database, and the enterprise content (records) management (ECM), which together provide knowledge management in support of service delivery.

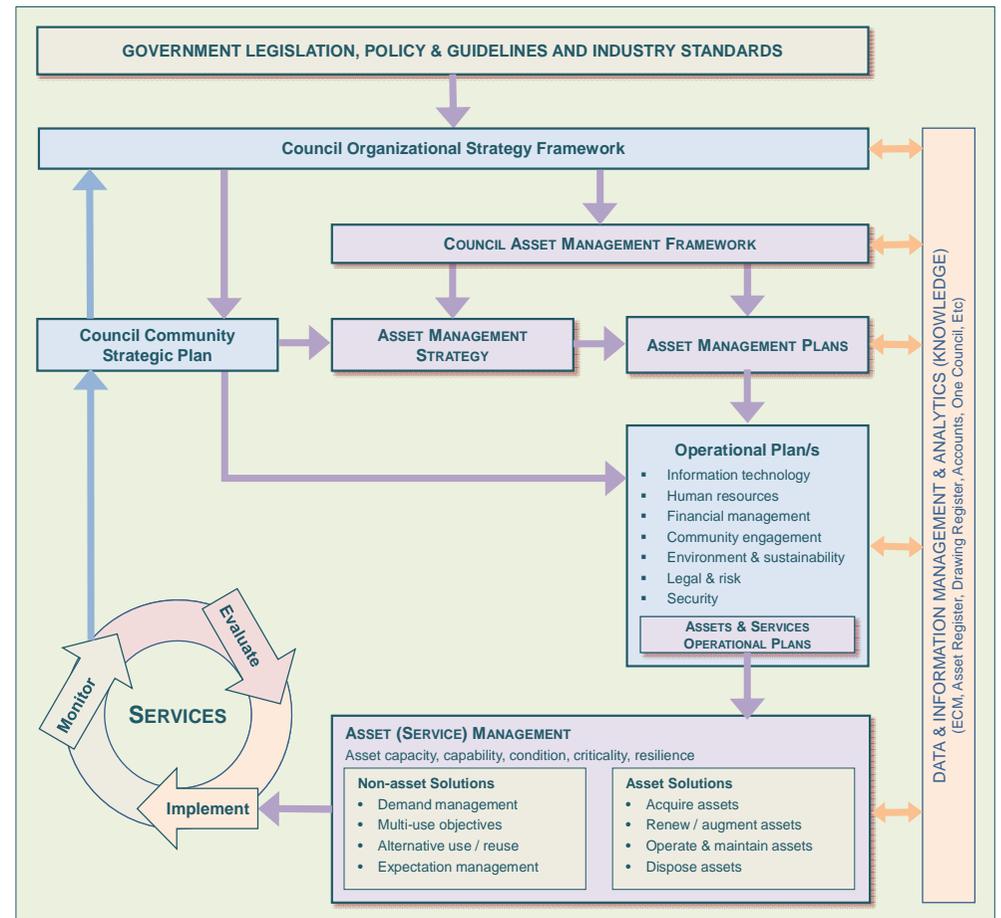


Figure 4 Asset Management Planning in QPRC

Error! Reference source not found. summarises QPRC’s Asset Management Policy, Objectives, and KPIs, which are foundational to the AM Strategy.

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1.5 QPRC Asset Management Guiding Principles

In developing the Asset Management Strategy, QPRC is guided by five service delivery principles

- (a) **Financially Sustainable** – through Long Term Financial Planning, Council will ensure that infrastructure is provided to the community at an appropriate service level that achieves best value for the current and future rate dollar.
- (b) **Environmentally Sustainable** – when designing new assets or replacing old infrastructure there will be a focus on water and energy efficiency, waste minimisation, reducing greenhouse gas emissions and mitigating the impacts of climate change.
- (c) **Safe, Healthy and Accessible** – the infrastructure provided by Council will be provided and maintained to allow all members of our community the opportunity to enjoy a quality life; being unrestrictive and delivering opportunity for those in need.
- (d) **Prosperous** – The lifecycle management of new and current infrastructure will assist delivering a successful and thriving City that connects business to opportunity and attracts new businesses for a strong economy and more local jobs. This will support people and communities to grow and flourish.
- (e) **Resilient** – The infrastructure provided by Council will be provided and maintained to enable the community to access essential services and thrive in the face of natural and man-made emergencies.

These guiding principles are predicated on five core values:

- (f) **Multi-disciplinary** – The practice of Asset Management must respect the range of services delivered by us – particularly with regard to assets that support social services.
- (g) **Responsible** – The practice of Asset Management will always act within legislative and industry standards to ensure accountability and safety to the community.
- (h) **Inclusive** – The practice of Asset Management will engage the Community, Elected Members and Council Administration via a ‘3-way’ inclusive understanding of expected service levels and the resources required for service delivery.
- (i) **Community** – The community must be front and centre to Asset Management thinking and decision making, as it is the range and diversity of the social profile that we provide and maintain the Council’s infrastructure for.
- (j) **Informed decision making** – To achieve best value and the objectives of the Community Strategic Plan, an array of economic, social, and environmental criteria must be included in decision making to justify financial outlay

2 Driver

2.1 NSW Government and Regional Initiatives

Several NSW Government, Canberra Region Joint Organisation (CRJO), and QPRC service undertakings will influence decisions about Council's assets particularly in relation to the scope, scale, siting, sequencing and connectivity of infrastructure assets. Some of these undertakings / initiatives include:

- NSW SMART Infrastructure Strategy
- Future Transport 2056
- NSW Freight and Ports Plan
- 20 Year Economic Vision for Regional NSW
- South East and Tablelands Regional Plan
- NSW Movement and Place Framework
- NSW Waste Strategy
- Regional water strategies

In addition, several QPRC undertakings are dependent on an appropriate asset base and their proper management. Some of these undertakings include:

- Digital economy and smart city
- Residential and economic development
- Integrated transport
- Integrated water cycle
- Waste management
- Sports facilities
- Tourism plan
- Risk management
- Googong and South Jerrabomberra LPAs

Government legislation and regulatory requirements continue to evolve. Council needs to understand these changes and ensure these are reflected in its Asset Management Framework and Strategy, which in turn will affect the performance of Council's assets and services.

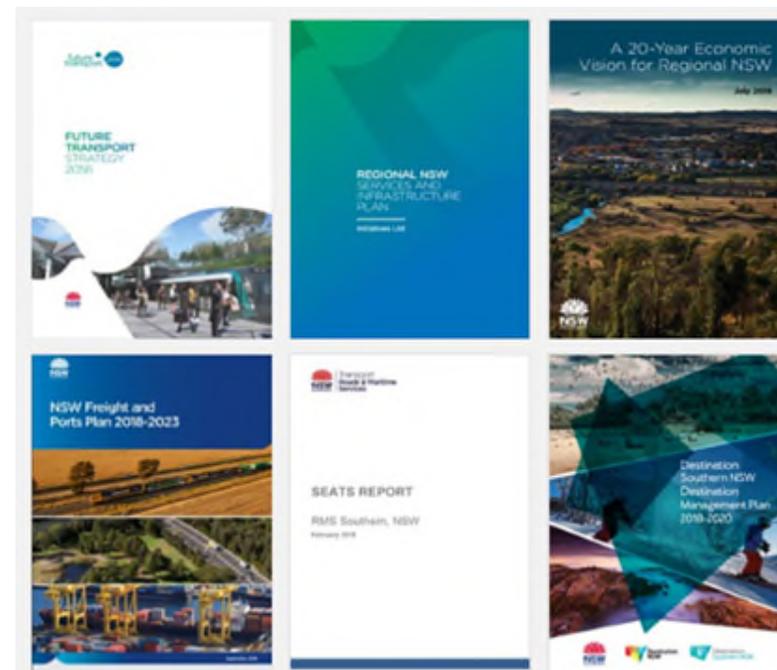


Figure 5 Regional Initiatives

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2.2 Asset and Service Requirements

QPRC is obliged to comply with various Australian technical standards and guidelines in relation to the assets which it controls and manages. Together, these standards define current industry practice (accepted good / best practice) hence the quality and reliability of assets expected by the community and other stakeholders. Some of the asset hence service outcomes governed by these standards include:

Technical

- role of the asset in network or hierarchy
- design specifications per class of infrastructure to be constructed
- relevant AS/ISO specifications or legislation/regulation
- type/quality facilities on classes of asset identified in strategies or plans (eg network or corridor hierarchy, or sports strategy)

Asset Performance

- configuration of failure modes, intervention levels and performance indicators for the type of asset concerned
- grading of the degree of distress / performance being exhibited by the asset for each of the failure modes / performance indicators
- recording the upper and lower condition and performance limits for the assets concerned
- flagging when an asset exceeds or falls below the limits
- KPIs required for third party reporting (eg DPI water, EPA, TfNSW)

Service Outcomes

- quality, frequency, location (as disclosed in service statements), such as:
- queuing at intersections, access to parking and frequency of accidents on roads
- frequency of cleaning toilets and mowing parks
- incidence of polluting events in drains and waterways
- frequency of collection and utilisation of waste
- patronage at community centres, and recreation and cultural facilities
- maintenance levels of service (eg grading frequency by road classification/locality)
- intervention condition level (ICL) per class of asset/locality
- routes to be made accessible within [x] hours of an emergency closure - cleared or detour provided.
- maximum period of loss of water supply to a given number of customers

2.3 Customer Expectations

Requests are frequently received from residents and business operators to attend to an asset failure, service interruption or safety matter through the customer request management (CRM) system. As part of QPRC's asset management obligations, inspections and rectifications are required to be attended to within acceptable timeframes.

QPRC has developed target response (inspection) and action (resolution) times utilising the following rankings:

Table 1 Customer Request Response Guidelines

Response (hours)	Action (days)	Target
High < 2hrs	High < 2 days	>75%
Medium < 72 hrs	Medium < 5 days	>75%
Low < 120 hrs	Low < 10 days	>75%

Performance is measured based on time taken to undertake an initial inspection, followed by work required to undertake maintenance work required to rectify the asset.

2.4 Exposure to Risk

Council has an obligation to ensure that it does not accept high levels of risk that might impact on community wellbeing and amenity or the ongoing viability of Council. Accordingly, Council generally has a low appetite for unmitigated risk across its day to day operations. However, to achieve the outcomes identified in the Community Strategic Plan, Council may have to take some calculated risks to deliver the range of services expected by the community. This may include risks associated with commercial development and partnerships with other public and private sector entities.

Council has developed and implemented a Risk Management Framework in line with the requirements of AS ISO 31000:2018 Risk Management Guidelines. Key to this framework is the identification of significant risks to Council and the Community, which require action to reduce the level of risk to acceptable levels. Council's Risk Management Policy recognises that, to provide services to the community it should accept and take some level of risk. Therefore, Council has some appetite for risks needed to:

- (a) improve efficiency, reduce costs, and/or generate additional sources of income
- (b) develop and maintain Council assets
- (c) maintain and, where necessary, adjust the levels of service to meet the community objectives

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Council's appetite to key risk areas is as follows:

(A) Safety and Wellbeing

Minimise - Council has little or no appetite for acts or omissions that result in injury or illness to third parties, property damage or impair community wellbeing. Council will attempt to eliminate / minimise such risks to the community as far as possible within available resources.

Manage - Council will manage the risks to the community arising from use of public infrastructure such as roads and footpaths by allocating the limited resources available to maintain assets in accordance with the priorities set out in its asset management strategy and plans.

(B) Environment

Minimise - Council has little or no appetite for environmental damage arising from normal business activities and will ensure controls are in place to eliminate / minimise such risks.

Manage - Council recognises that trade-offs between environmental and other objectives may be necessary to achieve certain organisational objectives, including the construction and maintenance of assets. Council will manage risks arising from its construction, and maintenance activities.

(C) Financial

Minimise - Council has little or no appetite for financial loss arising from normal business activities and will ensure controls are in place to eliminate / minimise financial risks (including invested funds).

Manage - Financial risks associated with major capital projects will need to be assessed on a case by case basis. Council may accept some commercial risk associated with delivery of infrastructure and economic development initiatives. This may include risks associated with partnerships and joint venture arrangements. Council will manage risks associated with capital infrastructure projects and other investments.

3 Pressures

3.1 Growth

QPRC is a diverse area and as a result, growth across the region varies. In Queanbeyan, some densification will occur through infill and apartments in the CBD, while greenfield expansion continues in new release areas of Googong and Tralee adding around 15-20000 residents in coming decades. While most that infrastructure will be delivered by the developers, Council must check to construction standards and commission those assets into existing networks.

The adoption of the Bungendore Structure Plan predicts a moderate growth of 5-7000 residents over the 20-year planning horizon with that growth necessitating new sources and treatment of water and waste for example. While growth due to new development in Braidwood is expected to be limited due to its heritage listing, the management of infrastructure sensitive to that heritage presents challenges. Further densification in other rural areas is expected to grow at slower rates. Rural areas also provide challenges due to lower populations being serviced by long linear networks.

Figure 6 provides a snapshot of the LGA demographics and growth impacting the provision of services and associated assets.

3.2 Customer

Council has conducted satisfaction surveys and community engagement programs to ascertain the community expectations of services and asset standards, 2018 and 2020. Both have provided Council with baseline data on community satisfaction and expectation for service delivery.

The 2018 survey highlighted the areas of priority where the community want to see Council putting their effort into asset management according to the distinct geographic zones. The Figures below illustrate the results from the 2020 survey.

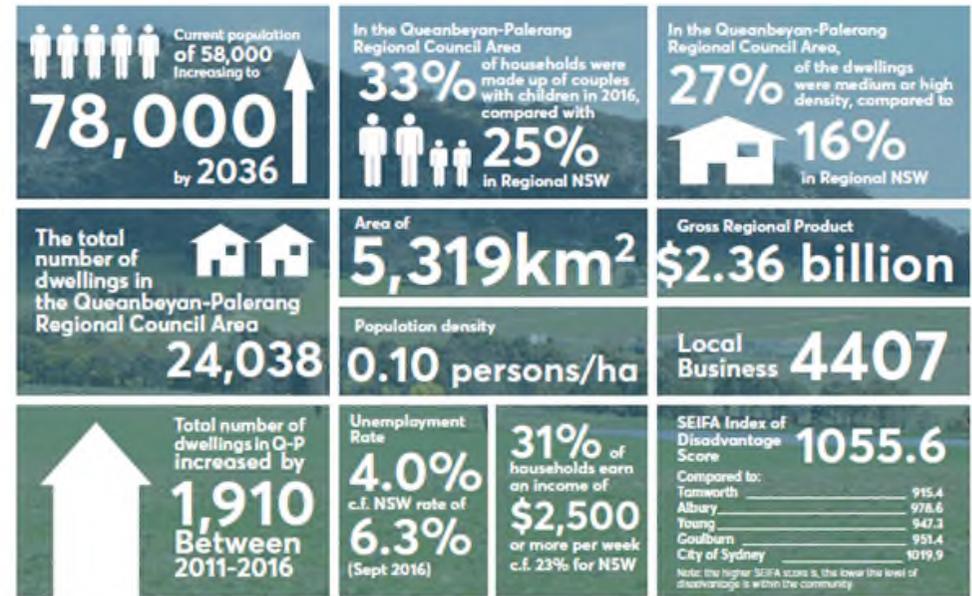


Figure 6A Snapshot of the QPRC LGA Demographics

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Table 2 Biennial Community Satisfaction Result Summary

Survey Year	No. of Facilities / Services Measured	Summary of Findings
2018	24	Bridges, cleanliness of public domain (streets etc.), parks, reserves and playgrounds, sewage collection and treatment, waste and recycling and water supply were perceived as being of highest satisfaction and highest importance.
2020	25	Of the facilities/services rated, four were scored as “very high satisfaction”. The four top scored services included: libraries (4.26), water supply (4.11), sewage collection and treatment (4.11), and parks reserves and playgrounds (4.09)



Figure 7 Service Importance vs Satisfaction Matrix

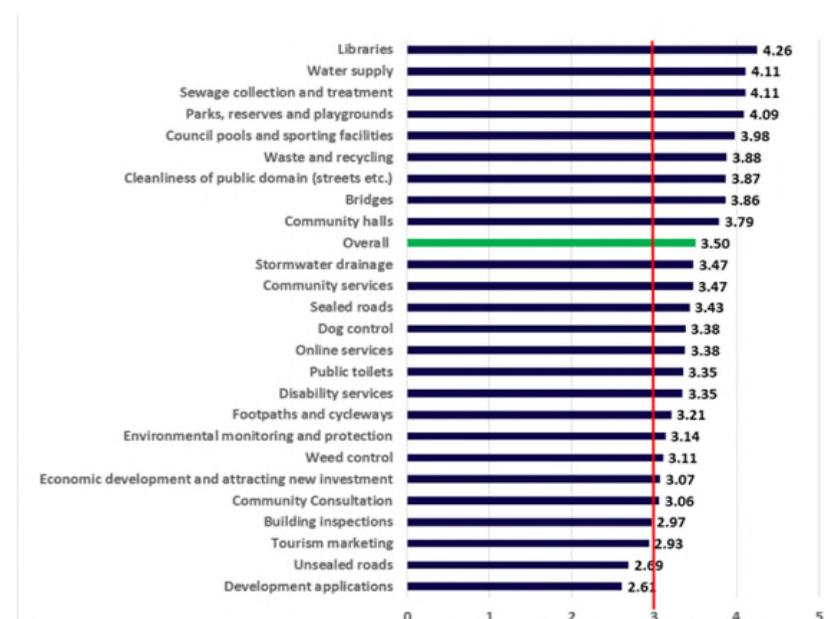


Figure 8 Services Satisfaction Score (out of 5)

3.3 Changing Regulatory Requirements

Due to the locality of QPRC being adjacent to the ACT, complex regulatory requirements can occur that have a direct impact on Council's assets.

This is mainly confined to water, sewerage and storm water assets as follows:

- Bulk water is supplied to Queanbeyan and Googong from Icon Water in the ACT and are therefore regulated through a supply agreement and subject to ACT Government water sharing arrangements.
- Braidwood's water supply catchment is located within the Sydney Catchment Basin and therefore subject to regulations via Sydney Water.
- Bungendore growth is restricted by limited bulk water supply.
- Sewerage from Queanbeyan is transferred to the Queanbeyan Sewerage Treatment Plant which is located in the ACT. Discharges from the STP are regulated by an ACT EPA license while the sewerage network is regulated by the NSW Office of Water.
- Storm water collected is discharged to the Queanbeyan River, Molonglo River and Jerrabomberra Creeks that flow into the ACT and Lake Burley Griffin. No specific cross border legislation applies however, quality issues are associated with Lake Burley Griffin water quality.
- Major transport routes link connecting to greater Canberra Region and South East Tablelands
- Canberra growth and expansion of population within the greater region

Other asset infrastructure also impacted include:

- Transportation routes and the required levels of service requirements for the regional context (Federal/State/Council road networks)
- Development of regional sporting centres which overlap with services provided within the ACT
- Proposed regional roads transfer from councils to state government

Legislation continues to evolve and the regulatory requirements change. NSW Government policies, strategies, plans and government circulars need to be understood and what impacts these have in managing Council's assets. Some of these include:

- Asset Management Policy for NSW Government Agencies TPP19-07
- NSW Smart Places Strategy 2020
- Future Transport Strategy 2056
- NSW Freight and Ports Plan
- 20 Year Economic Vision for Regional NSW
- Infrastructure NSW Movement and Place Framework
- NSW Waste Strategy

3.4 Serviceability

The creation, operation and maintenance of assets is guided by several Australian standards, codes of practice, and industry recommendations (accepted industry practice). Consequently, effective delivery of services is contingent on assets that are consistent with accepted industry practice. The following issues have a direct bearing on the serviceability of Council's assets and the efficacy of its services:

- Managing the asset backlog
- Renewing and replacing ageing assets in accord with their lifecycle
- Aligning asset renewal expenditure to the rate of depreciation
- Applying generational equity principles to provision, renewal and upgrading of assets
- Differentiating accounting for asset operations or servicing from maintenance
- Recognising gifted assets from large greenfield developer controlled sub-division releases
- Effect of population growth on the patronage / utilisation of assets

3.5 Capability

Retaining and developing skilled design and construction staff to meet RMCC road construction standards of Transport for NSW (TfNSW) is important to maintain state, regional and consequently, local roads and bridges in the LGA.

Similarly, retaining skilled development and engineering staff to meet turnaround benchmarks of government; to assess and certify applications for subdivision and infrastructure construction by developers; and commission those new assets into existing networks is important to plan for and accommodate growth in an orderly manner.

An asset management maturity assessment was refreshed in 2020 from that undertaken initially in 2016/17, and examined organisation AM capacity (resources), and capability (technology, accounting, and skills) in context of those merged councils (including change fatigue). That assessment acknowledged the status of ICT, workforce and asset strategies; the existing AM framework: strategy, plans, policy; the existing data capture on assets and condition; and benchmarks where the organisation should aim to be (current and future state).

3.6 Technology Integration

Technology is evolving rapidly and providing opportunity to enhance the way services are delivered, provide better and more relevant data for decision making, and enrich customer experience of Council's services. In addition, advances in information and communication technology (ICT) is also providing opportunity to increase the efficiency and productivity of Council's teams as well as the accuracy and timeliness of data in support of decision making. Some of the technologies that could improve asset management and service delivery in council include:

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- (a) Automated paperless work orders and work management systems especially for O&M staff
- (b) Drones and remote sensing for mapping, survey, monitoring, and investigation
- (c) 3D image mapping and BIM technologies, for structures and facilities
- (d) Smart city sensors for parking management, traffic monitoring

Adopting and using these emerging technologies has the potential to realise benefits such as:

- (a) Better alignment of assets and services to customer needs and expectations
- (b) Improved understanding of service demands, asset capability and condition
- (c) More responsive and effective operations and maintenance of assets
- (d) Improved data quantity and quality in support of decision-making

However, adopting and using these new technologies also entails adequately addressing constraints in order to fully realise the potential benefits. Such constraints could include:

- (a) Upskilling staff to take full advantage of the technologies
- (b) Budgeting for the operation and maintenance of the technologies
- (c) Changing the culture of the organisation to embrace new ways of working
- (d) Transitioning from old systems to new while still delivering services in an acceptable manner

4 State

4.1 Asset Value

QPRC was formed through the merger of Queanbeyan City and Palerang Council in May 2016. At the time of merger, the replacement value of assets under management was \$1.7B and is expected to continue to grow over the next 10-30 year timeframe at a rate of 1.2% per year + inflation costs.

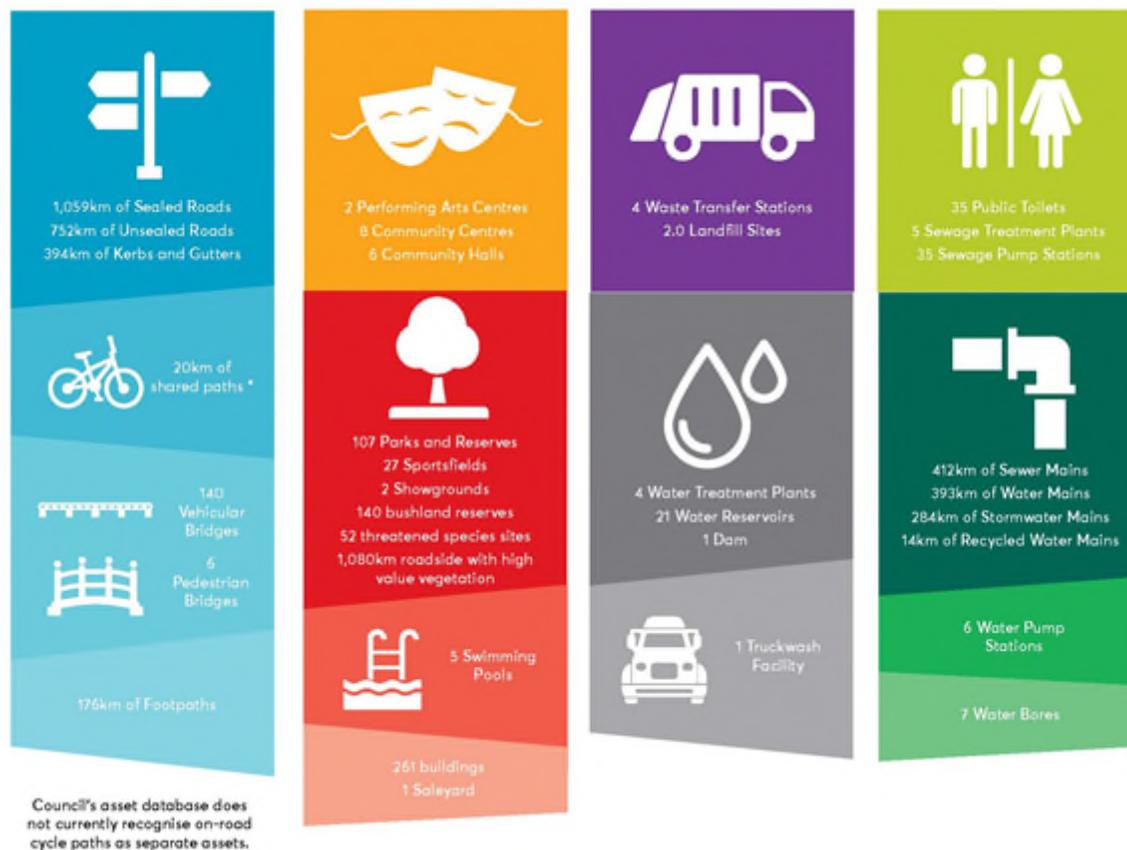


Figure 9 QPRC Asset Base

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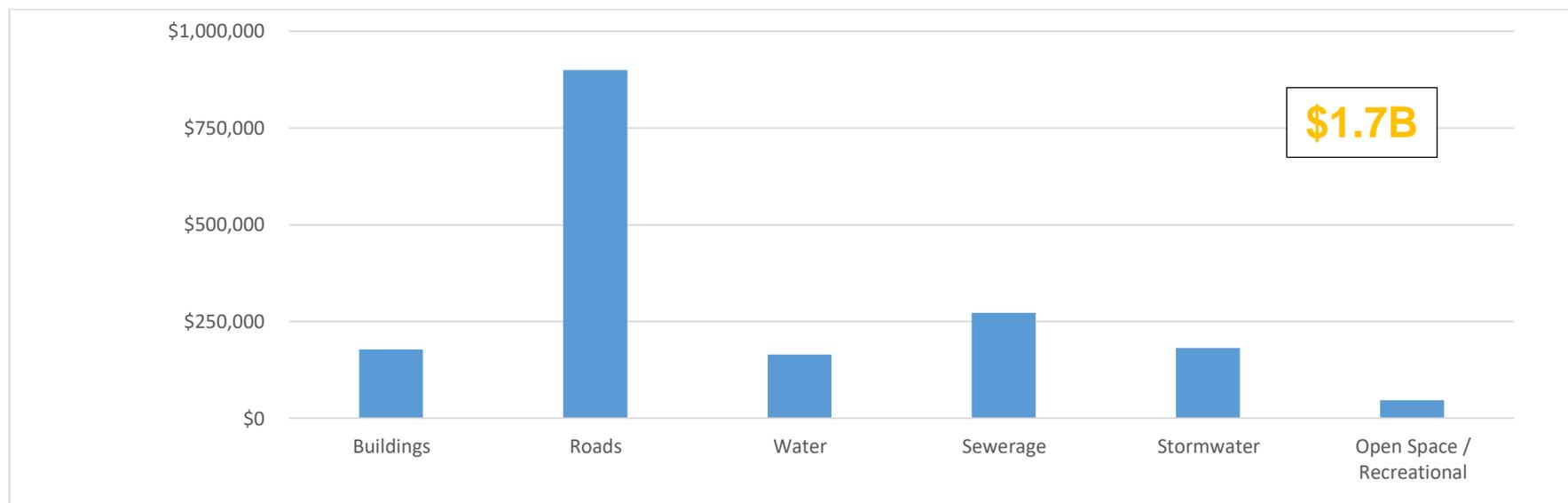


Figure 10 Asset Valuation - 30 June 2020²

4.2 Asset Condition

Assets are continually condition assessed throughout their lifecycle to ensure QPRC understand how the quality of the assets and how they are meeting service requirements. A mix of tools are used to assess condition, including visual, video, drone, aerial and satellite observations. The condition ratings are broadly mapped to age of assets and maintenance records to assist assessment of asset remaining life, serviceability and renewal cycles.

The condition of assets naturally deteriorates with age and is impacted through maintenance and renewal activities. Poor maintenance of assets and delay in renewal can adversely impact the life of the asset. Degradation decay curves provide guidance for asset maintenance and renewal decision making. It is recognised that degradation curves may vary depending on a number of factors including material, utilisation, environmental exposures, past maintenance practices and construction techniques used.

Depending on the level of criticality assigned, the aim should be to rehabilitate the asset before it reaches a condition rating of 5 – Very Poor.

² Graph does not include some minor asset classes that form part of the overall asset valuation process

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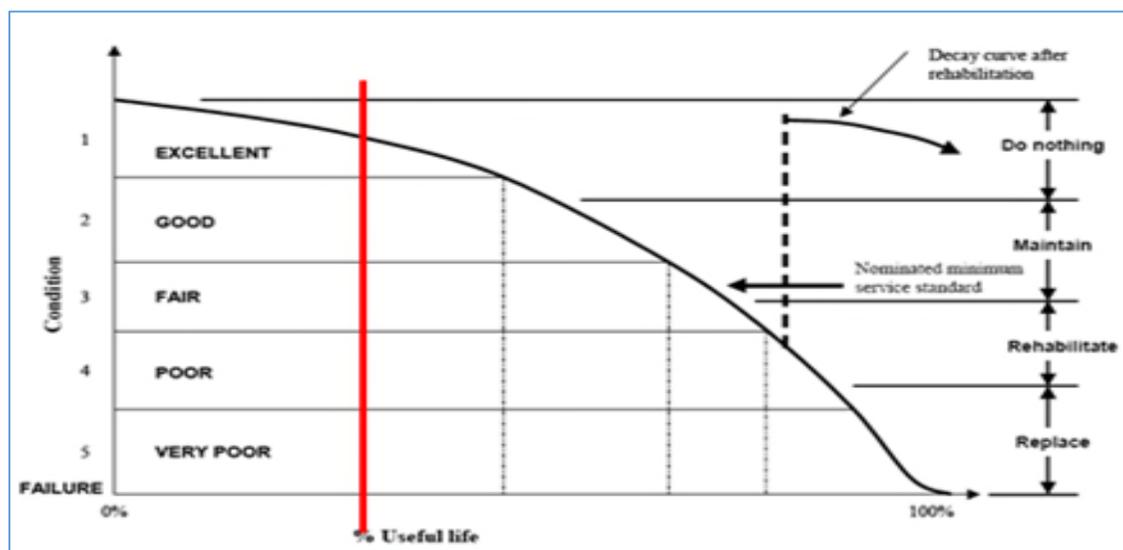


Figure 11 Typical Asset Degradation Curve

Renewal of assets is only planned to return the asset to condition 2 – Good. In reality, renewal often will return an asset back to condition 1 – Excellent due to modern engineering techniques used.

Each asset is condition rated based on the IPWEA guidance notes. A 1-5 condition grading is applied based on the following:

Table 3 - QPRC Condition Rating Guide

Condition Rating	Description	Category (Fig 12)
1. New Asset or Asset in Near New Condition	No deterioration in condition	New
2. Good Condition	Minor signs of wear and tear occurring but not impacting assets performance	Maintain
3. Fair to Moderate Condition	Some signs of wear occurring and maintenance activities required to keep asset functioning to service requirements	Renew
4. Poor Condition	Major wear occurring with increased maintenance activities required to provide service. Asset subject to rehabilitation.	Rehabilitate
5. Very poor or unserviceable condition	Asset is closed for use or use is severely restricted. Replacement is required.	Replace (backlog)

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Major asset classes are to be condition rated no less frequently than 2 yearly. In cases of flooding, fires or other events occurring that can significantly impact on asset condition, an inspection is to occur as soon as possible after the event and any condition changes noted so impairment of the assets can be determined.



Figure 12 QPRC Asset Condition by Class

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4.3 Asset Management Maturity

Asset management systems can be assessed and rated against a set of criteria to determine the maturity of the organisation’s systems or competence.

Based on the Asset Management Maturity Index developed by the Institute of Public Works Engineers and published in the International Infrastructure Management Manual (IIMM, 1.4.2), the competence levels are:

- A. Best Practice (Leading Edge)
- B. Advanced
- C. Core
- D. Basic
- E. Aware

Benchmarking against this index provides a point-in-time measuring tool that can be used to plan and track improvements in asset management practice.

As a large regional council, QPRC should expect to demonstrate a minimum ‘core’ competence rating and should be working towards achieving an advanced competence rating in the medium term.

The current level of competence in asset management is D - Basic.

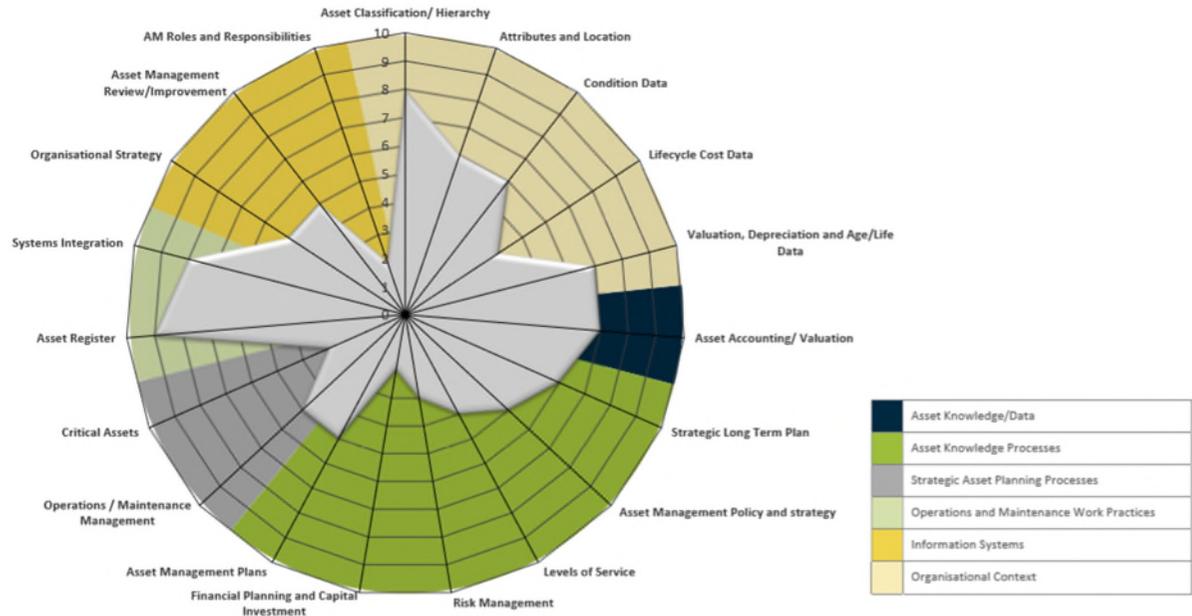


Figure 13 QPRC 2020 Asset Maturity Graph

4.4 Technology Platforms

The TechnologyOne Enterprise Asset Management (EAM) platform has been implemented to assist in asset management across QPRC, and links to Finance, Records, Human Resource, Projects and Geospatial modules. The Geospatial system allows graphic representation of assets. Below is a summary of those related systems.

Infrastructure assets are stored in the asset register(s). The asset register(s) are designed to be the source of truth and to allow hierarchical and/or physical grouping of assets for analysis and reporting.

Asset Register

Each asset is assigned a unique identifier number and hold the following data:

- Asset Details (description, status, condition rating, utilisation rating, performance rating, risk rating)
- Asset Classification (Class and Category)
- Asset Type (Discipline, Component, Sub-component, Part)
- Facility Location (Site, Area, Sub-area)

Assets also include attribute data to allow grouping of assets for reporting and data analysis via asset class, facility/location and/or asset type.

Maintenance Management System – MMS - (Defects, Work Orders, Measurements)

The maintenance management system has been enabled to allow capital and operational/maintenance costs to be directly attributed to the assets held within the asset register(s).

Schedules can be created for preventative maintenance strategies to be programmed and for rectifying defects through reactive maintenance work orders.

Work orders can also be used to collect asset information including condition assessments and measurements to assess the performance of the asset against levels of service requirements.

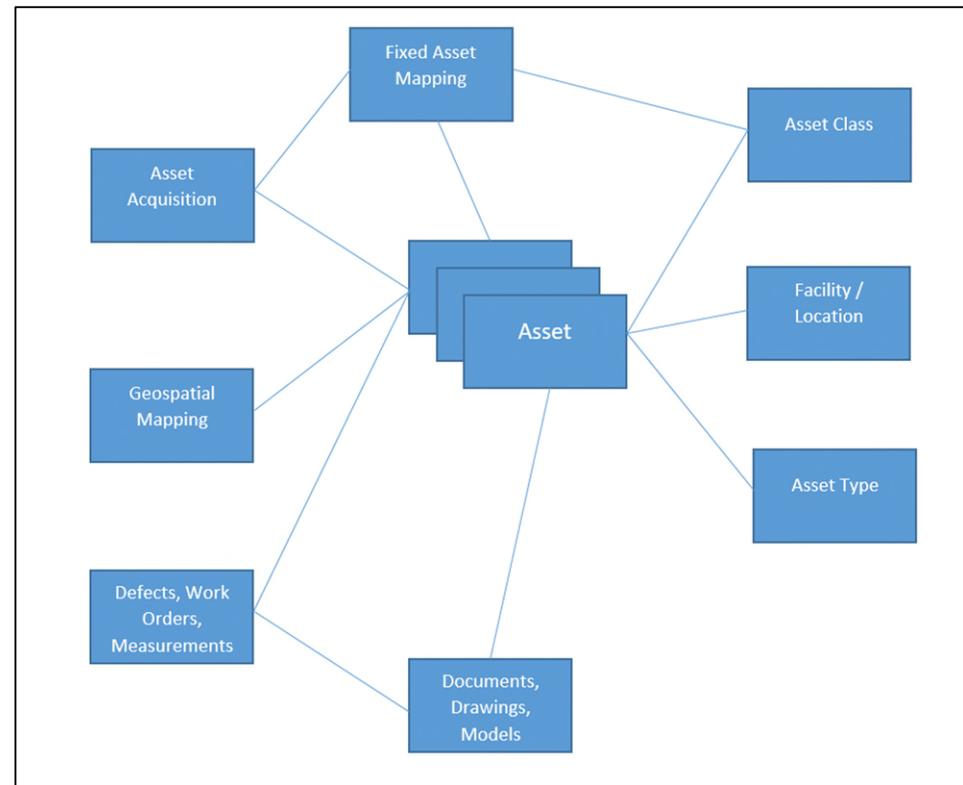


Figure 14 Asset Information mind map

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Asset Acquisition (Project System)

The project system within the EAM holds the required project information including:

- Project Details (description, status, start date, end date, responsible person)
- Project period budgeting
- Work orders with estimates and actual cost

Spatial Mapping (GIS)

Spatial data is managed through the ESRI ArcGIS platform. The data is presented through a synchronisation process and published using Mapinfo as the general user platform.

Assets are spatially related within the GIS system by utilisation of the unique asset identifier number held within the asset register(s).

Fixed Asset Mapping (Finance System)

Council utilises the TechnologyOne finance module for asset accounting. Each asset within the Asset Register is assigned an asset book which integrates financial reporting directly to the assets.

The finance system allows coding of all costs to be attributed to the work order system.

Document Management (Enterprise Content Manager)

Council's records are predominantly property and asset based. The document management system utilised the TechnologyOne ECM module. As a result, all information can be linked to assets using the Asset and/or Project functions.

5 Impact

5.1 Business Continuity

Understanding asset criticality allows business continuity planning to be undertaken. Guidance for the assessment of service and facility criticality and the development of disaster recovery plans is based on guidelines from QPRC's insurers, Statewide Mutual. Some of the criteria used to assess criticality include:

- Vulnerability to natural disasters
- Energy or technology failure
- Terrorist or cyber attack

Services reliant on infrastructure assets have been mapped and developed into business continuity plans and refer to maximum allowable outage.

5.2 Natural Disaster Response

Infrastructure and facilities may be damaged or destroyed through natural disasters such as:

- Bushfire
- Flood
- Storm

Normally, Council responds to natural disasters led by other agencies, and leads the recovery - usually by restoration of access or rehabilitation of damaged infrastructure. Figure 14 illustrates QPRC's response arrangements

While most the structures and buildings are insured, network infrastructure is not and relies on government grants to assist the restoration and rehabilitation of those assets.

Government funding does not permit damaged infrastructure to be 'built back better' to improve resilience of the asset or the emergency access it may provide.

Costs to enhance assets to provide additional protection from recurrence of the event must be met by Council.

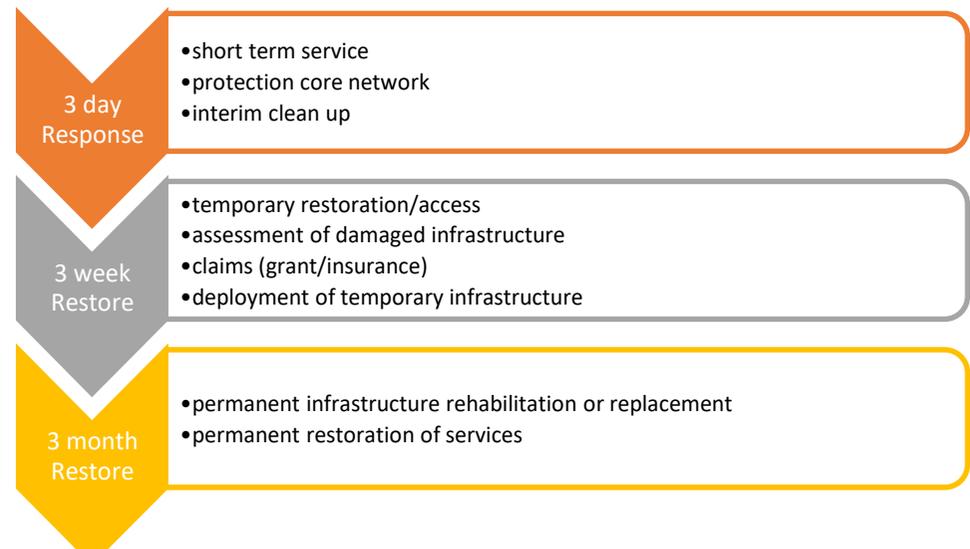


Figure 15 QPRC Disaster Response (3 - 3 - 3)

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5.3 Asset Intervention Assessments

QPRC is committed to ensuring best practice maintenance and renewal of assets based on a risk management approach. Under the 2017 Asset Strategy, intervention levels were only based on asset condition and as such, did not account for asset criticality in setting priorities for maintenance and renewal works.

Not all assets need to be treated the same and assessment needs to be undertaken to determine the risks associated with asset failure, or how critical the asset is to enable QPRC to maintain its service obligations.

Criticality of assets are defined based on the following table:

Table 4 Asset Criticality Grading

Criticality Rating	Description
Non Critical	Asset can fail without impacting service requirements. No back-ups provided and non-urgent replacement can be made safely
Low Criticality	Asset failure will cause minor inconvenience in being able to deliver the service. Back-ups may be provided to continue the delivery of services without interruption
Moderate Criticality	Asset failure will cause moderate disruption to delivery of the service. Considerations should be made for alternative back-ups to be provided until repairs/replacement can be undertaken.
High Criticality	Asset failure will cause high level of disruption to delivery of the service. Considerations should be made for alternative back-ups to be provided until repairs/replacement can be undertaken.
Very High Criticality	Asset failure will cause major disruption to delivery of the service. Business continuity plans are to be prepared based on emergency management processes

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A risk-based intervention process to asset management practices will allow QPRC to prioritise asset responses as follows:

Table 5 - Criticality Risk Matrix

Asset Condition Rating	5					
	4					
	3					
	2					
	1					
		Non	Low	Moderate	High	Very High
		Asset Criticality Rating				

The intervention levels are as follows:

Green	Run to Failure
Yellow	Prioritise Inspections and defect maintenance
Orange	Prioritise proactive maintenance activities to prevent premature deterioration of asset condition
Red	Avoid failure. Back-up alternatives need to be in place together with business continuity plans for emergency response

Asset Management Strategy 2020-2030

5.4 Asset Ratios

QPRC aims to demonstrate financial asset management sustainability through the adoption of the Office of Local Governments Asset Ratios.

Target values adopted are:

- Infrastructure backlog ratio <2%
- Buildings and infrastructure renewal ratio 100%
- Asset maintenance ratio 100%

Asset ratios are annually reported and included in QPRC's annual financial report – Special Schedule 7

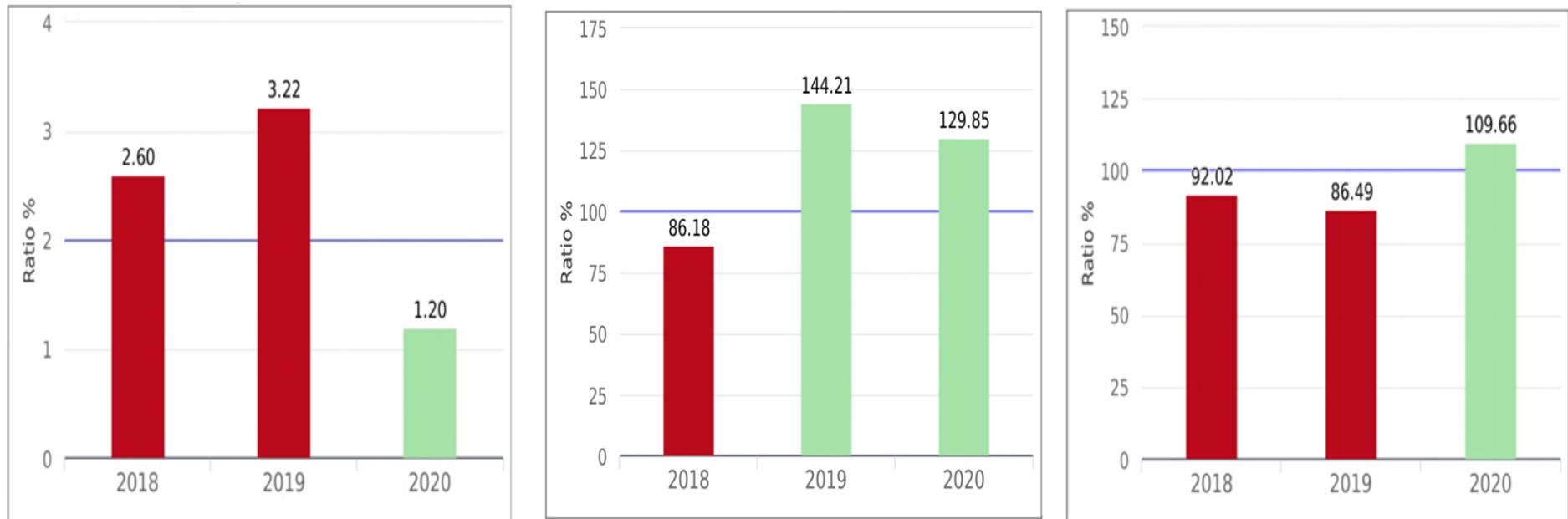


Figure 16 Asset Ratios (1 - Infrastructure backlog, 2 - Renewal, and 3 - Maintenance)

Asset Management Strategy 2020-2030

5.5 New Assets and Financials

New or upgraded assets constructed with new development, normally come with new property assessments as part of that growth, generating additional general rate and annual charge revenues. Council's 'narrow the gap' principle matches asset maintenance, renewal and servicing of debt for assets, to general rates and annual charges – aiming to narrow the gap through new rating revenues and grants, or optimising the cost of asset management:

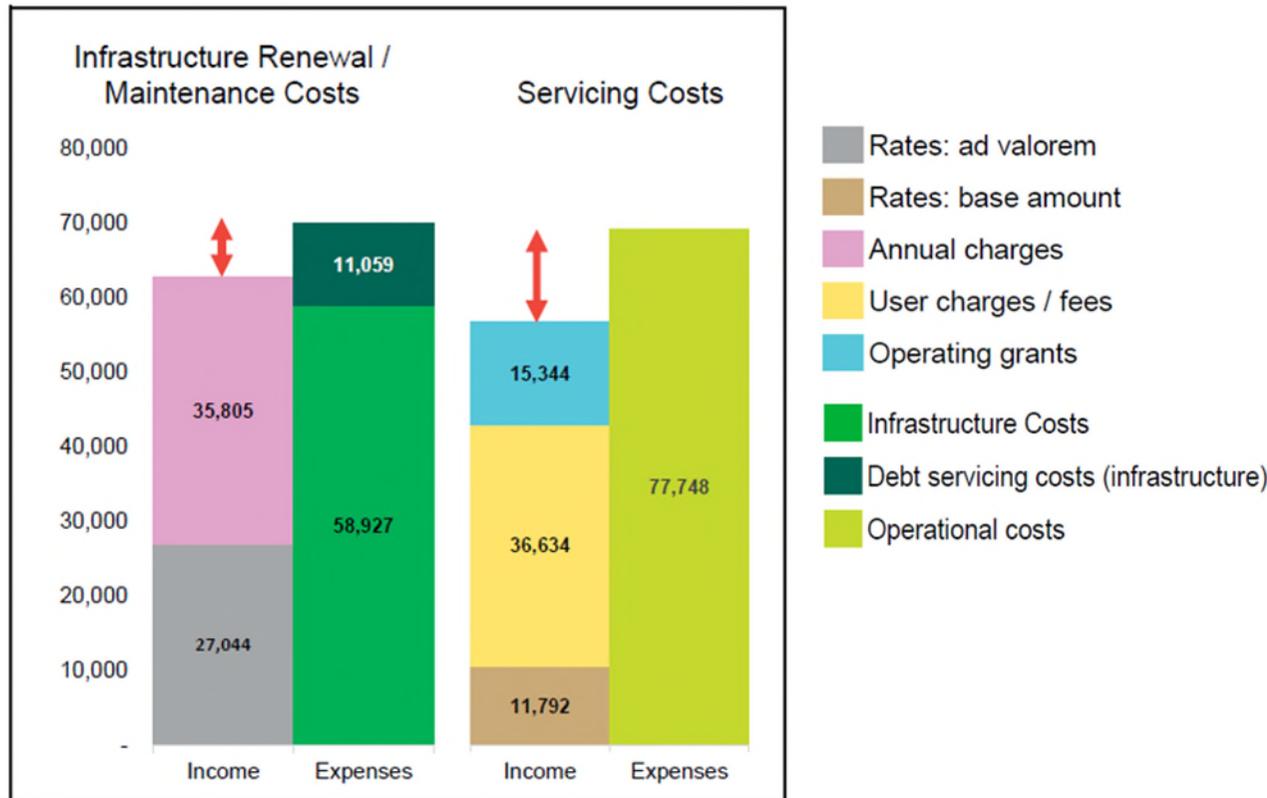


Figure 17 QPRC Financial Outlook

Current predictions indicate a funding shortfall in terms of infrastructure Renewal/Maintenance costs and for Servicing Costs

Accurate asset accounting is required to ensure QPRC's asset values are not overstated and depreciation is correctly applied to minimise the widening of funding gaps.

Additional revenue will need to be obtained to ensure QPRC's assets can continue to provide the required level of service to the community. Council is constrained through NSW rate pegging arrangements and therefore, may need to seek additional grant funding and/or special rate variations to fund infrastructure short falls.

As assets are renewed (as scheduled), or damaged (and replaced) through natural disaster, the value of those works should be impaired (in accounting terms) to prevent inappropriate inflation of asset values and subsequent depreciation expense.

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6 Response

6.1 Key Actions

The following Responses are intended to address the Drivers, Pressures, State and Impacts on the management of assets:

Table 6 Asset Management Strategy Actions

Key Focus Areas	Objective	Target
Customer	Provide, present, and maintain assets to services that achieves broad community satisfaction	>3.25/5 ranking in biennial surveys
	Acceptable levels of service is supported by assets - including queuing at intersections, access to parking, and frequency of accidents on roads; frequency of cleaning toilets, and mowing parks; incidence of polluting events in drains and waterways; frequency of collection and utilisation of waste; patronage at community centres, and recreation and cultural facilities (as disclosed in service statements)	Service Standards developed and aligned within Asset Management Plans
Growth	Plan for and extend the capacity of assets and connectivity of transport and utility networks in line with population growth forecasts	Long term asset strategic plans are produced to meet urban expansion and growth predictions identified in Residential and Economic Strategies
	Leverage the presence and capacity of assets to stimulate business investment, visitor activity and economic returns	Assets are provided that support the service requirements and allow for future demands
	Utilise planning instruments and agreements to optimise connectivity to networks and capacity of infrastructure and facilities delivered through new developments	Development standards and agreements are implemented that ensure assets provided meet the required customer, technical and regulatory service levels

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Key Focus Areas	Objective	Target
	Extend or upgrade assets (such as seal/extend seal on roads) when: <ul style="list-style-type: none"> • Assets are designed and constructed to standard for planned loads • > 50% funded by held contributions or conditioned by DA or LPA • balance met by SRV or grant 	Policies and procedures are developed to document consistent decision making for asset enhancement and upgrades
Standards	Apply international asset and risk standards (ISO55000 and ISO31000) to decision making and priority settings for management, maintenance, renewal and upgrade of assets	Asset Management Framework is monitored and assessed against standards
	Build organisation skill and technology in terms of asset management maturity assessments	Move from “Basic to “Core” to “Advanced”
	Calibrate asset ratios (maintenance, renewal, backlog) in line with the Financial Strategy	Asset backlog ratio: <2% Asset renewal ratio: >100% Asset Maintenance Ratio: >100%
Financial	Align asset maintenance and renewal spend to the rate of depreciation	M&R> depreciation @ 1% of asset base value
	Establish ‘infrastructure sinking fund’ used to draw on, or replenish, annualised differences in the value of depreciation and maintenance and renewal spend	Sinking fund smooths out capex
	Apply generational equity principles to provision, renewal and upgrade of assets -generally raising debt, securing development contributions or procuring grants to renew, upgrade or expand assets and networks	Long term asset work programs are modelled and determined based on financial planning principles
	Appropriately assign dividends as ROI from utilities assets (QBN water, sewer, waste) to renewal and upgrade of other infrastructure and facilities in Queanbeyan	Dividend payments per Code

Asset Management Strategy 2020-2030

Key Focus Areas	Objective	Target
	Align asset ratio forecasts to financial capacity (expressed in LTFFP)	Asset backlog ratio: <2% Asset renewal ratio: >100% Asset Maintenance Ratio: >100%
	Rank decisions to extend, renew or replace assets on best value (in line with asset life cycle, cost of finance and organisation capability)	Project prioritisation established for: 10 Year Capital Works Program 4 Year Capital Works Program 1 Year Capital Works Program s7.11, 7.12 Contribution Plans
	Resource cadet, apprentice and trainee staffing to augment asset management and operational capability, and mitigate loss of expertise through retirement and competition	Resource planning reflects asset management skill and knowledge requirements, per workforce plans
	Establish pricing strategies for asset patronage and usage, including price setting for behaviour management (to align to Pricing Policy)	Fees and charges reflect cost of delivery services
Risk	Design and monitor performance of assets to adapt to expected risk associated with anticipated climatic changes, natural disasters, and known changes in environmental standards	Asset criticality established and recorded in asset register
	Rank decisions on investment or disposal of assets on the risk posed to health, business, or the environment	Quadruple bottom line assessments are undertaken and documented for all projects
	Monitor value, progress, and risks to new or upgraded infrastructure and facilities through project management	Project reporting requirements established
Priority Setting	Guide the upgrade and new infrastructure expenditure on priorities established with key strategies – such as Integrated Transport, Integrated	Project development reflects QPRC key strategies, per CSP/DP

Asset Management Strategy 2020-2030

Key Focus Areas	Objective	Target
	Water Cycle Management, Local Strategic Planning Statement, Planning Agreements – designed to ensure ten years of forward planning and delivery for infrastructure networks and facilities is available	
	Provide resources to enable infrastructure designs and estimates to be one year in advance of scheduled delivery, to enable take up of grant or developer sponsored infrastructure funding	Project planning and initiation is to be coordinated prior to securing funding
	Renewal and investment in assets is financially and environmentally sustainable, and focussed on safety and prosperity for the LGA	Project prioritisation includes Quadruple bottom line assessments
	<p>Consider the economic, social, environmental and financial impacts of investment or decline in assets, including Trade-offs / consequences of asset management decisions such as</p> <ul style="list-style-type: none"> • expanding sealed road network and effects on maintenance and backlog, • design of new carparks (carparking strategy) type, cost, pricing consequences and behaviour influences 	Quadruple bottom line assessments are undertaken and documented for all projects

6.2 Asset Investments

QPRC has developed its long-term asset investment planning for the next 10 year period. Over this period, it is forecast investment in new assets and renewal of the existing asset base will be \$777 Million.

Asset Management Strategy 2020-2030

Table 7 – Long Term Asset Investment Plan

	Financial Year – Capital Works (\$,000)									
	FY/21	FY/22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
New						-	-	-	-	
Buildings	62,588,616	31,925,974	153,026	30,153,026	-	-	-	-	-	
Footpaths	825	-	-	-	-	-	-	-	-	
Other	1,074	4,040	-	-	-	-	-	-	-	
Other Structures	3,441	-	-	-	-	-	-	-	-	
Roads	39,968	7,152	7,000	5,000	-	-	-	-	-	
Stormwater	2,824	-	-	-	-	-	-	-	-	
Water	3,734	169	169	-	-	-	-	-	-	-
Sewer	8,273	30,540	30,540	30,397	11,357	13,773	-	-	-	-
Pools and Open Space	104	-	10,000	-	-	-	-	-	-	
Non-Cash New Assets										
Roads	6,127	7,000	7,158	7,319	7,438	7,652	7,824	8,000	8,180	8,364
Sewer Network	909	929	950	971	993	1,015	1,038	1,062	1,086	1,110
Water Network	571	584	597	610	624	638	653	667	682	698
Renewal										
Bridges	1,955	710	719	728	737	747	758	769	781	793
Buildings	8,202	11,822	104	3,103	4,579	4,634	4,723	4,814	4,907	5,002
Footpaths	83	411	417	423	429	436	443	451	459	497
Other	7,040	3,410	3,390	3,410	3,390	3,624	3,693	3,763	3,833	3,905
Other Structures	94	230	234	238	243	247	252	258	263	268
Roads	25,292	17,235	6,753	7,052	7,268	7,491	7,740	7,997	8,262	8,535
Stormwater	-	1,678	1,699	1,720	1,742	1,764	1,790	1,816	1,844	1,871
Water	2,870	2,556	7,631	2,340	2,382	2,425	2,474	2,525	2,577	2,631
Sewer	5,273	5,911	6,618	7,338	21,316	8,119	8,300	8,484	8,674	8,869
Pools and Open Space	1,747	208	308	314	321	327	335	343	351	359
Grand Total	182,995	126,511	84,440	101,118	62,864	52,892	40,023	40,949	41,899	42,872

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6.3 Major Project Visualisation

Together with Canberra Region Joint Organisation members, Council utilises software to record the nature, value, timing and status of key infrastructure projects. Premised on Council’s project management framework, the ‘Pipe’ software enables online publication of the funding needs, the status and shovel-readiness of projects across the region. It is used for advocacy for government grants and enables councillors, community and government to monitor progress in tabular and spatial form.

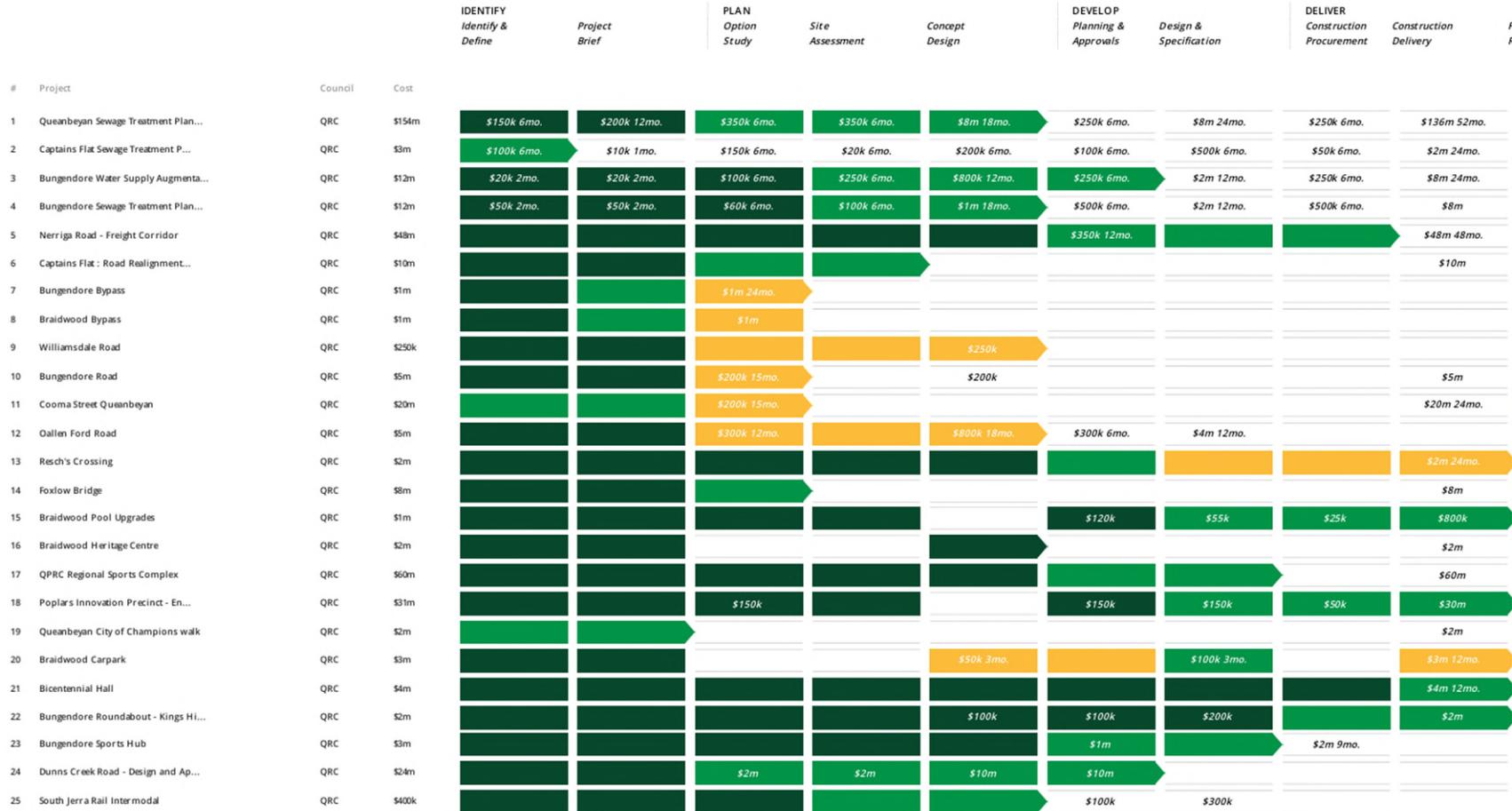


Figure 18 Program Pipe Example

Asset Management Strategy 2020-2030

6.4 Asset Forecasts

As QPRC matures as an organisation, asset management will form a major component in identifying future infrastructure funding requirements.

At present, infrastructure funding is a combination of annual budgeting and reactive grant based funding/borrowing for new assets. This process often provides sub-optimal financial outcomes and can result in poorly implemented infrastructure being delivered.

Decisions on asset growth projects are often influenced by political cycles without consideration of asset management requirements. The asset management decision making framework should not prevent political influence to occur but should rather be used to provide information that can allow the influences to be more thoroughly considered in terms of whole of life costings.

Detail on the management of QPRC's infrastructure funding are provided in QPRC's Financial Strategy which guides the desired funding levels and expenditure ratios for Council's assets.

The following charts illustrate the predicted asset ratios as a result of applying Scenario 3 adopted with the LTFP and the investments outlined in 8.2.

Table 8 – Financial Asset Ratios

