DRAFT

Infrastructure Asset Management Strategy

2021 - 2025

Image: Willow Grove Pavilion

Contents

West Gippsland Arts Centre, Warragul

Agile asset management is critical to ensure Council can deliver its services utilising and optimising our assets to support our growing community.

Foreword

Baw Baw Shire Council (Council) manages and maintains a diverse infrastructure asset portfolio through which it delivers a broad range of services to the community. These infrastructure assets have a replacement value of $836M as of 30 June 2020.

Local Governments throughout Australia are facing the critical issue of managing their ageing infrastructure, which requires renewal and replacement.

Local Government infrastructure assets have a net worth of more than $345B (2018), with roads infrastructure accounting for the largest percentage of the net worth at 39%. Depreciation of these assets is a significant component of the operating expenditure in Local Government, with infrastructure assets reducing in value a rate of approximately $5.5B per annum.

The creation of new infrastructure assets also presents challenges in funding the ongoing operation and maintenance costs necessary to provide the required level of service over the life of infrastructure assets.

This Infrastructure Asset Management Strategy has been prepared to enable Council to improve the long-term management of its infrastructure assets. It establishes a framework and provides a set of actions aimed at enhancing asset management in the organisation. The strategy aligns with the objectives of the Council Plan to assist achieving the outcomes of the Council Plan.

Purpose and Scope

The purpose of this strategy is to integrate Council's strategic objectives, with the desired service delivery outcomes whilst addressing future challenges, by developing a set of actions that aim to improve the asset management functions of the organisation and ensure that Council's assets are providing value for money.

The Infrastructure Asset Management Strategy is intended to identify how the asset management process will respond to the challenges of managing infrastructure assets sustainably, which underpins Council's delivery of services to the community.

The Infrastructure Asset Management Strategy applies to all infrastructure assets which are owned, controlled or managed by Council.

Our Story

Background

Baw Baw Shire is one of Victoria's fastest-growing municipalities. Located 100 kilometres east of Melbourne CBD, the Shire offers a mix of rural and urban living with affordable housing, scenic views and a relaxed lifestyle. These factors make the Shire an attractive option for new residents, leading to unprecedented growth.

Baw Baw Shire covers approximately 4,027 square kilometres of high-quality farmland, national parks and residential areas. The northern half of the Shire is heavily forested and lies in the Great Dividing Range, while the south is bound by the Strzelecki Ranges. The Shire's largest towns are located along the rail and road corridor which provide direct and easy access to the suburbs of Melbourne.

The current population is approximately 53,400, most of whom live in the towns along the rail and road corridor of Longwarry, Drouin, Warragul, Yarragon and Trafalgar.

There exists a high commuter workforce within the Shire which utilises regional rail and road networks to travel to and from work. Residents also commute for day to day community activities and access to services outside of the municipality.

The major industries within the Shire include manufacturing, construction and agriculture, with the largest employers being healthcare, agriculture and education.

What Council Manages

Council manages and maintains a diverse infrastructure asset portfolio through which it delivers a broad range of services to the community.

The primary services include but are not limited to:

- family & children services
- aged & disability services
- public health services
- economic & tourism development
- arts and culture
- events management
- waste management
- emergency management
- regulatory services
- planning and development
- environment & natural resource management
- recreation & sports, parks & reserves management
- transportation and stormwater drainage management.

These are delivered through four key asset themes of Transport, Stormwater Drainage, Buildings and Open Space assets.

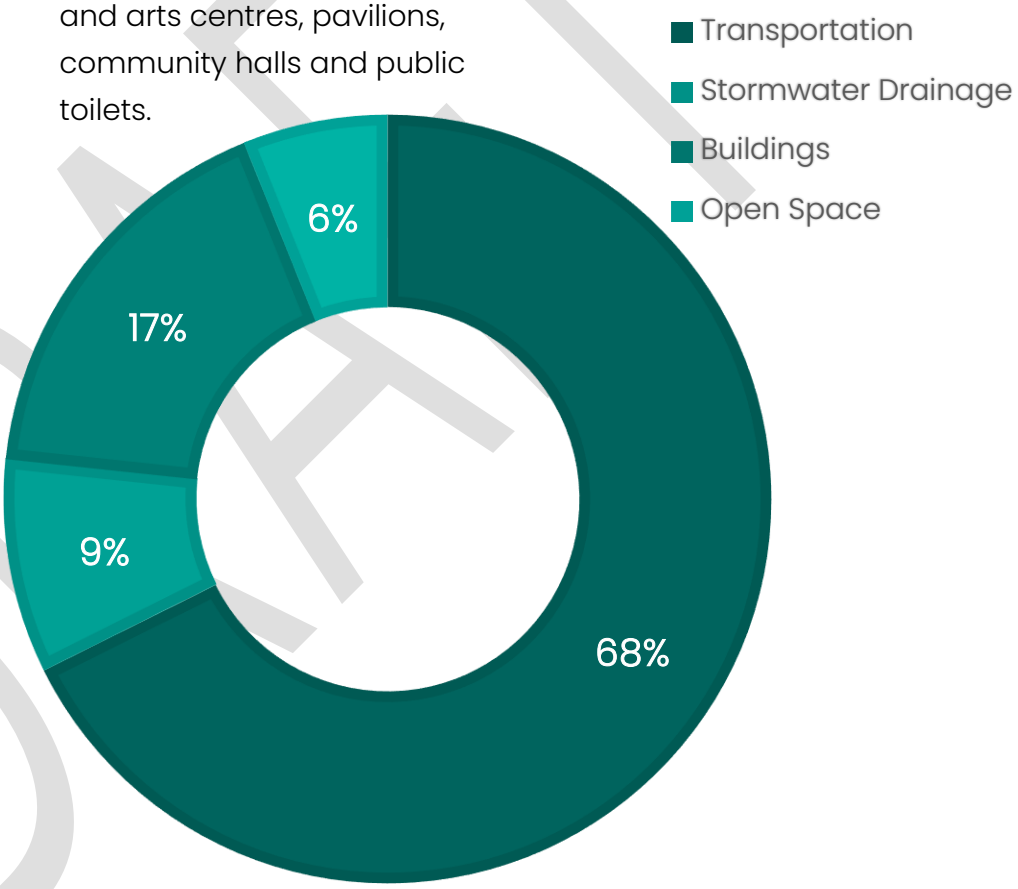
Transportation assets include the Roads, Bridges, Car Parks, Kerb and Channel, Paths.

Stormwater Drainage includes all underground pits and pipes, crossroad culverts and retarding basins and dams.

Buildings include all major facilities such as the leisure and arts centres, pavilions, community halls and public toilets.

Open Space assets include all active and passive assets located within our reserves such as playgrounds, seats, bins, fencing and shelters.

The table below provides a summary of the replacement values of Council infrastructure assets as of 30 June 2020.



Asset Class	Replacement Value	Annual Depreciation (2019-2020)
Transportation	$556,770,947	$11,791,806
Stormwater Drainage	$88,228,770	$779,165
Buildings	$140,295,793	$2,309,376
Open Space	$51,404,188	$2,811,031
Total	**$836,699,697**	**$17,691,378**

SECTION TO BE UPDATED UPON REVIEW AND ADOPTION

OF THE COUNCIL VISION AND PLAN (MID 2021)

SECTION TO BE UPDATED UPON REVIEW AND ADOPTION

OF THE COUNCIL VISION AND PLAN (MID 2021)

Key Stakeholders

Council's critical stakeholders for managing infrastructure assets to ensure service delivery are:

- Ratepayers and residents
- Industry and other businesses
- Visitors and tourists
- Councillors
- Government departments
- Employees and Volunteers
- Utility providers
- Developers
- Contractors and Suppliers
- Local Government Insurer
- State and Commonwealth Government
- Council employees

Our Commitment

Asset Management Vision

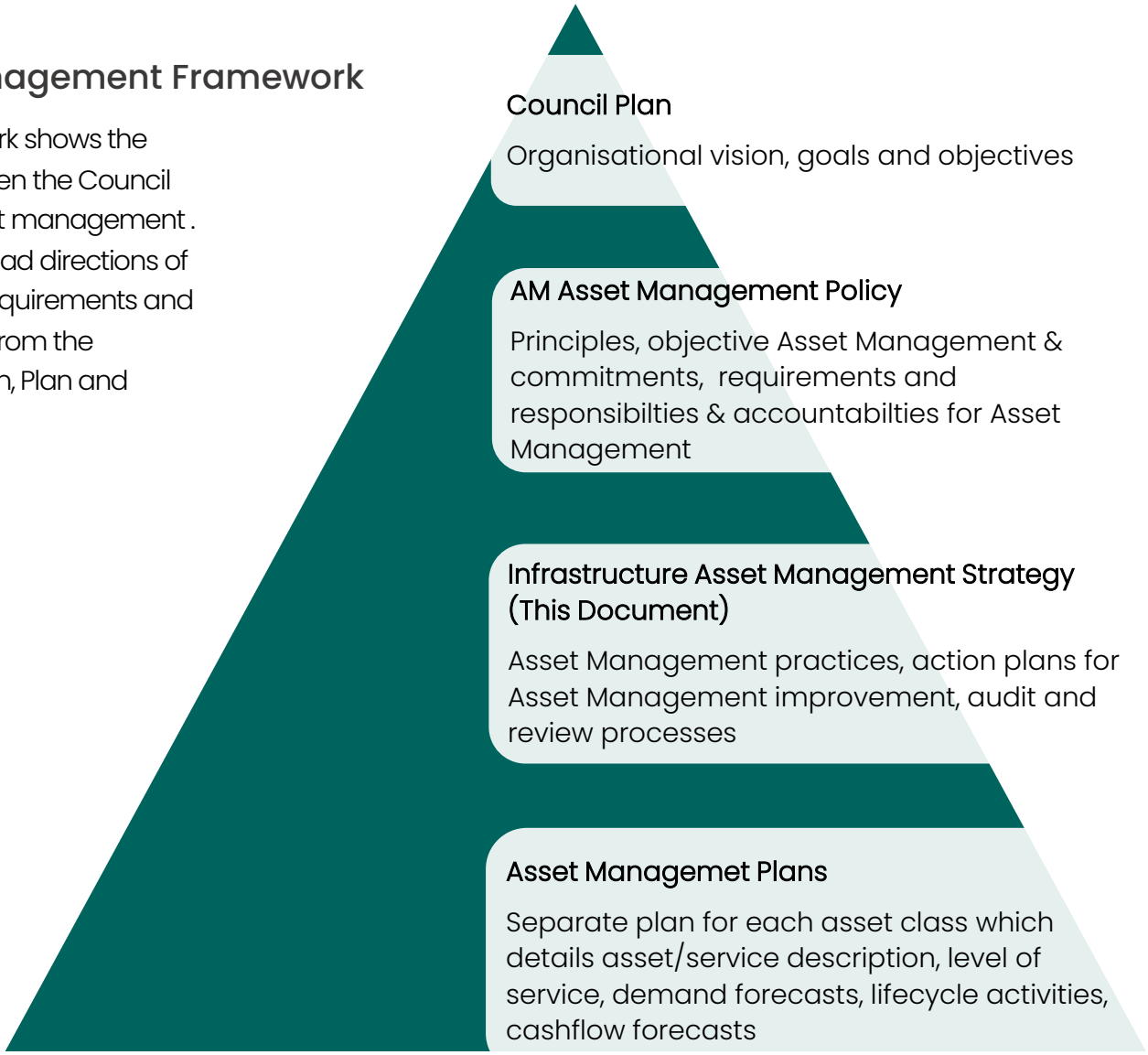
To provide effective infrastructure asset management that delivers the agreed levels of service, cost-effectively and sustainably to both the present and future Community of Baw Baw.

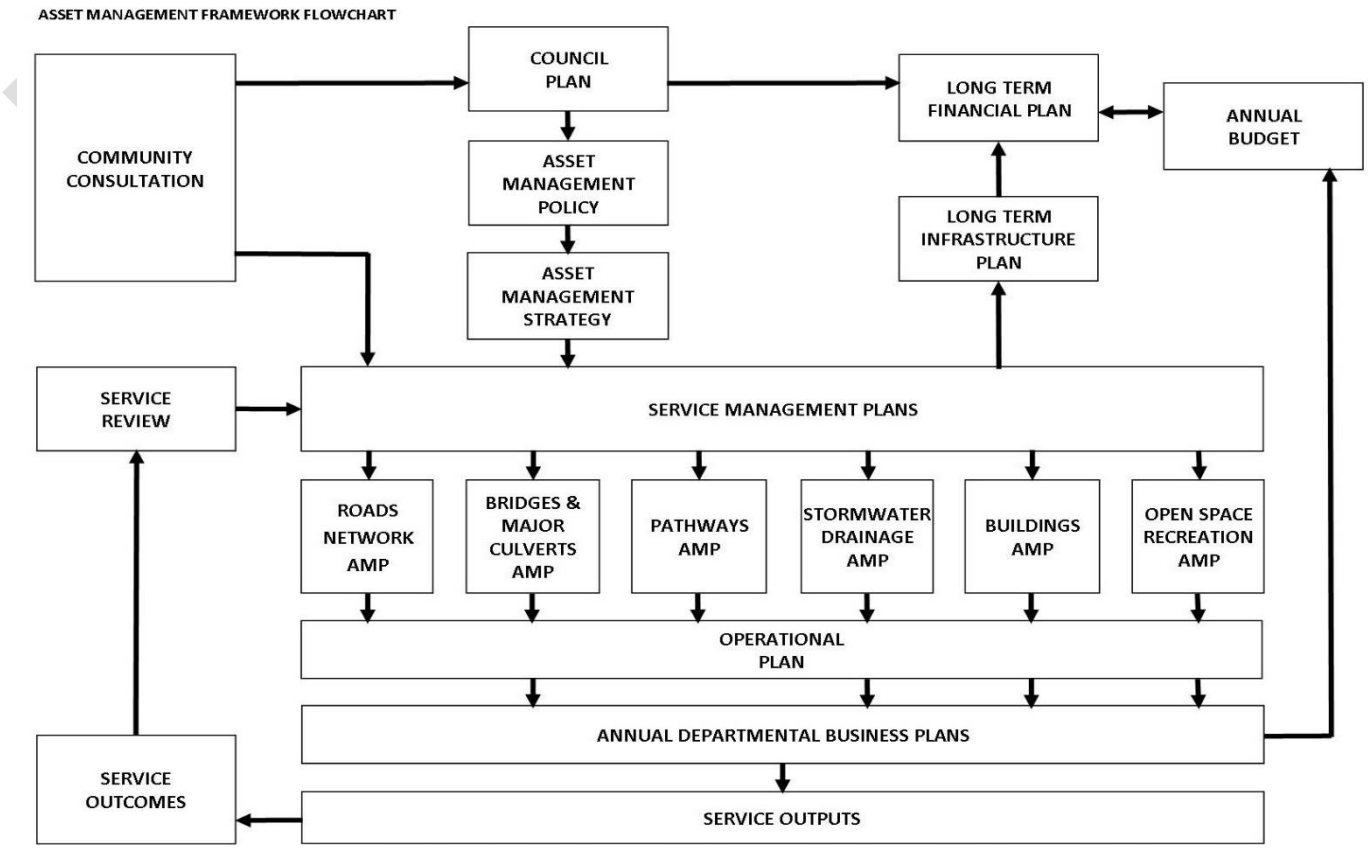
The asset management vision is supported by the following objectives and commitments outlined in the Asset Management Policy:

- Applying the stewardship responsibilities placed on Council for the lifecycle management of community infrastructure assets that support services which are appropriate, accessible, responsive and sustainable.
- Recognising community input to determine the required service needs of community connection, health and wellbeing.
- Applying sound service and asset management principles and implementing a coordinated approach across the whole organisation.
- Implementing and improving the procedures, processes, systems, information and technologies that support the management of infrastructure assets.
- Implementing long term financial and asset planning to effectively manage finances to ensure it maintains the asset capacity to provide the required services for the present and future communities.
- Prepare and implement asset planning by undertaking lifecycle asset management for each asset class inclusive of planning, design, construction, acquisition, operation, maintenance, renewal/replacement and disposal of infrastructure assets.
- Prioritising sufficient funds for the core expenditures, i.e. operating, maintenance and renewal/ replacement of existing infrastructure assets in preference to the discretionary expenditures, i.e. new, upgrade and expansion.
- Prepare and implement asset renewal/ replacement programs for each asset class supported by Asset Management Plans (AMP).
- Prioritise asset renewal and replacement based on the current condition assessment of infrastructure assets, defined intervention levels and agreed upon criteria.
- Monitor and report asset renewal/replacement performance by Asset Renewal Funding Ratio .
- Investments in new, expansion and upgrade of infrastructure shall be supported by the whole lifecycle cost (WLCC) of the asset.
- Providing asset management and related financial training and professional development programs for staff to facilitate and implement an asset management culture and ownership across the whole of Council.

Asset Management Framework

The Framework shows the linkage between the Council Plan and asset management . It draws its broad directions of community requirements and expectations from the Council's Vision, Plan and Objectives.





Our Challenges

Political

Council, and the its elected Councillors, take a stewardship role in the management of the community's infrastructure assets for on behalf of current and future generations.

Baw Baw Shire Council consists of nine Councillors spread evenly across three wards, representing residents, ratepayers and visitors to the Shire with Council elections held every four years.

Effective stewardship and asset management often require elected representatives to make strategic decisions within a four year Council term, which often result in benefits to the community many years later.

The growth occurring acroiss the Shire is creating immediate demands on Council for the upgrade and expansion of its current infrastructure assets, as well as creating new assets. These immediate demands, place political pressure on elected representatives to respond to these needs.

The challenge for Council is to ensure that responding to these immediate demands, does not come at the consequence of adequate investment in the renewal of its existing infrastructure assets.

This creates significant competing demands, and places political pressure on Council, particularly within a rate capped environment, which makes increasing capital investment challenging.

Baw Baw Shire Council is also recognised as a peri-urban municipality. The growth within peri-urban municipalities within Victoria, has led the State Government to include peri-urban councils in having access to funding programs that respond to the demand for new assets due to this significant growth. An example of this is access to the Growing Suburbs Fund.

The challenge for Council is to ensure it is strategic in its planning for upgrade, expansion and new assets, in order to access these types of funds to better leverage Council's own funds, thus freeing up finite capital for renewal investment.

The Federal Government also recognises the significant role of local government in providing services to the community and as stewards of community infrastructure. This is evident in funding programs such as Roads to Recovery (R2R) and the Bridges Renewal Program, which assist Council's to fund renewal of its road related transport infrastructure.

Whilst this adequately assists Council to improve road infrastructure assets, there are limited external funding opportunities for the renewal of building, facilities and open space assets, which for Council are the asset classes that collectively require a significant renewal investment due to the age of these existing assets.

Environmental

Environmental sustainability is a commitment to protect the environment, or at a minimum, limit adverse environmental effects. The benefits of infrastructure assets can have an impact on the environment, such as dust from unsealed roads or motor vehicle exhaust gases. However, infrastructure assets can also deliver environmental benefits. For example, the provision of the treatment of stormwater through wetlands, retarding basins and water sensitive urban design assist Council to prevent the degradation of the natural environment and impacts of untreated stormwater. These infrastructure assets also improve water quality, assist in providing greater flood prevention and protection, and reduce the potential downstream impacts along waterways.

The frequency of significant weather events and natural disasters, i.e. fires, floods, landslides, droughts and pandemics has increased in recent years across the Shire. This impact is a challenge for Council to measure and identifiy the improvements and futureproofing of infrastructure assets to respond to these changing conditions.

Furthermore, this also poses challenges in managing and addressing legacy issues with undersized and inferior infrastructure to cope with the changing weather conditions.

The following key environmental factors have been identified, and impact on Councils management of the infrastructure due to significant weather events:

- Impact on material properties and subsequent reduction in the useful lives of infrastructure assets.
- Loss of or damage to infrastructure assets due to natural disaster events like flooding, bushfires and landslides.
- More extensive stormwater drainage and other infrastructure requirements to handle flash flooding or more frequent heavy rainfall events.
- Likely impact on the level of external grants and funding directed to Council from state or federal government, as funding may be diverted to natural disaster-affected areas, or in response to the COVID-19 pandemic.
- Financial impacts due to the Victorian State Government Recycling economy policy which encourages the use of recycled materials.

In addition to the impacts outlined above, the creation of infrastructure assets can have an impact on climate change by creating carbon footprints. Climate change and the use of resources are closely related, thus it is essential that Council maximises the use of renewable resources to help address the environmental impacts. Optimising lifecycle costs; materials, construction methods, environmental effects and energy use should all be considered in the decision-making of Council to reduce its carbon footprint and become more environmentally sustainable.

While environmentally sustainable practices and materials may have higher short-term costs, the effects of any additional investment should be analysed over the long term. They may well be more effective, as well as being better for the environment.

Social

Social sustainability refers to fairly balancing the benefits and impacts of activities across socio-demographic groups. A combination of a reducing funding base, low affordability, ageing infrastructure and declining and/or ageing population (in some areas) creates a considerable challenge for Council.

The 2020 population of Baw Baw Shire is estimated to be 53,400. This is expected to rise to 75,800 by 2036 which is an almost 40% increase compared to the 2020 population. While our community grows, we are also changing.

In essence, our society is ageing, and residents will likely become more culturally diverse. In the 2016 census, just over 28% of the Victorian community were born overseas. Between 2011 and 2016, 37% of people moved to Baw Baw Shire from elsewhere in Australia, and 1.2% moved from overseas. In 2016, 10.8% of people in Baw Baw Shire were born overseas.

The majority of residents in the Shire reside in the towns along the rail and road corridor of Longwarry, Drouin, Warragul, Yarragon and Trafalgar. At the same time, some rural and remote communities away from the central growth corridor are declining in population, creating challenges for providing the services and facilities they need.

The outward growth of Melbourne has Baw Baw Shire positioned within commuting distance of the expanding metropolitan area. It is attracting new residents looking to take advantage of the availability of affordable housing while experiencing a rural town lifestyle. Rapid population growth will place increasing pressure on the existing services and infrastructure Council manages.

The term "customer" which is explored on the following page has a broad meaning; generally, as follows:

- Anyone who uses the asset.
- Is affected by it.
- Or has an interest in it, whether now or in the future.

It typically refers to the end-user of the service.

Example:

Customer Group Segmentation

Asset Class / Service	Associated service providers	Users	The wider community
Transportation	Contractors, Transport operators, Emergency services, Utility providers, VicRoads and other government departments	Private drivers, Drivers of public transport services & operators, Drivers of freight transport, Pedestrians, Cyclists.	Ratepayers, Residents, Industry, Businesses, Visitors, Tourists.

The following are the key social factors that are impacting the management of Council's infrastructure assets:

- Changing customer expectations, i.e. the desire for a higher level of service. For example, a reflection of Council performance against state government infrastructure assets, such as Arterial Roads.
- A requirement to increase the operational and maintenance asset costs and resource requirements to manage the increase in infrastructure assets.
- Increasing future long-term renewal demand (today's assets and future liability) due to growth and consequently addition of new infrastructure assets.
- Demand for more services and infrastructure in the urban area and townships near and surrounding the road and rail corridor due to growth.
- Underutilisation of infrastructure assets in remote rural areas, due to a drop-in service demand as populations decline.
- Challenges in service planning requirements to accommodate the changes in demographics, such as growth areas, may require services focused on kids and youth. Whereas an area showing an increasingly ageing population may require infrastructure for the elderly, such as disabled car parking and aged care centres/hubs.
- Social sustainability and unfair distribution of service costs, i.e. creating new long-life, intergenerational infrastructure that is funded by the current ratepayers.
- The increased litigious attitude within the community.

The recent growth in the municipality provides challenges for current and future resources. Newly created infrastructure does not require immediate maintenance and renewal. However, in the long term, when infrastructure assets begin showing deterioration with age, this will create large peaks of maintenance, renewal and replacement for Council to manage and address. This will impact Council and requires enormous financial and human resources to manage them sustainably.

Lastly, the underutilisation of infrastructure assets and facilities in shrinking rural and remote areas is a challenge for Council to manage and invest in due to the low population density and increasing operation and maintenance of the infrastructure in these locations.

Technological

New and emerging technologies can provide both opportunities and challenges to the organisation for the management of infrastructure assets.

The key emerging trends and opportunities in new technology that Council can leverage include:

- Accurate and improved data collection at a lower cost due to emerging technologies.
- Challenges in the understanding of data requirements, i.e. the need to develop a clear understanding of what we need, why we need it and how to use it.
- Challenges in the collection and management of asset data of all classes (not just the big five – Roads, Drainage, Facilities, Open Space and Plant), to demonstrate that Council is managing infrastructure assets responsibly.
- Improved reporting and easy data sharing due to emerging technologies.
- Improved strategic modelling provides the ability to monitor and predict lifecycle management of infrastructure assets, with the advancement in Asset Information Management Systems and Asset Modelling Systems.
- Environmentally friendly due to low carbon footprints, and lower maintenance costs due to new and improved construction materials, including recycled materials.
- A requirement of new infrastructure to respond to the increase in electric cars.
- Less car parking space requirements due to self-driven cars.
- Less need for physical infrastructure with the increased use of virtual technology.

The fast paced development and emergence of new technology will be an item for Council to continue to monitor and adapt to to ensure that it remains agile and capable of responding to the ever growing challenges and changes across the Shire.

Economical

Local Governments are considered financially sustainable over the long term when they can generate sufficient funds to provide the levels of service and infrastructure at agreed levels with their customers.

The availability and sourcing of funding will affect the level of asset management performance that can be achieved by Council, and the risks associated with service delivery. Affordability issues and financial constraints often lead to organisations not meeting the expected levels of service from their customers. Council into the future may not be able to afford an economically efficient programme that optimises lifecycle costs over the long term that matches the community expectation.

The Victorian Government is committed to a policy of 'capping' local government rate increases at CPI to contain the cost of living and ensure greater accountability and transparency in local government. The system ensures that rates are 'capped' at a level that allows local Councils to continue to be financially sustainable, whilst still being able to provide essential services and make necessary investments into the infrastructure to support the services delivered by Council.

The key challenges and opportunities identified for the financially sustainable management of infrastructure for Council are:

- Limited budgets due to rate rises removed or frozen.
- Due to limited budgets, the focus needs to move to key strategic projects, which provide the most significant benefit to the community's needs, rather than responding to the loudest requests.
- Low-cost finance available due to historically low levels of interest.
- Increase or decrease in interest rates impacting on operational costs for borrowing to invest in new capital projects.
- Borrowing money to deliver intergenerational projects; thus, the cost of these future assets is being paid for by future users and not the current communities.
- Minimum grant opportunities in the past at both State and Federal levels from being in a safe seat. The likelihood of this changing is low, however, population shifts could result in Baw Baw becoming a marginal seat.
- Access to the Growing Suburbs Fund which will help support in delivering the infrastructure needs of the community.
- Exploration of more external grants and funding to assist Council to invest in the infrastructure assets.
- The bottom line impact to the recognition and acceptance of assets handed over from development across the shire growing at rate greater than the rate cap.

Legal

The new Local Government Act 2020 (LG Act) requires an integrated planning and reporting framework. It locates the Council Plan and Budget at the centre of strategic decision making and accountability. The LG Act sets out Strategic Planning principles, which Councils must take account of in formulating their strategic planning documents. Councils have the following requirement under the LG Act, but is not limited to:

- A long-term community vision developed in consultation with the local community and articulating its vision for the municipality, including both what the Council will deliver and areas of responsibility of others in the municipality.
- A financial plan with a 10-year outlook.
- An AMP of 10 years.

According to the LG Act, Council must develop, adopt and keep in force a ten-year AMP. These plans must include the information regarding the maintenance, renewal, acquisition, expansion, upgrade, disposal and decommissioning of each class of infrastructure assets under its control. These plans also require deliberative engagement and open and transparent consultation with the community.

Other asset management regulatory provisions stem from the requirements to meet the relevant Australian Accounting Standards set by the Australian Accounting Standards Board (AASB), which are as below:

- AASB 116 Property, Plant and Equipment
- AASB 13 Fair Value Measurement
- AASB 136 Impairment of Assets
- AASB Interpretation 1030, Depreciation of Long-lived Physical Assets: Condition-based Depreciation and Related Methods

Recently the Victorian Government has passed a legislation Professional Engineers Registration Act 2019 (PER Act). As per the PER Act, a person providing professional engineering services will need to be registered. The scheme will enable the community and government organisations to purchase engineering services with confidence. Most professional engineers will be required to hold a formal registration or licence due to their pivotal role to ensure public safety in performing the complex and important asset management work.

Key challenges in respect to legal aspects identified in the management of infrastructure assets are:

- Long-term Infrastructure asset management Planning requirements posed by the LG Act.
- Alignment and linkage of AMP's with Financial Plans due to the LG Act.
- Brown-field vs Green-field valuation – impacting asset depreciation and consequently underfunding of asset renewal and replacement.
- A short-term shortage of registered engineers due to the PER Act.
- Likely to increase the quality of engineers available to undertake this work.

Waterford Rise, Warragul

How We Will Respond

The pathway to achieving best practice asset management is a continuous journey of improvements in policies, procedures and processes.

Baw Baw Shire is committed to making several strategic improvements to manage infrastructure assets by adopting this Infrastructure Asset Management Strategy.

The strategic improvement actions in this strategy are based on general principles like ensuring Council has the right data at the right time, with the right intervention levels and the right treatments for the current and future infrastructure asset requirements to sustainably meet the community expectations.

The strategic improvement actions are categorised into three themes: Data, Planning for iNfrastructure and Governance, to address the strategic issues and risks the organisation is facing.

Data

Asset data is the foundation for enabling most asset management functions. Understanding what infrastructure assets the organisation owns, along with key supporting information such as their value and age, is a fundamental starting point for many asset management processes.

To operate and maintain infrastructure assets, staff need to locate and identify them. To accurately value infrastructure assets, sufficient data is required to calculate replacement cost (e.g. size, type) and remaining life (e.g. age, expected life, physical condition).

Baw Baw Shire will focus on selecting and capturing the right type of data to enable asset management functions. The ongoing management and maintenance of asset data will be considered at all levels of Councils processes.

The data will be collected and maintained on the general principles of ensuring data is complete, accurate and consistent.

Baw Baw Shire will have a single Asset Information Management System (**AIMS**) to store the asset data required for strategic decision-making, with multiple sources of data being discouraged or moved into the centralised system.

This includes a wide range of data collected throughout the life of the asset, including design & construction information, asset attributes, spatial coordinates, financial data including construction costs, revaluations and depreciation costs.

All infrastructure assets within the asset registers will be spatially represented, such that it can be used by decision-makers to visually represent infrastructure asset data and information quickly and easily.

Strategic Actions

Council will:

1. Enhance our data, processes and systems to ensure data is complete, accurate and consistent.

2. Use data to inform and improve the messaging of our decision making that is transparent, repeatable and consistent.

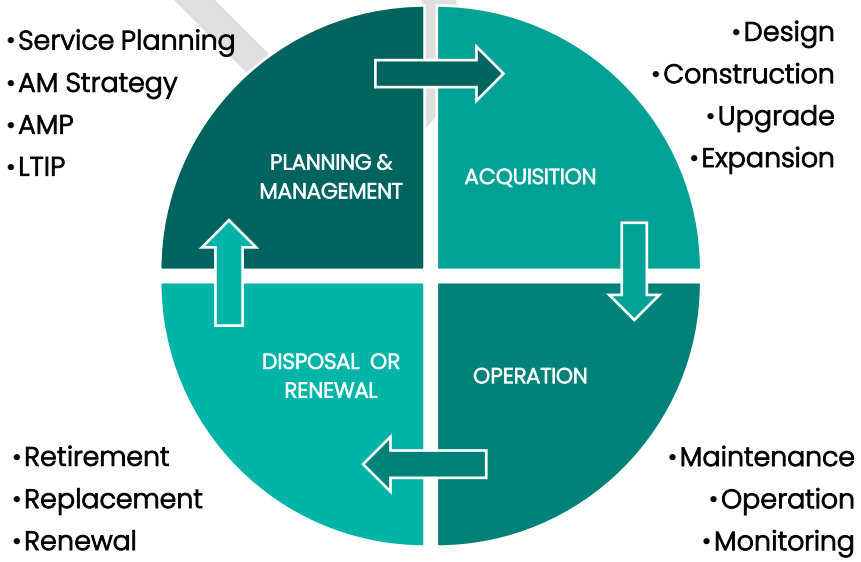
Planning for Infrastructure

Council is facing a financial challenge in terms of the cost to renew its infrastructure assets and facilities. Historically, the investment in the capital renewal planning has not ensured that sufficient capital funds for asset renewal and replacement have been allocated or invested into the existing assets under Council's control.

As a result, Council now faces a backlog of underfunding for the renewal and replacement of infrastructure assets, posing a critical risk of higher future costs to renew and upgrade the infrastructure assets to meet the changing demands and expectations of the community.

Baw Baw Shire will continue delivering services to the community by adopting a whole of life lifecycle approach that includes the Planning and Management, Acquisition, Maintenance and Disposal or Renewal aspects as shown in the diagram below. This will enable decision-makers to make critical decisions throughout the life of the asset with a focus on a portfolio of infrastructure assets or network planning approach to be adopted for each phase of the asset's life.

Documentation, including processes and procedures, will be developed for decision making at each stage of the asset's life. This documentation will support decision-making and will be prepared considering service planning, asset investment, both capital and operational, not only for now but also what is required in the future.



Decisions around the acquisition and inclusion of donated assets will be made considering the whole lifecycle cost, not just the capital funding for construction to build an asset. The total asset operating cost not only includes construction, donation or acquisition costs, but it consists of all Operating and Maintenance costs required throughout the entire useful life of the asset. This will enable Council to make evidence-based, transparent decisions and ongoing commitments to future operating and capital costs.

Strategic Actions

Council will:

3. Develop 10-year asset management plans that are integrated into Councils integrated reporting framework through deliberative engagement.

4. Utilise community and technical levels of service in decision making.

5. Integrate condition, capacity, function and whole of lifecycle cost into asset planning and modelling.

Governance

Baw Baw Shire will place a governance structure within the organisation and provide resources that will enable it to deliver the asset management objectives. The organisational structure and asset management roles will be clearly defined and allocated to officers and teams to ensure the asset management outcomes are delivered.

In the absence of formal asset management training and qualifications in the past, many organisations expect an asset operator to fulfil the asset management planning function without fully understanding the requirements of the role. Organisations may also misunderstand the resourcing and skills required to implement an asset management programme.

As a result, the deficiencies in capabilities and resources are often cited as a reason for unsatisfactory asset management progress. Modern asset management skill requirements have changed significantly, in that it now requires not just the technical asset expertise, but strategic and financial planning skills, stakeholder communication and engagement skills.

Baw Baw Shire will focus on the team's required levels of competencies and capabilities to deliver asset management roles effectively. Capability development will not only focus on the core asset management team staff, but everyone who has a role in delivering effective asset management . It will also ensure that the right team members are doing the right job in delivering asset management objectives.

An improvement plan will also focus on asset management documentation, including business processes. These can be simple or complex, step by step procedures involving business functions, decision-making requirements, task dependencies and defining roles & responsibilities. The processes will be developed with the general principle of assuring effective planning, operation and control of infrastructure assets, as well as providing an authorising and decision-making environment.

Strategic Actions

Council will:

6. Support the oversight and implementation of improved asset management practices to be more accountable to the community for asset management outcomes.

7. Define roles and responsibilities for service managers, asset managers and maintenance managers.

Delivering this Strategy

Continuous improvement is fundamental for the progression of asset management and its practices. Baw Baw Shire has taken a long term vision for asset management by adopting an asset management Policy. This policy supports Council to build its capabilities towards best practice asset management by adopting an Infrastructure Asset Management Strategy to implement and deliver on asset management outcomes in the management of infrastructure assets.

Many Councils tend to pause their asset management implementation by making it over-complicated and losing sight of the never-ending cycle of continuous improvement.

This strategy will be reveiwed every four years, initially focussing on the seven key strategic actions that Council will implement over the coming four years.

Whilst the current challenges and associated impacts have been analysed, many more strategic improvements have been identified to implement best practice management of Council's infrastructure assets into the future. These future strategic improvement actions will be reviewed and developed in the next review.

Implementation

A four-year plan outlining the implementation, monitoring and evaluation of the seven strategic improvements will be developed.

It will identify responsibilities, provide success measures, timeframes and financial implications, and be tracked in Council's corporate reporting system.

Monitoring

The Infrastructure Asset Management Strategy will be monitored annually, including the progress of the four key strategic improvement actions. A full review will be conducted in the fourth year aligned with the Council term.

Baw Baw Shire Council will actively benchmark its approach and asset management Systems with the International Infrastructure Management Manual and Australian Infrastructure Financial Management Manual by the Institute of Public Works & Engineering Australasia (IPWEA).