

Attachment 7 to Item 10.2.2.

Asset Management Plans 2025

Date of meeting: 10 June 2025 Location: Council Chambers Time: 6:30pm



ASSET MANAGEMENT PLAN

ROADS & TRANSPORT RESOURCING STRATEGY



25 km/h

REDUCE SPEED



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STATEMENT OF COMMITMENT TO FIRST NATIONS PEOPLES

Council acknowledges the Dharug and Darkinjung people as the Traditional Custodians of the land throughout the Hawkesbury.

Council recognises the continuing connection of First Nations people to their Country and respects the cultures and histories of Aboriginal and Torres Strait Islander peoples as the first peoples of this land.

W Marks #





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EXECUTIVE SUMMARY

This Roads and Transport Asset Management Plan details the lifecycle management practices for the Roads and Transport Assets group. This group includes bridges, road pavements, kerb and gutter, footpaths, street furniture, road signs and markings, traffic management devices, ground level carparks as well as roads, pathways and carparks in Council's parks and recreation areas. These assets, if they were built today, would cost approximately \$1 billion (excluding the cost of land and bulk earthworks on which the infrastructure is built).

The primary goal of this plan is to deliver the defined levels of service in the most cost-effective manner, addressing both current and future needs of the community. The key objectives of this plan include:

- Establishing detailed technical and operational service level criteria to meet the community's expectations.
- Developing and managing whole-of-life models to enable affordable and costeffective management of the Roads and Transport Infrastructure assets.
- Developing and maintaining a 5-year forward works plan.
- Contributing to the development of Long Term Financial Plan (LTFP) scenarios.
- Implementing ongoing auditing, compliance, and review practices for this plan.

To support the LTFP, three scenarios have been developed–Decline, Improve, and Resolve–to demonstrate the opportunities and risks associated with various funding models within the LTFP and Asset Management Strategy.

Hawkesbury Council is dedicated to delivering the service levels outlined in the Asset Management Strategy. Under Scenario 3: Resolve, which requires an annual investment of approximately \$30 million across all asset classes, the estimated available funding for Road assets over the next 10 years will increase to \$20 million per year. While this is a significant improvement, it still leaves a budget shortfall compared to the actual needs for maintenance, renewal, and upgrades.

Although Scenario 3 will substantially reduce the backlog of unfunded renewals, some asset needs will remain unmet each year, particularly in lower-priority areas. This scenario represents a proactive approach, but achieving full funding for all roads asset requirements will still demand careful prioritisation and ongoing efforts to secure additional resources.

Finally, a detailed plan, including strategic actions, has been developed to enhance the organisation's asset management maturity.

INTRODUCTION & BACKGROUND

OUR CITY

The Hawkesbury is a unique area located in the Hawkesbury River Valley. It is the largest Local Government Area in the Sydney Metropolitan Region, covering approximately 2,776km². Our population is relatively small with 68,156 people calling the Hawkesbury home.

The Hawkesbury and its townships, rural villages and landscapes share a rich and enduring Indigenous and European cultural heritage. The area has significant geographical range and diversity.

Prior to European settlement the area was inhabited by the Dharug and Darkinjung peoples for over 40,000 years. The Hawkesbury River (known as Dyarubbin by the Dharug people) was a focus for those people. Its tributaries and floodplains provided abundant natural resources and were places of strong social and spiritual significance for the First Australians. It has been estimated that there were up to 3,000 Aboriginal people living in the Hawkesbury area in 1788.

European explorers first arrived in the Hawkesbury in 1789. It is the third oldest European settlement in Australia. Windsor (originally Green Hills) which was established in 1794, is one of five 'Macquarie Towns', four of which are located within the Hawkesbury. Governor Macquarie had a profound influence on the development and landscapes of the Hawkesbury, which included naming the townships of Windsor, Richmond, Wilberforce and Pitt Town and the layout of their streets, cemeteries and town squares.

The Hawkesbury Local Government Area straddles the divide between the urban metropolitan councils to its east and the rural councils to its west. While it is classified as part of Metropolitan Sydney, its unique blend of urban and rural settlements is uncharacteristic of the metropolitan area.

The Hawkesbury is therefore classed as a metropolitan-rural area by virtue of its location and its natural assets, including its natural beauty, its five rivers and their tributaries, its mountains, national parks and wilderness areas. The heritage towns of Windsor, Richmond, Pitt Town, Wilberforce and Ebenezer are all located within the Hawkesbury.

The agricultural lands that surround the Hawkesbury's towns and villages represent the oldest rural land holdings under continuous cultivation within Australia. The Hawkesbury also contains the oldest church, hotel and public square. Thompson Square, located in Windsor, was named and established by the then Governor Lachlan Macquarie in 1811 as recognition of the emancipist Andrew Thompson. Thompson Square and its immediate surrounds is also recognised as the oldest surviving public square in Australia.

These historical and cultural assets are actively being used to support cultural expression, tourism and economic activity. They remain integral to the future identity and prosperity of the Hawkesbury.

Council is committed to engaging the community on its future plans and strategies. It is important that Council continues to develop and discuss options with its community on the future funding of asset renewal and maintenance and the key areas of priority. A snapshot of the range of Council's Road Infrastructure assets is shown on the following page.

BUILDINGS

STORMWATER

ROADS

OPEN SPACE



787km of sealed road 285km of unsealed road **KERB AND GUTTER**



Over **397km** of Kerbs built within the Hawkesbury

FOOTPATHS

Over 197km of Footpaths built within the Hawkesbury



ROAD SIGNS

Over 8259 individual warning and regulatory

signs

BRIDGES



GROUND LEVEL CARPARKS



STREET FURNITURE



Over 1041 of Street Furniture built within the Hawkesbury including bike rack, bollards, bus shelters, litter bins, seat/benches, water fountain etc.

TRAFFIC MANAGEMENT DEVICES



Over 871 individual units

including:

- 33 Roundabouts
- 367 Median Islands
- 91 Pedestrian Crossings
- 4 Pedestrian Fencings
- 4 Wombat Crossings 22km of Guard Rails & Safety Barriers

PURPOSE OF THE PLAN

Asset management planning is a systematic process that aims to manage infrastructure and other assets on a lifecycle basis, with optimal funding to ensure the ongoing delivery of satisfactory levels of service to the community.

This plan demonstrates how Council utilises asset data to research, analyse and plan for the ongoing construction, maintenance and operation of the assets in the Roads and Transport group. This enables informed decision-making to create a sustainable and reliable environment for the community. This plan details for Council's Roads and Transport group:

- The current state of assets
- The medium-term (10 Year) financial plan required to maintain the current levels of service
- A Five-Year Forward Works Program which outlines the renewal, upgrade, demolition, expansion or new construction of assets
- A set of strategic actions to enhance Council's asset management maturity
- Risks associated with infrastructure assets and critical assets
- The infrastructure assets health for various Long-Term Financial Plan (LTFP) scenarios
- The impact of future demand and changes of the technology on asset management practices
- The technical and customer levels of service

This plan reflects the Council's relevant strategic plans that outline community service levels and other critical planning matters required to ensure safe, equitable and quality access to the wide range of infrastructure and other assets owned and/or managed by Council.

This Road and Transport Asset Management Plan supports and is to be read in conjunction with Council's Asset Management Strategy (AMS) and Asset Management Policy (which are reviewed and adopted annually by Council as part of the Resourcing Strategy under Integrated Planning and Reporting) and other key planning documents.



Office of Local Government - Integrated Planning and Reporting Framework 2021

GOALS AND OBJECTIVES

The primary goal of this plan in managing Council's infrastructure assets to deliver the defined levels of service in the most cost-effective manner for both current and future consumers. This requires understanding the current needs of the community, the current performance levels of the Council's strategic plans and anticipating future needs and requirement. Hence the key asset management objectives of this plan are:

- Developing and maintaining a 5 year forward works plan including scope of the works and level two cost estimation (20% contingencies)
- Developing whole of life models to: estimate the average 10-year required budget including capital expenditure, operation and maintenance costs and predict the future state of assets for various financial scenarios
- Informing the Asset Management Strategy (AMS) and Long Term Financial Plan (LTFP)
- Establishing detailed technical and operational service level criteria to meet the community service levels of Council's strategic plans together with suitable performance monitoring criteria and processes
- Managing the impact of social, financial, political and environmental growth and change through demand management and` effective investment
- Identifying, assessing, monitoring and controlling risks
- Integrating with Council's adopted strategies, plans and LTFP so that lifecycle asset management is implemented at an organisational level
- The ongoing review and updating of the lifecycle models to take advantage of new information and cost-effective asset management methods as they arise



ASSET MANAGEMENT PRACTICES

ASSET CATEGORISATION

A comprehensive Infrastructure Assets Categorisation Framework has been developed, covering various asset groups. The current infrastructure asset management groups are:

- Roads and Transport
- Buildings and Other Structures
- Stormwater
- Open Space

Assets are further categorised based upon how they are used:

- Infrastructure assets provide services directly to the community (e.g. roads provide pedestrian and vehicular transport services across the LGA and parks provide active and passive recreation services for the community)
- Community assets are used to enable services to be provided or are used in the delivery of services to the community (e.g. library buildings are used to deliver library services and park amenities support provision of recreational services)
- Operational assets are utilised by Council directly to administer and facilitate its operations (e.g. Council's depots support the field teams who maintain the parks; and
- Commercial assets provide an income to Council (e.g. commercial shopping centres or heritage buildings converted to offices)

Some assets are non-depreciable. Generally, the non-depreciable earthworks and the purchase of the land associated with an asset happens only once with the initial asset construction or acquisition. These costs are not usually included in the asset lifecycle calculations after the initial creation of the asset. Land comprises all lands owned and or managed by council, including crown land, community land and operational land.

At this stage, AMPs have been developed for the four major asset management groups only (Roads and Transport, Buildings and Other Structures, Open Space, and Stormwater).

Lifecycle plans are not required for non-depreciable assets and Plant and Equipment and Other Asset groups are treated as current assets and costed as expenses in the year of construction/acquisition.

ROADS AND TRANSPORT ASSET PORTFOLIO

A breakdown of the Roads and Transport assets covered by this plan is as follows:

- Road Pavement
- Footpaths
- Bridges and Boardwalks
- Kerb and Gutter
- Street Furniture
- Traffic Management Devices
- Ground Level Carparks

It must be noted that all assets on State Roads (like the Hawkesbury Valley Way, Macquarie Street), apart from footpaths and street furniture are excluded. State Roads are not maintained and governed by Council. All road signs and line markings are treated as current assets. They are expensed in the year of construction/acquisition and through routine inspections are replaced as needed.

The initial costs are included in the construction of the associated road assets and the replacement costs are wholly funded in Council's maintenance budgets. As such signs and lines markings are not included in this AMP.

The current state of the Roads Portfolio is shown overleaf in **Dashboard – State of Roads Infrastructure Portfolio**. The Dashboard is a visual presentation of the portfolio that includes inventory, condition distribution, financial data, unfunded renewals, maintenance and renewal gap.

PRIORITISATION AND WEIGHTING PARAMETERS

Following parameters are considered while prioritising road assets prior to consideration for inclusion in the capital works program.

Priority and Weighting Parameters:

Criteria	Scale	Weighting
Road Hierarchy	1 to 4	5%
Traffic Accident	1 to 4	5%
Average Daily Traffic	1 to 4	20%
Number of Heavy Vehicle	1 to 4	10%
Condition of Road	1 to 4	25%
Annual Maintenance	1 to 4	25%
Community Concern	1 to 4	10%

The above criteria and weightings are used to prioritise each given road section.

Prioritising of Road Asset and Component:

Council has devloped prioritisation paremeters to support decisions in line with available budget and resources. The relevant criteria includes connectivity, risk, hierarchy, transportation routes and incorporates weighting to achieve rankings prior to compiling various road programs such as road resealing and rehabilitation.

DATA COLLECTION AND ASSET MANAGEMENT SYSTEMS

Council utilises two software packages including Technology One and Brightly (formerly Assetic) to cover databases, works, financials, supply chain, mapping, and modelling tools as part of its asset management practices. The effectiveness and maturity of these practices can be enhanced through further integration of these tools. The asset software packages in use are:

- **Technology One (T1) Products Cloud Based:** Provides enterprise asset management for the corporate asset register, works management, asset accounting, request management, financial management, and supply chain management
- **Assetic Predictor:** A predictive tool for creating various models and scenarios for longterm financial planning and the development of capital works programs
- ArcGIS Pro: Council's corporate GIS (Geographic Information System) used to store all spatial data of assets
- IntraMaps Cloud: A GIS tool, also a T1 product, integrated with corporate systems for mapping queries, reporting, and visual presentation purposes
- **Field App:** A cloud-based, user-friendly mobile application from TI, working under an integrated platform used by staff for works management, asset inspections, on-site data collection, and register updates



State of Assets Infrastructure Portfolio						
All Infrastructure Assets	Roads Parks Stormwater		Stormwater Drain	nage Buildings a	ildings and Other Structures	
Current Replacement Cost \$968,959,000	Asset Category	Current Replacement Cost	Annual Depreciation	Unfunded Renewal	Required Average Annual Budget (10 year)	Current Average Annual Budget (10 year)
Current Average Annual Budget \$10,960,002	Road Pavement	\$722,153,000	\$7,473,210	\$82,000,000	\$14,800,000	\$8,078,088
Requried Average Annual Budget	Bridges	\$50,902,000	\$220,000	\$1,325,000	\$2,250,000	\$1,228,088
\$20,780,000	roopans	\$25,175,000	5577,400	\$2,200,000	51,000,000	3343,017
Annual Renewal Gap (10 Years)	Kerb and Gutter	\$65,698,000	5591,020	\$487,500	\$1,000,000	5545,817
\$9,8999,998	Unsealed roads	\$68,260,000	\$1,277,050	\$3,082,000	\$700,000	\$382,072
Unfunded Renewal \$89,836,500	Traffic Management Devices	\$7,540,000	\$21,420	\$611,000	\$200,000	\$109,163
	Ground level Carparks	\$22,276,000	\$236,590	\$67,000	\$100,000	\$54,582
Annual Depreciation \$10,453,860	Road Auxiliary & Signs	\$6,957,000	\$257,090	\$64,000	\$30,000	\$16,375



Optimum Budget Breakdown (Average 10 Years)



Road Pavement (58.3%)
Bridges (8.9%)
Footpaths (3.9%)
Kerb and Gutter (3.9%)
Unsealed roads (2.8%)
Traffic Management Devices ...
Ground level Carparts (0.4%)
Road Auxiliary & Signs (0.1%)

LEVELS OF SERVICE

In part, this Asset Management Plan has been prepared to facilitate consultation about levels of service with the broader community. Future revisions will incorporate customer feedback on service levels and the costs of providing these services. This will help Council align the required level of service, associated risks, and consequences with the community's ability and willingness to pay.

There is potential to compound this funding shortfall if Council were to continue to pursue a program of sealing unsealed roads.

This program was introduced in 2018 to support Council's Special Rate Variation. Approximately 25% of this program was delivered. Growing Council's road network by \$15m before successive natural disasters, prevailing wet weather and condition data led to and highlighted the magnitude of the funding backlog. If this funding shortfall persists, the following impacts are expected and would be worsened by the continued implementation of Sealing of Gravel Road Program.

Based on our current understanding of the performance of roads infrastructure, financial analysis indicates that Council is likely to underfund existing service levels in the medium to long term.

If this funding shortfall persists, the following impacts are expected:

- **Deteriorating assets:** Without sufficient funding, the condition of roads infrastructure will decline, leading to a further reduction in service quality and potential safety concerns.
- Widening asset renewal gap: The gap between the required and available funding for renewing assets will continue to grow, further threatening long-term financial sustainability.
- **Generational cost shifting:** Future residents will bear the financial burden of renewing assets that have deteriorated due to underfunding today, resulting in significant generational cost-shifting.
- **Inability to meet demand for new or upgraded services:** The Council will be unable to accommodate growing demand for new, expanded, or upgraded facilities, limiting the community's access to modern services and infrastructure.
- **Unfunded Renewal Impact:** Under the current funding scenario, the Council's unfunded asset renewal works will continue to grow. The existing budget shortfall means that a large proportion of required maintenance and renewal work will need to be deferred or carried out reactively. This reactive approach will increase long-term costs as assets deteriorate further and require more expensive interventions later. The unfunded renewals not only represents a financial liability but also contributes to the gradual degradation of service levels. Community expectations for asset quality and functionality will be harder to meet as more projects are delayed due to limited resources.
- **Prioritisation and Risk-Based Approach:** Given this shortfall, the Council will prioritise asset works based on asset condition, risk, and criticality, with a focus on ensuring legislative compliance and minimising safety risks. Non-critical assets and lower-priority projects will face delays, which could lead to further reductions in service quality and increased community dissatisfaction over time.

While the Council will continue to improve its understanding of asset conditions and refine service level targets, the reality of the increasing funding gap means that the backlog of works will grow unless additional funding sources are identified.

Future updates to this Asset Management Plan will guide long-term financial planning to ensure that renewals and upgrades are strategically funded to meet capacity demands and essential service levels. As part of its implementation of the Integrated Planning and Reporting Framework (IP&R), Council consults the community during the development of the Community Strategic Plan, Delivery Program and Operational Plan.

This AMP relies on ongoing consultation to establish and evolve the Community Levels of Service defined below:

CUSTOMER LEVELS OF SERVICE

The Customer Levels of Service are evaluated based on the following service attributes for both current and future expectations. In managing these attributes, Council must often balance them against one another, as efforts to improve one attribute may have a detrimental effect on another.

- **Quality:** Assesses how well the service meets expected standards in terms of condition and overall satisfaction. This includes evaluating maintenance levels and condition assessments.
- Function: Determines whether the asset is fit for its intended purpose.
- **Capacity and Utilisation:** Examines whether the road has adequate capacity to meet current and future service demand and is utilized effectively.

A summary of the current performance measures, current performance data, and expected performance based on current funding levels is provided in **Table 1– Customer Level of Service** on the following page. These measures are designed to reflect service delivery outcomes and facilitate comparisons between customer expectations and the Council's ability to meet these demands sustainably.

Balancing Community Demand and Statutory Requirements

The Council's service delivery is also influenced by changing community demand and evolving statutory requirements. As community expectations for modern and accessible facilities increase, the Council must prioritise asset management actions that may require trade-offs across service attributes. Additionally, new statutory requirements may necessitate reallocation of resources, potentially impacting the balance between quality, functionality, capacity, and accessibility.

The key Community Levels of Service applicable to all asset groups, with a focus on balancing these competing priorities, are:

Alignment with Community Requirements: Ensuring all levels of service meet community needs identified through engagement and consultation processes, balanced with the Council's capacity to sustain these services.

Infrastructure Condition: Maintaining asset conditions through funding that considers community demand and compliance requirements, while recognising the impact on other service levels.

Commitment to Growth: Expanding and enhancing the Council's infrastructure network to address future community needs while managing trade-offs between service levels such as quality, function, and accessibility.

Table 1- Customer Level of Service

Service Attribute	Service Objective	Asset Category	Performance Measures	Expected Trend (10 years)
Quality	Road Network of Council maintained and serviced adequately	Road Pavement	Number of complaints/ requests made from ustomer request system and complaints related to maintenance. Condition assessment. Customer satisfaction survey results	Reduction in maintenance based complaints by 5%. Increase and maintain high satisfaction level through targetted improvements
	Ancillary Road Network served adequately	Footpath, Carpark & Kerb and Gutter	Number of complaints/ requests made from ustomer request system and complaints related to maintenance. Condition assessment. Customer satisfaction survey results	Reduction in maintenance based complaints by 5%. Increase and maintain high satisfaction level through targetted improvements
	Bridges are maintained and serviced adequately	Bridges	Number of complaints/ requests made from ustomer request system and complaints related to maintenance. Condition assessment. Customer satisfaction survey results	Expected to be reduced to zero
	Council maintained and serviced Road Associated Structures adequately	Street Furniture & Traffic Management Devices	Number of complaints/ requests made from ustomer request system and complaints related to maintenance. Condition assessment. Customer satisfaction survey results	Reduction in maintenance based complaints by 5%. Increase and maintain high satisfaction level through targetted improvements
Function	Existing Road Assets are functioning adequately for the community	All Road Assets	Functionality assessments and customer feedback	Enhanced functionality based on evolving needs
Capacity and Utilisation	Road and associated network have adequate capacity to accommodate expected traffic	All Road Assets	By Traffic Volume Study	Enhanced capacity by new acquisition

TECHNICAL LEVELS OF SERVICE

To deliver the Community Levels of Service Council's asset managers convert them to Technical Levels of Service which are operational and/or technical measures of performance, tailored to the assets concerned. These technical measures relate to the activities and resources required to best achieve the desired community outcomes at the least possible ongoing cost.

To assist with this process Road and Transport Assets are categorised into a Road Hierarchy as seen below in **Table 2 - Road Heirarchy.**

Functional Category	Road Network	Existing Length of Road (m)	Typical Daily Traffic (ADT)	No of Heavy Vehicles	Connectivity	Priority
Arterial	Carry traffic to, from and across council areas. They carry traffic between industrial, commercial and residential areas and carry the highest volumes of traffic. Provide for traffic movements between regions. Provide access to major industrial activities and may provide for public transport.	104,150	Urban > 15,000 Rural > 2,000	> 300	Critical connectivity (there may be no alternative routes)	Higher Priority
Primary Collector	Provide the connections between arterial parts of the network and the Local Collector network. May also service industrial areas and local facilities such as shopping centres and freight terminals.	71,271	Urban > 5,000 Rural > 1,000	> 150	Provides connection between local population and the State Road network	Higher Priority
Local Collector	Provides access to the Primary Collector network from local access roads. May provide access to individual industrial facilities and links to local shopping centres.	140,816	Urban > 1,000 Rural > 200	> 25	Provides connectivity within the local community	Medium Priority
Local Access	Major function is to provide access to individual properties. May also provide access to local tourist Sites.	472,171	Urban < 1,000 Rural < 200	< 25	Provides the link for properties and businesses and the local community	Low Priority

Table 2 - Road Heirarchy



HAWKESBURY COUNCIL ROAD HIERARCHY DISTRIBUTION

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

- **Acquisition** Addition of a new service that did not exist previously (e.g. New Bridge, new traffic structure, new street furniture etc.)
- **Operation** Regular activities required to provide services and maintain operational standards (e.g. sweeping, conducting routine inspections)
- **Upgrade** The activities required to provide a higher level of service (e.g. widening a road, sealing an unsealed road)
- **Maintenance** The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading)
- **Renewal –** The activities that return the service capability of an asset up to that which it had originally provided (e.g. road resurfacing and pavement reconstruction)
- Sustainability Implement measures to enhance environmental sustainability
- Flood Resilience Management Ensure roads are resilient to flood events

Council aims to provide the following Technical Levels of Services across all asset groups:

- Action all required renewal, upgrade, maintenance, and acquisition plans through lifecycle modeling and budgeting
- Continuously improve models through constant recalibration of logic and parameters used
- Continuously improve adopted plans by reflecting new funding scenarios (Grants and external funding options) and condition assessments of assets
- Continuously improve the technology used by monitoring technological advances, using such technology when it becomes cost-effective to do so, and participating in or leading research and innovation as opportunities arise

Specific Technical Levels of Service for the Roads and Transport assets are outlined in **Table 3 – Technical Level of Service** on the following page.

Table 3 – Technical Level of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance	Expected Trend Based on Planned Budget
Acquisition	Add new service for the community. (New Road, Footpath/cycleway etc)	Community Survey	New assets inherited through development	Increase network to meet evolving needs and new developments
Operation	Provide Regular Services (sweeping, cleaning etc)	Efficiency and reliability of Service Delivery	Regular activities are ongoing	Improved Efficiency and Reliability of operation
Maintenance	Retain Road Assets as near as practicable to an adequate service level	Adhere to maintenance schedule	Details schedule in place	Continued adhere and updates to maintenance schedule
Renewal	Reduce Unfunded Renewals of Road Assets in poor or very poor condition	Current Unfunded Renewals	Current Unfunded Renewals (Annual)- \$8,500,000 for Road \$220,000 for Footpath \$48,750 for Kerb & Gutter \$6,700 for Car Park. \$132,500 for Bridges. \$61,100 for Traffic Management Device	No reduction in unfunded renewal
Flood Resilience Management	Ensure Road Pavements are resilient to flood events	Implementation and effectiveness of flood resilience measures	Basic flood resilience measures are in place; additional measures are needed for new renewal and construction	Enhanced flood resilience measures and improved effectiveness with increased budget and technology
Flood-Resilient Design and Construction	Ensure new roads and renewal of exisitng roads meet flood-resilient standards	Resilience against flood	Incorporated Flood Resilient construction materials and methodology	Increase flood-resilient construction of Road Assets.
Flood Mitigation Measures	Implement measures to reduce the impact of flooding	Number and effectiveness of flood mitigation measures	Basic measures in place; additional needed	Expand and enhance flood mitigation measures with additional funding
Emergency Preparedness and Response	Ensure effective preparedness and response to flood events	Development and Review of emergency preparedness plans	Flood evacuation route and Fire Trail exists	Regular updates with improved funding
Maintenance of Flood Mitigation Infrastructure	Maintain infrastructure designed to mitigate flood impact	Frequency and quality of maintenance of flood mitigation infrastructure	Reactive maintenance of Flood evacuation route and Fire Trail	Proactive maintenance is expected with additional funding
Monitoring and Evaluation	Continuously monitor flood risks and evaluate resilience measures	Regular monitoring reports and evaluation of flood resilience measures	Periodic monitoring and evaluation	Enhanced monitoring and evaluation processes with advanced technology

DESIGN AND CONSTRUCTION STANDARDS

The standards for constructing new and improving existing road and transport assets at Hawkesbury City Council follow specific guidelines such Development Control Plan (DCP 2023) and Western Sydney – Engineering Design Manual (EDM) set and adopted by the Council.

MAINTENANCE STANDARD

Based on current activities, Council's annual road maintenance expenditure is \$8.7m.

Maintenance standards for road and transport assets are established to ensure the provision of high-quality, safe facilities for all users while aligning with the Council's budgetary constraints. These standards are informed by industry benchmarks, risk assessments, and community feedback, and they cover routine maintenance, repair, temporary measures, and emergency work.

Routine maintenance tasks are prioritised based on the asset's usage, susceptibility to deterioration, and cost-effectiveness, with specified response times for repairs to ensure timely completion. Temporary measures are implemented to mitigate risks until permanent solutions can be applied, and emergency works are promptly executed to address public safety concerns.

Comprehensive documentation and regular reporting on maintenance activities support informed planning and funding decisions, ensuring that the Council continues to meet the community's needs effectively. Future revisions of the Asset Management Plan will further refine these standards, incorporating new industry practices, technological advancements, and ongoing community engagement to continuously improve maintenance outcomes.



FUTURE DEMAND

DEMAND FORECAST

Hawkesbury City Council has a pivotal role in providing essential services and infrastructure to the community. The future demand for these assets extends beyond mere population growth; it encompasses a wide array of factors that could influence how services are delivered.

Hawkesbury City Council is committed to fostering a safe and sustainable environment for both current and future generations. To achieve this, the plan identifies key drivers that may impact the provision of services to the community in the future. The objective is to ensure the assets can adapt flexibly to evolving demands, ensuring their relevance over the next decade and beyond. The drivers are summarised in **Table 4 – Future Demand** below.

KEY DRIVERS AFFECTING DEMAND FOR ASSETS

Changes in Demographics:

- Population Change: As population increases, so does the demand for community facilities, public amenities, and essential services. This AMP takes into account the projected growth from 68,704 residents to an estimated 85,050 by 2036.
- Change in Population Density and Centre Boundaries: As urban centers such as Windsor and Richmond experience increasing population densities, the demand for infrastructure and services will intensify in these areas. The Asset Management Plan (AMP) anticipates that higher density will necessitate the expansion or upgrading of existing road network to accommodate the concentrated population. Additionally, any adjustments to center boundaries will require strategic planning to ensure that infrastructure development keeps pace with shifting demographic trends.

Economic Factors:

• Economic Growth or Downturns: Economic conditions can affect community needs. A booming economy may lead to increased construction and demand for new infrastructure, whereas an economic downturn could necessitate the efficient use of existing assets and prioritisation of maintenance over expansion.

Technological Factors:

Today, technology is rapidly changing, leading to new methods and materials that may offer opportunities to manage assets in better and more cost-effective ways. Technology also impacts vehicles and drivers behaviours e.g EVs, GPS tracking of heavy vehicles, more refined GPS routing, and rats running. These technological advancements need to be monitored, and their likely impacts need to be identified and reflected both in the asset budgets and the strategic plans. This is to enable a certain degree of flexibility in the plans to take up beneficial changes as opportunities arise. Some of the identified emerging technological improvements are as follows:

Road Pavement

- Introduction of new road surface materials that are more sustainable and environmentally friendly such as:
 - Reclaimed Asphalt Pavement (Recycled)
 - Crushed concrete
 - Plastics

• Emerging road pavement construction methodologies

Traffic Management Devices

- Introduction of electronic sensors to vehicles, signals and fixed devices which may aid in traffic calming activity
- Implementation of 3D visualised drawings of devices to save costs but have similar effects as real devices
- New manufacturing processes or materials for construction of devices allowing easier/ faster/cheaper installation methodologies.

Footpaths

- New joining method between footpath panels that may reduce the likelihood to trips developing.
- New materials (i.e. Porous Concrete) to prevent ponding or other weather induced hazards.

Carparks

- Live monitoring of available parking space in Ground Level Car Parks
- New materials (i.e. Porous Concrete) to prevent ponding or other weather induced hazards.

Kerb and Gutter

- Change in construction techniques allowing a more cost-efficient solution
- Use of recyclable or more environmentally friendly material

Bridges and Boardwalks

- Boardwalk timber or materials that are more sustainable and environmentally friendly.
- Use of improved suspension associated with modern trucks to enhance efficiencies and productivities while minisising impact on bridge related structures.

Street Furniture

- Change in construction techniques allowing a more cost-efficient solution
- Use of recyclable or more environmentally friendly material

Environmental Factors:

- Climate Change: The increasing frequency and severity of natural disasters, such as floods and extreme heat, necessitates the development of more resilient infrastructure. As climate challenges escalate, Council assets must not only be designed or upgraded to withstand these environmental impacts but also adapt to serve crucial roles in community resilience.
- Additionally, efforts are also being carried out to minimise pollution of our receiving waters through the use of various environment protection such as GPTs and various sediment control measures.

To enhance resilience in flood-prone areas, the Council will prioritise investments in floodresistant construction techniques and materials, ensuring that infrastructure can effectively mitigate risks while continuing to support essential services.

This approach reinforces the importance of adaptive road designs that not only safeguard physical structures but also enhance the overall safety and well-being of the community during climate-related disruptions. Other related efforts includes attending to our critical assets in a timely manner that minimises down time and enhanced functionality to a wider community.

• Sustainability Initiatives: The shift towards sustainable development will impact on how assets are managed, potentially increasing the demand for new road surface materials that are more sustainable and environmentally friendly.

Ageing Infrastructure:

• The Council's aging road infrastructure network is resulting in increased maintenance costs and reduced efficiency. As these assets continue to age, maintenance challenges are expected to worsen, which may increase safety risks and reduce service quality.

Community Expectations:

• Service Quality: As residents expect a high-quality road network, there will be increased pressure on the Council to deliver a safer and quality network.

DEMAND MANAGEMENT STRATEGIES

To address these identified drivers, the following demand management strategies will be employed:

- **Monitoring and Review:** Regular monitoring of demographic trends, economic conditions, and environmental factors will guide the timely adaptation of infrastructure to meet community needs. This will be supported by an ongoing program of service reviews, ensuring that services remain aligned with community needs, operational efficiencies, and Council's strategic objectives.
- Strategic Planning and Asset Rationalisation: Aligning capital projects with strategic plans ensures that the development of new assets and the upgrading of existing ones are in harmony with projected demand. This approach includes a rationalisation of underutilised or non-essential assets where feasible to better match demand and resource allocation.

For example, if a facility experiences declining utilisation, the Council may consider repurposing, consolidating with another nearby asset, or divesting the asset to reduce costs and reinvest in higher-demand services. Asset rationalisation decisions will be grounded in demand forecasts, community engagement outcomes, and service priorities.

As Council has a major gap in excess of \$80m, there are no opportunity to create new road assets as existing resources are directed towards maintenance and renewal of existing assets only. Until such a time as additional funding is available there will be no further sealing of gravel roads within annual capital works programs.

Table 4 - Future Demand

Demand Driver	Current Position	Projection	Impact on Services	Demand Management Plan
Population Growth	68,704 – the number of people based on last Estimated Resident Population	Projected Growth of 85,050 by 2036	Population growth need more Road Network, Footpath, and other related Road Assets. Higher traffic usage will need more maintenance services which will increase expenditure for operation, maintenance and renewal of assets in line with Council's geographical constraints and funding ability	Manage and Review Proposed Strategic Plan for better Capital Project considering growth in line with sustainable contribution plans Encourage and promote usage of public transport, walking and cycling etc. Investigate alternative and cost effective treatment solutions. Manage and review proposed renewal strategies
Change in types of vehicles on roads	Industrial zones within the LGA that accommodate heavy load vehicles	Increased length and weight limits on vehicles. More trucks and other heavy vehicles expected as industrial growth is projected to increase.	Increased volume of heavy vehicles requires pavement design review and demand in Signs & Traffic facilities. Increased wear and tear on roads due to additional and frequent usage of heavy vehicles.	Maintain regular communication and devise plans with Transport for New South Wales and NHVR to keep on top of the heavy vehicle operation trends. Manage and Review Proposed Strategic Plan for better Capital Project considering growth of heavy vehicles
Climate Change	Increased frequency of extreme weather events such as flooding and extreme heat	Without national and global action, weather conditions will be more volatile and unpredictable	Roads will deteriorate faster with increases in temperature and other extreme event. Ponding and other hazards attributed to climate change may become more frequent. Volume of rainfall impacts on surface run off and also impact height of bridge	Review and research for new materials and methods for future renewal/maintenance works. Introduce sustainable materials and methods to minimise climate induced defects
Increase Population Density	68,704 – the number of people based on last Estimated Resident Population	Projected Growth of 85,050 by 2036	Increased population density will increase current footpath networks demand. It will also increase Local Centre Parking demand. Change in population density will also divert traffic flow to new locations that require more road network and bridges	Monitor trends on increasing population density and amend footpath width to suit the trends. Monitor trends on changing population density and review parking usage of local centres regularly. Also promote alternate transport to minimize demand. Considering for road widening where necessary for shared paths
Increasing Technology Usage	Technology has not yet been incorporated to better manage the carparks	Increase usage of social media and technology to manage parking demand and enforce parking regulations	Increase use of social media and technology in parking management and enforcement improves quality of service and reduce traffic congestion of local centres	Incorporate technology in parking management and enforcement of multi-story carpark and on-street parking in local business centres. Review parking restrictions to increase supply of parking spaces
Increase in Customer Expectation	High expectations for modern, accessible, well-connected and maintained service.	Rising expectations for modern, accessible, well-connected and maintained service.	Increased pressure to deliver high standard infrastructure and services	Regularly engage with the community to understand expectations and prioritise projects that enhance service quality and user satisfaction
Ageing Infrastructure	Existing Road Assets continue to age, leading to higher maintenance costs and reduced efficiency	Continued aging of infrastructure leads to higher maintenance costs and reduced efficiency	Increased maintenance costs, potential safety hazards, and decreased user satisfaction	Implement a proactive maintenance and renewal plan to ensure aging infrastructure is upgraded or replaced timely

RISK MANAGEMENT

Effective risk management is vital for Hawkesbury City Council to safeguard its infrastructure, community, and service assets, many of which are essential for the community's day-today functioning. Key assets, such as roads and bridges that provide critical services, must remain operational to avoid disruptions that could affect the livelihoods and well-being of Hawkesbury residents. The Enterprise Risk Management Framework (ERMF) guides the Council's approach to managing infrastructure risks, while the Risk Appetite Statement sets acceptable risk levels, ensuring that all risk treatments are aligned with the Council's tolerance for risk exposure.

The council's risk management approach for infrastructure assets is rooted in the principles of ISO 31000:2018 and complies with guidelines from the Office of Local Government. These principles ensure a structured approach to identifying, assessing, managing, and mitigating risks.

Key Risk Categories

A comprehensive assessment of the Council's asset portfolio identified risks in several impact categories. Each risk is evaluated based on likelihood and impact, and risks are assigned ratings aligned with Council's Risk Appetite Statement. Categories include:

- People Impacts: Civil unrest, workforce health and safety (WHS), and community relations.
- Environmental Impacts: Climate change, biodiversity loss, natural hazards, and public health concerns.
- Financial Impacts: Economic fluctuations, fraud, theft, and financial management.
- Reputational Impacts: Risks to Council's public image, influenced by media coverage, community feedback, and corporate values.
- Compliance Impacts: Legislative adherence, contractor management, and Council policy compliance.
- Public Liability Claims

These risk categories ensure Council's actions align with the ERMF while adhering to Council's risk tolerance, supporting sustainable, high-quality service delivery within acceptable risk boundaries.

Risk Assessment and Mitigation

Each identified risk is prioritised based on risk appetite. Risks that exceed the Council's risk tolerance are escalated to appropriate management levels, including the General Manager if required. Risk owners are tasked with implementing SMART risk treatments (Specific, Measurable, Achievable, Relevant, Time Framed), ensuring all actions are aligned with the ERMF and are regularly monitored for effectiveness.

Other peculiar form of risks outside direct control of Council are as follows:

- Reliance on grant funding
- Roads crashes due to poor quality
- Widescale service distruption due to network deterioration
- Heavy Vehicle's impact on structure

For risks that cannot be mitigated to within the risk appetite, the Risk Owner must escalate these to the Council for review and potential intervention, following the escalation protocol set forth in the Risk Appetite Statement. Specific risk registers have been developed for the Roads and Transport asset group as per **Table 5 - Risk Register** below.

Table 5 - Risk Register

Asset or service at Risk	What can happen	Rating	Risk Treatment plan	Residual Risk
Road Pavement	Failure of underlying pavement due to water entering pavement and subgrade causing accelerated deterioration	Medium	Review current strategies to prioritise resurfacing to protect the pavements that have not yet failed	Low
	Failure of pavement due to inadequate pavement thickness	High	Increase pavement thickness with like materials if possible for pavement that has not yet failed	Low
	Failure of pavement due to use of poor materials	High	Partial replacement or reconstruction	Low
	Failure of pavement due to poor subgrade	High	Full reconstruction	Low
Kerb and Gutter	Failure of underlying pavement due to defect kerb and gutter allowing moisture penetration to underlying pavement	High	Prioritise programme for maintenance and renewal of kerb and gutter where these is potential for pavement damage	Low
Footpath	Growing trip hazards and need for smooth footpaths and standardise kerb ramps	High	Regular inspections and identification of footpath defects. Prioritise programme maintenance and renewal of footpath sections where these is potential for pavement damage	Low
Bridges, Major Culverts	Structural or functional failure either due to poor asset condition or weather events	High	Undertake regular condition assessments of bridges and prioritise a program for maintenance and renewal.	Medium
Street Furniture	Street furniture in poor condition will lower Council's reputation	Low	Inspect and condition rate street furniture regularly	Very Low
Traffic Management Devices	Premature failure of asset due to vehicular damage from road accidents.	Medium	Contingency budgets needs to be available for quick response.	Low

CRITICAL ASSETS

Critical assets are defined as those which have a high consequence of failure and would result in significant loss, reduction and/or a complete halt in the service provided. Such assets must be identified along with their mode of failure and their impact on the community. Through the proactive investigation of these assets, Council can plan for appropriate actions to prevent premature failure. Such actions are:

- Condition assessment programs: Regular evaluations to monitor asset health and identify potential issues before failure occurs.
- Regularly scheduled maintenance: Ensuring assets receive timely upkeep to prevent costly repairs and service interruptions.
- Adequate funding to execute planned renewal: Aligning renewal budgets with risk priorities to ensure that critical assets have adequate resources to maintain reliable service.

Critical Roads and Transport assets have been identified and listed in **Table 6 - Critical Assets** below.

			Table 6 - Childa Assels
Critical Asset(s)	Failure Mode	Impact	Treatment
Regional Roads and major local roads (Such as Grose Vale Rd, Grono Farm Road)	Pavement failure, severe pot holes, structure failure	Casualities due to accident, big Impact on commuter for any unplanned Closure of the Road.	Reconstruction
Flood Evacuation Route	Pavement failure, severe pot holes, capacity constraints	Access isuue will have severe impact on flood evacuation	Upgrade & reconstruction
Car Parks in high priority areas (Such as North Richmond Shopping Centre)	Pavement failure, severe pot holes	Uneven surface may pose a risk to users walking to and from their vehicles and loss of capacity Presence of defects will distract drivers and may result in serious injuries. Negative impact on business	Resurfacing & reconstruction
Footpaths in high pedestrian activity areas near business, Child care, train station etc (such as East Market street)	Lift up or dip down section of footpath	Uneven walking surface may pose a risk to pedestrians. Unplanned closure will have a huge impact on pedestrians	Renewal as per available budget
Kerb and Gutter assets in high priority areas specially in Industrial areas	Heavy crack, Lift up or dip down section	Fails to provide ample water flow resulting in flooding on road causing disruptions to road users. Moisture penetration to pavement causing faster deterioration of Pavement	Renewal as per available budget
Bridges and major culverts	Structural failure resulting in collapse	Catastrophic failure of Bridges may lead to loss of life and uplanned road closure will impact the accessibility of the road users and surrounding communities	Monitoring, Essential maintenance and replacement as per available budget

Table 6 - Critical Assets

LIFECYCLE MANAGEMENT PLAN

Strategic Asset Management Objectives

One of the primary goals of Strategic Asset Management is to minimise long-term costs while achieving the service levels expected by the community. Lifecycle asset management plans are essential for prioritising renewals at optimal times and utilising the most effective methods to ensure the lowest possible whole-of-life cost for each asset.

Forecasted Asset Lifecycle Costs

To provide the required service levels, this Lifecycle Management Plan includes all costs necessary for asset operation, maintenance, renewal, upgrade, acquisition, and disposal across their lifecycle. Forecasted funding estimates help determine when and how much to invest in each phase to minimise overall costs.

Funding Required

To adequately sustain and improve road and transport assets, the Council requires approximately \$28.7 million per year. This figure includes:

- Renewal Needs: An estimated \$20 million annually is required specifically for asset renewals to replace assets nearing the end of their useful life, preventing deterioration and sustaining long-term asset functionality and safety. Without this dedicated renewal funding, assets are likely to degrade more quickly, leading to increased costs and potential disruptions to community services.
- Operations and Maintenance: Approximately \$8.7 million annually, which is essential to ensure safe, functional, and well-maintained assets for the community.

Current Funding Levels

According to the Long-Term Financial Plan (LTFP), the Council's current annual budget provides only \$10.9 million for renewals, significantly below (almost half) the \$20 million required to maintain asset condition. Combined with \$8.7 million for operations and maintenance, this brings total available funding to \$19.6 million per year, leaving a substantial gap in renewal funding. This limited renewal allocation significantly restricts Council's ability to replace aging assets in a timely manner, increasing the likelihood of accelerated asset deterioration and higher future costs.

Funding Gap

The \$9.1 million annual shortfall in renewal funding has more than doubled since the \$4.5 million shortfall identified in the 2017 Asset Management Plan. This widening gap reflects rising costs and mounting pressures on asset management resources. Closing this gap is critical for sustaining asset conditions and aligning with community expectations, especially as environmental and regulatory demands continue to increase.

PHYSICAL PARAMETERS

Data Collection

The first step in achieving asset management objectives is to build a highly reliable database that includes inventory, condition, and financial information. A condition assessment of road assets for revaluation purposes has recently been completed, with the next comprehensive revaluation scheduled for the 2028/29 financial year. However, an additional road inspection program needs to be developed to collect condition data at the component level and to establish a maintenance defect register for road portfolio.

Asset Categorisation and Useful Lives

The design useful lives of Council's infrastructure assets are based on numerous factors, including:

- Usage of each asset
- Advice and discussion with asset stakeholders
- The cost and frequency of proactive and reactive maintenance
- Lifecycle cost and degradation models

The useful lives used for Council's lifecycle asset management practices are listed in Attachment C – Useful Lives of Assets Categories and Subcategories.

Model Scenarios

Council has utilised an asset lifecycle modelling tool called 'Assetic MyPredictor' to develop unique financial models for various scenarios based on the nature and behaviour of each asset category. Each model has been tailored with different triggers and criteria for treatments to best reflect currently practiced methodologies for renewal, maintenance, upgrade, acquisition and disposal of assets.

Life-cycle models are used to estimate future funding requirements needed to maintain the current level of service or to predict the future state of assets under various funding scenarios.



LONG-TERM FINANCIAL PLAN SCENARIOS

A financially sustainable Council, as defined by the NSW Government, is one that over a long term can generate sufficient funds to provide the level and scope of services and infrastructure agreed with its community through the Integrated Planning and Reporting Process. (Source: NSW Government, 2012).

The Long Term Financial Plan considers various lifecycle asset management funding strategies, over a 10-year period, to address three key issues that pose significant financial risk to Council:

Unfunded Renewal: Value of assets that have been delayed from their planned renewal

Renewal Gap: The gap between the required and current average annual renewal expenditure

Maintenance Gap: The gap between the required and current average annual maintenance expenditure

Council's Long Term Financial Plan 2025 – 2035 has been developed with the aim of having an appropriately funded capital works program and maintaining a "fit for purpose" asset base as described by Asset Management Strategy.

The objective is to allocate sufficient funds each year to an asset reserve and capital budget to cover the required funds for the maintenance and renewal of the Council's existing infrastructure, as outlined in the asset lifecycle models.

The 10-year asset lifecycle model has been develop using Assetic Predictor. The model identifies the optimal strategy to fund the maintenance and renewal of infrastructure assets and to address and clear current unfunded renewals, based on budget availability.

Three scenarios have been developed (Decline, Improve and Resolve) to demonstrate the opportunities and risks of various funding models across the Long Term Financial Plan and Asset Management Strategy. These documents link directly, with the LTFP providing the necessary long term funding strategy to achieve the effective asset management described in this plan. The scenarios demonstrate what would occur to Council's assets under different funding models across the next 10 years.

This information helps Council and the community understand the financial needs and effects of various levels of funding. This Asset Management Plan focuses on the assumed spending on asset maintenance and renewal, with the LTFP describing further variables within each scenario. As asset renewal is the major financial challenge facing Council, these variables are the predominant factor impacting each scenario.

The specification of funding for new assets has not been addressed in this iteration of the AMP. Typically, allowances are made for the acquisition of new assets through construction and other sources to support growth in Council's infrastructure network annually. This is achieved through various grants and commitments made by the Council for the community. Generally, new assets are funded through grants (with or without a Council contribution), Section 7.12 (formerly s94) funds, and/or the sale of other assets.

However, predicting these funding sources with certainty is challenging until the new asset projects are developed. A strategic action of this plan is to develop methods, if possible, to account for the likely impact of new assets on existing renewal funding sources.

Based on recent estimates, the annual depreciation, operational, and maintenance costs of infrastructure assets have increased by approximately \$850K due to donated, newly built, and upgraded assets in the 2023/24 financial year. The acquisition of new assets due to development or construction, as well as the upgrading of existing assets, will increase the funding required for the maintenance, operation, and renewal of infrastructure assets. This could exacerbate the unfunded renewal and renewal gap. Below is the Scenario Overview – Whole Asset Portfolio (Roads, Stormwater, Building and Open Space)

Scenario 1: Decline

Scenario one describes the current trajectory of business as usual and is driven by Council's current level of renewal spending (\$14m annually) and business as usual practices on asset maintenance and renewal, without significant increases across the 10 year life of the strategy. The modelling on this scenario suggests that legislative and assumed increases to Council's revenue will not provide sufficient funding to maintain the condition of assets and current service levels.

This level of investment will lead to a significant decline in asset condition over time and an accelerating deterioration of assets, increasing the projected unfunded renewal and growing costs. The issue will continue to compound if funding strategies are not in place. Under this scenario, assets would only be renewed when they become unsafe or completely unusable.

It is likely that Council would need to reduce community, cultural and recreation services or close unsafe facilities so that funds can be redirected to keeping essential infrastructure such as roads safe and functioning. This option provides no capacity to fund new programs, take advantage of key grant opportunities or delivery on emerging community priorities.

Scenario 2: Improve

Scenario two will allow Council to shift towards a more preventative asset management approach, rather than waiting for assets to deteriorate to the point of failure and where renewal is at its most costly. This scenario assumes a \$25m annual investment in renewal. Under this funding arrangement, it would take approximately 20 years to clear Council's unfunded renewals gap. All assets would gradually improve across the Hawkesbury under this arrangement.

This option will also provide some scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan.

Scenario 3: Resolve

Scenario three involves the optimisation of Council's asset renewal by matching the required funding with actual investment across the life of the strategy. This would allow Council to take a proactive asset management approach, focusing on betterment and resilience for the long term. Essentially, the quicker Council invests the more long lasting the financial benefits will become.

This scenario assumes a \$30m annual investment in renewal. Under this funding arrangement, it would take approximately 10 years to fully resolve Council's unfunded renewals gap. Assets conditions would significantly improve across the Hawkesbury under this arrangement.

This option will also provide significant scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan. The accelerated investment in assets will lead to greater future opportunities for service delivery.

ALIGNMENT OF SCENARIOS WITH CAPITAL WORKS PROGRAM FUNDING FOR ROADS AND TRANSPORT ASSETS

The table below illustrates how the three scenarios—Decline, Improve, and Resolve—translate into specific funding levels and strategic priorities for building assets under the Capital Works Program (CWP). It highlights the implications of each scenario in terms of budget allocation, maintenance strategies, compliance upgrades, community impact, and future planning.

Aspect	Scenario 1: Decline	Scenario 2: Improve	Scenario 3: Resolve
Budget Range	\$10,900,000	\$16,500,000	\$20,000,000
Strategic Focus	Reactive repairs and essential maintenance.	Small scale of preventative maintenance	Comprehensive Renewal and Maintenance
Preventative Maintenance	Minimal preventative actions; primarily reactive. Increased maintenance expenditure.	Targeted preventative maintenance introduced to reduce long-term reactive costs	Comprehensive maintenance strategy targeting all major assets
Renewal	Small-scale of Renewals	Expanded Renewal	Comprehensive Renewals
New Road Assets (Inc Sealing of Unsealed Roads)	None	None	None
Lifecycle Cost Management	High costs due to reactive reliance	Reduced reactive costs via preventative actions	Balanced lifecycle costs, emphasizing asset durability
Community Impact	A reactive approach leads to dissatisfaction due to frequent service disruptions and poor road safety outcomes	Gradual improvement in service delivery through modernisation and maintenance.	Enhanced user satisfaction with proactive asset improvements and increased service availability
Growth and Future Planning	Neglects future growth; focuses on keeping current assets operational	Neglects future growth; focuses on keeping current assets operational	Opportunity for planning about future growth

Council is not in a position to carry out sealing of unsealed roads as funding level is not sufficient to create additional sealed road asset at this stage. Both Scenario 2 and 3 are able to reduce current backlog of about \$88m in 20 year and 10 years respectively should the required funding level for each category be maintained. These 2 scenarios are mainly able to stabilise and maintain the existing sealed road network only.

Additional funding above what is required in Scenario 3 may be used to carry out some sealing of unsealed roads based on relative prioritisation.

The following graphic visualises each scenario and the impact on the overall required renewal budget and unfunded renewals. Below is the Scenario Overview – Whole Asset Portfolio (Roads, Stormwater, Building and Open Space)


FINANCIAL SUMMARY

Hawkesbury Council is committed to delivering all the levels of services identified in this asset management plan. With the adoption of Scenario 3 outlined in the previous section, the estimated available funding for Roads over the next 10 years will be approximately \$20 million per annum.

The proposed Scenario 3 budget is sufficient to fund all required works, leaving few shortfalls on average per year. It will also significantly reduce the existing Unfunded Renewals.

An example Capital Works Program has been developed to help explain each scenario. The Program is outlined in an example 5 Year Forward Works Program on the following page.

Fallback or works prioritisation strategies are also in place to maximise the effectiveness of a reduced Works Program should Scenario 3 not be adopted. That is, we will undertake the maintenance and renewal works that will minimise or slow as much as possible the degradation of Council's road if the budget is limited.

Example ONLY - Annual Road Renewal Program (following page)



Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
		Road Rehab	\$7,500,000	Limited improvement in road condition
		Minor Rehab	\$500,000	Mainly act reactive to extend renewal
1. Decline- Prioritises reactive repairs and essential	\$10,900,000	Mill and Fill	\$500,000	Limited Improvement in condition
minor alterations to keep critical assets		Road Resealing	\$2,000,000	Small scale considering need
functioning		Renewal of Footpath	\$200,000	Limited Improvement Mainly act reactive
		Renewal of Kerb and Gutter	\$200,000	Limited Improvement mainly act reactive
	\$16,500,000	Road Rehab	\$11,500,000	Enhanced improvement in road condition
0 Income		Minor Rehab	\$1,000,000	Enhance renewal timeframe
2. Improve – Shifts toward preventative maintenance and gradual compliance upgrades		Mill and Fill	\$1,000,000	Improved road condition
		Road Resealing	\$2,500,000	Enhance the network condition
		Renewal of Footpath	\$250,000	Enhance condition
		Renewal of Kerb and Gutter	\$250,000	Enhance Condition

Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
3. Resolve- Balances proactive maintenance, comprehensive upgrades, and new builds for future growth.	\$20,000,000	Road Rehab	\$13,400,000	Improved condition of network
		Minor Rehab	\$1,500,000	Improved condition
		Mill and Fill	\$1,500,000	Proactive approach
		Road Resealing	\$3,000,000	Improve condition with proactive service
		Renewal of Footpath	\$300,000	Improve condition with proactive service
		Renewal of Kerb and Gutter	\$300,000	Improve condition with proactive service

FALLBACK STRATEGY

If Scenario 3 (Resolve) is not adopted, fallback strategies will be employed to maximise the effectiveness of the reduced works program under Scenario 1 (Decline). This would include:

- Limiting maintenance and renewal to only critical repairs.
- Prioritising safety-related works to mitigate risks associated with deteriorating roads and transport assets.
- Accepting that ongoing degradation of roads and transport assets will result in reduced service levels.

Without sufficient funding, Council will be unable to minimise the degradation of its roads and transport assets, address compliance issues, or meet growing community expectations. Securing increased investment under Scenario 3 is essential to achieving sustainable outcomes and delivering the highest level of service to the Hawkesbury community.

OPERATIONAL ROLES AND RESPONSIBILITIES

In accordance with ISO 55000 Asset Management standards, the proposed roles and responsibilities of staff and contract resources across the organisation have been developed. This proposal will be refined through consultation with Council staff and various teams and then presented to the Council's Executive Team for approval.

A detailed matrix for all roles and responsibilities over Council's roads and transport assets have been outlined in **Attachment D – Roles and Responsibility Matrix**.

PLAN IMPROVEMENT AND MONITORING (AUDITING)

This plan is a live document that will change and improve as the skills and capabilities of the various asset management resources across Council are developed. Further, in accordance with ISO 55000 Asset Management, the compliance with this plan will be audited by the Assets Management Team. The Audit Process will initially focus on the achievement of the core organisation's asset management maturity. Later it will focus on compliance with the service levels, future demand, lifecycle asset management systems developed for this plan and the identification of areas for skills and capabilities improvement.

The Audit Process has yet to be developed and will be a future Strategic Action in later versions of the AMPs. Nonetheless, a number of skills and capability improvement actions have been identified in the development of this plan and they are detailed in the **Attachment E** - **Strategic Actions.**



ATTACHMENTS

ATTACHMENT A - DEFINITIONS

Term	Definition
Asset	An asset is an item, thing or entity that has potential or actual value to an organisation. The value will vary between different organisations and their stakeholders, and can be tangible or intangible, financial or non-financial.
Asset Condition Assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset to determine the need for preventative or remedial action.
Asset Group	An asset group refers to an umbrella of assets that have similar characteristics or purpose.
Asset Management	The balancing of costs, opportunities and risks against the desired performance of assets, to archive the organisational objectives. The balancing might need to be considered over different timeframes. Additionally, it enables the application of analytical approaches towards managing an asset over the different stages of its lifecycle.
Capital Expenditure	Expenditure which contributes or results in a physical asset.
Capital Grants	Funding received from a third party which are generally tied to specific projects.
Component	An individual part of an asset which contributes to the composition of the whole and can be separated/attached from the whole. It may also require different types of treatments and have differing useful lives and lifecycle costs.
Componentisation	The practice of considering the components of a fixed asset individually, to account for the fact that these components have unique physical and economic lives.
Condition	Assessed and given a value on a scale of 1 (new) to 5 (end of life). The Average Condition of a group of assets is the GRC weighted average of all assets in the group.
Current Average Annual Expenditure	An estimate of the current total maintenance and capital works expenditure on the Asset Group, being the annualised present worth of the value of the maintenance and capital renewals expenditure.
Depreciation	The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.
Fair Value	The amount for which an asset can be exchanged, or a liability settled between knowledgeable, willing parties, in an arm's length transaction.
Gross Replacement Cost (GRC) aka Current Replacement Cost (CRC)	The amount it would cost at the revaluation date to acquire or construct a brand- new substitute asset that has comparable utility and no obsolescence. Also referred to as Current Replacement Cost (CRC).

Term	Definition
Infrastructure assets	Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycle ways. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.
Level of service	The defined service quality for a particular service from an asset. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost.
Lifecycle Cost	The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
Minimum Average Annual Expenditure	The average annual expenditure required to keep the Asset Group in good condition after the Unfunded Renewal (if any) has been addressed.
Reactive maintenance	Unplanned repair work that carried out in response to service requests and management/supervisory directions.
Remaining life	The time remaining until an asset ceases to provide the required service level or economic usefulness.
Renewal	Refer capital renewal expenditure.
Renewal Gap	The gap between the average required and available annual budgets.
Risk management	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.
Satisfactory Condition	As designated in Special Schedule 7 of Council's Annual Financial Report, being condition 3 or fair condition.
Unfunded Renewals	The total cost of all asset treatments (maintenance and component/ asset renewals) due or past due at the date of review.
Useful Life	The period over which an asset is expected to be available for service by an entity. The estimated period from installation till removal of the asset upon the end of its serviceability
Written Down Value (WDV)	Also referred to as the book value, WDV reflects the assets present value from an accounting perspective. It is calculated by subtracting the depreciated value from its original value.

ATTACHMENT B - ASSETS INSPECTIONS AND CONDITION ASSESSMENT SCHEDULE

Condition Assessment Plan					
Asset Class	Asset Sub Class	Condition Assessment Due			
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2024-25			
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2025-26			
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2026-27			
Buildings	Buildings	2027-28			
Roads, Land Improvement, Other Structures and Stormwater	Road Pavement, Footpaths, Kerb and Gutter, Bridges, Traffic Management Devices, Street Furniture, Bus Shelters, Other Structures, Park Furniture, Playgrounds, Sportfields, Irrigation, Lighting, Park Signs, Stormwater CCTV Camera Inspections and Stormwater CCTV Camera Inspections	2028-29			

Comprehensive Revaluation Plan				
Asset Class	Asset Sub Class	Condition Assessment Due		
Land Improvement, Other Structures and Investment Properties	Other Structures, Playgrounds, Park Furniture, Sportfields, Irrigation, Lighting, Park Signs	2024-25		
Stormwater Drainage	Drainage Conduits, Drainage Structures, Water Quality Devices, Flood Mitigation, Artworks	2025-26		
Artworks	Artworks	2026-27		
Land and Buildings	Community and Operational Land, Buildings and Land under Roads	2027-28		
Roads, Sewerage Network, Waste management	Road Pavement, Road Signs, Footpaths, Boardwalks, Open Carparks, Kerb and Gutter, Bridges, Traffic Management Devices, Street Furniture	2028-29		

ATTACHMENT C - USEFUL LIVES OF ASSET CATEGORIES AND SUBCATEGORIES

Asset Group Category	Useful Life
Transportation Assets	
Sealed roads: surface	15 to 100
Sealed roads: structure	100 to 200
Unsealed roads	25 to 200
Bridge: concrete	100 to 200
Bridge: other	80 to 200
Kerb, gutter and footpaths	15 to 120

ATTACHMENT D - SUMMARY OF INFRASTRUCTURE SERVICES ROLES AND RESPONSIBILITIES

Infrastructure Services Team	Key Roles	Key Responsibility- General	Key Responsibility- Road asset- related task
Asset Systems & Planning (AS&P)	 Asset owner responsible for lifecycle planning of Roads, Stormwater, Buildings, and Open Space. Oversees asset management systems for evidence-based decision-making. Develops statutory asset planning documents. Aligns asset management outcomes with LTFP, Operational Plan, and Delivery Program. Coordinates asset management practices. 	 Handles customer requests for asset installation or renewal. Conducts asset condition assessments. Prepares and updates lifecycle models and budgets. Processes legislative reports. Manages interfaces with external utilities. 	-Handles customer requests for Road maintenance or renewals/Upgrades. -Develops and updates the Capital Works Program. -Coordinates grant applications and milestone reporting
Infrastructure Operations (IO)	 Coordinates preventative, reactive, and planned maintenance of Council assets. Ensures compliance and safety of assets. Manages Capex and Opex tenders. Leads emergency and resilience planning. 	 Manages customer requests for asset defects and servicing. Conducts minor capital replacements. Leads emergency planning and compliance. Manages vehicle, plant, and equipment replacement programs. 	- Handles customer requests for maintenance of road related assets. Performs various maintenance activities, including , pothole patching, edge breaks, heavy patching, trip repair associated with footpath, kerb & gutter repair etc
Project Delivery (PD)	 Leads and ensures accountability in Capital Works Program delivery. Streamlines project delivery processes. Manages contracts and stakeholder deliverables. Reviews designs and ensures approval compliance. 	 Addresses customer requests for construction project updates. Develops delivery strategies. Ensures efficient contract and project management. Conducts asset handovers post-project completion. 	 Manages customer requests for road related capital works projects. Prepares and awards contracts. Oversees site administration, stakeholder management, and risk. Completes asset handovers with stakeholders.
City Services (CS)	 Manages City Services Branch for development engineering, mapping, Trees on nature strips, open space, and traffic management. Handles development-related customer requests. Manages the SIS mapping system. Supports cemetery operations. 	 Addresses customer requests for services like parks, tree permits, road openings, and traffic management. Provides mapping services and asset location tracking. 	 Oversees assessment of NHVR related request also all approvals under Section 138 of the Roads Act. Maps assets and provides spatial data access to asset officers through Intramaps.

ATTACHMENT E - STRATEGIC ACTIONS

Task No	Strategic Actions - Roads and Transport	Importance	Urgency	Risk	Responsibility	Target Completion Date
1	Streamline processes for roads projects intitiation, planning, design, procuement, delivery and hand over	High	High	High	Assets, Delivery, Operations	30/06/2025
2	Review and update the Roads five-year rolling program	High	High	High	Assets	30/12/2024
3	Undertake roads data gap analysis including the GIS, condition and inventory data	High	High	High	Assets	30/12/2024
4	Develop proactive maintennace program for footpaths and cycleways	Medium	Medium	Medium	Assets, Operations	30/12/2024
5	Review and update life cycle modelling for Road Pavement, Footpath, Kerb and Gutter, Traffic Management Devices, Open Carparks and Bridges	High	High	High	Assets	30/12/2024
6	Initiate Maintenance Defect Register for roads and road assets inspections schedule	High	High	High	Assets, Operations	30/12/2025
7	Complete detail design and L3 cost estimation of the 2025/26 Roads Capital Works Projects	High	High	High	Assets, External Contractor	30/12/2024
8	Initiate Road Sections layer in GIS to better fit the asset management and planning processes	Medium	Medium	Medium	Assets, GIS Team	30/12/2025
9	Implement mobility solutions for road asset inspections	High	Medium	Medium	Assets, IT, Operations	30/06/2025
10	Develop a replacement program for guardrails in poor condition	Medium	Medium	Medium	Assets, Operations	30/12/2024

ATTACHMENT F - REFERENCES AND RELATED INFORMATION

- HCC Asset Management Strategy
- IPWEA International Infrastructure Management Manual
- IPWEA Financial Management Guidelines
- NSW Office of Local Government Integrated Planning and Reporting Framework Guidelines and Manual
- HCC Asset Management Policy
- HCC Asset Valuation Methodology Manual
- Local Government Financial Sustainability Nationally Consistent Frameworks, Frameworks 1, 2 and 3, May 2009
- National State of the Assets, Roads and Community Infrastructure Report, Nov 2018
- AS ISO 55000-2014 Asset Management-Overview, Principles and Terminology
- AS ISO 5001-2014 Asset Management-Management Systems- Requirements
- AS ISO 5002-2019 Asset Management-Management Systems- Guidelines for the Application of ISO 55001
- AASB 116 Property, Plant and Equipment prescribes requirements for recognition and depreciation of property, plant and equipment assets
- AASB 13 Fair Value Measurement sets out methods for determining Fair Value
- AASB 136 Impairment of Assets aims to ensure that assets are carried at amounts that are not in excess of their recoverable amounts
- AASB 1021 Depreciation of Non-Current Assets specifies how depreciation is to be calculated
- AAS 1001 Accounting Policies specifies the policies that Council is to have for recognition of assets and depreciation
- AASB 1041 Accounting for the reduction of Non-Current Assets specifies the frequency and basis of calculating depreciation and revaluation basis used for assets
- AAS 1015 Accounting for acquisition of assets method of allocating the value to new assets on acquisition
- AAS 1010 Recoverable Amounts of Non-Current Assets specifies requirement to test the reasonableness of valuations.



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HAWKESBURY CITY COUNCIL

ASSET MANAGEMENT PLAN

BUILDINGS & STRUCTURES RESOURCING STRATEGY





HAWKESBURY

WKESBURY

www.hawkesbury.nsw.gov.au

STATEMENT OF COMMITMENT TO FIRST NATIONS PEOPLES

Council acknowledges the Dharug and Darkinjung people as the Traditional Custodians of the land throughout the Hawkesbury.

Council recognises the continuing connection of First Nations people to their Country and respects the cultures and histories of Aboriginal and Torres Strait Islander peoples as the first peoples of this land.

W Marks #





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EXECUTIVE SUMMARY

This Buildings and Structures Asset Management Plan outlines the lifecycle management practices for the Buildings and Structures Infrastructure Assets group. This group includes various Council buildings and major structures, with an estimated total replacement cost of \$220 million.

The primary goal of this plan is to deliver the defined levels of service in the most cost-effective manner, addressing both current and future needs of the community. The key objectives of this plan include:

- Establishing detailed technical and operational service level criteria to meet the community's expectations.
- Developing and managing whole-of-life models to enable affordable and costeffective management of the Buildings and Structures Infrastructure assets.
- Developing and maintaining a 5-year forward works plan.
- Contributing to the development of Long-Term Financial Plan (LTFP) scenarios.
- Implementing ongoing auditing, compliance, and review practices for this plan.

To support the Long-Term Financial Plan (LTFP), three scenarios have been developed—Decline, Improve, and Resolve—to demonstrate the opportunities and risks associated with various funding models within the LTFP and Asset Management Strategy.

Hawkesbury Council is dedicated to delivering the service levels outlined in the AMS. Under Scenario 3: Resolve, which requires an annual investment of approximately \$30 million across all asset classes, the estimated available funding for building assets over the next 10 years will increase to \$4.4 million per year. While this is a significant improvement, it still leaves a budget shortfall compared to the actual needs for maintenance, renewal, and upgrades.

Although Scenario 3 will substantially reduce the backlog of unfunded renewals, some asset needs will remain unmet each year, particularly in lower-priority areas. This scenario represents a proactive approach, but achieving full funding for all building asset requirements will still demand careful prioritisation and ongoing efforts to secure additional resources.

Finally, a detailed plan, including strategic actions, has been developed to enhance the organisation's asset management maturity.

INTRODUCTION & BACKGROUND

OUR CITY

The Hawkesbury is a unique area located in the Hawkesbury River Valley. It is the largest Local Government Area in the Sydney Metropolitan Region, covering approximately 2,776km². Our population is relatively small with 68,704 people calling the Hawkesbury home.

The Hawkesbury and its townships, rural villages and landscapes share a rich and enduring Indigenous and European cultural heritage. The area has significant geographical range and diversity.

Prior to European settlement the area was inhabited by the Dharug and Darkinjung peoples for over 40,000 years. The Hawkesbury River (known as Dyarubbin by the Dharug people) was a focus for those people. Its tributaries and floodplains provided abundant natural resources and were places of strong social and spiritual significance for the First Australians. It has been estimated that there were up to 3,000 Aboriginal people living in the Hawkesbury area in 1788.

European explorers first arrived in the Hawkesbury in 1789. It is the third oldest European settlement in Australia. Windsor (originally Green Hills) which was established in 1794, is one of five 'Macquarie Towns', four of which are located within the Hawkesbury. Governor Macquarie had a profound influence on the development and landscapes of the Hawkesbury, which included naming the townships of Windsor, Richmond, Wilberforce and Pitt Town and the layout of their streets, cemeteries and town squares.

The Hawkesbury Local Government Area straddles the divide between the urban metropolitan councils to its east and the rural councils to its west. While it is classified as part of Metropolitan Sydney, its unique blend of urban and rural settlements is uncharacteristic of the metropolitan area.

The Hawkesbury is therefore classed as a metropolitan-rural area by virtue of its location and its natural assets, including its natural beauty, its five rivers and their tributaries, its mountains, national parks and wilderness areas. The heritage towns of Windsor, Richmond, Pitt Town, Wilberforce and Ebenezer are all located within the Hawkesbury.

The agricultural lands that surround the Hawkesbury's towns and villages represent the oldest rural land holdings under continuous cultivation within Australia. The Hawkesbury also contains the oldest church, hotel and public square. Thompson Square, located in Windsor, was named and established by the then Governor Lachlan Macquarie in 1811 as recognition of the emancipist Andrew Thompson. Thompson Square and its immediate surrounds is also recognised as the oldest surviving public square in Australia.

These historical and cultural assets are actively being used to support cultural expression, tourism and economic activity. They remain integral to the future identity and prosperity of the Hawkesbury.

Council is committed to engaging the community on its future plans and strategies. It is important that Council continues to develop and discuss options with its community on the future funding of asset renewal and maintenance and the key areas of priority. A snapshot of the range of Council's Building and Structures assets is shown on the following page.

BUILDINGS

STORMWATER

ROADS

OPEN SPACE



46 different facilities including community, children's and other essential services



AQUATIC

2 facilities constructed around the Hawkesbury





2 different libraries located in central locations around the Hawkesbury





28 facilities constructed around the Hawkesbury

MUSEUM & ART GALLERY



3 facilities constructed around the Hawkesbury

OTHER MAJOR STRUCTURES

3 Grandstands
3 Viewing Platforms
2 Outdoor Pools

OPERATIONAL BUILDINGS



13 different buildings for administration, operation and support services PUBLIC AND SPORTS AMENITIES



86 unique park buildings which include amenities, club houses, gardener's sheds and more COMMERCIAL BUILDINGS AND INVESTMENT PROPERTIES



35 different tenanted properties that are used for investment purposes

PURPOSE OF THE PLAN

Asset management planning is a systematic process that aims to manage infrastructure and other assets on a lifecycle basis, with optimal funding to ensure the ongoing delivery of satisfactory levels of service to the community.

This plan demonstrates how Council utilises asset data to research, analyse and plan for the ongoing construction, maintenance and operation of the assets in the Buildings and Other Structures group. This enables informed decision-making to create a sustainable and reliable environment for the community. This plan details for Council's Buildings and Other Structures Assets group:

- The current state of assets
- The medium-term (10 Year) financial plan required to maintain the current levels of service
- A Five-Year Forward Works Program which outlines the renewal, upgrade, demolition, expansion or new construction of assets
- A set of strategic actions to enhance Council's asset management maturity
- Risks associated with infrastructure assets and critical assets
- The infrastructure assets health for various Long-Term Financial Plan (LTFP) scenarios
- The impact of future demand and changes of the technology on asset management practices
- The technical and customer levels of service

This plan reflects the Council's relevant strategic plans that outline community service levels and other critical planning matters required to ensure safe, equitable and quality access to the wide range of infrastructure and other assets owned and/or managed by Council.

This Buildings Asset Management Plan supports and is to be read in conjunction with Council's Asset Management Strategy (AMS) and Asset Management Policy (which are reviewed and adopted annually by Council as part of the Resourcing Strategy under Integrated Planning and Reporting) and other key planning documents.



Office of Local Government - Integrated Planning and Reporting Framework 2021

GOALS AND OBJECTIVES

The primary goal of this plan in managing Council's infrastructure assets to deliver the defined levels of service in the most cost-effective manner for both current and future consumers. This requires understanding the current needs of the community, the current performance levels of the Council's strategic plans and anticipating future needs and requirement. Hence the key asset management objectives of this plan are:

- Developing and maintaining a 5 year forward works plan including scope of the works and estimated budget
- Developing whole of life models to estimate the average 10-year required budget and annual gap, and predict the future state of assets for various financial scenarios
- Informing the Asset Management Strategy (AMS) and Long-Term Financial Plan (LTFP)
- Establishing detailed technical and operational service level criteria to meet the community service levels of Council's strategic plans together with suitable performance monitoring criteria and processes
- Managing the impact of social, financial, political and environmental growth and change through demand management and` effective investment
- · Identifying, assessing, monitoring and controlling risks
- Integrating with Council's adopted strategies, plans, long term financial plans so that lifecycle asset management is implemented at an organisational level
- The ongoing review and updating of the lifecycle models to take advantage of new information and cost-effective asset management methods as they arise



ASSET MANAGEMENT PRACTICES

ASSET CATEGORISATION

A comprehensive Infrastructure Assets Categorisation Framework has been developed, covering various asset groups. The current infrastructure asset management groups are:

- Roads and Transport
- Buildings and Other Structures
- Stormwater
- Open Space

Assets are further categorised based upon how they are used:

- Infrastructure assets provide services directly to the community (e.g. roads provide pedestrian and vehicular transport services across the LGA and parks provide active and passive recreation services for the community)
- Community assets are used to enable services to be provided or are used in the delivery of services to the community (e.g. library buildings are used to deliver library services and park amenities support provision of recreational services)
- Operational assets are utilised by Council directly to administer and facilitate its operations (e.g. Council's depots support the field teams who maintain the parks; and
- Commercial assets provide an income to Council (e.g. commercial shopping centres or heritage buildings converted to offices)

Some assets are non-depreciable. Generally, the non-depreciable earthworks and the purchase of the land associated with an asset happens only once with the initial asset construction or acquisition. These costs are not usually included in the asset lifecycle calculations after the initial creation of the asset. Land comprises all lands owned and or managed by council, including crown land, community land and operational land.

Council also owns and/or manages bushland and street trees. These are known as Natural assets, and they are managed by Council on an ongoing basis for the benefit of the current and future generations.

At this stage, AMPs have been developed for the four major Asset Management groups only (Roads, Buildings and Other Structures, Open Space and Recreation, and Stormwater Drainage). Lifecycle plans are not required for non-depreciable assets and Plant and Equipment and Other Asset groups are treated as current assets and costed as expenses in the year of construction/acquisition.

BUILDINGS AND OTHER STRUCTURES ASSET PORTFOLIO

A breakdown of the Building and Structures assets covered by this plan is as follows:

- Public amenities: Public toilets park, public places
- **Sports amenities:** Clubhouse, toilets/showers/referee room, kiosk, storage, gardener's shed
- **Operational buildings:** Council Works Depot, Council's Administration Building and Emergency Services buildings (Rural Fire Service and State Emergency Services)
- Childcare centres
- **Community buildings:** Library, arts and cultural centres, Museum, community and neighborhood centre, functions centre, Visitor Information Centre
- Leisure and aquatics centres: Leisure and Aquatics Facilities and Outdoor Pools
- **Commercial buildings and investment properties:** Shopping centres, shops, restaurants
- Other structures: Grandstands, wharves

It should be noted that Council is responsible for a vast majority of Buildings and Structures infrastructure assets situated within the Local Government Area (LGA).

The current state of the Buildings and Structures Portfolio is shown overleaf in **Dashboard – State of Buildings and Other Structures Portfolio**. The Dashboard is a visual presentation of the portfolio that includes the inventory, condition distribution, financial data, unfunded renewals, maintenance and renewal gap.

DATA COLLECTION AND ASSET MANAGEMENT SYSTEMS

Council utilises two software packages including Technology One and Brightly (formerly Assetic) to cover databases, works, financials, supply chain, mapping, and modelling tools as part of its asset management practices. The effectiveness and maturity of these practices can be enhanced through further integration of these tools. The asset software packages in use are:

- **Technology One (T1) Products Cloud Based:** Provides enterprise asset management for the corporate asset register, works management, asset accounting, request management, financial management, and supply chain management
- **Assetic Predictor:** A predictive tool for creating various models and scenarios for longterm financial planning and the development of capital works programs
- ArcGIS Pro: Council's corporate GIS (Geographic Information System) used to store all spatial data of assets
- IntraMaps Cloud: A GIS tool, also a T1 product, integrated with corporate systems for mapping queries, reporting, and visual presentation purposes
- **Field App:** A cloud-based, user-friendly mobile application from T1, working under an integrated platform used by staff for works management, asset inspections, on-site data collection, and register updates

State of Assets Infrastructure Portfolio

All Infrastructure Assets	Roads	Parks		Stormwater D	Prainage Buildings	and Other Structures
Current Replacement Cost \$220,532,000	Asset Category	Current Replacement Cost	Annual Depreciation	Unfunded Renewal	Required Average Annual Budget (10 year)	Current Average Annual Budget (10 year)
Current Average Annual Budget	Children's Facilities	\$21,087,000	\$428,250	\$408,000	\$421,740	\$95,619
\$1,000,001	Community Facilities Council Offices	\$22,231,000	\$72,680	\$598,000	\$444,620	\$100,806
Requried Average Annual Budget	Council Public Halls	\$35,404,000	\$675,350	\$1,176,000	\$708,080	\$160,539
\$4,410,639	Council Works Depots	\$8,033,000	\$171,070	\$140,000	\$160,660	\$36,426
Appual Penewal Cap (10 Vears)	Emergency Services Buildings	\$19,439,000	\$453,960	\$66,000	\$388,780	\$88,146
Annual Kenewal Gap (10 rears)	Hawkesbury Cultural Facilities	\$6,817,000	\$169,960	\$126,000	\$136,340	\$30,912
\$3,410,638	Leisure and Aquatics Facilities	\$37,627,000	\$682,060	\$258,000	\$752.540	\$170,619
Unfunded Renewal	Libraries	\$18,151,000	\$335,440	\$50,000	\$363,019	\$82,306
\$4 873 721	Other Structures	\$10,318,000	\$189,511	\$196.241	\$206,360	\$46.787
\$0,073,721	Parks Buildings and Facilities	\$27,080,000	\$306,370	\$3,857,480	\$541,600	\$122,794
Annual Depreciation	Swimming pools	\$5,608,000	\$65,809	\$0	\$112,160	\$25,429
\$3,933,979,36						



Optimum Budget Breakdown (Average 10 Years)



Leisure and Aquatics Facili...
Council Public Halls (1.2%)
Parks Buildings and Faciliti...
Council Offices (0.7%)
Children's Facilities (0.7%)
Emergency Services Buildi...
Libraries (0.6%)
Other Structures (0.3%)
Community Facilities (0.3%)
Council Works Depots (0.3%)

🔴 Hawkesbury Cultural Facili.

Swimming pools (0.2%)

LEVELS OF SERVICE

In part, this Asset Management Plan has been prepared to facilitate consultation about levels of service with the broader community. Future revisions will incorporate customer feedback on service levels and the costs of providing these services. This will help Council align the required level of service, associated risks, and consequences with the community's ability and willingness to pay.

Based on our current understanding of the performance of our buildings and structures, financial analysis indicates that Council is likely to underfund existing service levels in the medium to long term. If this funding shortfall persists, the following impacts are expected:

- **Deteriorating assets:** Without sufficient funding, the condition of buildings and structures will decline, leading to a reduction in service quality and potential safety concerns.
- Widening asset renewal gap: The gap between the required and available funding for renewing assets will continue to grow, further threatening long-term financial sustainability.
- **Generational cost shifting:** Future residents will bear the financial burden of renewing assets that have deteriorated due to underfunding today, resulting in significant generational cost-shifting.
- **Inability to meet demand for new or upgraded services:** The Council will be unable to accommodate growing demand for new, expanded, or upgraded facilities, limiting the community's access to modern services and infrastructure.
- **Backlog Impact:** Under the current funding scenario, the Council's backlog of unfunded asset renewal works will continue to grow. The existing budget shortfall means that a large proportion of required maintenance and renewal work will need to be deferred or carried out reactively. This reactive approach will increase long-term costs as assets deteriorate further and require more expensive interventions later. The backlog not only represents a financial liability but also contributes to the gradual degradation of service levels. Community expectations for asset quality and functionality will be harder to meet as more projects are delayed due to limited resources.
- **Prioritisation and Risk-Based Approach:** Given this shortfall, the Council will prioritise asset works based on asset condition, risk, and criticality, with a focus on ensuring legislative compliance and minimising safety risks. Non-critical assets and lower-priority projects will face delays, which could lead to further reductions in service quality and increased community dissatisfaction over time.
- Impact of Significant Weather Events and Natural Disasters: Over recent years, the Hawkesbury region has experienced a series of natural disasters including major floods (2020, 2021, 2022, and 2024), bushfires, and the COVID-19 pandemic, which have had a cumulative and compounding effect on Council's built infrastructure. Among these, flooding has had the most direct and severe impact on the Council's building assets, particularly those located in flood-prone or low-lying areas. Several Council-owned buildings have sustained structural damage, with some becoming inoperable or unsafe. Insurance payouts have, in some cases, been insufficient to meet the full cost of replacement or upgrades, leaving Council with limited options other than deferment or seeking substantial grant funding.

These impacts have heightened the urgency of resilience planning within Council's broader lifecycle and risk management frameworks. As the frequency and severity of climate-related events increase, there is growing pressure to future-proof building assets by embedding resilience measures into design, renewal, and construction. This includes enhancing flood resistance, ensuring critical facilities remain operational during emergencies, and integrating adaptive features such as improved drainage, passive cooling, and back-up systems.

While Council will continue to improve its understanding of asset conditions and refine service level targets, the reality of the increasing funding gap means that the backlog of works will grow unless additional funding sources are identified.

Future updates to this Asset Management Plan will guide long-term financial planning to ensure that renewals and upgrades are strategically funded to meet capacity demands and essential service levels. As part of its implementation of the Integrated Planning and Reporting Framework (IP&R), Council's Corporate Planning Team consults the community during the development of the Community Strategic Plan (CSP).

This AMP relies on the consultation done during the development of the current CSP and ongoing engagement to establish the Community Levels of Service defined below:

CUSTOMER LEVELS OF SERVICE

The Customer Levels of Service are evaluated based on the following service attributes for both current and future expectations. In managing these attributes, Council must often balance them against one another, as efforts to improve one attribute may have a detrimental effect on another. For example, temporary closures to address quality or safety issues can limit capacity and utilisation, directly impacting service accessibility and availability:

- **Quality:** Assesses how well the service meets expected standards in terms of condition and overall satisfaction. This includes evaluating maintenance levels, condition assessments, and user satisfaction surveys. For example, council buildings are maintained and serviced adequately with an aim to reduce maintenance-based complaints by 10% and maintain high satisfaction levels through targeted improvements. However, closures required to manage quality and safety risks may impact on the functionality and capacity of these assets, introducing a trade-off between maintaining quality and ensuring continuous availability.
- **Function:** Determines whether the asset is fit for its intended purpose. This involves functionality assessments and user feedback. For instance, community buildings are evaluated to ensure they meet functional needs, with ongoing improvements based on evolving community requirements. However, prioritising functional improvements or addressing functionality issues may require adjustments that impact the quality or capacity of the asset, underscoring a balance between functionality and other service attributes.
- **Capacity and Utilisation:** Examines whether the service has adequate capacity and is utilised effectively. This includes analysing facility utilisation data and user feedback. The objective is to improve tracking and utilisation, with flexible space configurations to accommodate diverse activities and meet demand. Childcare centres, for instance, are assessed on enrolment rates and waiting lists to ensure they can meet user demand effectively.
- Accessibility: Ensures that community buildings are accessible to all members. This involves compliance reviews of accessibility standards. The goal is for all newly constructed buildings to be fully accessible and for existing buildings to have enhanced accessibility features.

A summary of the current performance measures, current performance data, and expected performance based on current funding levels is provided in **Table 1– Customer Level of Service** on the following page. These measures are designed to reflect service delivery outcomes and facilitate comparisons between customer expectations and the Council's ability to meet these demands sustainably

Balancing Community Demand and Statutory Requirements

The Council's service delivery is also influenced by changing community demand and evolving statutory requirements. As community expectations for modern and accessible facilities increase, the Council must prioritise asset management actions that may require trade-offs across service attributes. Additionally, new statutory requirements may necessitate reallocation of resources, potentially impacting the balance between quality, functionality, capacity, and accessibility.

Table 1– Customer Level of Service

Service Attribute	Service Objective	Asset Category	Performance Measures	Expected Trend (10 years)
Quality	All council buildings are maintained and serviced adequately	All Council Buildings	Customer request system and complaints related to maintenance Condition assessment Customer satisfaction survey results	Reduction in maintenance- based complaints by 10% Increase and maintain high satisfaction levels through targeted improvements
	Community Buildings are maintained and serviced adequately	All Community Buildings	Customer request system and complaints related to maintenance (works requests) Condition assessment User satisfaction survey (to be developed	Reduction in maintenance- based complaints by 10% Increase and maintain high satisfaction levels through targeted improvements
	Public and Sports amenities buildings are of high quality	All Public and Sports amenities buildings	Condition Assessments Customer Satisfaction, Frequency of major maintenance	Continuous improvement in building conditions, with a focus on maintaining high standards. Effective maintenance strategies and timely upgrades to ensure the long-term quality of the amenities.
Function	Community buildings are fit for purpose and meet the functional needs of the community	All community buildings	Functionality assessments and user feedback	Enhanced functionality based on evolving needs
Capacity and Utilisation	Community Buildings have Adequate capacity to meet user demand and well-utilised	Community Buildings and halls	Number of available facilities utilisation data. User feedback on capacity	Improved tracking and increased utilisation Flexible space configurations to accommodate diverse activities and increased capacity
	Childcare centres have adequate capacity to meet user demand	Childcare centres	Enrolment rates and waiting list	Higher user group and parent satisfaction
Accessibility	Community buildings are accessible to all community members	Community Buildings and halls	Compliance review of accessibility standards	All newly constructed buildings are fully accessible and existing buildings with enhanced accessibility

The key Community Levels of Service applicable to all asset groups, with a focus on balancing these competing priorities, are:

Alignment with Community Requirements: Ensuring all levels of service meet community needs identified through engagement and consultation processes, balanced with the Council's capacity to sustain these services.

Infrastructure Condition: Maintaining asset conditions through funding that considers community demand and compliance requirements, while recognising the impact on other service levels.

Commitment to Growth: Expanding and enhancing the Council's infrastructure network to address future community needs while managing trade-offs between service levels such as quality, function, and accessibility.

TECHNICAL LEVELS OF SERVICE

To deliver the Community Levels of Service Council's asset managers convert them to Technical Levels of Service which are operational and/or technical measures of performance, tailored to the assets concerned. These technical measures relate to the activities and resources required to best achieve the desired community outcomes at the least possible ongoing cost.

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

- Acquisition Addition of a new service that did not exist previously (e.g. New community centre or Public amenities)
- Operation Regular activities required to provide services and maintain operational standards (e.g. opening hours, conducting routine inspections, and maintaining cleanliness)
- **Upgrade** The activities required to provide a higher level of service (e.g. Renovating an old building to add modern facilities, or upgrading HVAC systems to improve energy consumption.)
- **Maintenance** The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. performing repairs to building structures, updating electrical systems, or maintaining plumbing to ensure ongoing functionality.)
- **Renewal** The activities that return the service capability of an asset up to that which it had originally provided (e.g. Replacing worn-out roof sections, resurfacing floors, or upgrading outdated building components.)

Council aims to provide the following Technical Levels of Services across all asset groups:

- Action all required renewal, upgrade, maintenance, and acquisition plans through lifecycle modeling and budgeting.
- Continuously improve models through constant recalibration of logic and parameters
 used
- Continuously improve adopted plans by reflecting new funding scenarios (Grants and external funding options) and condition assessments of assets
- Continuously improve the technology used by monitoring technological advances, using such technology when it becomes cost-effective to do so, and participating in or leading research and innovation as opportunities arise

Specific Technical Levels of Service for the Buildings and Structures Asset Group are outlined in **Table 2 – Technical Level of Service** on the following page.

Table 2 – Technical Level of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance	Expected Trend Based on Planned Budget
Acquisition	Add new services that did not exist previously (e.g. a new public amenity)	Community survey HCC Social Infrastructure Strategy	HCC Social Infrastructure Strategy	Increased number of new services to meet evolving needs and new developments
Operation	Provide regular services (e.g. opening hours, inspections)	Efficiency and reliability of service delivery	Regular activities are ongoing	Improved efficiency and reliability of operations
Upgrade	Improve or expand existing facilities to meet higher service standards (e.g. Building refurbishment, HVAC upgrade	Performance improvement metrics	Limited upgrades undertaken due to budget constraints	Increased upgrades to enhance service levels and efficiency
Maintenance	Retain assets as near as practicable to an appropriate service condition	Adherence to maintenance schedules	Detailed schedules in place	Continued adherence and updates to maintenance schedules
Renewal	Reduce Unfunded Renewal of Buildings and Structures in poor or very poor condition	Current Unfunded Renewal	\$ 6,873,721 Unfunded Renewal of assets in poor condition	Reduce Unfunded Renewal by 10%
Flood Risk Assessment	Evaluate and manage flood risk for all Council-maintained buildings	Frequency and comprehensiveness of flood risk assessments	Periodic assessments, detail and frequency may vary	Increase frequency and detail of assessments with improved budget

TECHNICAL LEVELS OF SERVICE - OPERATIONS AND COMPLIANCE

- Compliance and Standards Ensure buildings adhere to safety regulations and standards.
- Energy Efficiency and Sustainability Implement measures to enhance energy efficiency and environmental sustainability.
- Flood Resilience Management Ensure buildings are resilient to flood events.

Asset Management Activity	Purpose of Activity	Activity Measure	Current Performance	Expected Trend Based on Planned Budget
Compliance and Standards	Ensure buildings adhere to safety regulations and standards	Compliance review	Ongoing compliance with current regulations	Maintain and improve compliance standards
Energy Efficiency and Sustainability	Improve building sustainability	Implement measures to enhance energy efficiency and environmental sustainability	Initial sustainability measures implemented	Enhanced energy efficiency and sustainability measures
Flood Resilience Management	Ensure buildings are resilient to flood events	Implementation and effectiveness of flood resilience measures	Basic measures in place; additional needed	Enhanced flood resilience measures and improved effectiveness with increased budget, and insurance
Flood Risk Assessment	Evaluate and manage flood risk for all Council-maintained buildings	Frequency and comprehensiveness of flood risk assessments	Periodic assessments, detail and frequency may vary	Increase frequency and detail of assessments with improved budget
Flood-Resilient Design and Construction	Ensure new and renovated buildings meet flood-resilient standards	Percentage of buildings meeting flood- resilient design standards	Some buildings with flood resilience features; older ones lack this	Increase percentage of flood- resilient buildings, including retrofits
Flood Mitigation Measures	Implement measures to reduce the impact of flooding	Number and effectiveness of flood mitigation measures	Basic measures in place; additional needed	Expand and enhance flood mitigation measures with additional funding
Emergency Preparedness and Response	Ensure effective preparedness and response to flood events	Development and testing of emergency preparedness plans	Plans exist but may not be tested regularly	Regular updates, testing, and community drills with improved funding
Maintenance of Flood Mitigation Infrastructure	Maintain infrastructure designed to mitigate flood impact	Frequency and quality of maintenance of flood mitigation infrastructure	Maintenance performed as needed; consistency may vary	Increase frequency and quality of maintenance with dedicated budget
Monitoring and Evaluation	Continuously monitor flood risks and evaluate resilience measures	Regular monitoring reports and evaluation of flood resilience measures	Periodic monitoring and evaluation	Enhanced monitoring and evaluation processes with advanced technology

DESIGN AND CONSTRUCTION STANDARDS

Hawkesbury City Council ensures all new buildings and upgrades comply with the National Construction Code (NCC) and all relevant Australian Standards (AS). These regulations guide structural integrity, safety, accessibility, and environmental performance.

Additionally, the Council aims to integrate sustainability principles aligned with its Environmental Sustainability Strategy. Where applicable, new projects aspire to meet Green Star or Infrastructure Sustainability Council of Australia (ISCA) accreditation to enhance longterm environmental outcomes.

MAINTENANCE STANDARD

Maintenance standards for building assets at Hawkesbury City Council are established to ensure the provision of high-quality, safe facilities for all users while aligning with the Council's budgetary constraints. These standards are informed by industry benchmarks, risk assessments, and community feedback, and they cover routine maintenance, repair, temporary measures, and emergency work.

Routine maintenance tasks are prioritised based on the asset's usage, susceptibility to deterioration, and cost-effectiveness, with specified response times for repairs to ensure timely completion. Temporary measures are implemented to mitigate risks until permanent solutions can be applied, and emergency works are promptly executed to address public safety concerns.

Comprehensive documentation and regular reporting on maintenance activities support informed planning and funding decisions, ensuring that the Council continues to meet the community's needs effectively. Future revisions of the Asset Management Plan will further refine these standards, incorporating new industry practices, technological advancements, and ongoing community engagement to continuously improve maintenance outcomes.



FUTURE DEMAND

DEMAND FORECAST

Hawkesbury City Council has a pivotal role in providing essential services and infrastructure to the community. The future demand for these assets extends beyond mere population growth; it encompasses a wide array of factors that could influence how services are delivered.

Hawkesbury City Council is committed to fostering a safe and sustainable environment for both current and future generations. To achieve this, the Asset Management Plan (AMP) identifies key drivers that may impact the provision of services to the community in the future. The objective is to ensure the assets can adapt flexibly to evolving demands, ensuring their relevance over the next decade and beyond. The drivers are summarised in **Table 3 – Future Demand** below.

KEY DRIVERS AFFECTING DEMAND FOR ASSETS

Changes in Demographics:

- Population Change: As population increases, so does the demand for community facilities, public amenities, and essential services. This AMP takes into account the projected growth from 68,704 residents to an estimated 85,050 by 2036.
- Aging Population: The demographic shift towards an older population may require different types of facilities, such as more accessible buildings and age-friendly recreational areas.
- Change in Population Density and Centre Boundaries: As urban centers such as Windsor and Richmond experience increasing population densities, the demand for infrastructure and services will intensify in these areas. The Asset Management Plan (AMP) anticipates that higher density will necessitate the expansion or upgrading of existing facilities to accommodate the concentrated population. Additionally, any adjustments to center boundaries will require strategic planning to ensure that infrastructure development keeps pace with shifting demographic trends.
- Culturally and Linguistically Diverse (CALD) Communities: As the CALD population grows, there may be an increased need for tailored facilities and services that support the diverse cultural and linguistic needs of these communities, fostering inclusivity and equitable access to public services.

Economic Factors:

• Economic Growth or Downturns: Economic conditions can affect community needs. A booming economy may lead to increased construction and demand for new infrastructure, whereas an economic downturn could necessitate the efficient use of existing assets and prioritisation of maintenance over expansion.

Legislative and Policy Changes:

• Compliance Requirements: New regulations or changes in government policy could require updates to building codes, accessibility standards, and environmental laws, necessitating upgrades or modifications to existing assets.

Community Expectations:

• Service Quality: As resident's expectations for high-quality, modern amenities grow, there will be increased pressure on the Council to deliver state-of-the-art facilities.

Environmental Factors:

 Climate Change: The increasing frequency and severity of natural disasters, such as floods and extreme heat, necessitate the development of more resilient infrastructure. As climate challenges escalate, Council buildings must not only be designed or upgraded to withstand these environmental impacts but also adapt to serve crucial roles in community resilience. For example, buildings can function as heat refuges during extreme weather events, providing safe, air-conditioned spaces for vulnerable populations.

To enhance resilience in flood-prone areas, the Council will prioritise investments in flood-resistant construction techniques and materials, ensuring that infrastructure can effectively mitigate risks while continuing to support essential services. This approach reinforces the importance of adaptive building designs that not only safeguard physical structures but also enhance the overall safety and well-being of the community during climate-related disruptions.

• Sustainability Initiatives: The shift towards sustainable development and energy efficiency will impact how assets are managed, potentially increasing the demand for green buildings and renewable energy sources.

Aging Infrastructure:

 The Council's aging buildings and structures are resulting in increased maintenance costs and reduced efficiency. As these assets continue to age, maintenance challenges are expected to worsen, which may heighten safety risks and diminish service quality. In worst-case scenarios, specific facilities may face temporary or permanent closures if they become unsafe or unviable, impacting service delivery and necessitating contingency planning.

DEMAND MANAGEMENT STRATEGIES

To address these identified drivers, the following demand management strategies will be employed:

- **Monitoring and Review:** Regular monitoring of demographic trends, economic conditions, and environmental factors will guide the timely adaptation of infrastructure to meet community needs. This will be supported by an ongoing program of service reviews, ensuring that services remain aligned with community needs, operational efficiencies, and Council's strategic objectives.
- Strategic Planning and Asset Rationalisation: Aligning capital projects with strategic plans ensures that the development of new assets and the upgrading of existing ones are in harmony with projected demand. This approach includes a rationalisation of underutilised or non-essential assets where feasible to better match demand and resource allocation. For example, if a facility experiences declining utilisation, the Council may consider repurposing, consolidating with another nearby asset, or divesting the asset to reduce costs and reinvest in higher-demand services. Asset rationalisation decisions will be grounded in demand forecasts, community engagement outcomes, and service priorities.
- **Community Engagement:** Ongoing consultation with residents will help prioritise projects that reflect community preferences and particularly around rationalising or enhancing key assets, ensuring service quality and accessibility. Implementing a proactive maintenance and replacement plan will mitigate the impacts of aging infrastructure, ensuring continued safety and efficiency while potentially extending the life of assets deemed essential through service reviews.

- **Proactive Maintenance:** Implementing a proactive maintenance and replacement plan will mitigate the impacts of aging infrastructure, ensuring continued safety and efficiency while potentially extending the life of assets deemed essential through service reviews.
- **Legislative Compliance:** Staying ahead of legislative changes by proactively planning for necessary upgrades ensures that all assets remain compliant with current standards and regulations, particularly for assets with high community dependency.
- **Resilience and Contingency Planning:** Adapting facilities to meet evolving environmental and social challenges is essential, particularly given Hawkesbury's flood-prone nature. Strategies will include implementing flood-resilient designs and preparing for temporary facility closures if necessary. In flood-prone areas, infrastructure investments will prioritise resilience, ensuring that Council can continue to support the community during periods of disruption. To optimise resource allocation, asset rationalisation will focus on facilities that offer greater resilience and community value. For example, if certain assets become underutilised or unsustainable due to frequent flood risks, the Council may consider options such as repurposing, relocating, or divesting these assets. This strategic approach enhances infrastructure resilience and provides adaptable, long-term solutions that safeguard both community needs and Council resources.

Demand Driver	Current Position	Projection	Impact on Services	Demand Management Plan
Population Growth	68,704 – the number of people based on last Estimated Resident Population	Projected Growth of 85,050 by 2036	Increased demand and need for community facilities, pools, recreational areas and essential services	Manage and review proposed Strategic plans to better align capital projects to optimise secured funding for further community development and growth
Change in population density and centre boundaries	Varying population densities across the council area with urban centers such as Windsor and Richmond experiencing higher densities	Population density in urban centers is expected to rise, leading to increased usage of facilities	Change in population density of local centres may require Buildings and Structures to be upgraded in order to accommodate the rising usage	Monitor trends on increasing population density and amend building and structure capacity to suit the trends
Legislative requirement or government policy change	Current compliance with existing regulations	Potential changes in legislation requiring updates to building codes and standards	Mandatory upgrades to ensure compliance with new regulations, potentially leading to increased costs	Stay updated with legislative changes and proactively plan for necessary upgrades to ensure compliance
Climate change	Existing council buildings may not fully incorporate flood resilience	Potential changes in legislation requiring updates to building codes and standards	Enhanced need for flood- resilient infrastructure to minimise service disruptions and damage	Incorporate flood resilience into building designs and consider relocating vulnerable structures to safer areas
Increase in customer expectation	High expectations for modern, accessible, and well-maintained facilities	Rising expectations for state-of-the- art amenities and sustainable buildings	Increased pressure to deliver high- quality services and infrastructure	Regularly engage with the community to understand expectations and prioritise projects that enhance service quality and user satisfaction
Ageing infrastructure	Existing Buildings continue to age, leading to higher maintenance costs and reduced efficiency	Continued aging of infrastructure leads to higher maintenance costs and reduced efficiency	Increased maintenance costs, potential safety hazards, and decreased user satisfaction	Implement a proactive maintenance and replacement plan to ensure aging infrastructure is upgraded or replaced timely

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RISK MANAGEMENT

Effective risk management is vital for Hawkesbury City Council to safeguard its infrastructure, community, and service assets, many of which are essential for the community's day-today functioning. Key assets, such as community buildings that provide critical services, must remain operational to avoid disruptions that could affect the livelihoods and well-being of Hawkesbury residents. The Enterprise Risk Management Framework (ERMF) guides the Council's approach to managing infrastructure risks, while the Risk Appetite Statement sets acceptable risk levels, ensuring that all risk treatments are aligned with the Council's tolerance for risk exposure.

The council's risk management approach for infrastructure assets is rooted in the principles of ISO 31000:2018 and complies with guidelines from the Office of Local Government. These principles ensure a structured approach to identifying, assessing, managing, and mitigating risks.

Key Risk Categories

A comprehensive assessment of the Council's asset portfolio identified risks in several impact categories. Each risk is evaluated based on likelihood and impact, and risks are assigned ratings aligned with Council's Risk Appetite Statement. Categories include:

- People Impacts: Civil unrest, workforce health and safety (WHS), and community relations.
- Environmental Impacts: Climate change, biodiversity loss, natural hazards, and public health concerns.
- Financial Impacts: Economic fluctuations, fraud, theft, and financial management.
- Reputational Impacts: Risks to Council's public image, influenced by media coverage, community feedback, and corporate values.
- Compliance Impacts: Legislative adherence, contractor management, and Council policy compliance.

These risk categories ensure Council's actions align with the RMF while adhering to Council's risk tolerance, supporting sustainable, high-quality service delivery within acceptable risk boundaries.

Risk Assessment and Mitigation

Each identified risk is prioritised based on risk appetite. Risks that exceed the Council's risk tolerance are escalated to appropriate management levels, including the General Manager if required. Risk owners are tasked with implementing SMART risk treatments (Specific, Measurable, Achievable, Relevant, Time Framed), ensuring all actions are aligned with the RMF and are regularly monitored for effectiveness.

For risks that cannot be mitigated to within the risk appetite, the Risk Owner must escalate these to the Council for review and potential intervention, following the escalation protocol set forth in the Risk Appetite Statement. Specific risk registers have been developed for the Buildings and Structures asset group as per **Table 4 – Risk Register** below.
Table 4 - Risk Register

Asset or service at Risk	What can happen	Rating	Risk Treatment plan	Residual Risk
All Building Assets	Increased probability of structural integrity not meeting satisfactory conditions due to under- funding maintenance and renewal programs. Can cause disruption to services and human casualties	High	Consistent review and adaptation of current strategies and renewal/maintenance budgeting models. If risks remain unmitigated beyond an acceptable threshold, closure, divestment, or asset rationalization will be considered as part of the Council's risk treatment strategy	Medium
All Building Assets	Deferred Renewal activities. Can cause disruption to community services or human casualties	High	Secure funding through SRV or Grants and account for necessary human resources If funding remains unavailable, consider rationalisation or staged renewal strategies	Medium
All Building Assets	Poor design of asset, not meeting the relevant council standard or required legislation. Hence unfit for purpose	Medium	Process review and enforce stronger policies to ensure consistently high-quality designs	Low
All Building Assets	Failure to meet response times for identified defects or reported complaints	High	Initiate a defect-based budget for maintenance of building assets by introducing building assets to Council's proactive defect maintenance program	Low
All Building Assets	Council officer injured as a result of Council activities (Renewal/operational/maintenance/upgrade/ acquisition)	Medium	Audit of WHS Systems and relevant SOPS, SWMS, training, procurement of equipment, education/ license revaluation and site risk assessments	Low
All Building Assets	Emergency situations due to unforeseen extreme weather conditions. Events such as flooding, blackouts, failure of key building services. can result in major service disruptions	Medium	Develop and regularly test emergency response plans with SES, RFS, and Fire & Rescue NSW. Identify buildings critical for emergency response	Low
All Building Assets	Lack of Internal resources (Designers, project managers) to resolve issues identified on critical assets	Medium	Revaluation of operational strategies to assess staff requirements and capabilities to deliver all strategies and plans	Low

CRITICAL ASSETS

Critical assets are defined as those which have a high consequence of failure and would result in significant loss, reduction and/or a complete halt in the service provided. Such assets must be identified along with their mode of failure and their impact on the community. Through the proactive investigation of these assets, Council can plan for appropriate actions to prevent premature failure. Such actions are:

- Condition assessment programs: Regular evaluations to monitor asset health and identify potential issues before failure occurs.
- Regularly scheduled maintenance: Ensuring assets receive timely upkeep to prevent costly repairs and service interruptions.
- Adequate funding to execute planned renewal: Aligning renewal budgets with risk priorities to ensure that critical assets have adequate resources to maintain reliable service.

Critical Buildings and Structures Infrastructure assets have been identified and listed in **Table 5 - Critical Assets** below. **Table 5 - Critical Assets**

Critical Asset(s)	Failure Mode	Impact
Operational Administrative building (Such as Windsor Administration Building)	Structural failure or major defects that renders the building inoperable	Unplanned closure of Operational Administrative Centres will disrupt normal Council workflow, impacting Council services
Operational Buildings (Such as Depot Buildings)	Structural failure or major defects that renders the building inoperable	Unplanned closure of Operational Buildings will disrupt normal Council workflow, impacting Council services
Children's Facilities	Structural failure or major defects that renders the building inoperable	Unplanned closure of Council maintained Children's Facilities will cause disruptions to residents that depends on this service
Major Libraries (Such as Deerubbin centre precinct Windsor)	Structural failure or major defects that renders the building inoperable	Unplanned closure of Major Libraries and Knowledge Centre will cause disruptions to residents utilise this service as well as diminishing Council's Reputation
Heritage buildings	Structural failure, degradation of historically significant elements, or major defects that compromise the integrity or safety of the building	Unplanned closure or degradation of Heritage Buildings will result in a loss of cultural and historical heritage, impacting the community's connection to its past. he inability to maintain such buildings can diminish the Council's reputation for preserving its heritage. Delays in identifying and addressing issues can result in significantly higher restoration and maintenance costs.

LIFECYCLE MANAGEMENT PLAN

Strategic Asset Management Objectives

One of the primary goals of Strategic Asset Management is to minimise long-term costs while achieving the service levels expected by the community. Lifecycle asset management plans are essential for prioritising renewals at optimal times and utilising the most effective methods to ensure the lowest possible whole-of-life cost for each asset.

Forecasted Asset Lifecycle Costs

To provide the required service levels, this Lifecycle Management Plan includes all costs necessary for asset operation, maintenance, renewal, upgrade, acquisition, and disposal across their lifecycle. Forecasted funding estimates help determine when and how much to invest in each phase to minimise overall costs.

Funding Required

To adequately sustain and improve building assets, the Council requires approximately \$8.9 million per year for the building's assets. This figure includes:

- Renewal Needs: An estimated \$4.4 million annually is required specifically for asset renewals to replace assets nearing the end of their useful life, preventing deterioration and sustaining long-term asset functionality and safety. Without this dedicated renewal funding, assets are likely to degrade more quickly, leading to increased costs and potential disruptions to community services.
- Operations and Maintenance: Approximately \$4.5 million annually, which is essential to ensure safe, functional, and well-maintained assets for the community.

Current Funding Levels

According to the Long-Term Financial Plan (LTFP), the Council's current annual budget provides only \$1 million for renewals, significantly below the \$4.4 million required to maintain asset condition. Combined with \$4.5 million for operations and maintenance, this brings total funding to \$5.5 million per year, leaving a substantial gap in renewal funding. This limited renewal allocation significantly restricts Council's ability to replace aging assets in a timely manner, increasing the likelihood of accelerated asset deterioration and higher future costs.

Funding Gap

The \$3.4 million annual shortfall in renewal funding has more than doubled since the \$1.6 million shortfall identified in the 2017 Asset Management Plan. This widening gap reflects rising costs and mounting pressures on asset management resources. Closing this gap is critical for sustaining asset conditions and aligning with community expectations, especially as environmental and regulatory demands continue to increase.

Achieving Optimal Renewal at the Lowest Whole-of-Life Cost

Council's renewal strategies are designed to minimise lifecycle costs by timing renewals effectively, balancing initial investments with long-term maintenance needs. While the baseline approach relies on like-for-like replacements, community demands are evolving toward enhancements in recreational areas and accessible spaces. The council actively seeks grant funding (e.g., Western Sydney Infrastructure Grants) to address these needs and enhance facilities, extending beyond standard renewal efforts.

Given the escalation of climate-related risks, the Council's Lifecycle Management Plan prioritises future-proofing assets through resilient designs, such as incorporating heat refuges or flood-resistant features, where feasible. However, without closing the renewal funding gap, many of these resilience improvements may remain underfunded, underscoring the need for immediate and strategic financial adjustments.

PHYSICAL PARAMETERS

Data Collection

The first step in achieving asset management objectives is to build a highly reliable database that includes inventory, condition, and financial information. A condition assessment of building assets for revaluation purposes has recently been completed, with the next comprehensive revaluation scheduled for the 2026/27 financial year. However, an additional building inspection program needs to be developed to collect condition data at the component level and to establish a maintenance defect register for buildings.

Asset Categorisation and Useful Lives

The design useful lives of Council's infrastructure assets are based on numerous factors, including:

- Usage of each asset
- Advice and discussion with asset stakeholders
- The cost and frequency of proactive and reactive maintenance
- Lifecycle cost and degradation models

The useful lives used for Council's lifecycle asset management practices are listed in Attachment C – Useful Lives of Assets Categories and Subcategories.

Model Scenarios

Council has utilised an asset lifecycle modelling tool called 'Assetic MyPredictor' to develop unique financial models for various scenarios based on the nature and behaviour of each asset category. Each model has been tailored with different triggers and criteria for treatments to best reflect currently practiced methodologies for renewal, maintenance, upgrade, acquisition and disposal of assets.

Life-cycle models are used to estimate future funding requirements needed to maintain the current level of service or to predict the future state of assets under various funding scenarios.



LONG-TERM FINANCIAL PLAN SCENARIOS

A financially sustainable Council, as defined by the NSW Government, is one that over a long term can generate sufficient funds to provide the level and scope of services and infrastructure agreed with its community through the Integrated Planning and Reporting Process. (Source: NSW Government, 2012).

The Long-Term Financial Plan considers various lifecycle asset management funding strategies, over a 10-year period, to address three key issues that pose significant financial risk to Council:

Unfunded Renewal: Value of assets that have been delayed from their planned renewal

Renewal Gap: The gap between the required and current average annual renewal expenditure

Maintenance Gap: The gap between the required and current average annual maintenance expenditure

Council's Long Term Financial Plan 2024 – 2034 (LTFP) has been developed with the aim of having an appropriately funded capital works program and maintaining a "fit for purpose" asset base as described by the Asset Management Strategy.

The objective of the LTFP is to allocate sufficient funds each year to an asset reserve and capital budget to cover the required funds for the maintenance and renewal of the Council's existing infrastructure, as outlined in the asset lifecycle models.

The 10-year asset lifecycle model has been develop using Assetic Predictor. The model identifies the optimal strategy to fund the maintenance and renewal of infrastructure assets and to address and clear current unfunded renewals, based on budget availability.

Three scenarios have been developed (Decline, Improve and Resolve) to demonstrate the opportunities and risks of various funding models across the Long Term Financial Plan and Asset Management Strategy. These documents link directly, with the LTFP providing the necessary long term funding strategy to achieve the effective asset management described in this plan. The scenarios demonstrate what would occur to Council's assets under different funding models across the next 10 years.

This information helps Council and the community understand the financial needs and effects of various levels of funding. This Asset Management Plan focuses on the assumed spending on asset maintenance and renewal, with the LTFP describing further variables within each scenario. As asset renewal is the major financial challenge facing Council, these variables are the predominant factor impacting each scenario.

The specification of funding for new assets has not been addressed in this iteration of the Asset Management Plan (AMP). Typically, allowances are made for the acquisition of new assets through construction and other sources to support growth in Council's infrastructure network annually. This is achieved through various grants and commitments made by the Council for the community. Generally, new assets are funded through grants (with or without a Council contribution), Section 7.12 (formerly s94) funds, and/or the sale of other assets.

However, predicting these funding sources with certainty is challenging until the new asset projects are developed. A strategic action of this plan is to develop methods, if possible, to account for the likely impact of new assets on existing renewal funding sources.

Based on recent estimates, the annual depreciation, operational, and maintenance costs of infrastructure assets have increased by approximately \$850K due to donated, newly built, and upgraded assets in the 2023/24 financial year. The acquisition of new assets due to development or construction, as well as the upgrading of existing assets, will increase the funding required for the maintenance, operation, and renewal of infrastructure assets. This could exacerbate the unfunded renewal and renewal gap. Below is the Scenario Overview – Whole Asset Portfolio (Roads, Stormwater, Building and Open Space)

Scenario 1: Decline

Scenario one describes the current trajectory of business as usual and is driven by Council's current level of spending (\$14m annually) and business as usual practices on asset maintenance and renewal, without significant increases across the 10 year life of the strategy. The modelling on this scenario suggests that legislative and assumed increases to Council's revenue will not provide sufficient funding to maintain the condition of assets and current service levels.

This level of investment will lead to a significant decline in asset condition over time and an accelerating deterioration of assets, increasing the projected unfunded renewal and growing costs. The issue will continue to compound if funding strategies are not in place. Under this scenario, assets would only be renewed when they become unsafe or completely unusable.

It is likely that Council would need to reduce community, cultural and recreation services or close unsafe facilities so that funds can be redirected to keeping essential infrastructure such as roads safe and functioning. This option provides no capacity to fund new programs, take advantage of key grant opportunities or delivery on emerging community priorities.

Scenario 2: Improve

Scenario two will allow Council to shift towards a more preventative asset management approach, rather than waiting for assets to deteriorate to the point of failure and where renewal is at its most costly. This scenario assumes a \$25m annual investment. Under this funding arrangement, it would take approximately 20 years to clear Council's unfunded renewals gap. All assets would gradually improve across the Hawkesbury under this arrangement.

This option will also provide some scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan.

Scenario 3: Resolve

Scenario three involves the optimisation of Council's asset renewal by matching the required funding with actual investment across the life of the strategy. This would allow Council to take a proactive asset management approach, focusing on betterment and resilience for the long term. Essentially, the quicker Council invests the more long lasting the financial benefits will become.

This scenario assumes a \$30m annual investment. Under this funding arrangement, it would take approximately 10 years to fully resolve Council's unfunded renewals gap. Assets conditions would significantly improve across the Hawkesbury under this arrangement.

This option will also provide significant scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan. The accelerated investment in assets will lead to greater future opportunities for service delivery.

ALIGNMENT OF SCENARIOS WITH CAPITAL WORKS PROGRAM FUNDING FOR BUILDING ASSETS

The table below illustrates how the three scenarios—Decline, Improve, and Resolve—translate into specific funding levels and strategic priorities for building assets under the Capital Works Program (CWP). It highlights the implications of each scenario in terms of budget allocation, maintenance strategies, compliance upgrades, community impact, and future planning.

Aspect	Scenario 1: Decline	Scenarion 2: Improve	Scenario 3: Resolve
Budget Range	\$1,000,000	\$3,520,000	\$4,400,000
Strategic Focus	Reactive repairs and essential maintenance.	Introduction of preventative maintenance and compliance upgrades	The balance between proactive maintenance and modernisation
Preventative Maintenance	Minimal preventative actions; primarily reactive.	Targeted preventative maintenance introduced for key systems to reduce long-term reactive costs.	Comprehensive maintenance strategy targeting all major asset systems.
Accessibility and Compliance	No compliance upgrades; limited to emergency repairs.	Gradual upgrades in 1-2 buildings per year to meet basic compliance	Significant compliance improvements in 1-2 buildings per year.
Refurbishments	Small-scale refurbishments in 1-2 buildings.	Expanded refurbishments in 1-2 buildings, focusing on usability and basic modernisation.	Moderate refurbishments, aligning with aging asset upgrades and community needs
New Buildings	None.	Small-scale fit-for- purpose amenity building as needed.	Introduction of fit-for- purpose facilities as required
Lifecycle Cost Management	High costs due to reactive reliance.	Reduced reactive costs via preventative actions and limited modernisation.	Balanced lifecycle costs, emphasising asset durability
Community Impact	A reactive approach leads to dissatisfaction due to frequent service disruptions.	Gradual improvement in service delivery through modernisation and maintenance.	Enhanced user satisfaction with proactive asset improvements and increased service availability
Growth and Future Planning	Neglects future growth; focuses on keeping current assets operational.	Limited planning for growth; focuses on addressing critical compliance, usability, and gradual improvement	Strategic new builds and modernisation for growth.

The following graphic visualises each scenario and the impact on the overall required renewal budget and unfunded renewals. Below is the Scenario Overview – Whole Asset Portfolio (Roads, Stormwater, Building and Open Space)



FINANCIAL SUMMARY

Hawkesbury City Council is committed to delivering the service levels outlined in this Asset Management Plan. To achieve this, adopting Scenario 3 (Resolve) is critical, with an estimated annual renewal budget of \$4.4 million for building assets over the next 10 years. This funding level enables proactive asset management, focusing on modernisation, preventative maintenance, and the delivery of new, fit-for-purpose infrastructure to meet future community needs.

Currently, the Five-Year Buildings Works Program has been developed based on Scenario 1 (Decline), reflecting the available budget of \$1 million annually. This program prioritises reactive repairs and essential maintenance to keep critical buildings functional. The program is reviewed and adjusted annually to address changing project priorities and immediate needs.

The following table demonstrates how the Capital Works Program (CWP) for building assets would evolve under each scenario, providing examples of budget allocation, key actions, and their focus areas:



Example ONLY - Annual Building Renewal Program (following page)

Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
	\$1,000,000	Minor Renewal Program (HVAC/Electrical/ Flooring)	\$300,000	Limited improvements to essential building systems
1. Decline- Prioritises reactive repairs and essential minor		Roofing and Gutter Renewal Program	\$300,000	Reactive repairs to address immediate issues
alterations to keep critical assets functioning		Maintenance Capital in nature. Unplanned/reactive renewal program. High- priority repairs/renewals	\$100,000	Address high- priority unplanned or emergency repairs
		Minor Internal alterations (1-2 Building Only)	\$300,000	Small-scale refurbishments
		Minor Renewal Program (HVAC/Electrical/ Flooring)	\$500,000	Enhanced preventative maintenance to reduce long-term reactive costs
		Roofing and Gutter Renewal Program	\$500,000	Improved durability to extend asset life
2. Improve –		Maintenance Capital in nature. Unplanned/reactive renewal program. High- priority repairs/renewals	\$300,000	Buffer for unplanned critical repairs
preventative maintenance and gradual	\$3,520,000	Minor Internal alterations (1-2 Building Only)	\$300,000	Small-scale refurbishments
compliance upgrades		Accessibility/Compliance Improvements (1-2 buildings)	\$500,000	Gradual modernisation to meet standards for 1-2 buildings annually
		Building refurbishment/ renewal (1-2 building)	\$500,000- \$600,000	Proactive upgrades for aging assets.
		New small-scale fit-for- purpose amenity building	\$820,000- \$920,000	Construction of small-scale purpose-built amenities building

Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
		Minor Renewal Program (HVAC/Electrical/ Flooring)	\$500,000	Comprehensive preventative maintenance
		Roofing and Gutter Renewal Program	\$500,000	Focus on long- term durability and functionality.
		Maintenance Capital in nature. Unplanned/reactive renewal program. High- priority repairs/renewals	\$300,000	Covers high- priority emergency repair needs.
3. Resolve- Balances proactive		Minor Internal alterations (1-2 Building Only)	\$300,000	Small-scale refurbishments
comprehensive upgrades, and new builds for future growth.	and s for wth.	Accessibility/Compliance Improvements (1-2 buildings)	\$600,000	Significant accessibility upgrades for 2-3 buildings annually.
		Building refurbishment/ renewal (1-2 buildings)	\$500,000- \$800,000	Proactive upgrades for aging assets to improve resilience and service.
		New Fit-for-Purpose Buildings (as needed)	\$1,000,000- \$1,500,000	Construction of modern, purpose- built facilities to address gaps and future demands

FALLBACK STRATEGY

If Scenario 3 (Resolve) is not adopted, fallback strategies will be employed to maximise the effectiveness of the reduced works program under Scenario 1 (Decline). This would include:

- Limiting maintenance and renewal to only critical repairs.
- Prioritising safety-related works to mitigate risks associated with deteriorating buildings.
- Accepting that ongoing degradation of building assets will result in reduced service levels and potential facility closures.

Without sufficient funding, Council will be unable to minimise the degradation of its building assets, address compliance issues, or meet growing community expectations. Securing increased investment under Scenario 3 is essential to achieving sustainable outcomes and delivering the highest level of service to the Hawkesbury community.

OPERATIONAL ROLES AND RESPONSIBILITIES

In accordance with ISO 55000 Asset Management standards, the proposed roles and responsibilities of staff and contract resources across the organisation have been developed. This proposal will be refined through consultation with Council staff and various teams and then presented to the Council's Executive Team for approval.

A detailed matrix for all roles and responsibilities over Council's buildings have been outlined in **Attachment D – Roles and Responsibility Matrix**.

PLAN IMPROVEMENT AND MONITORING (AUDITING)

This plan is a live document that will change and improve as the skills and capabilities of the various asset management resources across Council are developed. Further, in accordance with ISO 55000 Asset Management, the compliance with this plan will be audited by the Assets Management Team. The Audit Process will initially focus on the achievement of the core organisation's asset management maturity. Later it will focus on compliance with the service levels, future demand, lifecycle asset management systems developed for this plan and the identification of areas for skills and capabilities improvement.

The Audit Process has yet to be developed and will be a future Strategic Action in later versions of the AMPs. Nonetheless, a number of skills and capability improvement actions have been identified in the development of this plan and they are detailed in the **Attachment E** - **Strategic Actions.**



ATTACHMENTS

ATTACHMENT A - DEFINITIONS

Term	Definition
Asset	An asset is an item, thing or entity that has potential or actual value to an organisation. The value will vary between different organisations and their stakeholders, and can be tangible or intangible, financial or non-financial.
Asset Condition Assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset to determine the need for preventative or remedial action.
Asset Group	An asset group refers to an umbrella of assets that have similar characteristics or purpose.
Asset Management	The balancing of costs, opportunities and risks against the desired performance of assets, to archive the organisational objectives. The balancing might need to be considered over different timeframes. Additionally, it enables the application of analytical approaches towards managing an asset over the different stages of its lifecycle.
Capital Expenditure	Expenditure which contributes or results in a physical asset.
Capital Grants	Funding received from a third party which are generally tied to specific projects.
Component	An individual part of an asset which contributes to the composition of the whole and can be separated/attached from the whole. It may also require different types of treatments and have differing useful lives and lifecycle costs.
Componentisation	The practice of considering the components of a fixed asset individually, to account for the fact that these components have unique physical and economic lives.
Condition	Assessed and given a value on a scale of 1 (new) to 5 (end of life). The Average Condition of a group of assets is the GRC weighted average of all assets in the group.
Current Average Annual Expenditure	An estimate of the current total maintenance and capital works expenditure on the Asset Group, being the annualised present worth of the value of the maintenance and capital renewals expenditure.
Depreciation	The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.
Fair Value	The amount for which an asset can be exchanged, or a liability settled between knowledgeable, willing parties, in an arm's length transaction.
Gross Replacement Cost (GRC) aka Current Replacement Cost (CRC)	The amount it would cost at the revaluation date to acquire or construct a brand- new substitute asset that has comparable utility and no obsolescence. Also referred to as Current Replacement Cost (CRC).

Term	Definition
Infrastructure assets	Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycle ways. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.
Level of service	The defined service quality for a particular service from an asset. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost.
Lifecycle Cost	The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
Minimum Average Annual Expenditure	The average annual expenditure required to keep the Asset Group in good condition after the Unfunded Renewal (if any) has been addressed.
Reactive maintenance	Unplanned repair work that carried out in response to service requests and management/supervisory directions.
Remaining life	The time remaining until an asset ceases to provide the required service level or economic usefulness.
Renewal	Refer capital renewal expenditure.
Renewal Gap	The gap between the average required and available annual budgets.
Risk management	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.
Satisfactory Condition	As designated in Special Schedule 7 of Council's Annual Financial Report, being condition 3 or fair condition.
Unfunded Renewals	The total cost of all asset treatments (maintenance and component/ asset renewals) due or past due at the date of review.
Useful Life	The period over which an asset is expected to be available for service by an entity. The estimated period from installation till removal of the asset upon the end of its serviceability
Written Down Value (WDV)	Also referred to as the book value, WDV reflects the assets present value from an accounting perspective. It is calculated by subtracting the depreciated value from its original value.

ATTACHMENT B - ASSETS INSPECTIONS AND CONDITION ASSESSMENT SCHEDULE

Condition Assessment Plan				
Asset Class	Asset Sub Class	Condition Assessment Due		
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2024-25		
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2025-26		
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2026-27		
Buildings	Buildings	2027-28		
Roads, Land Improvement, Other Structures and Stormwater	Road Pavement, Footpaths, Kerb and Gutter, Bridges, Traffic Management Devices, Street Furniture, Bus Shelters, Other Structures, Park Furniture, Playgrounds, Sportfields, Irrigation, Lighting, Park Signs, Stormwater CCTV Camera Inspections and Stormwater CCTV Camera Inspections	2028-29		

Comprehensive Revaluation Plan			
Asset Class	Asset Sub Class	Condition Assessment Due	
Land Improvement, Other Structures and Investment Properties	Other Structures, Playgrounds, Park Furniture, Sportfields, Irrigation, Lighting, Park Signs	2024-25	
Stormwater Drainage	Drainage Conduits, Drainage Structures, Water Quality Devices, Flood Mitigation, Artworks	2025-26	
Artworks	Artworks	2026-27	
Land and Buildings	Community and Operational Land, Buildings and Land under Roads	2027-28	
Roads, Sewerage Network, Waste management	Road Pavement, Road Signs, Footpaths, Boardwalks, Open Carparks, Kerb and Gutter, Bridges, Traffic Management Devices, Street Furniture	2028-29	

ATTACHMENT C - USEFUL LIVES OF ASSET CATEGORIES AND SUBCATEGORIES

Asset Group Category	Useful Life
Plant and Equipmant	
Office equipment	3 to 35
Office furniture	3 to 25
Computer equipment	4
Vehicles	5 to 12
Heavy plant / road making equipment	5 to 35
Other plant and equipment	2 to 25
Water and Sewer Assets	
Dams and reservoirs	100 to 200
Bores	20 to 40
Pipes	25 to 140
Pump Stations	80 to 120
Wastewater Treatment Plant	5 to 200
Water Recycling Plant	5 to 70
Sewer Valves	25 to 100
Pumps and telemetry	10 to 50
Transportation Assets	
Sealed roads: surface	15 to 100
Sealed roads: structure	100 to 200
Unsealed roads	25 to 200
Bridge: concrete	100 to 200
Bridge: other	80 to 200
Kerb, gutter and footpaths	15 to 120

Asset Group Category	Useful Life
Other Equipment	
Playground equipment	7 to 60
Benches, seats etc.	5 to 60
Buildings	
Buildings: structure	45 to 100
Buildings: other	20 to 50
Stormwater Assets	
Drains	80 to 100
Culverts	100
Flood control structures	60 to 100
Other Infrastructure Assets	
Bulk earthworks	20 to 200
Swimming pools	10 to 120
Other open space / recreational assets	3 to 150
Other infrastructure	4 to 200

ATTACHMENT D - SUMMARY OF INFRASTRUCTURE SERVICES ROLES AND RESPONSIBILITIES

Infrastructure Services Team	Key Roles	Key Responsibility- General	Key Responsibility- Buildings asset- related task
Asset Systems & Planning (AS&P)	 Asset owner responsible for lifecycle planning of Roads, Stormwater, Buildings, and Open Space. Oversees asset management systems for evidence-based decision-making. Develops statutory asset planning documents. Aligns asset management outcomes with LTFP, Operational Plan, and Delivery Program. Coordinates asset management practices. 	 Handles customer requests for asset installation or renewal. Conducts asset condition assessments. Prepares and updates lifecycle models and budgets. Processes legislative reports. Manages interfaces with external utilities. 	 Handles customer requests for building installations or renewals. Develops and updates the Capital Works Program. Coordinates grant applications and milestone reporting. Maintains the hazmat register and prepares related reports.
Infrastructure Operations (IO)	 Coordinates preventative, reactive, and planned maintenance of Council assets. Ensures compliance and safety of assets. Manages Capex and Opex tenders. Leads emergency and resilience planning. 	 Manages customer requests for asset defects and servicing. Conducts minor capital replacements. Leads emergency planning and compliance. Manages vehicle, plant, and equipment replacement programs. 	 Handles customer requests for maintenance of building systems (e.g., HVAC, lighting, security, etc.). Performs various maintenance activities, including graffiti removal, fire services, cleaning, pest control, pool maintenance, etc
Project Delivery (PD)	 Leads and ensures accountability in Capital Works Program delivery. Streamlines project delivery processes. Manages contracts and stakeholder deliverables. Reviews designs and ensures approval compliance. 	 Addresses customer requests for construction project updates. Develops delivery strategies. Ensures efficient contract and project management. Conducts asset handovers post-project completion. 	 Manages customer requests for building-related capital works projects. Prepares and awards contracts. Oversees site administration, stakeholder management, and risk. Completes asset handovers with stakeholders.
City Services (CS)	 Manages City Services Branch for development engineering, mapping, open space, and traffic management. Handles development-related customer requests. Manages the SIS mapping system. Supports cemetery operations. 	 Addresses customer requests for services like parks, tree permits, road openings, and traffic management. Provides mapping services and asset location tracking. 	 Oversees aquatic facilities and seasonal swimming pools. Maps assets and provides spatial data access to asset officers through Intramaps.

ATTACHMENT E - STRATEGIC ACTIONS

Task No	Task	Importance	Urgency	Risk	Responsibility	Target Completion Date
1	Streamline processes for Building projects intitiation, planning, design, procurement, delivery and hand over	High	High	High	Assets, Delivery, Operations, Procurement	30/06/2025
2	Review and update the Buildings five-year rolling program	High	High	High	Assets	30/06/2025
3	Undertake data gap analysis on Buildings - Sporting Amenities and Community Centres including asset condition data, system and process.	High	High	High	Assets	30/12/2025
4	Identify sites and prepare a plan for development of Facility Management Plans for individual buildings or groups of buildings with similar functions.	Medium	Medium	Medium	Assets, Operations, Property	30/6/2025
5	Implement an update HAZMAT and Asbestos registers	High	High	High	Assets, Operations, External consultant	30/6/2025
6	Initiate and continue a facility needs assessment on Building Sporting Infrastructure and Community Facilities through conducting a user survey and facility adequacy inspections.	Medium	Medium	Medium	Assets, Operations, Hawkesbury Sports Council and Management Committees	30/12/2025

ATTACHMENT E - STRATEGIC ACTIONS

Task No	Task	Importance	Urgency	Risk	Responsibility	Target Completion Date
7	Develop a proactive maintenance and defect register program for tracking Buildings.	High	Medium	Medium	Assets, Operations	30/12/2025
8	Review and update lifecycle modelling for Buildings.	High	High	High	Assets, External Consultant	30/11/2024
9	Implement mobility solutions for building asset inspections including capture of building defects and asset condition data	Medium	Medium	Medium	Assets, GIS Team	30/06/2025
10	Review Building capital works and operational planning and budget allocation for 2025/26.	High	Medium	Medium	Assets, Operations	30/12/2024

ATTACHMENT F - REFERENCES AND RELATED INFORMATION

- HCC Asset Management Strategy
- IPWEA International Infrastructure Management Manual
- IPWEA Financial Management Guidelines
- NSW Office of Local Government Integrated Planning and Reporting Framework Guidelines and Manual
- HCC Asset Management Policy
- HCC Asset Valuation Methodology Manual
- Local Government Financial Sustainability Nationally Consistent Frameworks, Frameworks 1, 2 and 3, May 2009
- National State of the Assets, Roads and Community Infrastructure Report, Nov 2018
- AS ISO 55000-2014 Asset Management-Overview, Principles and Terminology
- AS ISO 5001-2014 Asset Management-Management Systems- Requirements
- AS ISO 5002-2019 Asset Management-Management Systems- Guidelines for the Application of ISO 55001
- AASB 116 Property, Plant and Equipment prescribes requirements for recognition and depreciation of property, plant and equipment assets
- AASB 13 Fair Value Measurement sets out methods for determining Fair Value
- AASB 136 Impairment of Assets aims to ensure that assets are carried at amounts that are not in excess of their recoverable amounts
- AASB 1021 Depreciation of Non-Current Assets specifies how depreciation is to be calculated
- AAS 1001 Accounting Policies specifies the policies that Council is to have for recognition of assets and depreciation
- AASB 1041 Accounting for the reduction of Non-Current Assets specifies the frequency and basis of calculating depreciation and revaluation basis used for assets
- AAS 1015 Accounting for acquisition of assets method of allocating the value to new assets on acquisition
- AAS 1010 Recoverable Amounts of Non-Current Assets specifies requirement to test the reasonableness of valuations.



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HAWKESBURY CITY COUNCIL

ASSET MANAGEMENT PLAN

OPEN SPACE RESOURCING STRATEGY





www.hawkesbury.nsw.gov.au

STATEMENT OF COMMITMENT TO FIRST NATIONS PEOPLES

Council acknowledges the Dharug and Darkinjung people as the Traditional Custodians of the land throughout the Hawkesbury.

Council recognises the continuing connection of First Nations people to their Country and respects the cultures and histories of Aboriginal and Torres Strait Islander peoples as the first peoples of this land.

W Marks #





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EXECUTIVE SUMMARY

This Open Space Asset Management Plan details information about Council's open space infrastructure assets, how services are currently provided, and how future demand and lifecycle management requirements influence the funds that are required to provide a certain level of service.

The Open Space Assets that are addressed in this Plan include furniture, lighting, signs, playgrounds, sporting infrastructure and irrigation within natural areas, parklands, sports grounds and cemeteries. These assets have an estimated total replacement value of \$35,254,000.

The key objectives of this plan include:

- Establishing detailed technical and operational service level criteria to meet the community's expectations
- Developing and managing whole-of-life models to enable affordable and costeffective management of the Open Space Infrastructure assets
- Identifying, assessing, monitoring and controlling risks
- Developing and maintaining a 5-year forward works plan
- Contributing to the development of Long-Term Financial Plan (LTFP) scenarios.
- Implementing ongoing auditing, compliance, and review practices

To support the Long Term Financial Plan (LTFP), three scenarios have been developed–Decline, Improve, and Resolve–to demonstrate the opportunities and risks associated with various funding models within the LTFP and Asset Management Strategy. Under Scenario 3: Resolve, which requires an annual investment of \$30 million across all asset classes, the estimated available funding for open space assets over the next 10 years will increase to \$2.1 million per year.

While this is a significant improvement, it still leaves a budget shortfall compared to the actual needs for maintenance, renewal, and upgrades. Although Scenario 3 will substantially reduce the backlog of unfunded renewals, some asset needs will remain unmet each year, particularly in lower-priority areas.

This scenario represents a proactive approach, but achieving full funding for all open space asset requirements will still demand careful prioritisation and ongoing efforts to secure additional resources.

Finally, a detailed plan, including strategic actions, has been developed to enhance the organisation's asset management maturity.

INTRODUCTION & BACKGROUND

OUR CITY

The Hawkesbury is a unique area located in the Hawkesbury River Valley. It is the largest Local Government Area in the Sydney Metropolitan Region, covering approximately 2,776km². Our population is relatively small with 68,704 people calling the Hawkesbury home.

The Hawkesbury and its townships, rural villages and landscapes share a rich and enduring Indigenous and European cultural heritage. The area has significant geographical range and diversity.

Prior to European settlement the area was inhabited by the Dharug and Darkinjung peoples for over 40,000 years. The Hawkesbury River (known as Dyarubbin by the Dharug people) was a focus for those people. Its tributaries and floodplains provided abundant natural resources and were places of strong social and spiritual significance for the First Australians. It has been estimated that there were up to 3,000 Aboriginal people living in the Hawkesbury area in 1788.

European explorers first arrived in the Hawkesbury in 1789. It is the third oldest European settlement in Australia. Windsor (originally Green Hills) which was established in 1794, is one of five 'Macquarie Towns', four of which are located within the Hawkesbury. Governor Macquarie had a profound influence on the development and landscapes of the Hawkesbury, which included naming the townships of Windsor, Richmond, Wilberforce and Pitt Town and the layout of their streets, cemeteries and town squares.

The Hawkesbury Local Government Area straddles the divide between the urban metropolitan councils to its east and the rural councils to its west. While it is classified as part of Metropolitan Sydney, its unique blend of urban and rural settlements is uncharacteristic of the metropolitan area.

The Hawkesbury is therefore classed as a metropolitan-rural area by virtue of its location and its natural assets, including its natural beauty, its five rivers and their tributaries, its mountains, national parks and wilderness areas. The heritage towns of Windsor, Richmond, Pitt Town, Wilberforce and Ebenezer are all located within the Hawkesbury.

The agricultural lands that surround the Hawkesbury's towns and villages represent the oldest rural land holdings under continuous cultivation within Australia. The Hawkesbury also contains the oldest church, hotel and public square. Thompson Square, located in Windsor, was named and established by the then Governor Lachlan Macquarie in 1811 as recognition of the emancipist Andrew Thompson. Thompson Square and its immediate surrounds is also recognised as the oldest surviving public square in Australia.

These historical and cultural assets are actively being used to support cultural expression, tourism and economic activity. They remain integral to the future identity and prosperity of the Hawkesbury.

Council is committed to engaging the community on its future plans and strategies. It is important that Council continues to develop and discuss options with its community on the future funding of asset renewal and maintenance and the key areas of priority.

A snapshot of the range of Council's Open Space assets is shown on the following page.

BUILDINGS

STORMWATER

ROADS

OPEN SPACE

PLAY SPACES



- 53 Playgrounds
- **3** Skate Parks
- Pump Track

PARKS AND RESERVE



229 Parks and Reserves comprised of:

- 108 Hectares of Sportsground
- **156** Hectares of Parkland
- 1614 Hectares of Natural Bushland

LIGHTING



649 permanent light poles installed in parks and sport fields

PARK FURNITURE

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- Individual units including:
  - 687 Seats
  - **332** Table Settings
  - 575 Bins
  - **38** Drinking Fountains

### IRRIGATION



**58** Fields & Gardens with irrigation services

### SPORTS INFRASTRUCTURE



63 Sports Field

- 7 Multi Use Courts
- 37 Tennis Courts
- **30** Netball Courts
- 3 Basketball Court
- Handball Court
- BMX Tracks
- 65 Cricket Wickets

## **PURPOSE OF THE PLAN**

Asset management planning is a systematic process that aims to manage infrastructure and other assets on a lifecycle basis, with optimal funding to ensure the ongoing delivery of satisfactory levels of service to the community.

This plan demonstrates how Council utilises asset data to research, analyse and plan for the ongoing construction, maintenance and operation of the assets in the Open Space group. This enables informed decision-making to create a sustainable and reliable environment for the community. This plan details for Council's Open Space group:

- The current state of assets
- The medium-term (10 Year) financial plan required to maintain the current levels of service
- A Five-Year Forward Works Program which outlines the renewal, upgrade, demolition, expansion or new construction of assets
- A set of strategic actions to enhance Council's asset management maturity
- Risks associated with infrastructure assets and critical assets
- The infrastructure assets health for various Long Term Financial Plan (LTFP) scenarios
- The impact of future demand and changes of the technology on asset management practices
- The technical and customer levels of service

This plan reflects the Council's relevant strategic plans that outline community service levels and other critical planning matters required to ensure safe, equitable and quality access to the wide range of infrastructure and other assets owned and/or managed by Council.

This Open Space Asset Management Plan supports and is to be read in conjunction with Council's Asset Management Strategy (AMS) and Asset Management Policy (which are reviewed and adopted annually by Council as part of the Resourcing Strategy under Integrated Planning and Reporting) and other key planning documents.



Office of Local Government - Integrated Planning and Reporting Framework 2021

### **GOALS AND OBJECTIVES**

The primary goal of this plan in managing Council's infrastructure assets to deliver the defined levels of service in the most cost-effective manner for both current and future consumers. This requires understanding the current needs of the community, the current performance levels of the Council's strategic plans and anticipating future needs and requirement. Hence the key asset management objectives of this plan are:

- Developing and maintaining a 5 year forward works plan including scope of the works and level two cost estimation (20% contingencies)
- Developing whole of life models to: estimate the average 10-year required budget including capital expenditure, operation and maintenance costs and predict the future state of assets for various financial scenarios
- Informing the Asset Management Strategy (AMS) and Long Term Financial Plan (LTFP)
- Establishing detailed technical and operational service level criteria to meet the community service levels of Council's strategic plans together with suitable performance monitoring criteria and processes
- Managing the impact of social, financial, political and environmental growth and change through demand management and` effective investment
- · Identifying, assessing, monitoring and controlling risks
- Integrating with Council's adopted strategies, plans, long term financial plans so that lifecycle asset management is implemented at an organisational level
- The ongoing review and updating of the lifecycle models to take advantage of new information and cost-effective asset management methods as they arise



# **ASSET MANAGEMENT PRACTICES**

### **ASSET CATEGORISATION**

A comprehensive Infrastructure Assets Categorisation Framework has been developed, covering various asset groups. The current infrastructure asset management groups are:

- Roads and Transport
- Buildings and Structures
- Stormwater
- Open Space

Assets are further categorised based upon how they are used:

- Infrastructure assets provide services directly to the community (e.g. roads provide pedestrian and vehicular transport services across the LGA and parks provide active and passive recreation services for the community)
- Community assets are used to enable services to be provided or are used in the delivery of services to the community (e.g. library buildings are used to deliver library services and park amenities support provision of recreational services)
- Operational assets are utilised by Council directly to administer and facilitate its operations (e.g. Council's depots support the field teams who maintain the parks; and
- Commercial assets provide an income to Council (e.g. commercial shopping centres or heritage buildings converted to offices)

Some assets are non-depreciable. Generally, the non-depreciable earthworks and the purchase of the land associated with an asset happens only once with the initial asset construction or acquisition. These costs are not usually included in the asset lifecycle calculations after the initial creation of the asset. Land comprises all lands owned and or managed by council, including crown land, community land and operational land.

At this stage, AMPs have been developed for the four major asset management groups only (Roads and Transport, Buildings and Other Structures, Open Space, and Stormwater).

Lifecycle plans are not required for non-depreciable assets and Plant and Equipment and Other Asset groups are treated as current assets and costed as expenses in the year of construction/acquisition.

## **OPEN SPACE ASSET PORTFOLIO**

Open Space encompasses parks, natural area and linkages, waterways, foreshores, informal parklands, sports grounds and courts, play spaces and recreational trails for walking and cycling.

- Artworks: sculptures, murals
- Cemeteries: cemeteries, memorials, commemoration plaques
- Fences and gates: including screens and bollard fencing
- Landscaping: gardens, hardstand areas, retaining walls
- Irrigation: taps, pumps, sprinklers and pipes
- Park Furniture: seats, picnic tables, BBQs, bubblers, bollards, bike stands
- Park Lighting: parkland lighting and sportsground lighting
- Park Signs: site identification, regulatory, warning, information, interpretive, plaque
- Park Structures: gazebo, pergolas, arbours
- Play spaces: playgrounds, fitness, parkour, skate parks, BMX tracks, pump tracks
- Sports Infrastructure: fields, courts, goals, throwing cages, practice nets, dugouts
- Trees and Bushland
- Water Features: ornamental ponds, fountains

The current state of the Open Space Infrastructure Portfolio is shown overleaf. The dashboard is a visual representation of the main assets within the portfolio that includes information on the inventory, condition distribution, financial data, unfunded renewals, maintenance and renewal gaps.

### **DATA COLLECTION AND ASSET MANAGEMENT SYSTEMS**

Council utilises two software packages including Technology One and Brightly (formerly Assetic) to cover databases, works, financials, supply chain, mapping, and modeling tools as part of its asset management practices. The effectiveness and maturity of these practices can be enhanced through further integration of these tools. The asset software packages in use are:

- **Technology One (T1) Products Cloud Based:** Provides enterprise asset management for the corporate asset register, works management, asset accounting, request management, financial management, and supply chain management
- **Assetic Predictor:** A predictive tool for creating various models and scenarios for longterm financial planning and the development of capital works programs
- ArcGIS Pro: Council's corporate GIS (Geographic Information System) used to store all spatial data of assets
- IntraMaps Cloud: A GIS tool, also a T1 product, integrated with corporate systems for mapping queries, reporting, and visual presentation purposes
- **Field App:** A cloud-based, user-friendly mobile application from T1, working under an integrated platform used by staff for works management, asset inspections, on-site data collection, and register updates

# **State of Assets Infrastructure Portfolio**

All Infrastructure Assets	Roads	Parks		Stormwater Drainage B		uildings and Other Structures	
Current Replacement Cost \$35,254,000	Asset Category	Current Replacement Cost	Annual Depreciation	Unfunded Renewal	Required Average Annual Budget (10 year)	Current Average Annual Budget (10 year)	
Current Average Annual Budget \$999,999	Sportfields	\$11,166,000	\$678,390	\$486,559	\$446,640	\$305,625	
Requried Average Annual Budget \$2,136,401	Park Furniture	\$11,688,000	\$325,630	\$212,281	\$350,641	\$239.934	
Annual Renewal Gap (10 Years)	Playgrounds	\$6,047,000	\$339,200	\$15,082	\$1,000,000	\$222,389	
\$1,136,402	Lighting	\$4.250,000	\$169,480	\$87,050	\$255,000	\$174.490	
Unfunded Renewal \$828,909	Irrigation	\$1,769,000	\$13,570	\$4,737	\$70,760	\$48,419	
Annual Depreciation \$1.540.880	Park Signs	\$334,000	\$14,610	\$23,200	\$13,360	\$9,142	







Sportfields (2.2%)
Park Furniture (1.7%)
Playgrounds (1.6%)
Lighting (1.3%)
Irrigation (0.3%)
Park Signs (0.1%)

# **LEVELS OF SERVICE**

In part, this Asset Management Plan has been prepared to facilitate consultation about levels of service with the broader community. Future revisions will incorporate customer feedback on service levels and the costs of providing these services. This will help Council align the required level of service, associated risks, and consequences with the community's ability and willingness to pay.

Based on our current understanding of the performance of our Open Space network, financial analysis indicates that the Council is likely to underfund existing service levels in the medium to long term.

If this trend continues, the following consequences are expected:

- **Deteriorating assets:** Without sufficient funding, the condition of open space assets will decline, leading to a reduction in service quality and potential safety concerns.
- Widening asset renewal gap: The gap between the required and available funding for renewing assets will continue to grow, further threatening long-term financial sustainability.
- **Generational cost shifting:** Future residents will bear the financial burden of renewing assets that have deteriorated due to underfunding today, resulting in significant generational cost-shifting.
- **Inability to meet demand for new or upgraded services:** The Council will be unable to accommodate growing demand for new, expanded, or upgraded facilities, limiting the community's access to modern services and infrastructure.
- **Unfunded Renewal Impact:** Under the current funding scenario, the Council's unfunded asset renewal works will continue to grow. The existing budget shortfall means that a large proportion of required maintenance and renewal work will need to be deferred or carried out reactively. This reactive approach will increase long-term costs as assets deteriorate further and require more expensive interventions later. The unfunded renewals not only represents a financial liability but also contributes to the gradual degradation of service levels. Community expectations for asset quality and functionality will be harder to meet as more projects are delayed due to limited resources.
- **Prioritisation and Risk-Based Approach:** Given this shortfall, the Council will prioritise asset works based on asset condition, risk, and criticality, with a focus on ensuring legislative compliance and minimizing safety risks. Non-critical assets and lower-priority projects will face delays, which could lead to further reductions in service quality and increased community dissatisfaction over time.
- Significant weather events and natural disasters: Recent natural disasters including floods, bushfires and the COVID-19 pandemic have presented significant challenges to the management of our open space assets. Major flood events in 2020, 2021, March 2022, July 2022, and June 2024 has caused widespread damage. These floods were the most significant to impact upon The Hawkesbury in 44 years and each successive flood compounded the effects on our community, environment and infrastructure.

These natural disasters have had a significant impact on Council's asset base, resulting in the complete destruction of riverbanks within our open spaces and accelerating the decline of many open space assets. These impacts will continue to be a major factor in Council's ongoing strategy. A key focus is delivering more resilient assets as they are repaired and reconstructed, minimising the ongoing costs of maintenance and renewal. While the Council will continue to improve its understanding of asset conditions and refine service level targets, the reality of the increasing funding gap means that the backlog of work will grow unless additional funding sources are identified.

Following is information about how we have defined Open Space Service levels: customer values; customer levels of service; and technical levels of service.

### **CUSTOMER VALUES AND EXPECTATIONS**

Customer values and expectations are determined through analysis of results from community surveys, customer complaints and requests.

As part of its implementation of the Integrated Planning and Reporting Framework (IP&R), Council conducts Community Satisfaction Surveys to assess the movement of several success indicators under the Community Strategic Plan These indicators relate to Council's overall service delivery and the way the community currently perceives the local area from a range of perspectives.

A summary of the key findings from the 2021 and 2023 Community Satisfaction Surveys relating to Open Space and Recreation are included in the table below:

Community Satisfaction Survey Score	Trend	2021 Score	2023 Score	Benchmark (LGA Metro)
Parks, Playground and Reserves	+	82%	87%	91%
Sporting and Recreational spaces	-	88%	84%	92%

These results show that overall, the community are satisfied with the infrastructure and service of our Parks, Playgrounds, Reserves, Sport and Recreation facilities and that we should maintain or attempt to improve these areas as they are influential and address clear community needs.

In 2023, there was a high level of agreement about feeling a sense of safety in public spaces during the day, increasing from 82% in 2017 to 92% in 2023. Residents indicated that they felt less safe during the evening compared to the day, with 55% in 2023 agreeing that they feel safe in the evening. There is a significant difference between gender, with males (63%) feeling safer them females (48%).

The Hawkesbury Regional Open Space Strategy 2013 identified that although community satisfaction surveys might suggest that the status quo of open space in the LGA is satisfactory when compared to higher priorities such as roads, Council still needs to focus on significant future enhancement and expenditure on open space and recreation.

There is a need for more targeted surveys to elicit clearer understanding of open space needs and satisfaction.

Some customer values identified through surveys relating to specific open space projects, master planning projects or customer complaints is shown in the table below. These customer values indicate:

- What aspects of the service is important to the customer
- Whether they see value in what is currently provided and
- The likely trend over time based on the current budget provision
Table 1 - Customer Values

Asset	Customer Values	Customer Satisfaction Measure	Current Feeback	Expected Trend based on Planned Budget
Parkland	Well maintained parks	Nature of complaints related to condition of open space assets	Complaints in 24/25 relate to condition of park furniture, maintenance i.e. mowing frequency, additional bins required etc	No change based on planned budget
Playgrounds	Playgrounds are attractive and provide a variety of contemporary play options for people for all ages and abilities	User Survey Feedback and Complaints	Requests for more exciting play opportunities that are shaded, accessible, and suitable for all ages. Request for synthetic softfall rather than organic. Requests for water play. Social Infrastructure Strategy identifies a 17 playspace surplus across the LGA up to 2041.	The planned budget will allow for some improvements to some playspaces however fewer playspaces will be renewed.
Sporting fields and courts	There are sufficient sporting fields and courts to meet the needs of users. (Quantity)	Usage Data Survey Management Tool Social Infrastructure Strategy outcomes.	Social Infrastructure Strategy outlines based on benchmarks there is a surplus of fields across the LGA	Surplus of up to 16 fields. However, provisional gap identified for sports courts.
Sporting fields and courts	Sport facilities are well maintained (maintenance)	Sport User Survey Score	Specific statistics not yet available	Specific statistics not yet available
Sporting fields and courts	Sporting fields and courts are adequately sized and appropriate for intended use (fit for purpose)	Sports and Recreation User Survey Score	Specific statistics not yet available	Specific statistics not yet available

### **CUSTOMER LEVELS OF SERVICE - STATE OF THE ASSETS**

Customer Level of Service statements communicate measures of fact about the state of our assets and relate directly to how the community wish that service to be delivered. The Customer Levels of Service are generally measured in terms of the following for both current and future expectations:

- Condition: How good is the service? i.e. the condition or quality of the service
- Function: is suitable for its intended purpose? i.e. is it the right service?
- **Capacity:** Is the service over or under used? i.e. do we need more or less of these assets?

The key customer levels of service applicable to all asset groups are:

• Aligned with community values: Ensuring the service maintains or enhances what is important to the customer.

- Aligned with community requirements: Ensuring all levels of service align with community needs identified through engagement and consultation processes
- **Maintain Infrastructure Condition:** Maintaining the overall condition of the infrastructure network and improving defect management through optimal funding
- **Committed to growth:** Expanding Council's infrastructure network to meet the future needs of the community

The table below outlines current performance in achieving identified levels of service and the expected performance based on the current budget allocation.

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

Asset	Type of Measure	Service Objective / Level of Service	Performance Measure	Current Performance (23/24)	Expected Trend (10 years)
Playgrounds	Condition	Playgrounds are safe and in good working condition.	Playground Operational Inspections (number of Priority A & B defects)	Assets are aging and have many defects Sep 2023 = 68, Dec 2023 = 92 July 2024 = 125 plus 2 closed playgrounds	Asset condition to decline based on the planned budget
Playgrounds	Function	Playgrounds provide a good play experience and are fit for purpose	Customer Service Requests when assets fail to function Playground Audit and Play space Shade Audit	Low number of customer service requests TBD in future	Requests expected to increase as assets reach end of life on the planned budget.
Sports Fields	Capacity	There are sufficient sporting fields and courts to meet the needs of users.	Audit of field usage and field availability and Social Infrastructure Strategy benchmark measures	Social Infrastructure measures demands against benchmarks, Sport specific statistics are variable depending on the sports	Demand for additional capacity expected to remain static as Council does not have any plans or funding to make a substantial investment into new facilities.
Sports Fields	Condition	Sport facilities are safe to use and in good condition	Audit of sportsground condition - % in good, fair, poor condition	Specific statistics not yet available	Specific statistics not yet available
Sports Fields	Function	Sporting fields and courts are adequately sized and appropriate for intended use (fit for purpose)	Sportsground Audit	Specific statistics not yet available	Specific statistics not yet available

#### Table 2 - Customer Levels of Service

## **TECHNICAL LEVELS OF SERVICE**

Technical Levels of Service are all the operational activities that are required to deliver services to our customers. These technical measures relate to the activities and resources required to best achieve the desired community outcomes at the least possible ongoing cost.

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

- **Acquisition** Addition of a new service that did not exist previously or provide a higher level of service (e.g. a new play space or an upgrade to an existing play space)
- **Operation –** The regular activities that provide services (e.g. opening hours, cleaning, mowing, etc).
- **Maintenance** The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. playground repairs, oiling/painting furniture)
- **Renewal –** The activities that return the service capability of an asset up to that which it had originally provided (e.g. playground replacement)

Council aims to provide the following Technical Levels of Services across all asset groups:

- Action all required renewal, upgrade, maintenance and acquisition plans through lifecycle modelling and budgeting
- Continuously improve models through constant recalibration of logic and parameters
   used
- Continuously improve adopted plans by reflecting new funding scenarios (Grants and external funding options) and condition assessments of assets
- Continuously improve the technology used by monitoring technological advances, using such technology when it becomes cost effective to do so and participating in or leading research and innovation as opportunities arise

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



#### Table 3 - Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance	Expected Trend Based on Planned Budget
Acquisition	New and upgraded assets provided to meet demand, meet contemporary standards and be more inclusive.	Number of new and upgraded assets provided annually	Current budget limitations do not allow for new and upgrades, outside of grant programs.	Pathway connections, shade and seating provided to open space facilities. Based on current budget only 1 playgroundcan be upgraded each year, noting the desired amount would be 4 playspace upgrades annually
Operation	Day to day operational activities that ensure open space assets provide service	Operational performance is currently not measured	Operational budget for mowing, gardening and cleaning of open space areas is restricted and insufficient.	The operational budget will need to increase to accommodate both the declining condition of the existing assets and to cover the maintenance of the recently upgraded precincts as part of grant project such as Fernadell Park, Woodbury Reserve and Turnbull Oval.
Maintenance	Routine works to maintain life of asset	Maintenance performance is currently not measured	Replace highlighted text with: Playground maintenance limited to high risk and emergency repairs only	Operational budget to be increased for playground maintenance and general open space maintenance to manage risks
Renewal	Replacement of asset at end of life to ensure no disruption of service to the community	Number of assets replaced annually	The renewal budget is insufficient to replace assets at end of life. Current budget allows for minor playspace renewal across the whole playspace network and full renewal of 1 playspace per year only.	Current budget allows for minor playspace renewal across the whole playspace network and full renewal of 1 playspace per year only

## **FUTURE DEMAND**

### **DEMAND FORECAST**

Hawkesbury City Council has a pivotal role in providing essential services and infrastructure to the community. The future demand for these assets extends beyond mere population growth; it encompasses a wide array of factors that could influence how services are delivered.

Hawkesbury City Council is committed to fostering a safe and sustainable environment for both current and future generations. To achieve this, the Asset Management Plan (AMP) identifies key drivers that may impact the provision of services to the community in the future. The objective is to ensure the assets can adapt flexibly to evolving demands, ensuring their relevance over the next decade and beyond. The drivers are summarised in **Table 4 - Future Demand** on page 23.

## **KEY DRIVERS AFFECTING DEMAND FOR ASSETS**

#### **Changes in Demographics:**

- Population Change: As population increases, so does the demand for community facilities, open space and recreation. This AMP takes into account the projected growth from 68,704 residents to an estimated 85,050 by 2036.
- Aging Population: The demographic shift towards an older population may require different types of facilities, accessible facilities, and age-friendly recreational areas.
- Change in population density and centre boundaries: As urban centres such as Windsor and Richmond experience increasing population densities, the demand for infrastructure and services will intensify in these areas. The Asset Management Plan (AMP) anticipates that higher density will necessitate the expansion or upgrading of existing facilities to accommodate the concentrated population. Additionally, any adjustments to centre boundaries will require strategic planning to ensure that infrastructure development keeps pace with shifting demographic trends.
- Culturally and Linguistically Diverse (CALD) Communities: As the CALD population grows, there may be an increased need for tailored facilities and services that support the diverse cultural and linguistic needs of these communities, fostering inclusivity and equitable access to public services.

#### **Community Expectations:**

• Increase service quality: As residents' expectations for high quality facilities, pressure on the Council to deliver state of the art facilities to better align with community expectations for lifestyle and recreational services and quality environments increase.

#### Emerging Technology:

- Open Space network and introduction of taking Council's on a 'Smart City' approach, will see Increased expectations and variety of pressures due to a diverse customer base and needs based on varying levels of community's technology adaptation.
- Some councils will adopt rapid advancement of technology, such changes and its impacts must be identified and reflected both in the budget and the strategic plans. This is to enable a certain degree of flexibility into the plan so that if there is a need to adapt our models to the changing trends of technology, Council will have the resources available to do so.

Some of the identified emerging technological improvements are as follows:

- Parks: Smart technology introduces changes to the way users interact with parks, such as growing need for mobile phone charging stations
- Sporting fields and irrigation: New construction methods or surface types to enable play for all weather conditions. Automation, including remote access and use of sensors to judge when best to irrigate.
- Playgrounds: Smart city technology introduces the virtual world to playgrounds
- Park Furniture: Change in construction techniques allowing a more cost-efficient solution. Use of recyclable or more environmentally friendly material. Incorporation of mobile phone charging stations in furniture. Bin sensors to enable more tailored maintenance practices.
- Lighting: Changes in lighting technology to enable more efficient lighting. Remote access to control lighting when and where necessary, enabling more efficient lighting.

#### **Economic Factors:**

• Economic Growth or Downturns: Economic conditions can affect community needs. A booming economy may lead to increased construction and demand for new infrastructure, whereas an economic downturn could necessitate the efficient use of existing assets and prioritisation of maintenance over expansion.

#### Legislative and Policy Changes:

• Compliance Requirements: New regulations or changes in government policy could require updates to building codes, accessibility standards, and environmental laws, necessitating upgrades or modifications to existing assets.

#### **Environmental Factors:**

- Climate Change: The increasing frequency and severity of natural disasters, such as floods and extreme heat, necessitate the development of more resilient infrastructure. As climate challenges escalate, Council facilities must feature improved designs or should be upgraded to withstand these environmental impacts.
- To enhance resilience in flood-prone areas, the Council will prioritise investments in flood-resistant construction techniques and materials, ensuring that infrastructure can effectively mitigate risks while continuing to support essential services.
- Sustainability Initiatives: The way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits; Assets will withstand the impacts of climate change, Services can be sustained; and Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint

#### **Ageing Infrastructure:**

 Council's ageing open spaces are resulting in increased maintenance costs and reduced efficiency. As these assets continue to age, maintenance challenges are expected to worsen, which may heighten safety risks and diminish service quality. In worst-case scenarios, specific facilities may face temporary or permanent closures if they become unsafe or unviable, impacting service delivery and necessitating contingency planning.

## **DEMAND MANAGEMENT STRATEGIES**

To address these identified drivers, the following demand management strategies will be employed:

- **Monitoring and Review:** Regular monitoring of demographic trends, economic conditions, and environmental factors will guide the timely adaptation of infrastructure to meet community needs. This will be supported by an ongoing program of service reviews, ensuring that services remain aligned with community needs, operational efficiencies, and Council's strategic objectives.
- Strategic Planning and Asset Rationalisation: Aligning capital projects with strategic plans ensures that the development of new assets and the upgrading of existing ones are in harmony with projected demand. This approach includes a rationalisation of underutilised or non-essential assets where feasible to better match demand and resource allocation. For example, if a playspace experiences declining utilisation, the Council may consider divesting the asset to reduce costs and develop more in demand services by directing funds to a nearby district park in a more ideal location which will enhance utilisation and meet community expectations. Overall, asset rationalisation decisions will be grounded in demand forecasts, community engagement outcomes, and service priorities.
- **Community Engagement:** Ongoing consultation with residents will help prioritise projects that reflect community preferences and particularly around rationalising or enhancing key assets, ensuring service quality and accessibility. Implementing a proactive maintenance and replacement plan will mitigate the impacts of aging infrastructure, ensuring continued safety and efficiency while potentially extending the life of assets deemed essential through service reviews.
- **Legislative Compliance:** Staying ahead of legislative changes by proactively planning for necessary upgrades ensures that all assets remain compliant with current standards and regulations, particularly for assets with high community dependency.
- **Resilience and Contingency Planning:** Adapting infrastructure to meet evolving environmental and social challenges is essential, particularly given Hawkesbury's flood-prone nature. Strategies will include implementing flood-resilient designs and preparing for temporary facility closures if necessary. In flood-prone areas, infrastructure investments will prioritise resilience, ensuring that Council can continue to support the community during periods of disruption.

To optimise resource allocation, asset rationalisation will focus on facilities that offer greater resilience and community value. For example, if certain assets become underutilised or unsustainable due to frequent flood risks, the Council may consider options such as repurposing, relocating, or divesting these assets. This strategic approach enhances infrastructure resilience and provides adaptable, long-term solutions that safeguard both community needs and Council resources.

A list of demand drivers for Open Space assets that outline likely future demand, its impact and how that will be managed is shown in **Table 4 -Future Demand** below.

#### Table 4 - Future Demand

Demand Driver	<b>Current Position</b>	Projection	Impact on Services	Demand Management Plan
Population Growth	68,704 – the number of people based on last Estimated Resident Population	85,050 people by 2036	Reduced ability to meet service levels due to increased usage, and frequency. New assets and upgrade of existing assets required	Manage and Review Proposed Strategic Plan for better Capital Project considering growth. Encourage and promote usage of public transport, walking and cycling etc. Investigate alternative and cost effective treatment solutions. Manage and review proposed renewal strategies. Utilise section 7.12 Developer contribution to manage infrastructure increased demands, through delivery of new and upgraded assets.
Ageing Population	In 2021, the largest age group in Hawkesbury City was 50- to 54-year- olds. The group that changed the most since 2016 was 70 to 74 year olds, increasing by 655 people.	Ages 50-79 above the Greater Sydney Average.	Increase in demand for inclusive and accessible facilities such as seating, pathway connections, to seats and playgrounds amenities. Increase in demand for recreation activities for older people	Consider including seniors' fitness equipment and activities Consider improving accessibility to accommodate all ages and mobility needs.
Increase in customer expectations and playspace guidelines	Many local playgrounds have basic, older style equipment for 0-5yrs	Demand for play for all ages and 0-12 years and or a more contemporary nature	Limited usage of ageing infrastructure/ playgrounds	Consider upgrading playgrounds to cater to 0-12yrs and be more contemporary in nature and inclusive.
Lifestyle change, community are time poor.	Family members are active at various times and locations at any time.	People will seek co-located activities so all members of the family can recreate at the same time and place.	Greater demand on facilities between 4-8pm and weekends.	Co-locate activities e.g. playgrounds and sports fields with walking paths Increase lighting to facilities so usage can be extended into late evening or early morning.
Climate Change - flood	Many parks and sportsgrounds are on flood liable land	Potentially greater frequency of major flood events	Closure of parks and sporting grounds. Damage to assets	Ensure asset design and materials used are flood and resilient and can withstand inundation for long periods in areas subject to flooding.
Climate Change -high rainfall	Many fields are poorly drained	Increase in number and duration of wet weather events, including floods.	Closure of fields Poor quality turf and gardens	Improve field construction techniques and ensure adequate drainage is provided
Climate Change - less rainfall	Many gardens don't have irrigation Many sports fields rely on drinking water for irrigation	Potentially longer periods of drought Water restrictions will increase in duration and frequency	Loss of trees and plant could be possible	Ensure trees and plants are drought tolerant and if possible, irrigate with a sustainable water supply

Demand Driver	<b>Current Position</b>	Projection	Impact on Services	Demand Management Plan
Climate Change - high temperatures	Temperatures on average are starting to increase, and duration of heatwaves is extending. Limited shade in parks and at sportsgrounds and playgrounds	Hotter temperatures. More frequent heatwaves that are longer in duration and intensity.	Hotter surface and ambient temperatures may render assets unusable at certain times/places. More rapid deterioration of assets exposed to the sun.	Ensure materials selected do not feel hot to touch. Increase the amount of shade over assets. Use protective coatings.
Storms	Eucalypt trees in particular are prone to limb drop	More frequent and intense storms	Potentially more localised damage from tree fall	Ensure assets are located in areas less likely to suffer damage
Fire	Many open space areas contain or are close to bushland	More frequent and intense bushfire	Assets may be damaged or destroyed by fire particularly in remote and bushland areas.	Ensure assets are suitably located away from hazards, conduct fire mitigation measures if necessary.



## **RISK MANAGEMENT**

Effective risk management is vital for Hawkesbury City Council to safeguard its infrastructure,community, and service assets, many of which are essential for the community's day-today functioning. Key assets, such as roads and bridges that provide critical services, must remain operational to avoid disruptions that could affect the livelihoods and well-being of Hawkesbury residents. The Enterprise Risk Management Framework (ERMF) guides the Council's approach to managing infrastructure risks, while the Risk Appetite Statement sets acceptable risk levels, ensuring that all risk treatments are aligned with the Council's tolerance for risk exposure.

The council's risk management approach for infrastructure assets is rooted in the principles of ISO 31000:2018 and complies with guidelines from the Office of Local Government. These principles ensure a structured approach to identifying, assessing, managing, and mitigating risks.

#### **Key Risk Categories**

A comprehensive assessment of the Council's asset portfolio identified risks in several impact categories. Each risk is evaluated based on likelihood and impact, and risks are assigned ratings aligned with Council's Risk Appetite Statement. Categories include:

- People Impacts: Civil unrest, workforce health and safety (WHS), and community relations.
- Environmental Impacts: Climate change, biodiversity loss, natural hazards, and public health concerns.
- Financial Impacts: Economic fluctuations, fraud, theft, and financial management.
- Reputational Impacts: Risks to Council's public image, influenced by media coverage, community feedback, and corporate values.
- Compliance Impacts: Legislative adherence, contractor management, and Council policy compliance.

These risk categories ensure Council's actions align with the ERMF while adhering to Council's risk tolerance, supporting sustainable, high-quality service delivery within acceptable risk boundaries.

#### **Risk Assessment and Mitigation**

Each identified risk is prioritised based on risk appetite. Risks that exceed the Council's risk tolerance are escalated to appropriate management levels, including the General Manager if required. Risk owners are tasked with implementing SMART risk treatments (Specific, Measurable, Achievable, Relevant, Time Framed), ensuring all actions are aligned with the ERMF and are regularly monitored for effectiveness.

For risks that cannot be mitigated to within the risk appetite, the risk owner must escalate these to the Council for review and potential intervention, following the escalation protocol set forth in the Risk Appetite Statement. Specific risk registers have been developed for the Open Space asset group as per **Table 5 - Risk Register** below.

### Table 5 - Risk Register

Asset or service at Risk	What can happen	Rating	Risk Treatment plan	Residual Risk
All Park Assets	Maintenance costs increasing due to an inadequate renewal program	High	Consistently review and continue to improve data Ensure maintenance is managed appropriately.	Medium
All Park Assets	Strategic targets and objectives not aligned to community expectations	High	Community Engagement (Public Consultation) Policy reviewed regularly. Community Engagement activities carried out regularly. Documented strategic plan consulted upon every 4 years	Low
All Park Assets	Insufficient resources secured to deliver Asset Management Plan requirements especially for high-risk asset categories such as playgrounds	High	Update Asset Management Plan, including costing for renewals and maintenance regimes. Review budget allocation and LTFP.	Medium
All Open Space Assets	Extreme weather events which result in requirement for significant unplanned capital renewal works	High	Prepare an Emergency plan and ensure adequate budget is available to support unplanned capital works	Medium
Lighting	Failure to illuminate sporting fields to required standards Failure to illuminate sporting fields will increase risk of injury to users	Medium	Undertake an audit of sports field lighting and implement upgrades as required	Low
Playgrounds	Playgrounds in poor condition will increase risk of injury to users	Medium	Undertake an audit of playgrounds and implement repairs or renewals as required	Low

### **CRITICAL ASSETS**

Critical assets are defined as those which have a high consequence of failure and would result in significant loss, reduction and/or a complete halt in the service provided. Such assets must be identified along with their mode of failure and their impact to the community. Through the proactive investigation of these assets, Council can plan for appropriate actions to prevent premature failure. Such actions are:

- Condition assessment programs
- Regularly scheduled maintenance
- Adequate funding to execute planned renewal

Critical Open Space Infrastructure assets have been identified and listed below.

Table 6 - Critical Assets

Critical Asset(s)	Failure Mode	Impact
Playgrounds	Equipment failure or non- compliance with standards	Loss of service and potential human injury or property damage
Riverfront parkland	Riverbank failure	Loss of land and assets Loss of reputation Loss of other assets as erosion worsens Safety



# LIFECYCLE MANAGEMENT PLAN

#### **Strategic Asset Management Objectives**

One of the primary goals of Strategic Asset Management is to minimise long-term costs while achieving the service levels expected by the community. Lifecycle asset management plans are essential for prioritising renewals at optimal times and utilising the most effective methods to ensure the lowest possible whole-of-life cost for each asset.

#### **Forecasted Asset Lifecycle Costs**

To provide the required service levels, this Lifecycle Management Plan includes all costs necessary for asset operation, maintenance, renewal, upgrade, acquisition, and disposal across their lifecycle. Forecasted funding estimates help determine when and how much to invest in each phase to minimise overall costs.

#### **Funding Required**

To adequately sustain and improve open space assets, the Council requires approximately \$5.1million per year for the open space assets. This figure includes:

- Renewal Needs: An estimated \$2.1 million annually is required specifically for asset renewals to replace assets nearing the end of their useful life, preventing deterioration and sustaining long-term asset functionality and safety. Without this dedicated renewal funding, assets are likely to degrade more quickly, leading to increased costs and potential disruptions to community services.
- Operations and Maintenance: Approximately \$3 million annually, which is essential to ensure safe, functional, and well-maintained assets for the community.

#### **Current Funding Levels**

According to the Long Term Financial Plan (LTFP), the Council's current annual budget provides only \$1 million for renewals, significantly below the \$2.1 million required to maintain asset condition. Combined with \$3 million for operations and maintenance, this brings total available funding to \$4 million per year, leaving a substantial gap in renewal funding. This limited renewal allocation significantly restricts Council's ability to replace aging assets in a timely manner, increasing the likelihood of accelerated asset deterioration and higher future costs.

Some funds for the operation and maintenance of most of Councils sporting facilities are delegated to the Hawkesbury Sports Council. This includes some minor capital works contributions of approximately \$300,000 annually.

#### **Funding Gap**

The \$1.1 million annual shortfall in renewal funding has almost doubled since the \$0.6 million shortfall identified in the 2017 Asset Management Plan. This widening gap reflects rising costs and mounting pressures on asset management resources. Closing this gap is critical for sustaining asset conditions and aligning with community expectations, especially as environmental and regulatory demands continue to increase.

#### Achieving Optimal Renewal at the Lowest Whole-of-Life Cost

Council's renewal strategies are designed to minimise lifecycle costs by timing renewals effectively, balancing initial investments with long-term maintenance needs. While the baseline approach relies on like-for-like replacements, community demands are evolving

toward enhancements in recreational areas and accessible spaces. The council actively seeks grant funding (e.g., Western Sydney Infrastructure Grants) to address these needs and enhance facilities, extending beyond standard renewal efforts.

Given the escalation of climate-related risks, the Council's Lifecycle Management Plan prioritises future-proofing assets through resilient designs, such as incorporating heat refuges or flood-resistant features, where feasible. However, without closing the renewal funding gap, many of these resilience improvements may remain underfunded, underscoring the need for immediate and strategic financial adjustments.

### **PHYSICAL PARAMETERS**

#### **Data Collection**

The first requirement for achieving asset management objectives is to build a highly reliable database that includes inventory, condition, financial, and geographical data. A condition assessment of park assets along with comprehensive revaluation has recently been completed. This will provide the best opportunity to improve the quality and accuracy of the data.

#### **Asset Categorisation and Useful Life**

The designed useful life of Council's infrastructure assets are based on numerous factors, including:

- Usage of each asset
- Advice and discussion with asset stakeholders
- The cost and frequency of proactive and reactive maintenance
- Lifecycle cost and degradation models

The useful lives used for Council's lifecycle asset management practices are listed in the attachment Useful Life of Assets Categories and Subcategories.

#### **Model Scenarios**

Council has utilised an asset lifecycle modelling tool called 'Assetic MyPredictor' to develop unique financial models for various scenarios based on the nature and behaviour of each asset category. Each model has been tailored with different triggers and criteria for treatments to best reflect currently practiced methodologies for renewal, maintenance, upgrade, acquisition and disposal of assets.

Life-cycle models are used to estimate future funding requirements needed to maintain the current level of service or to predict the future state of assets under various funding scenarios.

## LONG-TERM FINANCIAL PLAN SCENARIOS

A financially sustainable Council, as defined by the NSW Government, is one that over a long term can generate sufficient funds to provide the level and scope of services and infrastructure agreed with its community through the Integrated Planning and Reporting Process. (Source: NSW Government, 2012).

The Long-Term Financial Plan considers various lifecycle asset management funding strategies, over a 10-year period, to address three key issues that pose significant financial risk to Council:

Unfunded Renewal: Value of assets that have been delayed from their planned renewal

Renewal Gap: The gap between the required and current average annual renewal expenditure

**Maintenance Gap:** The gap between the required and current average annual maintenance expenditure

Council's Long Term Financial Plan 2025 – 2035 has been developed with the aim of having an appropriately funded capital works program and maintaining a "fit for purpose" asset base as described by Asset Management Strategy.

The objective is to allocate sufficient funds each year to an asset reserve and capital budget to cover the required funds for the maintenance and renewal of the Council's existing infrastructure, as outlined in the asset lifecycle models.

The 10-year asset lifecycle model has been develop using Assetic Predictor. The model identifies the optimal strategy to fund the maintenance and renewal of infrastructure assets and to address and clear current unfunded renewals, based on budget availability.

Three scenarios have been developed (Decline, Improve and Resolve) to demonstrate the opportunities and risks of various funding models across the Long Term Financial Plan and Asset Management Strategy. These documents link directly, with the LTFP providing the necessary long term funding strategy to achieve the effective asset management described in this plan. The scenarios demonstrate what would occur to Council's assets under different funding models across the next 10 years.

This information helps Council and the community understand the financial needs and effects of various levels of funding. This Asset Management Plan focuses on the assumed spending on asset maintenance and renewal, with the LTFP describing further variables within each scenario. As asset renewal is the major financial challenge facing Council, these variables are the predominant factor impacting each scenario.

The specification of funding for new assets has not been addressed in this iteration of the AMP. Typically, allowances are made for the acquisition of new assets through construction and other sources to support growth in Council's infrastructure network annually. This is achieved through various grants and commitments made by the Council for the community. Generally, new assets are funded through grants (with or without a Council contribution), Section 7.12 (formerly s94) funds, and/or the sale of other assets.

However, predicting these funding sources with certainty is challenging until the new asset projects are developed. A strategic action of this plan is to develop methods, if possible, to account for the likely impact of new assets on existing renewal funding sources.

Based on recent estimates, the annual depreciation, operational, and maintenance costs of all infrastructure assets have increased by approximately \$850K due to donated, newly built, and upgraded assets in the 2023/24 financial year. The acquisition of new assets due to development or construction, as well as the upgrading of existing assets, will increase the funding required for the maintenance, operation, and renewal of infrastructure assets. This could exacerbate the unfunded renewal and renewal gap. Therefore, Council would need to adopt strategies to pause the construction of new assets until the current funding gap is significantly addressed or resolved.

#### Scenario 1: Decline

Scenario one describes the current trajectory of business as usual and is driven by Council's current level of renewal spending (\$14m annually) and business as usual practices on asset maintenance and renewal, without significant increases across the 10 year life of the strategy. The modelling on this scenario suggests that legislative and assumed increases to Council's revenue will not provide sufficient funding to maintain the condition of assets and current service levels.

This level of investment will lead to a significant decline in asset condition over time and an accelerating deterioration of assets, increasing the projected unfunded renewal and growing costs. The issue will continue to compound if funding strategies are not in place. Under this scenario, assets would only be renewed when they become unsafe or completely unusable.

It is likely that Council would need to reduce community, cultural and recreation services or close unsafe facilities so that funds can be redirected to keeping essential infrastructure such as roads safe and functioning. This option provides no capacity to fund new programs, take advantage of key grant opportunities or delivery on emerging community priorities.

#### Scenario 2: Improve

Scenario two will allow Council to shift towards a more preventative asset management approach, rather than waiting for assets to deteriorate to the point of failure and where renewal is at its most costly. This scenario assumes a \$25m annual investment in renewal. Under this funding arrangement, it would take approximately 20 years to clear Council's unfunded renewals gap. All assets would gradually improve across the Hawkesbury under this arrangement.

This option will also provide some scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan.

#### Scenario 3: Resolve

Scenario three involves the optimisation of Council's asset renewal by matching the required funding with actual investment across the life of the strategy. This would allow Council to take a proactive asset management approach, focusing on betterment and resilience for the long term. Essentially, the quicker Council invests the more long lasting the financial benefits will become.

This scenario assumes a \$30m annual investment in renewal. Under this funding arrangement, it would take approximately 10 years to fully resolve Council's unfunded renewals gap. Assets conditions would significantly improve across the Hawkesbury under this arrangement.

This option will also provide significant scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan. The accelerated investment in assets will lead to greater future opportunities for service delivery.

### ALIGNMENT OF SCENARIOS WITH CAPITAL WORKS PROGRAM FUNDING FOR OPEN SPACE ASSETS

The table below illustrates how the three scenarios—Decline, Improve, and Resolve—translate into specific funding levels and strategic priorities for Open Space Assetsunder the Capital Works Program (CWP).

Aspect	Scenario 1: Decline	Scenario 2: Improve	Scenario 3: Resolve
Budget Range	\$1,000,000	\$2,000,000	\$2,100,000
Strategic Focus	Reactive repairs and essential maintenance.	Introduction of preventative maintenance and compliance upgrades	The balance between proactive maintenance and modernisation
Preventative Maintenance	Minimal preventative actions; primarily reactive	Targeted preventative maintenance introduced for specific systems to reduce reactive costs	Targeted preventative maintenance improved for key systems to reduce long-term reactive costs
Accessibility and Compliance	No compliance upgrades; limited to emergency repairs	No compliance upgrades; limited to emergency repairs	Gradual compliance improvements in 1park or open space reserve per year
Minor Playspace Refurbishments	Small-scale refurbishments in some playspaces. Replacement of small items like seats, ropes, damaged equipment	Expanded refurbishments to multiple playspaces, extending to softfall renewal, shade sail renewal, and equipment replacement at end of life	Thorough refurbishments, ensuring playspaces whole of life cycle are being met, works include; replacement play items, surface renewal, shade sail renewal, and softfall edging
New Playspaces	None	None	None
Major Playspace Upgrades	l playspace upgrade per year, replacing old/existing playground with new equipment, softfall, shade and landscaping	2-3 playspace upgraded per year, replacing old playground with new equipment, softfall, shade and landscaping	2 playspace upgraded per year, replacing old playground with new equipment, softfall, and landscaping
Lifecycle Cost Management	Up to 3 playspace upgrades per year, replacing old playground with new equipment, softfall, shade and landscaping	Reduced costs due to a more proactive and targeted renewal program, less reliance on emergency maintenance only.	Resolved lifecycle managed due to enhance renewal programing
Community Impact	Dissatisfaction due to frequent service disruptions. Park closures due to limited funds to replace equipment at end of life. Increase risks of injuries and dissatisfied community. Lack of use.	Gradual improvement in service delivery through modernisation and improved maintenance	Enhanced user satisfaction with proactive asset improvements and increased service availability
Growth and Future Planning	Neglects future growth; focuses on keeping current assets operational only.	Limited planning for growth; focuses on addressing critical compliance, usability, and gradual improvement	Strategic upgrades and modernisation for growth.



### **FINANCIAL SUMMARY**

Hawkesbury City Council is committed to delivering the service levels outlined in this Asset Management Plan. To achieve this, adopting Scenario 3 (Resolve) is critical, with an estimated annual renewal budget of \$2.1 million for Open Space assets over the next 10 years. This funding level enables proactive asset management, focusing on modernisation, preventative maintenance, and the delivery of new, fit-for-purpose infrastructure to meet future community needs.

Currently, the Five-Year Open Space Works Program has been developed based on Scenario 1 (Decline), reflecting the available budget of \$1 million annually. This program prioritises reactive repairs and essential maintenance to keep critical open space areas functional. The program is reviewed and adjusted annually to address changing project priorities and immediate needs.

The table overleaf demonstrates how the Capital Works Program (CWP) for open space assets would evolve under each scenario, providing examples of budget allocation, key actions, and their focus areas:



#### Example ONLY - Annual Open Space Program (following page)

Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
<b>1. Decline-</b> Prioritises reactive repairs and essential minor alterations to keep critical assets functioning	\$1,000,000	Minor Renewal Program - Park Improvement Program	\$200,000	Limited improvements to essential open space assets
		Sporting Infrastructure - Floodlight and Sport Surface Renewal	\$150,000	Minor Capital Works to manage high risk sports infrastructure assets
		Minor Playspace Refurbishment. High- priority repairs/renewals – Capital in Nature	\$300,000	Address high- priority or emergency repairs.
		Major Playspace Upgrade (Local Park)	\$350,000	Local Park Upgrade. Replace playground based on playspace priority ranking.
<b>2. Improve –</b> Shifts toward preventative maintenance and gradual compliance upgrades	\$2,000,000	Minor Renewal Program (Park Improvement Program)	\$300,000	Enhanced preventative maintenance to reduce long-term reactive costs
		Sporting Infrastructure Program (Floodlight, Court Surfaces, Practice Wickets, field upgrades, irrigation, drainage)	\$400,000	Improved durability, condition and to extend asset life, align with sport governing body guidelines
		Minor Playspace Refurbishment. High- priority repairs/renewals – Capital in Nature	\$300,000	Address high- priority unplanned or emergency repairs
		Major Playspace Upgrade (Local Park) 2-3 Playspaces	\$1,000,000	Local Park Upgrade. Replace playground based on playspace priority ranking

Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
<b>3. Resolve-</b> Balances proactive maintenance, renewal, \$2,100,000 comprehensive upgrades, and allows for future growth		Minor Renewal Program (Park Improvement Program – Passive Recreation)	\$300,000	Enhanced preventative maintenance to reduce long-term reactive costs
		Sporting Infrastructure Program (Floodlight, Court Surfaces, Practice Wickets, field upgrades including drainage and irrigation)	\$400,000	Improved durability, condition and to extend asset life, align with governing body guidelines
	Major Playspace Upgrade (2 Local Park, 1 district) min 3 Playspaces	\$1,1000,000	Local Park Upgrade. Replace playground based on playspace priority ranking.	
		Minor Playspace Refurbishment. High- priority repairs/renewals – Capital in Nature	\$300,000	Address high- priority unplanned or emergency repairs.

Hawkesbury Sports Council contribution to capital works is approximately \$300,000 for minor capital works and contribution to grants. Hawkesbury Sports Council operational budget covers operational and maintenance and servicing of the sporting facilities. Figures based on 24/25FY operational budget.

### **FALLBACK STRATEGY**

If Scenario 3 (Resolve) or Scenario 2 (Improve) is not adopted, fallback strategies will be employed to maximise the effectiveness of the reduced works program under Scenario 1 (Decline). This would include:

- Limiting maintenance and renewal to only critical repairs.
- Prioritising safety-related works to mitigate risks associated with deteriorating assets.
- Accepting that ongoing degradation of open space assets will result in reduced service levels and potential facility closures.

Without sufficient funding, Council will be unable to minimise the degradation of its open space assets, address compliance issues, or meet growing community expectations. Securing increased investment under Scenario 3 is essential to achieving sustainable outcomes and delivering the highest level of service to the Hawkesbury community.

## OPERATIONAL ROLES AND RESPONSIBILITIES

In accordance with ISO 55000 Asset Management standards, the proposed roles and responsibilities of staff and contract resources across the organisation have been developed. This proposal will be refined through consultation with Council staff and various teams and then presented to the Council's Executive Team for approval.

A detailed matrix for all roles and responsibilities over Council's roads and transport assets have been outlined in **Attachment D – Roles and Responsibility Matrix**.

## PLAN IMPROVEMENT AND MONITORING (AUDITING)

This plan is a live document that will change and improve as the skills and capabilities of the various asset management resources across Council are developed. Further, in accordance with ISO 55000 Asset Management, the compliance with this plan will be audited by the Assets Management Team. The Audit Process will initially focus on the achievement of the core organisation's asset management maturity. Later it will focus on compliance with the service levels, future demand, lifecycle asset management systems developed for this plan and the identification of areas for skills and capabilities improvement.

The Audit Process has yet to be developed and will be a future Strategic Action in later versions of the AMPs. Nonetheless, a number of skills and capability improvement actions have been identified in the development of this plan and they are detailed in the **Attachment E** - **Strategic Actions.** 



## **ATTACHMENTS**

**ATTACHMENT A - DEFINITIONS** 

Term	Definition
Asset	An asset is an item, thing or entity that has potential or actual value to an organisation. The value will vary between different organisations and their stakeholders, and can be tangible or intangible, financial or non-financial.
Asset Condition Assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset to determine the need for preventative or remedial action.
Asset Group	An asset group refers to an umbrella of assets that have similar characteristics or purpose.
Asset Management	The balancing of costs, opportunities and risks against the desired performance of assets, to archive the organisational objectives. The balancing might need to be considered over different timeframes. Additionally, it enables the application of analytical approaches towards managing an asset over the different stages of its lifecycle.
Capital Expenditure	Expenditure which contributes or results in a physical asset.
Capital Grants	Funding received from a third party which are generally tied to specific projects.
Component	An individual part of an asset which contributes to the composition of the whole and can be separated/attached from the whole. It may also require different types of treatments and have differing useful lives and lifecycle costs.
Componentisation	The practice of considering the components of a fixed asset individually, to account for the fact that these components have unique physical and economic lives.
Condition	Assessed and given a value on a scale of 1 (new) to 5 (end of life). The Average Condition of a group of assets is the GRC weighted average of all assets in the group.
Current Average Annual Expenditure	An estimate of the current total maintenance and capital works expenditure on the Asset Group, being the annualised present worth of the value of the maintenance and capital renewals expenditure.
Depreciation	The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.
Fair Value	The amount for which an asset can be exchanged, or a liability settled between knowledgeable, willing parties, in an arm's length transaction.
Gross Replacement Cost (GRC) aka Current Replacement Cost (CRC)	The amount it would cost at the revaluation date to acquire or construct a brand- new substitute asset that has comparable utility and no obsolescence. Also referred to as Current Replacement Cost (CRC).

Term	Definition
Infrastructure assets	Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycle ways. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.
Level of service	The defined service quality for a particular service from an asset. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost.
Lifecycle Cost	The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
Minimum Average Annual Expenditure	The average annual expenditure required to keep the Asset Group in good condition after the Unfunded Renewal (if any) has been addressed.
Reactive maintenance	Unplanned repair work that carried out in response to service requests and management/supervisory directions.
Remaining life	The time remaining until an asset ceases to provide the required service level or economic usefulness.
Renewal	Refer capital renewal expenditure.
Renewal Gap	The gap between the average required and available annual budgets.
Risk management	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.
Satisfactory Condition	As designated in Special Schedule 7 of Council's Annual Financial Report, being condition 3 or fair condition.
Unfunded Renewals	The total cost of all asset treatments (maintenance and component/ asset renewals) due or past due at the date of review.
Useful Life	The period over which an asset is expected to be available for service by an entity. The estimated period from installation till removal of the asset upon the end of its serviceability
Written Down Value (WDV)	Also referred to as the book value, WDV reflects the assets present value from an accounting perspective. It is calculated by subtracting the depreciated value from its original value.

## ATTACHMENT B - ASSETS INSPECTIONS AND CONDITION ASSESSMENT SCHEDULE

Condition Assessment Plan				
Asset Class	Asset Sub Class	Condition Assessed	Condition Assessment Due	
Park Furniture	Asset inspectors to assess the condition of each unique asset class in all parklands across the entire local government area	2023/2024	2027/2028	
Playgrounds	Engaged an external contractor, to undertake quarterly safety and condition audits	Ongoing, assessed quarterly	Ongoing, assessed quarterly	
Sports fields	Employment of technical specialist to assess all safety and condition requirements	NA	2026/2027	
Sports lighting	Employment of technical specialist to assess all safety and condition requirements	2019/2020	2025/2026	

## **ATTACHMENT C - USEFUL LIVES OF ASSET CATEGORIES AND SUBCATEGORIES**

Asset Group Category	Asset Subcategory	Useful Life
Playgrounds	Level 1 Playgrounds	10 years
	Level 2 Playgrounds	15 years
	Level 3 Playgrounds	20 years
	Landscape Play	25 years
Lighting	All asset types (Park Lighting and Sportfields Lighting	30 years
Sportfields and	Sportfields	10 years
Irrigation	Irrigation Systems	10 years
Park Furniture	Barrier Bollards and single bollards	10 years
	Bike Rack	10 years
	BBQ's	10 years
	Bubbler	10 years
	Bin	10 years
	Boat Ramp	10 years
	Cricket Wickets	10 years
	Fences	10 years
	Flag or Banner Pole	10 years
	Gates	10 years
	Goal Posts	10 years
	Miscellaneous structures	10 years
	Practice Nets	10 years
	Planter Box	10 years
	Seats and Tables	10 years
	Shade Structure	10 years
	Shelter	10 years
	Stage	10 years
	Tree Guard	10 years
	Vehicle Port	10 years
	Waste Enclosure	10 years
	Water Device	10 years

### **ATTACHMENT - OPEN SPACE PRIORITISATION - PLAYSPACES**

This Attachment details the Asset Components (if any) for each Open Space Asset Category and the Treatment Types, Criteria and Triggers used in modelling, and planning capital works programs.

#### Playgrounds

Playgrounds are considered as complex assets due to the number of factors that need to be considered, including:

- Playground Location and Category
- Public Perception Factors
- Various Useful Lives of the playground elements and the effect of usage on deterioration

#### **Playground Location and Category**

There are various factors that are considered when prioritising playgrounds. Due to the highly political and sensitive nature of this asset, numerous parameters were assessed:

Criteria Description/Weighting	Criteria Scoring			
1. Park Hierarchy: each playground	Park Hierarchy	Ranking		
generally has the same hierarchy as the host site and fall into the following categories. Weighting 15%	Regional	4		
	District	3		
	Local	2		
	Local /Pocket	1		
2. Community Complaints: Community	Community Complaints	Ranking		
complaints received against a playground provides council with an indication of the community perception/	9 or more	4		
	5 to 8	3		
indicates issues with maintenance that	l to 4	2		
may trigger a need for renewal Weighting 15%	none	1		
3. Proximity to other Play Equipment:	Proximity to other play	Ranking		
These criteria assist council prioritise parks in more remote locations (unique in the Hawkesbury). Those parks that are not close to another park and requires residents to travel further to other parks gets a higher priority to those that are bunched together or others resident variety or alternative options for play. Weighting 10%	1001m +	5		
	801m - 1000m	4		
	601m-800m	3		
	401m-600m	2		
	within 400m	1		
4. Play Equipment Age: Playspaces that	Play Equipment Age	Ranking		
are older are prioritised higher than those that are newer. Weighting 15%	20 yrs +	5		
6 6	15-19 yrs	4		
	10-14 yrs	3		
	5-9 yrs	4		
	0-5 yrs	5		

Criteria Description/Weighting	Criteria Scoring	
5. Shade Provision: each playground	Shade Provision	Ranking
has varying levels of shade and is a contributing factor to the priority of the	No Shade	4
playground being renewed or upgraded	Limited shade (<50%)	3
the following categories: (i.e playground	Shade (50-80%)	2
with limited or no shade are prioritised over playspaces with full shade coverage). Weighting 10%	Full Shade	1
6. Play Equipment Condition: Overall	Condition	Ranking
playgrounds are assessed using condition scores as follows: (i.e.	5 very poor	5
playgrounds that are very poor or poor	4 poor	4
good or very good condition). Weighting	3 fair	3
20%	2 good	2
	l very good	1
7. Demographics (Population make up):	Demographics (Aged 0-14yrs)	Ranking
priority on playspaces upgrades in	Above 22%	4
areas where the general population of children aged 0-14 yrs is most prevalent	Between 19.1-22%	3
Weighting 10%	Between 15.1%-19%	2
	Below 15% average	1
8. SEIFA INDEX: Priority for playspaces in	SEIFA Index	Ranking
priority to those playspaces in higher	SEIFA Index below 960	4
social-economic areas. Based on the	SEIFA Index 961 - 1008	3
measures of socio-economic conditions	SEIFA Index 1009 - 1040	2
by geographic area.	SEIFA Index above 1041	1
<b>9. Other Unique Considerations</b> included in decision making for priority playspace renewal (currently non-quantifiable)	<b>Usage:</b> difficult to quantify, usage simply refers to how frequently the asset is utilised by the community. The higher its usage, the faster the asset is used steepeni the gradient of its degradation rate. <b>Component Renewal:</b> This could be referring to replacing only the shade structure of soft-fall of the playground to natural/man made structure or from bark surface to a wet pour rubber surface. <b>Supply of</b> <b>replacement parts:</b> some parts are not available off the shelf, bespoke or custom built items	

Infrastructure Services Team	Key Roles	Key Responsibility- General	Key Responsibility- Open Space asset-related task
Asset Systems & Planning (AS&P)	<ul> <li>Asset owner responsible for lifecycle planning of Roads, Stormwater, Buildings, and Open Space.</li> <li>Oversees asset management systems for evidence-based decision-making.</li> <li>Develops statutory asset planning documents.</li> <li>Aligns asset management outcomes with LTFP, Operational Plan, and Delivery Program.</li> <li>Coordinates asset management practices.</li> </ul>	<ul> <li>Handles customer requests for asset installation or renewal.</li> <li>Conducts asset condition assessments.</li> <li>Prepares and updates lifecycle models and budgets.</li> <li>Processes legislative reports.</li> <li>Manages interfaces with external utilities.</li> </ul>	<ul> <li>Handles customer requests for open space installations or renewals.</li> <li>Develops and updates the Capital Works Program.</li> <li>Coordinates grant applications and milestone reporting.</li> </ul>
Infrastructure Operations (IO)	<ul> <li>Coordinates preventative, reactive, and planned maintenance of Council assets.</li> <li>Ensures compliance and safety of assets.</li> <li>Manages Capex and Opex tenders.</li> <li>Leads emergency and resilience planning.</li> </ul>	<ul> <li>Manages customer requests for asset defects and servicing.</li> <li>Conducts minor capital replacements.</li> <li>Leads emergency planning and compliance.</li> <li>Manages vehicle, plant, and equipment replacement programs.</li> </ul>	<ul> <li>Handles customer requests for maintenance of open space facilities</li> <li>Performs various maintenance activities, including graffiti removal, mowing, cleaning and weed management</li> </ul>
Project Delivery (PD)	<ul> <li>Leads and ensures accountability in Capital Works Program delivery.</li> <li>Streamlines project delivery processes.</li> <li>Manages contracts and stakeholder deliverables.</li> <li>Reviews designs and ensures approval compliance.</li> </ul>	<ul> <li>Addresses customer requests for construction project updates.</li> <li>Develops delivery strategies.</li> <li>Ensures efficient contract and project management.</li> <li>Conducts asset handovers post-project completion.</li> </ul>	<ul> <li>Manages customer requests for open space-related capital works projects.</li> <li>Prepares and awards contracts.</li> <li>Oversees site administration, stakeholder management, and risk.</li> <li>Completes asset handovers with stakeholders</li> </ul>
City Services (CS)	<ul> <li>Manages City Services Branch for development engineering, mapping, open space, and traffic management.</li> <li>Handles development-related customer requests.</li> <li>Manages the SIS mapping system.</li> <li>Supports cemetery operations.</li> </ul>	<ul> <li>Addresses customer requests for services like parks, tree permits, road openings, and traffic management.</li> <li>Provides mapping services and asset location tracking.</li> </ul>	<ul> <li>Oversees aquatic facilities and seasonal swimming pools.</li> <li>Manages relationship with Hawkesbury Sports Council (HSC)</li> <li>Maps assets and provides spatial data access to asset officers through Intramaps.</li> </ul>

## **ATTACHMENT D - SUMMARY OF INFRASTRUCTURE SERVICES ROLES AND RESPONSIBILITIES**

## **ATTACHMENT E - STRATEGIC ACTIONS**

Task No	Strategic Actions - Roads and Transport	Importance	Urgency	Risk	Responsibility	Target Completion Date
1	Streamline processes for Open Space projects initiation, planning, design, procurement, delivery and hand over.	High	High	High	Assets, Delivery, Operations, Procurement	30/06/2025
2	Review and update the Open Space five- year rolling program.	High	High	High	Assets	30/06/2025
3	Undertake data gap analysis on Open Space Sporting Infrastructure including asset condition data, system and process, and GIS mapping.	High	High	High	Assets	30/12/2025
4	Comprehensive revaluation for all open space assets	High	High	High	Assets	30/03/2025
5	Review Playground inspection process and develop proactive maintenance program for play equipment and softfall	High	High	High	Assets, Operations	30/12/2024
6	Initiate and continue a facility needs assessment on Open Space Sporting Infrastructure through conducting a user survey and facility adequacy inspections	Medium	Medium	Medium	Assets, Operations, Hawkesbury Sports Council and Management Committees	30/6/2025
7	Conduct a shade over play audit, and amend 5 year rolling program to accommodate the implementation of priority sites	Medium	Medium	Medium	Assets, External Contractor	30/6/2025
8	Review and update lifecycle modelling for Playspaces, Sporting Infrastructure and Park Furniture.	High	High	High	Assets, GIS Team	30/11/2024
9	Implement mobility solutions for open space signage asset inspections	Medium	Medium	Medium	Assets, IT, Operations	30/06/2025
10	Complete detail design and L3 cost estimation of the 2025/26 Open Space Capital Works Projects	High	High	High	Assets	30/12/2024

### **ATTACHMENT F - REFERENCES AND RELATED INFORMATION**

- HCC Asset Management Strategy
- IPWEA International Infrastructure Management Manual
- IPWEA Financial Management Guidelines
- NSW Office of Local Government Integrated Planning and Reporting Framework Guidelines and Manual
- HCC Asset Management Policy
- HCC Asset Valuation Methodology Manual
- Local Government Financial Sustainability Nationally Consistent Frameworks, Frameworks 1, 2 and 3, May 2009
- National State of the Assets, Roads and Community Infrastructure Report, Nov 2018
- AS ISO 55000-2014 Asset Management-Overview, Principles and Terminology
- AS ISO 5001-2014 Asset Management-Management Systems- Requirements
- AS ISO 5002-2019 Asset Management-Management Systems- Guidelines for the Application of ISO 55001
- AASB 116 Property, Plant and Equipment prescribes requirements for recognition and depreciation of property, plant and equipment assets
- AASB 13 Fair Value Measurement sets out methods for determining Fair Value
- AASB 136 Impairment of Assets aims to ensure that assets are carried at amounts that are not in excess of their recoverable amounts
- AASB 1021 Depreciation of Non-Current Assets specifies how depreciation is to be calculated
- AAS 1001 Accounting Policies specifies the policies that Council is to have for recognition of assets and depreciation
- AASB 1041 Accounting for the reduction of Non-Current Assets specifies the frequency and basis of calculating depreciation and revaluation basis used for assets
- AAS 1015 Accounting for acquisition of assets method of allocating the value to new assets on acquisition
- AAS 1010 Recoverable Amounts of Non-Current Assets specifies requirement to test the reasonableness of valuations.



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## HAWKESBURY CITY COUNCIL

## ASSET MANAGEMENT PLAN

## **STORMWATER** RESOURCING STRATEGY





www.hawkesbury.nsw.gov.au

## STATEMENT OF COMMITMENT TO FIRST NATIONS PEOPLES

Council acknowledges the Dharug and Darkinjung people as the Traditional Custodians of the land throughout the Hawkesbury.

Council recognises the continuing connection of First Nations people to their Country and respects the cultures and histories of Aboriginal and Torres Strait Islander peoples as the first peoples of this land.

W Marks #




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## **EXECUTIVE SUMMARY**

This Stormwater Asset Management Plan details the lifecycle management practices for the Stormwater Drainage Infrastructure Assets group. This group includes drainage conduits, culverts, open channels, dams, flood mitigation structure, drainage devices such as pits and water quality devices, Gross Pollutant Trap (GPT) as well as assets in Council's parks and recreation areas. These assets if they were built today, would cost approximately \$225 million (excluding the cost of land and bulk earthworks on which the infrastructure is built).

The primary goal of this plan is to deliver the defined levels of service in the most cost-effective manner, addressing both current and future needs of the community. The key objectives of this plan include:

- Establishing detailed technical and operational service level criteria to meet the community's expectations.
- Developing and managing whole-of-life models to enable affordable and costeffective management of the Stormwater Infrastructure assets.
- Developing and maintaining a 5-year forward works plan.
- Contributing to the development of Long-Term Financial Plan (LTFP) scenarios.
- Implementing ongoing auditing, compliance, and review practices for this plan.

To support the Long Term Financial Plan (LTFP), three scenarios have been developed—Decline, Improve, and Resolve—to demonstrate the opportunities and risks associated with various funding models within the LTFP and Asset Management Strategy.

Hawkesbury Council is dedicated to delivering the service levels outlined in the AMS. Under Scenario 3: Resolve, which requires an annual investment of approximately \$30 million across all asset classes, the estimated available funding for Stormwater assets over the next 10 years will increase to \$3.4 million per year. While this is a significant improvement, it still leaves a budget shortfall compared to the actual needs for maintenance, renewal, and upgrades.

Although Scenario 3 will substantially reduce the backlog of unfunded renewals, some asset needs will remain unmet each year, particularly in lower-priority areas. This scenario represents a proactive approach, but achieving full funding for all Stormwater asset requirements will still demand careful prioritisation and ongoing efforts to secure additional resources.

Finally, a detailed plan, including strategic actions, has been developed to enhance the organisation's asset management maturity.

## **INTRODUCTION & BACKGROUND**

## **OUR CITY**

The Hawkesbury is a unique area located in the Hawkesbury River Valley. It is the largest Local Government Area in the Sydney Metropolitan Region, covering approximately 2,776km². Our population is relatively small with 68,704 people calling the Hawkesbury home.

The Hawkesbury and its townships, rural villages and landscapes share a rich and enduring Indigenous and European cultural heritage. The area has significant geographical range and diversity.

Prior to European settlement the area was inhabited by the Dharug and Darkinjung peoples for over 40,000 years. The Hawkesbury River (known as Dyarubbin by the Dharug people) was a focus for those people. Its tributaries and floodplains provided abundant natural resources and were places of strong social and spiritual significance for the First Australians. It has been estimated that there were up to 3,000 Aboriginal people living in the Hawkesbury area in 1788.

European explorers first arrived in the Hawkesbury in 1789. It is the third oldest European settlement in Australia. Windsor (originally Green Hills) which was established in 1794, is one of five 'Macquarie Towns', four of which are located within the Hawkesbury. Governor Macquarie had a profound influence on the development and landscapes of the Hawkesbury, which included naming the townships of Windsor, Richmond, Wilberforce and Pitt Town and the layout of their streets, cemeteries and town squares.

The Hawkesbury Local Government Area straddles the divide between the urban metropolitan councils to its east and the rural councils to its west. While it is classified as part of Metropolitan Sydney, its unique blend of urban and rural settlements is uncharacteristic of the metropolitan area.

The Hawkesbury is therefore classed as a metropolitan-rural area by virtue of its location and its natural assets, including its natural beauty, its five rivers and their tributaries, its mountains, national parks and wilderness areas. The heritage towns of Windsor, Richmond, Pitt Town, Wilberforce and Ebenezer are all located within the Hawkesbury.

The agricultural lands that surround the Hawkesbury's towns and villages represent the oldest rural land holdings under continuous cultivation within Australia. The Hawkesbury also contains the oldest church, hotel and public square. Thompson Square, located in Windsor, was named and established by the then Governor Lachlan Macquarie in 1811 as recognition of the emancipist Andrew Thompson. Thompson Square and its immediate surrounds is also recognised as the oldest surviving public square in Australia.

These historical and cultural assets are actively being used to support cultural expression, tourism and economic activity. They remain integral to the future identity and prosperity of the Hawkesbury.

Council is committed to engaging the community on its future plans and strategies. It is important that Council continues to develop and discuss options with its community on the future funding of asset renewal and maintenance and the key areas of priority. A snapshot of the range of Council's Building and Structures assets is shown on the following page.

#### **OPEN SPACE BUILDINGS STORMWATER** ROADS DRAINAGE FLOOD WATER QUALITY DRAINAGE **MITIGATION** DEVICES CONDUITS **DEVICES** Over 8345 pits Over 227 assets across 9 Over 194km of **34** Devices installed constructed including: different types constructed conduits constructed around the Hawkesbury. Surface Pits at critical areas within the • including RCP Pipes, Open These include: **Buried** Pits Hawkesbury including: **Underground Proprietary** Drains etc. Combined Kerb Inlet 10 Levy Banks Devices 40 Flood Gauges Pits Gross Pollutant Traps 1923 Head Walls 36 Flood Gates 1 Detention Basin 37 Channels 35 Water Level Gauges

## **PURPOSE OF THE PLAN**

Asset management planning is a systematic process that aims to manage infrastructure and other assets on a lifecycle basis, with optimal funding to ensure the ongoing delivery of satisfactory levels of service to the community.

This plan demonstrates how Council utilises asset data to research, analyse and plan for the ongoing construction, maintenance and operation of the assets in the Stormwater group. This enables informed decision-making to create a sustainable and reliable environment for the community. This plan details for Council's Stormwater Assets group:

- The current state of assets
- The medium-term (10 Year) financial plan required to maintain the current levels of service
- A Five-Year Forward Works Program which outlines the renewal, upgrade, demolition, expansion or new construction of assets
- A set of strategic actions to enhance Council's asset management maturity
- Risks associated with infrastructure assets and critical assets
- The infrastructure assets health for various Long-Term Financial Plan (LTFP) scenarios
- The impact of future demand and changes of the technology on asset management practices
- The technical and customer levels of service

This plan reflects the Council's relevant strategic plans that outline community service levels and other critical planning matters required to ensure safe, equitable and quality access to the wide range of infrastructure and other assets owned and/or managed by Council.

This Stormwater Asset Management Plan supports and is to be read in conjunction with Council's Asset Management Strategy (AMS) and Asset Management Policy (which are reviewed and adopted annually by Council as part of the Resourcing Strategy under Integrated Planning and Reporting) and other key planning documents.



Office of Local Government - Integrated Planning and Reporting Framework 2021

## **GOALS AND OBJECTIVES**

The primary goal of this plan in managing Council's infrastructure assets to deliver the defined levels of service in the most cost-effective manner for both current and future consumers. This requires understanding the current needs of the community, the current performance levels of the Council's strategic plans and anticipating future needs and requirement. Hence the key asset management objectives of this plan are:

- Developing and maintaining a 5 year forward works plan including scope of the works and estimated budget
- Developing whole of life models to estimate the average 10-year required budget and annual gap, and predict the future state of assets for various financial scenarios
- Informing the Asset Management Strategy (AMS) and Long-Term Financial Plan (LTFP)
- Establishing detailed technical and operational service level criteria to meet the community service levels of Council's strategic plans together with suitable performance monitoring criteria and processes
- Managing the impact of social, financial, political and environmental growth and change through demand management and` effective investment
- · Identifying, assessing, monitoring and controlling risks
- Integrating with Council's adopted strategies, plans, long term financial plans so that lifecycle asset management is implemented at an organisational level
- The ongoing review and updating of the lifecycle models to take advantage of new information and cost-effective asset management methods as they arise



## **ASSET MANAGEMENT PRACTICES**

## **ASSET CATEGORISATION**

A comprehensive Infrastructure Assets Categorisation Framework has been developed, covering various asset groups. The current infrastructure asset management groups are:

- Roads and Transport
- Buildings and Other Structures
- Stormwater
- Open Space

Assets are further categorised based upon how they are used:

- Infrastructure assets provide services directly to the community (e.g. roads provide pedestrian and vehicular transport services across the LGA and parks provide active and passive recreation services for the community)
- Community assets are used to enable services to be provided or are used in the delivery of services to the community (e.g. library buildings are used to deliver library services and park amenities support provision of recreational services)
- Operational assets are utilised by Council directly to administer and facilitate its operations (e.g. Council's depots support the field teams who maintain the parks; and
- Commercial assets provide an income to Council (e.g. commercial shopping centres or heritage buildings converted to offices)

Some assets are non-depreciable. Generally, the non-depreciable earthworks and the purchase of the land associated with an asset happens only once with the initial asset construction or acquisition. These costs are not usually included in the asset lifecycle calculations after the initial creation of the asset. Land comprises all lands owned and or managed by council, including crown land, community land and operational land.

At this stage, AMPs have been developed for the four major Asset Management groups only (Roads, Buildings and Other Structures, Open Space and Recreation, and Stormwater). Lifecycle plans are not required for non-depreciable assets and Plant and Equipment and Other Asset groups are treated as current assets and costed as expenses in the year of construction/acquisition.

## **STORMWATER ASSET PORTFOLIO**

The breakdown of the Stormwater Infrastructure assets covered by this plan is as follows:

- Drainage Conduits pipes, culverts and open channels
- Drainage Devices pits, junctions and headwalls
- Water Quality Devices retarding basins, gross pollutant traps (GPT) and trash racks
- Flood Mitigation Structures flood gauges, flood gates, detention basins, levy banks

It should be noted that Hawkesbury City Council is responsible for a vast majority of Stormwater Drainage infrastructure assets situated within the Local Government Area (LGA).

The current state of the Stormwater Portfolio is shown overleaf in **Dashboard – State of Stormwater Infrastructure Portfolio**. The Dashboard is a visual presentation of the portfolio that includes inventory, condition distribution, financial data, unfunded renewals, maintenance and renewal gap.

### **DATA COLLECTION AND ASSET MANAGEMENT SYSTEMS**

Council utilises two software packages including Technology One and Brightly (formerly Assetic) to cover databases, works, financials, supply chain, mapping, and modelling tools as part of its asset management practices. The effectiveness and maturity of these practices can be enhanced through further integration of these tools. The asset software packages in use are:

- **Technology One (T1) Products Cloud Based:** Provides enterprise asset management for the corporate asset register, works management, asset accounting, request management, financial management, and supply chain management
- **Assetic Predictor:** A predictive tool for creating various models and scenarios for longterm financial planning and the development of capital works programs
- ArcGIS Pro: Council's corporate GIS (Geographic Information System) used to store all spatial data of assets
- IntraMaps Cloud: A GIS tool, also a T1 product, integrated with corporate systems for mapping queries, reporting, and visual presentation purposes
- **Field App:** A cloud-based, user-friendly mobile application from T1, working under an integrated platform used by staff for works management, asset inspections, on-site data collection, and register updates

## **State of Assets Infrastructure Portfolio**

All Infrastructure Assets	Roads	Parks		Stormwater Drainage		age Buildings a	Buildings and Other Structures	
Current Replacement Cost \$225,659,000	Asset Category	Current Replacement Cost	Written Down Value	Annual Depreciation	Unfunded Renewal	Required Average Annual Budget (10 year)	Current Average Annual Budget (10 year)	
Current Average Annual Budget			105105624		( cales of the contract of the		×	
\$900,001	Drainage Conduits	\$200.953.000	\$149,293,000	\$1.921.210	\$1.000.000	\$3.014.295	\$801,465	
Requried Average Annual Budget	Dialitage conduits							
\$3,384,885	Drainage Structures	\$18,0 <mark>92</mark> ,000	\$14.614.000	\$172,560	\$500,000	\$271,380	\$72,157	
Annual Renewal Gap (10 Years) \$2,484,884	Water Quality Devices	\$6,442,000	\$4,419,000	\$2,010	\$0	\$96,630	\$25,693	
Unfunded Renewal \$1,600,000	Retarding Basins	\$172,000	\$147,000	\$102,330	\$100,000	\$2,580	\$686	
Annual Depreciation \$2,198,110								





## **LEVELS OF SERVICE**

In part, this Asset Management Plan has been prepared to facilitate consultation about levels of service with the broader community. Future revisions will incorporate customer feedback on service levels and the costs of providing these services. This will help Council align the required level of service, associated risks, and consequences with the community's ability and willingness to pay.

Based on our current understanding of the performance of our Stormwater Infrastructure, financial analysis indicates that Council is likely to underfund existing service levels in the medium to long term.

If this funding shortfall persists, the following impacts are expected:

- **Deteriorating assets:** Without sufficient funding, the condition of Stormwater Infrastructure will decline, leading to a reduction in service quality and potential safety concerns.
- **Widening asset renewal gap:** The gap between the required and available funding for renewing assets will continue to grow, further threatening long-term financial sustainability.
- **Generational cost shifting:** Future residents will bear the financial burden of renewing assets that have deteriorated due to underfunding today, resulting in significant generational cost-shifting.
- **Inability to meet demand for new or upgraded services:** The Council will be unable to accommodate growing demand for new, expanded, or upgraded facilities, limiting the community's access to modern services and infrastructure.
- **Unfunded Renewal Impact:** Under the current funding scenario, the Council's unfunded asset renewal works will continue to grow. The existing budget shortfall means that a large proportion of required maintenance and renewal work will need to be deferred or carried out reactively. This reactive approach will increase long-term costs as assets deteriorate further and require more expensive interventions later. The unfunded renewal not only represents a financial liability but also contributes to the gradual degradation of service levels. Community expectations for asset quality and functionality will be harder to meet as more projects are delayed due to limited resources.
- **Prioritisation and Risk-Based Approach:** Given this shortfall, the Council will prioritise asset works based on asset condition, risk, and criticality, with a focus on ensuring legislative compliance and minimising safety risks. Non-critical assets and lower-priority projects will face delays, which could lead to further reductions in service quality and increased community dissatisfaction over time.

While the Council will continue to improve its understanding of asset conditions and refine service level targets, the reality of the increasing funding gap means that the backlog of works will grow unless additional funding sources are identified.

Future updates to this Asset Management Plan will guide long-term financial planning to ensure that renewals and upgrades are strategically funded to meet capacity demands and essential service levels. As part of its implementation of the Integrated Planning and Reporting Framework (IP&R), Council consults the community during the development of the Community Strategic Plan, Delivery Program and Operational Plan.

This AMP relies on ongoing consultation to establish and evolve the Community Levels of Service defined below:

### **CUSTOMER LEVELS OF SERVICE**

The Customer Levels of Service are evaluated based on the following service attributes for both current and future expectations. In managing these attributes, Council must often balance them against one another, as efforts to improve one attribute may have a detrimental effect on another. For example, temporary closures to address quality or safety issues can limit capacity and utilisation, directly impacting service accessibility and availability:

- **Quality:** Assesses how well the service meets expected standards in terms of condition and overall satisfaction. This includes evaluating maintenance levels, condition assessments, and user satisfaction surveys. For example, council stormwater networks are maintained and serviced adequately with an aim to reduce maintenance-based complaints by 10% and maintain high satisfaction levels through targeted improvements.
- **Function:** Determines whether the asset is fit for its intended purpose. This involves functionality assessments and user feedback. For instance, Stormwater Infrastructures are evaluated to ensure they meet functional needs, with ongoing improvements based on evolving community requirements. However, prioritizing functional improvements or addressing functionality issues may require adjustments that impact the quality or capacity of the asset, underscoring a balance between functionality and other service attributes.
- Accessibility: Examines whether the stormwater network has adequate capacity and is utilized effectively. This includes analysing the effectiveness of our drainage system to ensure that it has the capacity to deliver adequate service covering various types of storm events affecting our LGA.

A summary of the current performance measures, current performance data, and expected performance based on current funding levels is provided in **Table 1– Customer Level of Service** on the following page.

#### **Balancing Community Demand and Statutory Requirements**

The Council's service delivery is also influenced by changing community demand and evolving statutory requirements. As community expectations for modern and accessible facilities increase, the Council must prioritise asset management actions that may require trade-offs across service attributes. Additionally, new statutory requirements may necessitate reallocation of resources, potentially impacting the balance between quality, functionality, capacity, and accessibility.

The key Community Levels of Service applicable to all asset groups, with a focus on balancing these competing priorities, are:

**Alignment with Community Requirements:** Ensuring all levels of service meet community needs identified through engagement and consultation processes, balanced with the Council's capacity to sustain these services.

**Infrastructure Condition:** Maintaining asset conditions through funding that considers community demand and compliance requirements, while recognising the impact on other service levels.

**Commitment to Growth:** Expanding and enhancing the Council's infrastructure network to address future community needs while managing trade-offs between service levels such as quality, function, and accessibility.

#### Table 1- Customer Level of Service

Service Attribute	Service Objective	Asset Category	Performance Measures	Expected Trend (10 years)
Quality	All drainage conduits and devices are maintained and serviced adequately	All Stormwater Conduits, pits and devices	Customer request system and complaints related to maintenance Condition assessment Customer satisfaction survey results	Reduction in maintenance- based complaints by 5% Increase and maintain high satisfaction levels through targeted improvements
	Water Quality Devices GPT(Gross Pollutant Traps) are maintained and serviced adequately applying principle of WSUD	GPTs (Gross Pollutant Traps)	Customer Requests systems and complaints related to maintenance, inspection reports and maintenance records	Reduction in maintenance- based complaints by 5% Increase and maintain high satisfaction levels through targeted improvements
Safety	Prompt response to customer request/ complaints	Drainage conduits and devices	Customer request system and complaints related to maintenance (works requests) Condition assessment Customer satisfaction survey	Reduce the average response time by 10%.
Function	Drainage conduits and devices are fit for purpose and meet the functional needs.	Drainage conduits and devices	Responsiveness to customer request / complaints	Continuous improvement in customer response and effective asset maintenance
Capacity	Drainage conduits and devices have adequate capacity to comply with design standards	All Stormwater Conduits, pits and devices	Localised flooding and potential system surcharge	Assess and determine capacity require to meet demand

## **TECHNICAL LEVELS OF SERVICE**

To deliver the Community Levels of Service Council's asset managers convert them to Technical Levels of Service which are operational and/or technical measures of performance, tailored to the assets concerned. These technical measures relate to the activities and resources required to best achieve the desired community outcomes at the least possible ongoing cost.

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

- Acquisition Addition of a new service that did not exist previously (e.g. New GPT, new culvert, headwall, conduits, pits, dish drain)
- **Operation** Regular activities required to provide services and maintain operational standards
- **Upgrade** The activities required to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size)
- **Maintenance** The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. Jet cleaning, removal of vegetation)
- **Renewal** The activities that return the service capability of an asset up to that which it had originally provided (e.g. replacement of a pit at end of life)
- Sustainability Implement measures to enhance environmental sustainability.
- Flood Resilience Management Ensure assets are resilient to flood events.

Council aims to provide the following Technical Levels of Services across all asset groups:

- Action all required renewal, upgrade, maintenance, and acquisition plans through lifecycle modeling and budgeting.
- Continuously improve models through constant recalibration of logic and parameters used
- Continuously improve adopted plans by reflecting new funding scenarios (Grants and external funding options) and condition assessments of assets
- Continuously improve the technology used by monitoring technological advances, using such technology when it becomes cost-effective to do so, and participating in or leading research and innovation as opportunities arise

Specific Technical Levels of Service for the Stormwater Asset Group are outlined in **Table 2 – Technical Level of Service** on the following page.

#### Table 2 – Technical Level of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance	Expected Trend Based on Planned Budget
Acquisition	Meet/address a new demend for servicing (e.g. assets created dung new subdivision via Development Process)	Council DA Conditions and Technical Standards Relating to Drainage and also covering discharge into private properties	Assets inspected and append to Asset Register	Increased number of new assets created due to new developments
Operation	Water Quality assets are inspected and cleaned	Efficiency and reliability of service delivery	Devices are cleaned at regular intervals	Improved efficiency and reliability of operation and maintenance
Maintenance	Annual Inspection of drainage devices on road network for defects and making them safe	Number of outstanding drainage defects	CCTV inspection of drainage assets commenced in 2024 and defects are now being identified progressively	Reduce the number of outstanding defective assets
Renewal	Reduce unfunded renewal of drainage conduits and related assets in poor or very poor quality	Current unfunded renewal	Unfunded renewal are now being identified by CCTV inspection of stormwater conduits	No reduction in unfunded renewal
Flood- Resilience Management	Ensure stormwater assets are resilient to flood events, ensuring 5% AEP are applied to urban related stormwater network	Implementation and effectiveness of flood resilience measures	Basic flood resilience measures are in place and additional measured are needed for new renewal and construction	Enhanced Flood Resilience measures and improved effective with increased budget and innovative technology.
Flood-Resilient design and construct	Ensure new and renewal of stormwater assets meet flood- resilience standards	Resilience against floods	Incorporated flood resilience materials and methodology	Increases percentage of flood resilient stormwater assets including renewals
Flood Mitigation Measures	Implement measures to reduced the impact of flooding such as catering for overland flow	Number and effectiveness of flood mitigation measures	Basic measures in place and additional needed.	Expand and enhance Flood mitigation measures with additional funding
Emergency Preparedness and Response	Ensure effective preparedness and response to Flood events	Development and Testing of Emergency Preparedness plans	Develop and maintain Flood evacuation routes	Regular review and update with improved funding
Maintenance of Flood Mitigation Infrastructure	Maintain, existing flood mitigation infrastructures.	Quality reactive maintenance of flood mitigation infrastructures	Quality records of maintenance activities of flood mitigation infrastructures	Implement preventive maintenance schedule with increased funding
Monitoring and Evaluation	Continually monitor flood risks and evaluate resilience measures	Regular monitoring reports and evaluation of flood resilience measures	Periodic monitoring and evaluation	Enhanced monitoring and evaluation process with advanced technology

### **DESIGN AND CONSTRUCTION STANDARDS**

Hawkesbury City Council ensures all new Stormwater assets and upgrades comply with the National Construction Code (NCC) and all relevant Australian Standards (AS). These regulations guide structural integrity, safety, accessibility, and environmental performance.

Additionally, the Council aims to integrate sustainability principles aligned with its Environmental Sustainability Strategy. Where applicable, new projects aspire to meet Green Star or Infrastructure Sustainability Council of Australia (ISCA) accreditation to enhance longterm environmental outcomes.

### **MAINTENANCE STANDARD**

Maintenance standards for stormwater infrastructure assets at Hawkesbury City Council are established to ensure the provision of high-quality, safe facilities for all users while aligning with the Council's budgetary constraints. These standards are informed by industry benchmarks, risk assessments, and community feedback, and they cover routine maintenance, repair, temporary measures, and emergency work.

Routine maintenance tasks are prioritised based on the asset's usage, susceptibility to deterioration, and cost-effectiveness, with specified response times for repairs to ensure timely completion. Temporary measures are implemented to mitigate risks until permanent solutions can be applied, and emergency works are promptly executed to address public safety concerns.

Comprehensive documentation and regular reporting on maintenance activities support informed planning and funding decisions, ensuring that the Council continues to meet the community's needs effectively. Future revisions of the Asset Management Plan will further refine these standards, incorporating new industry practices, technological advancements, and ongoing community engagement to continuously improve maintenance outcomes.

## **FUTURE DEMAND**

### **DEMAND FORECAST**

Hawkesbury City Council has a pivotal role in providing essential services and infrastructure to the community. The future demand for these assets extends beyond mere population growth; it encompasses a wide array of factors that could influence how services are delivered.

Hawkesbury City Council is committed to fostering a safe and sustainable environment for both current and future generations. To achieve this, the Asset Management Plan (AMP) identifies key drivers that may impact the provision of services to the community in the future. The objective is to ensure the assets can adapt flexibly to evolving demands, ensuring their relevance over the next decade and beyond. The drivers are summarised in **Table 3 - Future Demand** below.

## **KEY DRIVERS AFFECTING DEMAND FOR ASSETS**

#### **Changes in Demographics:**

- Population Change: As population increases, so does the demand for community facilities, public amenities, and essential services. This AMP takes into account the projected growth from 68,156 residents to an estimated 85,050 by 2036.
- Change in Population Density and Centre Boundaries: As urban centers such as Windsor and Richmond experience increasing population densities, the demand for infrastructure and services will intensify in these areas. The Asset Management Plan (AMP) anticipates that higher density will necessitate the expansion or upgrading of existing network to accommodate the concentrated population. Additionally, any adjustments to center boundaries will require strategic planning to ensure that infrastructure development keeps pace with shifting demographic trends.

#### **Technological Factors**

Today, technology is rapidly changing, leading to new methods and materials that may offer opportunities to manage assets in better and more cost-effective ways. These technological advancements need to be monitored and their likely impacts need to be identified and reflected both in the asset budgets and the strategic plans. This is to enable a certain degree of flexibility in the plans to take up beneficial changes as opportunities arise. Some of the identified emerging technological improvements are as follows:

• Drainage Conduits

- New materials that are more cost effective and sustainable for the future community. Currently a vast majority of council's pipes are reinforced concrete pipes as they are proved to be the most suitable material for council drainage purposes. Emerging technologies show environmentally sustainable materials that are as durable as RCP's however have much higher unit rates at this stage. With further research and commitment to technological advancement, Council will explore innovative technology when applicable.

-New construction methods that are time and resource efficient.

- AI CCTV technology to improve the speed, quality and costs involved in conducting routine pipe inspections. This would also enable better allocation of human resources with an improved quality in the condition/defect assessment of pipe linings.

Drainage Devices

- New Drainage Device construction technique and material that is more environmentally sustainable.

- Sensors and other devices that can be integrated with Drainage Devices for data collection on current capacity and condition.

• Water Quality Devices

- New Device type, construction technique and material that is more environmentally sustainable.

- Sensors and other devices that can be integrated with Devices for data collection on current capacity and condition.

#### **Environmental Factors:**

- Climate Change: The increasing frequency and severity of natural disasters, such as floods and extreme heat, necessitate the development of more resilient infrastructure. As climate challenges escalate, Council assets must not only be designed or upgraded to withstand these environmental impacts but also adapt to serve crucial roles in community resilience.
- To enhance resilience in flood-prone areas, the Council will prioritize investments in flood-resistant construction techniques and materials, ensuring that infrastructure can effectively mitigate risks while continuing to support essential services. This approach reinforces the importance of adaptive drainage designs that not only safeguard physical structures but also enhance the overall safety and well-being of the community during climate-related disruptions.
- Sustainability Initiatives: The shift towards sustainable development will impact on how assets are managed, potentially increasing the demand for new drainage infrastructure materials that are more sustainable and environmentally friendly.

#### **Community Expectations:**

• Service Quality: As resident's expectations for reliable stormwater network, there will be increased pressure on the Council to deliver such a network with less flooding issue and better drainage management.

#### Aging Infrastructure:

 The Council's aging stormwater infrastructure network is resulting in increased maintenance costs and reduced efficiency. As these assets continue to age, maintenance challenges are expected to worsen, which may heighten safety risks and diminish service quality.

### **DEMAND MANAGEMENT STRATEGIES**

To address these identified drivers, the following demand management strategies will be employed:

- **Monitoring and Review:** Regular monitoring of demographic trends, economic conditions, and environmental factors will guide the timely adaptation of infrastructure to meet community needs. This will be supported by an ongoing program of service reviews, ensuring that services remain aligned with community needs, operational efficiencies, and Council's strategic objectives.
- Strategic Planning and Asset Rationalisation: Aligning capital projects with strategic plans ensures that the development of new assets and the upgrading of existing ones are in harmony with projected demand. This approach includes a rationalization of underutilized or non-essential assets where feasible to better match demand and resource allocation.
- **Community Engagement:** Ongoing consultation with residents will help prioritise projects that reflect community preferences and particularly around rationalising or enhancing key assets, ensuring service quality and accessibility. Implementing a proactive maintenance and replacement plan will mitigate the impacts of aging infrastructure, ensuring continued safety and efficiency while potentially extending the life of assets deemed essential through service reviews.
- **Legislative Compliance:** Staying ahead of legislative changes by proactively planning for necessary upgrades ensures that all assets remain compliant with current standards and regulations, particularly for assets with high community dependency.
- Resilience and Contingency Planning: Adapting to meet evolving environmental and social challenges is essential, particularly given Hawkesbury's flood-prone nature. Strategies will include implementing flood-resilient designs and preparing for temporary facility closures if necessary. In flood-prone areas, infrastructure investments will prioritise resilience, ensuring that Council can continue to support the community during periods of disruption. To optimise resource allocation, asset rationalisation will focus on facilities that offer greater resilience and community value. For example, if certain assets become underutilised or unsustainable due to frequent flood risks, the Council may consider options such as repurposing, relocating, or divesting these assets. This strategic approach enhances infrastructure resilience and provides adaptable, long-term solutions that safeguard both community needs and Council resources.

#### Table 3 - Future Demand

Demand Driver	<b>Current Position</b>	Projection	Impact on Services	Demand Management Plan
Population Growth	68,704 – the number of people based on last Estimated Resident Population	Projected Growth of 85,050 by 2036	Increased demand for stormwater drainage related services	Manage and review proposed Strategic plans to better align capital projects to optimise secured funding for further community development and growth
Change in population density and industrial development	Varying population densities across the council area with urban centres increased length and GVM vehicles to use council roads	Population density in urban centres is expected to rise, leading to increased usage of infrastructure	Increase demand for stormwater assets is expected to rise, leading to increased usage of infrastructure	Monitor trends on increasing population density and maintain regular inspection and condition assessment programs to monitor and control deterioration
Increased frequency of extreme weather events such as flood and droughts	Without National action and global action weather conditions will be more volatile and unpredictable	Increased frequency of events such as 1% AEP flood events Above average rainfalls will stress the capacity of the existing stormwater systems	High frequency of flooding related issues and accelerated deterioration of stormwater assets	Implementation of catchment studies, flood modelling to identify areas that require pipe upgrades. Adoption emergency warning system for sudden and unpredictable weather events
Legislative requirement or government policy change	Current compliance with existing regulations	Possible changes in regulatory regimes, legislations requiring updates to standards and codes.	Mandatory upgrades to ensure compliances with new regulations associated potential increase in costs.	Comply with legislative and changes and proactively plan for necessary upgrades to ensure compliance.
Climate change	Existing stormwater assets may not fully meet flood resilient demands	Possible changing in regulatory regimes and implementation of action plans	Enhanced need for flood- resilient infrastructure to minimise service disruptions and damage	Incorporate flood resilience into asset creation, renewal and amplification process
Increase in customer expectation	High expectation for modern accessible, well-connected and maintained service.	Rising expectations for state of the art well maintained services	Increased demand to deliver high quality services and infrastructure	Regularly engage with the community to understand expectations and prioritise projects and programs that enhance service quality and user satisfaction
Ageing infrastructure	Existing drainage assets continue to age, leading to higher maintenance requirements, costs and reduced efficiency	Continued aging of infrastructure leads to higher operation and maintenance cost. Greater frequency of service impacts, infrastructure failures.	Increased maintenance costs, potential public safety hazards, and decreased user satisfaction, impacts on third party properties	Implement a proactive maintenance and replacement plan to ensure aging infrastructure is upgraded or replaced, including relocation

# **RISK MANAGEMENT**

Effective risk management is vital for Hawkesbury City Council to safeguard its infrastructure, community, and service assets, many of which are essential for the community's day-to-day functioning. Key assets, such as drainage pipes, pits, open channel that provide critical services, must remain operational to avoid disruptions that could affect the livelihoods and well-being of Hawkesbury residents. The Risk Management Framework (RMF) guides the Council's approach to managing infrastructure risks, while the Risk Appetite Statement sets acceptable risk levels, ensuring that all risk treatments are aligned with the Council's tolerance for risk exposure.

The council's risk management approach for infrastructure assets is rooted in the principles of ISO 31000:2018 and complies with guidelines from the Office of Local Government. These principles ensure a structured approach to identifying, assessing, managing, and mitigating risks.

#### **Key Risk Categories**

A comprehensive assessment of the Council's asset portfolio identified risks in several impact categories. Each risk is evaluated based on likelihood and impact, and risks are assigned ratings aligned with Council's Risk Appetite Statement. Categories include:

- People Impacts: Civil unrest, workforce health and safety (WHS), and community relations.
- Environmental Impacts: Climate change, biodiversity loss, natural hazards, and public health concerns.
- Financial Impacts: Economic fluctuations, fraud, theft, and financial management.
- Reputational Impacts: Risks to Council's public image, influenced by media coverage, community feedback, and corporate values.
- Compliance Impacts: Legislative adherence, contractor management, and Council policy compliance.

These risk categories ensure Council's actions align with the RMF while adhering to Council's risk tolerance, supporting sustainable, high-quality service delivery within acceptable risk boundaries.

#### **Risk Assessment and Mitigation**

Each identified risk is prioritised based on risk appetite. Risks that exceed the Council's risk tolerance are escalated to appropriate management levels, including the General Manager if required. Risk owners are tasked with implementing SMART risk treatments (Specific, Measurable, Achievable, Relevant, Time Framed), ensuring all actions are aligned with the RMF and are regularly monitored for effectiveness.

For risks that cannot be mitigated to within the risk appetite, the Risk Owner must escalate these to the Council for review and potential intervention, following the escalation protocol set forth in the Risk Appetite Statement. Specific risk registers have been developed for the Stormwater asset group as per **Table 4 – Risk Register** below.

### Table 4 - Risk Register

Asset or service at Risk	What can happen	Rating	Risk Treatment plan	Residual Risk
Major Culverts	Some major culverts function as bridges for vehicles and pedestrians. Poor maintenance and/or under capacity assets can cause significant impact on humans and environment, increasing costs sustainability	High	Periodically monitoring of major culverts by structural engineers and hydraulic engineers to identify defects including preparedeness to cater for impact of climate change	Low
Drainage Conduits and devices	Deferred Maintenance / Renewal activities due to lack of funds resulting in premature failure	High	Consistent review and adaptation of current strategy and financial models	Low
Drainage conduits and devices	Emergency situation due to unforeseen extreme weather conditions. Events such as flooding, or pipes bursting causing damage to road surfaces can result in major community disruption	Medium	Prepare emergency plans with emergency service SES, AFP. RFS Fire and Rescue NSW	Low
Drainage conduits and devices	Lack of internal resources(Stormwater Engineers and designers) to resolve sources identified on critical assets	High	Review operational strategies to assist staff requirements and capabilities to deliver all strategic plans	Low
Water Quality device	Lack of available funds resulting in premature failure of assets. Can cause disruption in the stormwater system.	Medium	Consistent review and adaptation of current strategy and financial models	Low
Water Quality Device	Deferred maintenance and / or Renewal activities can cause disruptions in the stormwater system	Medium	Secure additional funding for additional resources	Low
Stormwater pipe culverts	Possible structural and/ or functional failure of assets due to poor asset conditions and deterioration	High	Periodically monitoring of piped culvert using CCTV inspections to identify defects.	Low

### **CRITICAL ASSETS**

Critical assets are defined as those which have a high consequence of failure and would result in significant loss, reduction and/or a complete halt in the service provided. Such assets must be identified along with their mode of failure and their impact on the community. Through the proactive investigation of these assets, Council can plan for appropriate actions to prevent premature failure. Such actions are:

- Condition assessment programs: Regular evaluations to monitor asset health and identify potential issues before failure occurs.
- Regularly scheduled maintenance: Ensuring assets receive timely upkeep to prevent costly repairs and service interruptions.
- Adequate funding to execute planned renewal: Aligning renewal budgets with risk priorities to ensure that critical assets have adequate resources to maintain reliable service.

Critical Stormwater Infrastructure assets have been identified and listed in **Table 5 - Critical**Assets below.
Table 5 - Critical Assets

Critical Asset(s)	Failure Mode	Impact
Major culverts and drainage conduits under the road with heavy traffic such as regional road network	Leaks in the conduits could cause asset to gradually fail leading to catastrophic consequences. Sudden damage such as sink holes could appear	Unplanned closure of Roads along with vehicular and pedestrian accidents and significant damage to council assets leading to emergency work
Drainage assets located in high pedestrian traffic areas	Structural failure or major defects that renders stormwater pits collapsing	Increased risks of potential for Pedestrian accidents
Drainage devices located in lower areas of a drainage catchment such as Richmond Lowlands and Pitt Bottom areas etc	Structural failure or major defects that renders stormwater pits collapsing	Increased potential for Pedestrian Accidents with risk of flooding and potential injury and associated financial liability
Water quality devices located in high priority areas such as declared dams and flood gates such as declared dams and flood gates in various locations	Failure and under performance of Water quality devices	Risk to health and environment potential pollution of water ways

# LIFECYCLE MANAGEMENT PLAN

#### **Strategic Asset Management Objectives**

One of the primary goals of Strategic Asset Management is to minimise long-term costs while achieving the service levels expected by the community. Lifecycle asset management plans are essential for prioritising renewals at optimal times and utilising the most effective methods to ensure the lowest possible whole-of-life cost for each asset.

#### **Forecasted Asset Lifecycle Costs**

To provide the required service levels, this Lifecycle Management Plan includes all costs necessary for asset operation, maintenance, renewal, upgrade, acquisition, and disposal across their lifecycle. Forecasted funding estimates help determine when and how much to invest in each phase to minimise overall costs.

#### **Funding Required**

To adequately sustain and improve stormwater drainage assets, the Council requires approximately \$3.7 million per year for the stormwater assets. This figure includes:

- Renewal Needs: An estimated \$3.4 million annually is required specifically for asset renewals to replace assets nearing the end of their useful life, preventing deterioration and sustaining long-term asset functionality and safety. Without this dedicated renewal funding, assets are likely to degrade more quickly, leading to increased costs and potential disruptions to community services.
- Operations and Maintenance: Approximately \$0.33 million annually, which is essential to ensure safe, functional, and well-maintained assets for the community.

#### **Current Funding Levels**

According to the Long-Term Financial Plan (LTFP), the Council's current annual budget provides only \$0.9 million for renewals, significantly below where as the \$3.4 million required to maintain asset condition. Combined with \$0.33 million for operations and maintenance, this brings total available funding to \$1.2 million per year, leaving a substantial gap in renewal funding. This limited renewal allocation significantly restricts Council's ability to replace aging assets in a timely manner, increasing the likelihood of accelerated asset deterioration and higher future costs.

#### **Funding Gap**

The \$2.5 million annual shortfall in renewal funding has significantly increased compare to what was projected in the 2017 Asset Management Plan. This widening gap reflects rising costs and mounting pressures on asset management resources. Closing this gap is critical for sustaining asset conditions and aligning with community expectations, especially as environmental and regulatory demands continue to increase.

#### Achieving Optimal Renewal at the Lowest Whole-of-Life Cost

Council's renewal strategies are designed to minimize lifecycle costs by timing renewals effectively and balancing initial investments with long-term maintenance needs. While the baseline approach relies on like-for-like replacements, community demands are evolving toward enhancements in stormwater infrastructure. Council actively seeks grant funding (e.g., Western Sydney Infrastructure Grants) to address these needs and enhance facilities, extending beyond standard renewal efforts.

Given the escalation of climate-related risks, the Council's Lifecycle Management Plan prioritises future-proofing assets through resilient designs, such as incorporating heat refuges or flood-resistant features, where feasible. However, without closing the renewal funding gap, many of these resilience improvements may remain underfunded, underscoring the need for immediate and strategic financial adjustments.

## **PHYSICAL PARAMETERS**

#### **Data Collection**

The first step in achieving asset management objectives is to build a highly reliable database that includes inventory, condition, and financial information. A condition assessment of stormwater assets for revaluation purposes is currently in progress and the next comprehensive revaluation scheduled for the 2025/26 financial year. However, an additional CCTV inspection program needs to be developed to collect condition data at the component level (service, structure) and to establish a maintenance defect register for stormwater drainage portfolio.

#### Asset Categoirisation and Useful Lives

The design useful lives of Council's infrastructure assets are based on numerous factors, including:

- Usage of each asset
- Advice and discussion with asset stakeholders
- The cost and frequency of proactive and reactive maintenance
- Lifecycle cost and degradation models

The useful lives used for Council's lifecycle asset management practices are listed in Attachment H – Useful Lives of Assets Categories and Subcategories.

#### **Model Scenarios**

Council has utilised an asset lifecycle modelling tool called 'Assetic MyPredictor' to develop unique financial models for various scenarios based on the nature and behaviour of each asset category. Each model has been tailored with different triggers and criteria for treatments to best reflect currently practiced methodologies for renewal, maintenance, upgrade, acquisition and disposal of assets.

Life-cycle models are used to estimate future funding requirements needed to maintain the current level of service or to predict the future state of assets under various funding scenarios.



## LONG-TERM FINANCIAL PLAN SCENARIOS

A financially sustainable Council, as defined by the NSW Government, is one that over a long term can generate sufficient funds to provide the level and scope of services and infrastructure agreed with its community through the Integrated Planning and Reporting Process. (Source: NSW Government, 2012).

The Long-Term Financial Plan considers various lifecycle asset management funding strategies, over a 10-year period, to address three key issues that pose significant financial risk to Council:

Unfunded Renewal: Value of assets that have been delayed from their planned renewal

Renewal Gap: The gap between the required and current average annual renewal expenditure

**Maintenance Gap:** The gap between the required and current average annual maintenance expenditure

Council's Long Term Financial Plan 2025 – 2035 has been developed with the aim of having an appropriately funded capital works program and maintaining a "fit for purpose" asset base as described by Asset Management Strategy.

The objective is to allocate sufficient funds each year to an asset reserve and capital budget to cover the required funds for the maintenance and renewal of the Council's existing infrastructure, as outlined in the asset lifecycle models.

The 10-year asset lifecycle model has been develop using Assetic Predictor. . The model identifies the optimal strategy to fund the maintenance and renewal of infrastructure assets and to address and clear current unfunded renewals, based on budget availability.

Three scenarios have been developed (Decline, Improve and Resolve) to demonstrate the opportunities and risks of various funding models across the Long Term Financial Plan and Asset Management Strategy. These documents link directly, with the LTFP providing the necessary long term funding strategy to achieve the effective asset management described in this plan. The scenarios demonstrate what would occur to Council's assets under different funding models across the next 10 years.

This information helps Council and the community understand the financial needs and effects of various levels of funding. This Asset Management Plan focuses on the assumed spending on asset maintenance and renewal, with the LTFP describing further variables within each scenario. As asset renewal is the major financial challenge facing Council, these variables are the predominant factor impacting each scenario.

The specification of funding for new assets has not been addressed in this iteration of the AMP. Typically, allowances are made for the acquisition of new assets through construction and other sources to support growth in Council's infrastructure network annually. This is achieved through various grants and commitments made by the Council for the community. Generally, new assets are funded through grants (with or without a Council contribution), Section 7.12 (formerly s94) funds, and/or the sale of other assets.

However, predicting these funding sources with certainty is challenging until the new asset projects are developed. A strategic action of this plan is to develop methods, if possible, to account for the likely impact of new assets on existing renewal funding sources.

Based on recent estimates, the annual depreciation, operational, and maintenance costs of infrastructure assets have increased by approximately \$850K due to donated, newly built, and upgraded assets in the 2023/24 financial year. The acquisition of new assets due to development or construction, as well as the upgrading of existing assets, will increase the funding required for the maintenance, operation, and renewal of infrastructure assets. This could exacerbate the unfunded renewal and renewal gap. Below is the Scenario Overview – Whole Asset Portfolio (Roads, Stormwater, Building and Open Space).

Based on recent estimates, the annual depreciation, operational, and maintenance costs of all infrastructure assets have increased by approximately \$850K due to donated, newly built, and upgraded assets in the 2023/24 financial year. The acquisition of new assets due to development or construction, as well as the upgrading of existing assets, will increase the funding required for the maintenance, operation, and renewal of infrastructure assets. This could exacerbate the unfunded renewal and renewal gap. Therefore, Council would need to adopt strategies to pause the construction of new assets until the current funding gap is significantly addressed or resolved.

#### Scenario 1: Decline

Scenario one describes the current trajectory of business as usual and is driven by Council's current level of renewal spending (\$14m annually) and business as usual practices on asset maintenance and renewal, without significant increases across the 10 year life of the strategy. The modelling on this scenario suggests that legislative and assumed increases to Council's revenue will not provide sufficient funding to maintain the condition of assets and current service levels.

This level of investment will lead to a significant decline in asset condition over time and an accelerating deterioration of assets, increasing the projected unfunded renewal and growing costs. The issue will continue to compound if funding strategies are not in place. Under this scenario, assets would only be renewed when they become unsafe or completely unusable.

It is likely that Council would need to reduce community, cultural and recreation services or close unsafe facilities so that funds can be redirected to keeping essential infrastructure such as roads safe and functioning. This option provides no capacity to fund new programs, take advantage of key grant opportunities or delivery on emerging community priorities.

#### Scenario 2: Improve

Scenario two will allow Council to shift towards a more preventative asset management approach, rather than waiting for assets to deteriorate to the point of failure and where renewal is at its most costly. This scenario assumes a \$25m annual investment in renewal. Under this funding arrangement, it would take approximately 20 years to clear Council's unfunded renewals gap. All assets would gradually improve across the Hawkesbury under this arrangement.

This option will also provide some scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan.

#### **Scenario 3: Resolve**

Scenario three involves the optimisation of Council's asset renewal by matching the required funding with actual investment across the life of the strategy. This would allow Council to take a proactive asset management approach, focusing on betterment and resilience for the long term. Essentially, the quicker Council invests the more long lasting the financial benefits will become.

This scenario assumes a \$30m annual investment in renewal. Under this funding arrangement, it would take approximately 10 years to fully resolve Council's unfunded renewals gap. Assets conditions would significantly improve across the Hawkesbury under this arrangement.

This option will also provide significant scope to reconfigure resources to fund new programs, leverage grant opportunities and invest in emerging community priorities within the Hawkesbury Community Strategic Plan. The accelerated investment in assets will lead to greater future opportunities for service delivery.

### ALIGNMENT OF SCENARIOS WITH CAPITAL WORKS PROGRAM FUNDING FOR STORMWATER ASSETS

The table below illustrates how the three scenarios—Decline, Improve, and Resolve—translate into specific funding levels and strategic priorities for Stormwater assets under the Capital Works Program (CWP). It highlights the implications of each scenario in terms of budget allocation, maintenance strategies, compliance upgrades, community impact, and future planning.

Aspect	Scenario 1: Decline	Scenario 1: Decline Scenario 2: Improve	
Budget Range	\$900,000	\$2,900,000	\$3,400,000
Strategic Focus	Reactive repairs and essential maintenance.	Small scale renewal with essential maintenance	Comprehensive Renewal and Maintenance
Preventative Maintenance	Minimal preventative actions; primarily reactive.	Targeted preventative maintenance introduced to reduce long-term reactive costs.	Comprehensive maintenance strategy targeting all major assets in built up areas.
Renewal	Small-scale Renewal of deteriorated assets	Expanded renewal works	Comprehensive renewal works based on condition of assets
New Assets	None	None	None
Lifecycle Cost Management	High costs due to reactive reliance.	Reduced reactive costs via preventative actions	Balanced lifecycle costs, emphasizing asset durability
Community Impact	A reactive approach leads to dissatisfaction due to frequent service disruptions.	Gradual improvement in service delivery through modernisation and maintenance.	Enhanced user satisfaction with proactive asset improvements and increased level of service
Growth and Future Planning	Neglects future growth; focuses on keeping current assets operational	Neglects future growth focuses on keeping current assets operational	Opportunity for planning for future growth

The following graphic visualises each scenario and the impact on the overall required renewal budget and unfunded renewals. Below is the Scenario Overview – Whole Asset Portfolio (Roads, Stormwater, Building and Open Space)



### **FINANCIAL SUMMARY**

Hawkesbury Council is committed to delivering all the levels of services identified in this asset management plan. With the adoption of Scenario 3 outlined in the previous section, the estimated available funding for stormwater over the next 10 years will be approximately \$3.4 million per annum.

The proposed Scenario 3 budget is sufficient to fund all required works leaving few shortfalls on average per year. It will also significantly reduce the existing Unfunded Renewals.

The following table demonstrates how the Capital Works Program (CWP) for building assets would evolve under each scenario, providing examples of budget allocation, key actions, and their focus areas:

#### Example ONLY – Annual Stormwater Renewal Program (following page)

Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
	\$900,000	Reactive Drainage investigation and renewal	\$50,000	Limited improvements to drainage conduits driven by customer complaints
<b>1. Decline-</b> Prioritises reactive		Reactive New Kerb & Gutter Program and drainage works	\$680,000	Priority area with potential flood impact
repairs and essential minor alterations to keep critical assets functioning		Stormwater Conduits rehabilitation Patch repair works	\$25,000	Address high- priority unplanned or emergency repairs
		Stormwater conduits renewal (design Investigations only	\$35,000	Small-scale renewals
		Major culvert Renewal work	\$110,000	Defect rectification and safety improvement
	\$2,900,000	Reactive drainage investigation and renewal	\$300,000	Enhanced preventative maintenance to reduce long-term reactive costs
		New Kerb and Gutter Priority work – Program extension	\$750,000	Improved drainage performance
<b>2. Improve –</b> Shifts toward		Stormwater Conduit Rehabilitation priority assets	\$750,000	Reliability upgrade and improvements
preventative maintenance and gradual compliance upgrades		Stormwater conduits renewal and rehabilitation	\$750,000	Stormwater Improvement and asset renewal
		Water Quality Device improvement	\$200,000	Improved performance of water quality devices
		Stormwater Detention basins	\$150,000	Improved detention structures performance for aging assets

Scenario	Annual Budget	CWP Program	Allocation (\$)	Key Focus
<b>3. Resolve-</b> Balances proactive maintenance, comprehensive upgrades, and new builds for future growth.		Reactive drainage investigation and renewal	\$500,000	Improved condition of Stormwater network
		New Kerb and Gutter Priority work – Program extension	\$800,000	Reduce localized flooding issues
		Stormwater Conduit Rehabilitation priority assets	\$800,000	Enhanced condition of stormwater conduits
	\$3,400,000	Stormwater conduits renewal	\$850,000	Enhanced condition of stormwater conduits
		Water Quality Device improvement	\$250,000	Maintain and upgrade water quality devices progressively
		Stormwater detention basins	\$200,000	Improved stormwater Detention

### **FALLBACK STRATEGY**

If Scenario 3 (Resolve) is not adopted, fallback strategies will be employed to maximise the effectiveness of the reduced works program under Scenario 1 (Decline). This would include:

- Limiting maintenance and renewal to only critical repairs.
- Prioritising safety-related works to mitigate risks associated with deteriorating stormwater assets.
- Accepting that ongoing degradation of stormwater assets will result in reduced service levels and potential impairment.

Without sufficient funding, Council will be unable to minimise the degradation of its stormwater assets, address compliance issues, or meet growing community expectations. Securing increased investment under Scenario 3 is essential to achieving sustainable outcomes and delivering the highest level of service to the Hawkesbury community.

## OPERATIONAL ROLES AND RESPONSIBILITIES

In accordance with ISO 55000 Asset Management standards, the proposed roles and responsibilities of staff and contract resources across the organisation have been developed. This proposal will be refined through consultation with Council staff and various teams and then presented to the Council's Executive Team for approval.

A detailed matrix for all roles and responsibilities over Council's Stormwater have been outlined in **Attachment D – Roles and Responsibility Matrix**.

## PLAN IMPROVEMENT AND MONITORING (AUDITING)

This plan is a live document that will change and improve as the skills and capabilities of the various asset management resources across Council are developed. Further, in accordance with ISO 55000 Asset Management, the compliance with this plan will be audited by the Assets Management Team. The Audit Process will initially focus on the achievement of the core organisation's asset management maturity. Later it will focus on compliance with the service levels, future demand, lifecycle asset management systems developed for this plan and the identification of areas for skills and capabilities improvement.

The Audit Process has yet to be developed and will be a future Strategic Action in later versions of the AMPs. Nonetheless, a number of skills and capability improvement actions have been identified in the development of this plan and they are detailed in the **Attachment E** - **Strategic Actions**.

## **ATTACHMENTS**

**ATTACHMENT A - DEFINITIONS** 

Definition
An asset is an item, thing or entity that has potential or actual value to an organisation. The value will vary between different organisations and their stakeholders, and can be tangible or intangible, financial or non-financial.
The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset to determine the need for preventative or remedial action.
An asset group refers to an umbrella of assets that have similar characteristics or purpose.
The balancing of costs, opportunities and risks against the desired performance of assets, to archive the organisational objectives. The balancing might need to be considered over different timeframes. Additionally, it enables the application of analytical approaches towards managing an asset over the different stages of its lifecycle.
Expenditure which contributes or results in a physical asset.
Funding received from a third party which are generally tied to specific projects.
An individual part of an asset which contributes to the composition of the whole and can be separated/attached from the whole. It may also require different types of treatments and have differing useful lives and lifecycle costs.
The practice of considering the components of a fixed asset individually, to account for the fact that these components have unique physical and economic lives.
Assessed and given a value on a scale of 1 (new) to 5 (end of life). The Average Condition of a group of assets is the GRC weighted average of all assets in the group.
An estimate of the current total maintenance and capital works expenditure on the Asset Group, being the annualised present worth of the value of the maintenance and capital renewals expenditure.
The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.
The amount for which an asset can be exchanged, or a liability settled between knowledgeable, willing parties, in an arm's length transaction.
The amount it would cost at the revaluation date to acquire or construct a brand- new substitute asset that has comparable utility and no obsolescence. Also referred to as Current Replacement Cost (CRC).

Term	Definition
Infrastructure assets	Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycle ways. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.
Level of service	The defined service quality for a particular service from an asset. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost.
Lifecycle Cost	The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
Minimum Average Annual Expenditure	The average annual expenditure required to keep the Asset Group in good condition after the Unfunded Renewal (if any) has been addressed.
Reactive maintenance	Unplanned repair work that carried out in response to service requests and management/supervisory directions.
Remaining life	The time remaining until an asset ceases to provide the required service level or economic usefulness.
Renewal	Refer capital renewal expenditure.
Renewal Gap	The gap between the average required and available annual budgets.
Risk management	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.
Satisfactory Condition	As designated in Special Schedule 7 of Council's Annual Financial Report, being condition 3 or fair condition.
Unfunded Renewals	The total cost of all asset treatments (maintenance and component/ asset renewals) due or past due at the date of review.
Useful Life	The period over which an asset is expected to be available for service by an entity. The estimated period from installation till removal of the asset upon the end of its serviceability
Written Down Value (WDV)	Also referred to as the book value, WDV reflects the assets present value from an accounting perspective. It is calculated by subtracting the depreciated value from its original value.

## ATTACHMENT B - ASSETS INSPECTIONS AND CONDITION ASSESSMENT SCHEDULE

Condition Assessment Plan			
Asset Class	Asset Sub Class	Condition Assessment Due	
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2024-25	
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2025-26	
Stormwater and Sewerage Network	Stormwater CCTV Camera Inspections, Sewer CCTV Camera Inspections	2026-27	
Roads, Land Improvement, Other Structures and Stormwater	Road Pavement, Footpaths, Kerb and Gutter, Bridges, Traffic Management Devices, Street Furniture, Bus Shelters, Other Structures, Park Furniture, Playgrounds, Sportfields, Irrigation, Lighting, Park Signs, Stormwater CCTV Camera Inspections and Stormwater CCTV Camera Inspections	2028-29	

Comprehensive Revaluation Plan			
Asset Class	Asset Sub Class	Condition Assessment Due	
Land Improvement, Other Structures and Investment Properties	Other Structures, Playgrounds, Park Furniture, Sportfields, Irrigation, Lighting, Park Signs	2024-25	
Stormwater Drainage	Drainage Conduits, Drainage Structures, Water Quality Devices, Flood Mitigation, Artworks	2025-26	
Artworks	Artworks	2026-27	
Land and Buildings	Community and Operational Land, Buildings and Land under Roads	2027-28	
Roads, Sewerage Network, Waste management	Road Pavement, Road Signs, Footpaths, Boardwalks, Open Carparks, Kerb and Gutter, Bridges, Traffic Management Devices, Street Furniture	2028-29	

## **ATTACHMENT C - USEFUL LIVES OF ASSET CATEGORIES AND SUBCATEGORIES**

Asset Group Category	Useful Life
Stormwater Assets	
Drains	80 to 100
Culverts	100
Pits	100
Pipes	100
Flood control structures	60 to 100
## **ATTACHMENT D - SUMMARY OF INFRASTRUCTURE SERVICES ROLES AND RESPONSIBILITIES**

Infrastructure Services Team	Key Roles	Key Responsibility- General	Key Responsibility- Stormwater asset-related task
Asset Systems & Planning (AS&P)	<ul> <li>Asset owner responsible for lifecycle planning of Roads, Stormwater, Buildings, and Open Space.</li> <li>Oversees asset management systems for evidence-based decision-making.</li> <li>Develops statutory asset planning documents.</li> <li>Aligns asset management outcomes with LTFP, Operational Plan, and Delivery Program.</li> <li>Coordinates asset management practices.</li> </ul>	<ul> <li>Handles customer requests for asset installation or renewal.</li> <li>Conducts asset condition assessments.</li> <li>Prepares and updates lifecycle models and budgets.</li> <li>Processes legislative reports.</li> <li>Manages interfaces with external utilities.</li> </ul>	<ul> <li>Handles customer requests for stormwater installations or renewals.</li> <li>Develops and updates the Capital Works Program.</li> <li>Coordinates grant applications and milestone reporting.</li> </ul>
Infrastructure Operations (IO)	<ul> <li>Coordinates preventative, reactive, and planned maintenance of Council assets.</li> <li>Ensures compliance and safety of assets.</li> <li>Manages Capex and Opex tenders.</li> <li>Leads emergency and resilience planning.</li> </ul>	<ul> <li>Manages customer requests for asset defects and servicing.</li> <li>Conducts minor capital replacements.</li> <li>Leads emergency planning and compliance.</li> <li>Manages vehicle, plant, and equipment replacement programs.</li> </ul>	- Handles customer requests for maintenance of stormwater assets and drainage works. Performs various maintenance activities, including cleaning, mowing easements, maintenance to pipes and culvits.
Project Delivery (PD)	<ul> <li>Leads and ensures accountability in Capital Works Program delivery.</li> <li>Streamlines project delivery processes.</li> <li>Manages contracts and stakeholder deliverables.</li> <li>Reviews designs and ensures approval compliance.</li> </ul>	<ul> <li>Addresses customer requests for construction project updates.</li> <li>Develops delivery strategies.</li> <li>Ensures efficient contract and project management.</li> <li>Conducts asset handovers post-project completion.</li> </ul>	<ul> <li>Manages customer requests for stormwater-related capital works projects.</li> <li>Prepares and awards contracts.</li> <li>Oversees site administration, stakeholder management, and risk.</li> <li>Completes asset handovers with stakeholders.</li> </ul>
City Services (CS)	<ul> <li>Manages City Services Branch for development engineering, mapping, open space, and traffic management.</li> <li>Handles development-related customer requests.</li> <li>Manages the SIS mapping system.</li> <li>Supports cemetery operations.</li> </ul>	<ul> <li>Addresses customer requests for services like parks, tree permits, road openings, and traffic management.</li> <li>Provides mapping services and asset location tracking.</li> </ul>	- Maps assets and provides spatial data access to asset officers through Intramaps.

## **ATTACHMENT E - STRATEGIC ACTIONS**

Task No	Task	Importance	Urgency	Risk	Responsibility	Target Completion Date
1	Review and improve the Capital Works Planning and projects prioritisation process	Medium	Medium	Medium	Assets	30/12/2025
2	Initiate Maintenance Defect Register for stormwater infrastructure based on CCTV inspections	High	Medium	Medium	Assets	30/12/2025
3	Review and update life cycle modelling for drainage conduits	High	High	High	Assets	30/12/2025
4	Deliver the CCTV inspections rolling program for hot spots and priority catchments	High	High	High	Assets	30/06/2028
5	Streamline processes for stormwater projects intitiation, planning, design, procuement, delivery and hand over	High	High	High	Assets, Delivery, Operations	30/06/2026
6	Develop a process to improve accuracy of the network connectivity and data quality in the corporate systems	Medium	Medium	Medium	Assets, GIS Team	30/06/2026

## **ATTACHMENT E - STRATEGIC ACTIONS**

Task No	Task	Importance	Urgency	Risk	Responsibility	Target Completion Date
7	Develop programs for proactive maintenance of stormwater infrastructure	Medium	Medium	Medium	Assets, Operations	30/12/2025
8	Perform a sortmwater infrastructure data gap analyisis	High	High	High	Assets, GIS Team	30/12/2025
9	Develop a plan to identify and inspect the existing assets not previously recognised including flood gates, detention basins, water quality devices, etc.	High	Medium	Medium	Assets	30/12/2025
10	Complete detail design and L3 cost estimation of the 2025/26 Stormwater Capital Works Projects	High	High	High	Assets	30/12/2024

## **ATTACHMENT F - REFERENCES AND RELATED INFORMATION**

- HCC Asset Management Strategy
- IPWEA International Infrastructure Management Manual
- IPWEA Financial Management Guidelines
- NSW Office of Local Government Integrated Planning and Reporting Framework Guidelines and Manual
- HCC Asset Management Policy
- HCC Asset Valuation Methodology Manual
- Local Government Financial Sustainability Nationally Consistent Frameworks, Frameworks 1, 2 and 3, May 2009
- National State of the Assets, Roads and Community Infrastructure Report, Nov 2018
- AS ISO 55000-2014 Asset Management-Overview, Principles and Terminology
- AS ISO 5001-2014 Asset Management-Management Systems- Requirements
- AS ISO 5002-2019 Asset Management-Management Systems- Guidelines for the Application of ISO 55001
- AASB 116 Property, Plant and Equipment prescribes requirements for recognition and depreciation of property, plant and equipment assets
- AASB 13 Fair Value Measurement sets out methods for determining Fair Value
- AASB 136 Impairment of Assets aims to ensure that assets are carried at amounts that are not in excess of their recoverable amounts
- AASB 1021 Depreciation of Non-Current Assets specifies how depreciation is to be calculated
- AAS 1001 Accounting Policies specifies the policies that Council is to have for recognition of assets and depreciation
- AASB 1041 Accounting for the reduction of Non-Current Assets specifies the frequency and basis of calculating depreciation and revaluation basis used for assets
- AAS 1015 Accounting for acquisition of assets method of allocating the value to new assets on acquisition
- AAS 1010 Recoverable Amounts of Non-Current Assets specifies requirement to test the reasonableness of valuations.



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