Living Infrastructure Asset Management Plan

2025

WAVERLEY
COUNCIL

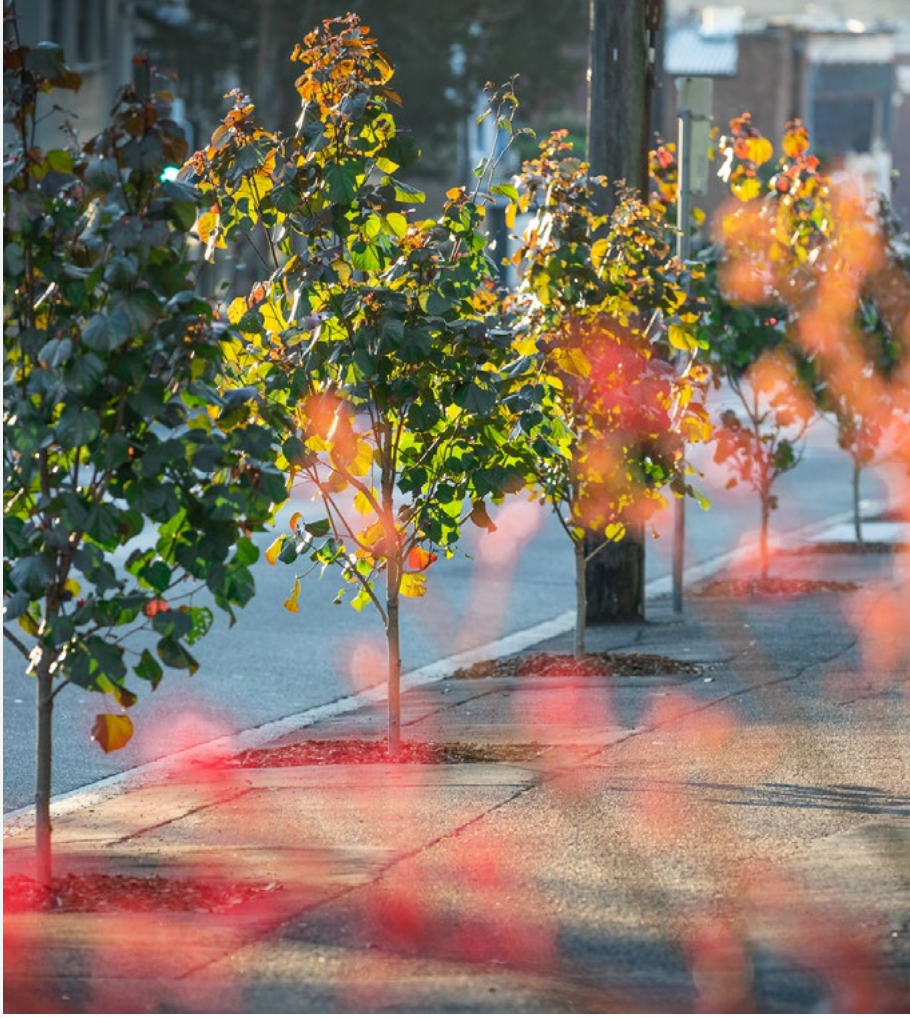
Contents

1. Purpose and Scope

The Living Infrastructure Asset Management Plan (AMP) outlines Waverley Council's approach to managing living infrastructure assets to meet Council's asset management objectives in risk mitigation, community service level achievement, long term financial and environmental sustainability, legislative and regulatory compliance, and continuous improvement.

The Living Infrastructure AMP establishes:

- **Current asset inventory, valuation, and types of assets** within the living infrastructure asset class.
- **Current condition** of the living infrastructure assets, and how it is measured.
- **Community engagement outcomes**, methodology, and its influence on Council's targets.
- **Asset levels of service**, current state and its implications.
- **10+ Year financial forecast** for OPEX and CAPEX required for living infrastructure assets.
- **Maintenance, operations, and renewals** required for living infrastructure assets.
- **Risk minimisation approach and critical assets** within the living infrastructure asset class.
- **Continuous improvement** and operational efficiency opportunities for living infrastructure assets.



2. Asset Class Summary

Waverley Council owns and maintains an estimated $128.4 million replacement cost of living infrastructure assets that represent 9% of Council's total infrastructure asset portfolio value. Living infrastructure provides the community with a beautiful and welcoming place to live in. It provides mental and physical health benefits, enhancing the quality of life for our community and visitors. It also provides habitat for plants and animals.

The living infrastructure asset portfolio is characterised by a variety of high maintenance and low maintenance trees, turf, garden beds, and native vegetation. There is a large 23% backlog of deteriorated assets comprising predominantly of native vegetation in poor health.

Council acknowledges a need to reprioritise the maintenance living infrastructure assets to reduce the backlog, and to maintain the assets to extend lifecycles over the 10+ year period ahead. A total MoRUN expenditure of $5.3 million per year is required to ensure that the asset management objectives are achieved for this crucial asset class.

3. Asset Inventory and Valuation

As of the 30th of June 2024, the Living Infrastructure asset portfolio has an estimated replacement cost of $128.4 million, and a depreciated value of $69.8 million that is attributed to the health of the assets. The majority of living infrastructure assets such as trees and native vegetation are not captured in Council's financial asset register, however they are recognised through inventory registers applied to known costs to replace and maintain.

Table LV1: Valuation and Quantity of Asset Types - Living Infrastructure Asset Class

ASSET CATEGORY	ASSET TYPE	CURRENT REPLACEMENT COST (CRC)	DEPRECIATED VALUE (NET CARRYING AMOUNT)	QUANTITY OF UOM	UOM	COUNT OF ASSETS
Landscaping	Garden Bed	$7,691,358	$4,646,308	29,319	area(m2)	443
Landscaping	Median Island Garden Bed	$2,066,137	$912,165	7,876	area(m2)	42
Landscaping	Park Turf	$6,565,205	$4,344,283	345,537	area(m2)	32
Landscaping	Street Turf	$5,846,608	$3,962,539	307,716	area(m2)	4
Native Vegetation	Native Remnant Vegetation	$26,400,000	$6,784,800	56,100	m2	4
Native Vegetation	Restored Native Bushland	$14,300,000	$5,669,950	57,000	m2	5
Trees	Park Trees	$839,700	$545,535	2,799	No.(each)	2,799
Trees	Street Trees	$64,700,000	$42,973,375	12,940	No.(each)	12,940
		$128,409,008	**$69,838,954**			**16,269**

The current replacement cost and depreciated value is measured for each of the 16,269 individual assets within Council's inventory register that constitute the Living Infrastructure asset class.

The current replacement cost represents the full estimated expenditure that would be incurred by Council to replace the existing assets with new like-for-like assets. This is measured by a variety of evidence-based cost inputs detailed within Council's unit rate register.

The depreciated value represents the estimated remaining value of the assets that have deteriorated from the value of the assets since construction. It is a representation of the expected remaining useful life of the asset.

Waverley Council schedules a comprehensive revaluation for its living infrastructure assets at least once every four years in line with requirements from AASB 13, The NSW Office of Local Government, and NSW Treasury. The comprehensive revaluation constitutes a review of asset condition, useful life, and unit rates within the asset class. Interim revaluations take place annually between comprehensive revaluations and typically constitute a desktop review with the application of published indices onto unit rates.

Table LV2: Revaluation Schedule – Living Infrastructure Asset Class

FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Comprehensive Revaluation	Interim Revaluation	Interim Revaluation	**Comprehensive Revaluation**	Interim Revaluation	Interim Revaluation

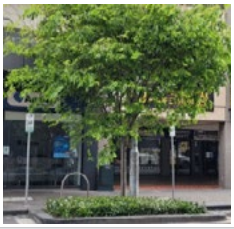
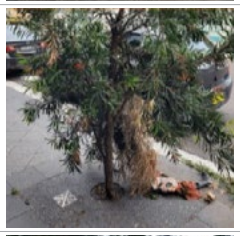
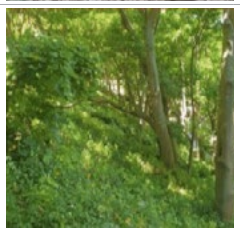
A comprehensive revaluation for the living infrastructure asset class was last completed on the 30th of June 2023. The next comprehensive revaluation is scheduled to take place on 30th June 2026 in line with the living infrastructure asset revaluation.

4. Asset Condition and Current State

Waverley Council adopts a 1 to 5 asset condition rating model/matrix to support its asset fair valuation, maintenance planning, and renewal planning.

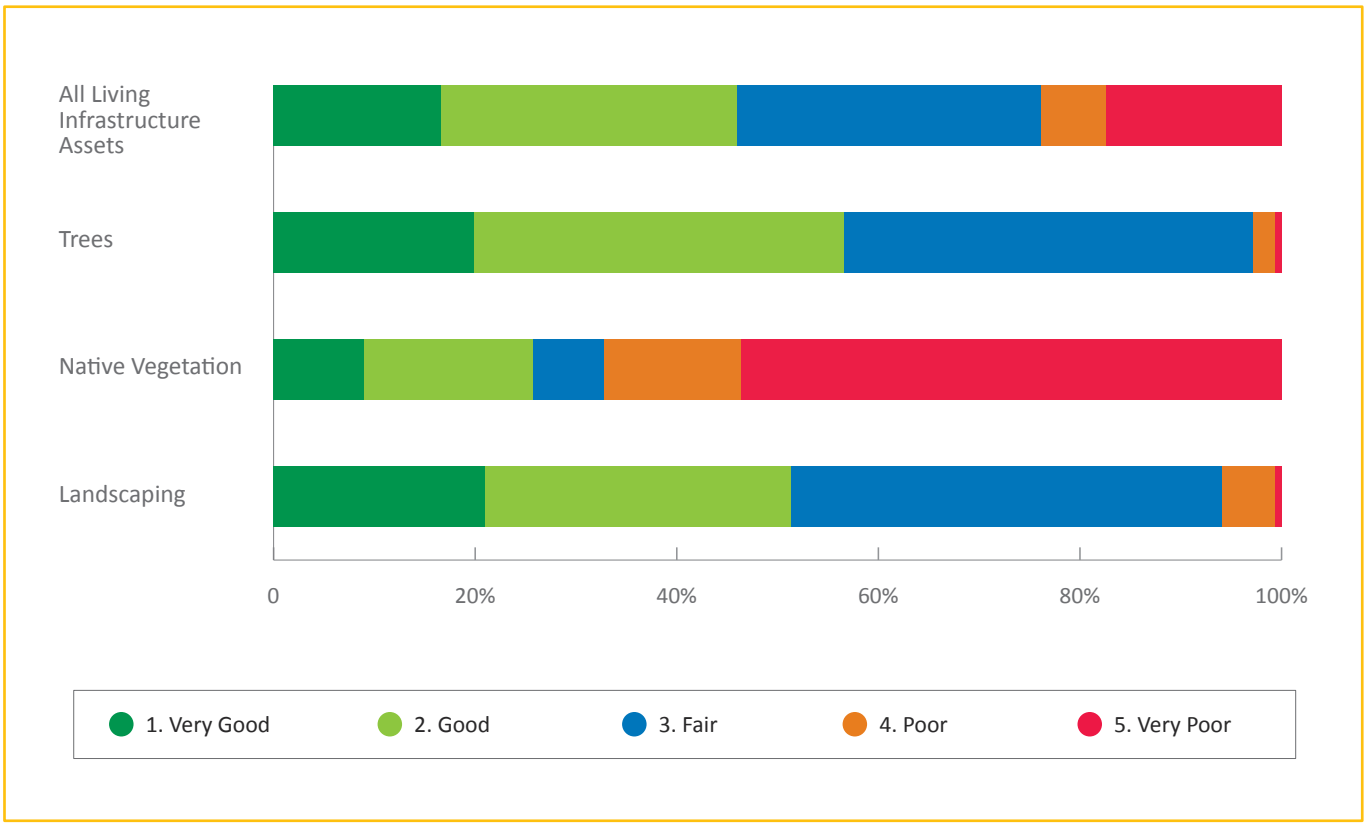
In line with Council's Fair Valuation Methodology and the Office of Local Government's Code of Accounting Practice and Financial Reporting, asset conditions are assessed at least once every four years, and prior to the comprehensive revaluation year allocated. As living infrastructure condition can vary substantially in short periods of time and as a result of environmental factors, Council adopts the last known condition assessment of asset health and structural rating.

Table LV3: Asset Condition Examples - Living Infrastructure Asset Class

ASSET CONDITION RATING	PHOTO	DESCRIPTION	REMAINING USEFUL LIFE
1 - Very Good	 	New and healthy living asset that is well maintained. Only normal maintenance required.	95%
2 - Good	 	Healthy living asset with minor health or structural defects only. Minor additional maintenance required to uphold health.	72.5%
3 - Fair	 	Living asset with moderate health and/or structural defects. Significant additional maintenance is required.	50%
4 - Poor	 	Significant defects and approaching end of life. Full or partial renewal and/or upgrade is required.	27.5%
5 - Very Poor	 	Significant defects and asset end of life reached. Full replacement is required.	5%

As of the 30th of June 2024, Council maintains an asset portfolio with 73% of living infrastructure (by valuation) in condition 3 - Fair or better in condition 3 - Fair or better.

Graph LV4: Condition by Asset Category - Living Infrastructure Asset Class



5. Community Consultation

Between November 2024 and January 2025, Waverley Council conducted a series of community consultation activities to gather feedback on priorities and satisfaction levels regarding infrastructure assets.

SAMP Deliberative Panel Workshops (5th and 7th Nov 2024): Council representatives provided an overview of its infrastructure asset portfolio. The 26 randomly selected residents provided feedback to inform Council's asset management resourcing prioritisation and service levels..

Issues Workshop (13th Nov 2024): Council representatives provided an overview of the challenges and issues that Waverley Council faces. The maintenance of public infrastructure and local centre upgrades was discussed with 49 community participants who provided their feedback, their high importance assets, and their satisfaction levels.

SAMP Online Budgeting Tool (12th Nov 2024 to 31st Jan 2025): An online budgeting tool was made available to the community via Council's Have Your Say website. A total of 18 people provided a submission where they ranked and prioritised a limited funding budget to Council's asset classes.

Council has identified the below opportunities through the three community consultation activities.

- **Service Levels and Prioritisation:** Living infrastructure assets were identified to be a high priority asset class from the community, ranking 3rd highest priority for maintenance resourcing and 2nd highest priority for and renewals resourcing. The SAMP deliberative panel workshops yielded higher than average scores for satisfaction, while the community feedback during the separate issues workshop yielded lower than average scores.
- **Street and park trees:** Participants expressed a desire for more street trees overall and greater maintenance of existing trees, including pruning them appropriately and replacing dead trees. Participants believed that more thoughtful selection and planting of greenery and vegetation could reduce the require for irrigation and the burger on stormwater systems. The impact of fig tree roots on footpaths was also raised as a concern in both the deliberative panel workshops and the issues workshops.

5.1. SAMP Deliberative Panel Workshops

In November 2024, Waverley Council engaged residents to inform the Strategic Asset Management Plan. An external agency was engaged to independently recruit a demographically diverse panel of 26 interested participants. The selection of participants was designed to reflect the diverse mix of the community within the Waverley LGA. This included location, age, gender, housing tenure, language spoken at home, ability, and whether the participant was a First Nations person.

Through a mixture of online Zoom call presentations and physical asset information packs, Council provided an overview of the Living Infrastructure asset class, including its current condition, maintenance, and renewal programs. Participants used Mentimeter (an interactive online polling tool) to provide feedback on their satisfaction levels and future priorities.

Waverley Council obtained the below key insights from participants regarding the living infrastructure asset class.

- **Satisfaction levels:** On average, the participants expressed slightly higher than neutral satisfaction in living infrastructure assets, with native vegetation, park trees, park turf, and garden beds scoring over 3.2 out of 5. Street trees and street turf were rated lowest satisfaction with a score of 2.6 and 3.0 out of 5, respectively.
- **Street and park trees:** Participants expressed a desire for more street trees overall and greater maintenance of existing trees, including pruning them appropriately and replacing dead trees. Participants spoke about street trees falling (including on cars) or obstructing lines of sight. One participant was concerned about trees being removed from streets and parks for the sake of views and another spoke about systematic vandalism of living infrastructure assets in the area.

  Participants spoke about safety and maintenance issues in relation to tree roots blocking pipes, damaging properties or coming through footpaths, creating trip hazards and inaccessible pathways. They also mentioned the risk of poorly maintained trees falling, overhanging onto neighbouring properties or blocking lines of sight on roads. Participants saw a need for Council to better maintain trees, trimming at appropriate times, and choosing species carefully to prevent these issues from arising.

  Participants noted that due to climate change, the temperature is increasing, and it is important to have more trees with large canopy cover to provide shade and cool the area down. There was some discussion about tree maintenance, with participants asking about the rules regarding pruning and why Council prunes the trees during summer when the canopy is most needed. One participant noted that trees and street lights are often located next to each other and the tree canopy blocks out the light.

  Participants spoke about the issue of tree roots damaging footpaths, carparks, buildings and private property. One participant felt that Council is very reactive in this space and focuses more on fixing problems as they arise, rather than investigating ways to prevent them occurring.
- **Garden beds and street turf (verges):** Verge gardens were a strong topic of discussion in the group. Participants discussed whose responsibility it is to maintain the grass verges outside residential properties and expressed a desire for clearer guidelines and a verge policy to be sent to every resident in Waverley to provide clarity around the rules. Participants spoke about residents in the community not mowing or maintaining their verges, not knowing that they were required to, or planting trees or gardens on the verge without permission. Participants want to see an audit of verge gardens across Waverley to ensure compliance with Council's policies. Some participants spoke about verge gardens and planter boxes/garden beds impacting their ability to open their car doors when parked on the street.
- **Native vegetation and bushland:** Participants recommended putting more effort into maintaining and preserving native bushland.

- **Importance:** Participants were asked to rank a series of statements to indicate which benefits of assets in this class are most important to them. The top priority benefit as ranked by participants was around ensuring Waverley's living infrastructure assets are safe for the community, such as managing trees to remove dangerous branches and removing trip hazards. The least important benefit to participants was economic benefits, such as increased visitation and tourism as a result of well-maintained parks, beaches and living infrastructure.
- **Resourcing:** Participants generally indicated a preference for more resources to be allocated to this class, through maintenance of existing trees and provision of new trees. Participants spoke about trees being an important asset in Waverley for shade and cooling, beautification, community wellbeing and to preserve the native surroundings, particularly as the area becomes more developed. Participants expressed a desire for more trees in the area, including native trees. One participant felt that while living infrastructure is valuable to the area, there are other assets which are more important and would benefit from more resources allocated to them. Of the 6 asset classes discussed, living infrastructure was identified as the 3rd highest priority for maintenance resource allocation, and 2nd highest priority for renewal resource allocation.

Figure LV5: Satisfaction levels using Mentimeter Platform - Living Infrastructure Asset Class
(1 = Strongly Disagree, 5 = Strongly Agree).

Figure LV6: Asset Class Prioritisation Ranked by Residents for Maintenance Resourcing

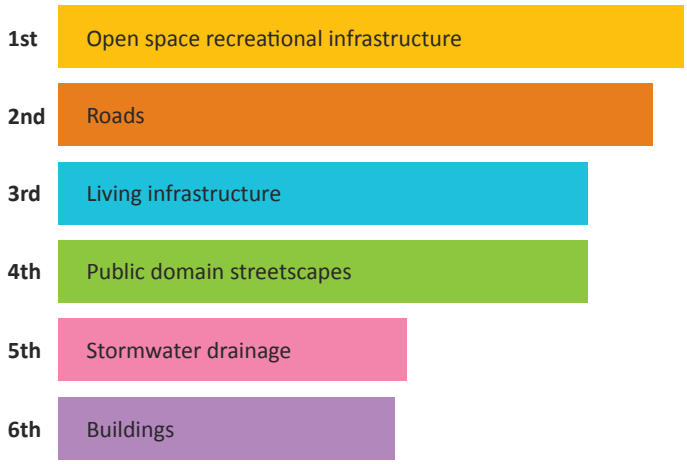
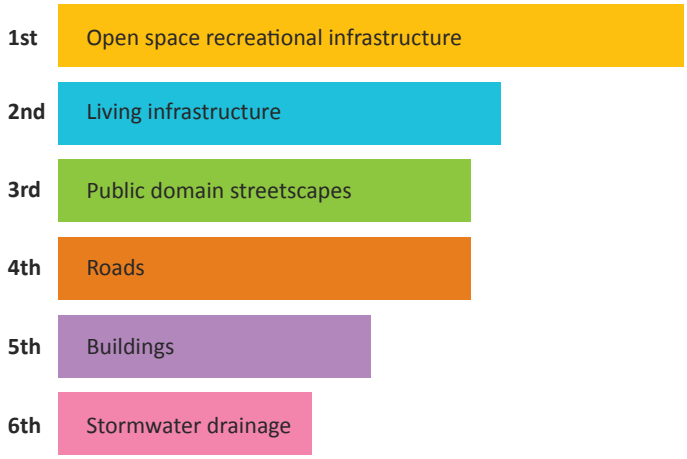


Figure LV7: Asset Class Prioritisation Ranked by Residents for Renewal Resourcing



5.2. Issues Workshop

In November 2024, Waverley Council hosted an Issues Workshop at the Bondi Pavilion, where 49 residents provided feedback on public infrastructure maintenance and local centre upgrades, amongst other important topics. Participants registered via the Have Your Say website.

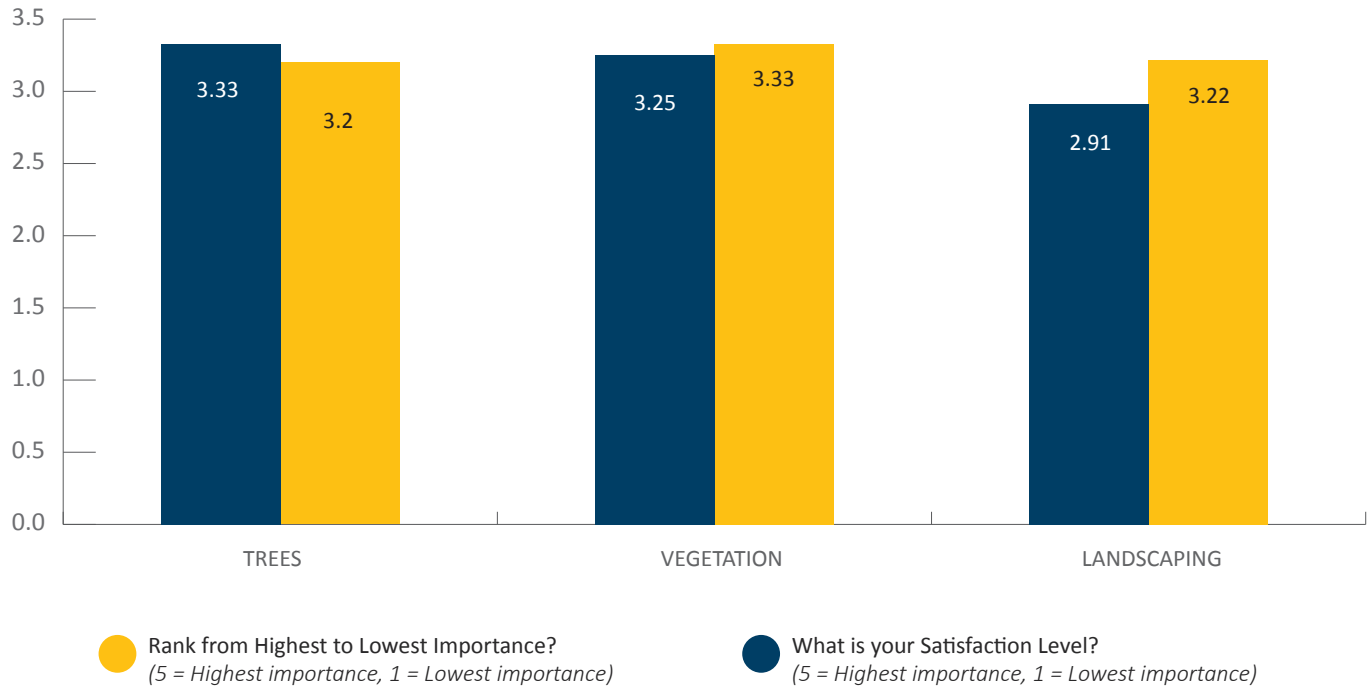
The issues workshop covered all infrastructure assets, and Council obtained the below key insights regarding the living infrastructure asset class.

Species selection: Participants believed that more thoughtful selection and planting of greenery and vegetation could reduce the require for irrigation and the burger on stormwater systems. The impact of fig tree roots on footpaths was also raised as a concern.

Importance levels: Trees, vegetation, and landscaping assets were voted among the participants as being in the top 5 most important asset types out of 25 different asset types.

Satisfaction levels: The living infrastructure asset class was given an average satisfaction score of 3.25 out of 5 which was consistently lower than the average score of 3.5 out of 5 across all asset classes. Participants provided around 3.25 out of 5 for trees, vegetation, and landscaping assets.

Graph LV8: Asset Categories Ranked for Importance and Satisfaction - Living Infrastructure Asset Class

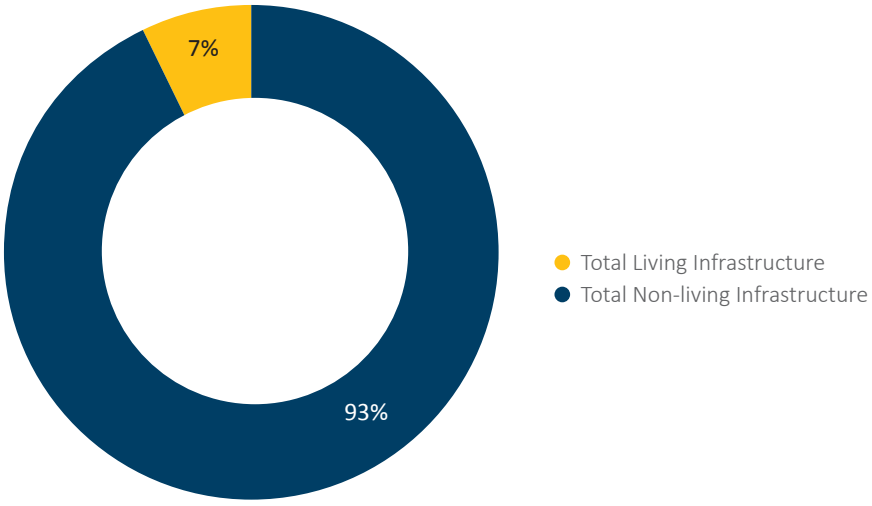


5.3. SAMP Online Budgeting Tool

Waverley Council opened an online budgeting tool on its Have Your Say website between 12th November 2024 and 31st January 2025. This tool provided flexibility for all members of the community to complete online, and in their own time. Participants were given a hypothetical budget of $100 that they could distribute across 20 asset categories using a sliding scale. Council received a total of 16 submissions through this tool.

On average, participants chose to allocate 7% ($7 of the total $100) of Council's asset renewal budget to living infrastructure assets.

Graph LV9: Residents' Prioritisation of Renewals Budget - Living Infrastructure Asset Class



6. Asset Levels of Service

Waverley Council monitors five key measures of asset service levels to ensure alignment and success with its asset management objectives and principles.

6.1. Asset Condition and Performance

Asset condition and performance is assessed based on the structural condition (1 – Very Good to 5 – Very Poor) for each road asset type and category. The service levels are maintained through the delivery of effective asset maintenance schedules and renewal programs, ensuring that assets remain above the minimum condition standard.

Asset condition and performance is assessed based on the structural condition (1 – Very Good to 5 – Very Poor) for each living infrastructure asset type and category. The service levels are maintained through the delivery of effective asset maintenance schedules and renewal programs, ensuring that assets remain above the minimum condition standard.

These service levels are designed to minimise risk to the community, meet community expectations for infrastructure performance, and ensure long-term financial and environmental sustainability. The target performance for asset condition is determined through a combination of optimised financial maintenance and renewal intervention points, safety risk assessments to reduce hazards, and community feedback from the asset satisfaction and importance surveys.

Waverley Council strives to enhance the asset condition and quality service levels through the below improvements.

- Using benchmarked and empirical data to refine asset degradation profiles and aligning financial depreciation to these profiles.
- Identifying optimal maintenance and renewal intervention points and methodologies using benchmarked and data-driven financial and engineering models.
- Expanding community survey sample sizes to improve the reliability and consistency of satisfaction and importance surveys.
- Using these insights to model funding scenarios to strike a balance between engineering best practices, financial sustainability, and community expectations.

This streamlined approach to defining and achieving minimum condition standards ensures cost-effective infrastructure upkeep and higher service reliability for the community through evidence-based asset management decisions.

Table LV10: Preferred Minimum Health and Structural Condition – Living Infrastructure Asset Class

PERFORMANCE MEASUREMENT	ASSET TYPE / CATEGORY	TARGET PERFORMANCE	PERFORMANCE AS AT 30/06/2024
Council's asset condition assessments and asset register	Landscaping	100% in condition 1, 2, and 3	94% in condition 1, 2, and 3
	Native Vegetation	100% in condition 1, 2, 3, and 4	46% in condition 1, 2, 3 and 4
	Trees	60% in condition 1 and 2 100% in condition 1, 2, and 3	57% in condition 1 and 2 97% in condition 1, 2, and 3

6.2. Asset Availability and Response Time

The asset availability and response time service level is assessed based on Council's ability to respond to and resolve infrastructure-related customer requests within the timeframes set by Council's Customer Charter. This service level is designed to ensure that infrastructure issues are addressed promptly, meeting community expectations while minimising risks associated with living infrastructure asset defects.

To improve service delivery, Waverley Council strives to achieve the following improvements.

- Defining response time targets for infrastructure related enquiries for initial inspections and triaging to ensure that resources are allocated efficiently.
- Creating a defect classification register, mapping different living infrastructure asset defect types to predefined rectification work orders to ensure appropriate resolution methods and timeframes are allocated.
- Implementing risk-based resolution times such that work orders are allocated due dates and prioritised based on the criticality of asset locations and defect classifications.
- Establishing an integrated system for customer requests, asset information, and work order management to centralise and streamline the approach to acceptance of request, prioritisation of request, triaging of issue, and resolution of issue.
- Establishing performance monitoring dashboards to track and report response time metrics, improving accountability and service resilience.

This structured response and works management system will enable Waverley Council to deliver higher service reliability, reduce risks, and meet community expectations efficiently. It ensures that living infrastructure issues are addressed in a timely manner based on asset criticality, defect and location risk, and community needs.

PERFORMANCE MEASUREMENT	ASSET TYPE / CATEGORY	TARGET PERFORMANCE
Council's Customer Request Management System (Merit)	All living infrastructure asset types.	90% of requests are responded to and resolved within Council's customer charter.

6.3. Community Satisfaction

Waverley Council measures community satisfaction service levels through community engagement surveys and asset satisfaction reports. These surveys assess whether infrastructure services align with community expectations and ensure that Council's asset management activities effectively address public needs.

The community satisfaction surveys enable Council to understand and evaluate public perception of asset quality, maintenance, and response times. It identifies gaps in service delivery and areas for improvement and resource prioritisation to refine service levels and infrastructure planning. Feedback sessions, satisfaction trends, and community concerns enable Council to assess resource adequacy in meeting service expectations in maintenance schedules, renewal priorities, and response times.

By continuously engaging with the community, Waverley Council ensures a responsive and community centric approach to asset management.

PERFORMANCE MEASUREMENT	TARGET PERFORMANCE
Community satisfaction report	Attaining a 'High' or 4 out of 5 satisfaction score.

6.4. Financial Sustainability

The financial sustainability of Waverley Council's living infrastructure assets is assessed based on asset condition, renewal expenditure, and the rate of asset depreciation. By achieving these service levels, Council ensures that infrastructure assets are sufficiently funded to maintain their minimum required condition now, and into the future. Capital expenditure is strategically allocated to the most critical assets at the most financially viable intervention points.

Waverley Council uses four key financial ratios to evaluate funding sufficiency and renewal efficiency:

- **Asset Consumption Ratio:** This ratio measures the extent to which an assets useful life has been consumed. The ratio is important for long-term distribution of renewal demand and financial sustainability. A position below the target would indicate that Council is overspending and renewing assets too early. A position above the target would indicate that assets are not meeting minimum asset condition expectations from the community, and that Council is accumulating unsustainable backlog.

$$\text{CONSUMPTION RATIO} = \left(\frac{\text{ACCUMULATED DEPRECIATION}}{\text{TOTAL ASSET REPLACEMENT COST}} \right) \times 100$$

The living infrastructure asset class consists of long-lived assets that deteriorate over time due to loading, weather conditions, and material aging. To maintain an optimal balance between serviceability and financial sustainability, Waverley Council targets an Asset Consumption Ratio of 30% to 50%. This ensure that living infrastructure assets are neither renewed too early and too frequently, nor are they underfunded and resulting in increased risk and backlog to Council.

Council strives to ensure that the consumption ratio is appropriately designated across different living infrastructure types and locations based on criticality and optimal renewal intervention points. A well distributed asset consumption across the LGA ensures financial sustainability and a balanced distribution of asset renewal intervention points year-on-year over the long term.

- **Annual Renewal Funding Ratio:** This ratio measures how effectively Council has funded living infrastructure asset renewals and replacements when compared with the depreciation of the assets. This measure provides insight into whether the assets are renewed at a sustainable rate each year.

$$\text{RENEWAL FUNDING RATIO} = \left(\frac{\text{ACTUAL RENEWAL EXPENDITURE}}{\text{DEPRECIATION EXPENSE}} \right) \times 100$$

To meet minimum asset performance targets, living infrastructure assets are maintained, refurbished, or reconstructed to at least Condition 3 – Fair. Assets that reach Condition 4 – Poor (72.5% consumption) must be renewed to prevent safety and reputational risks to Council.

Living infrastructure assets will be scheduled for a full rectification as they approach Condition 4. The majority of these assets are 'point' assets meaning that partial renewals are typically impractical, although minor repairs could restore the asset to a fair condition.

Council typically renews assets when they reach 27.5% remaining useful life, which is consistent with maintaining minimum asset condition levels that align with community expectations. Council avoids running assets to complete failure and deterioration to Condition 5 – Very Poor (100% consumption), as failed living infrastructure assets would pose significant safety and reputation risk to Council and the community through infrastructure collapses and introduction of other hazards.

Council sets its Renewal Funding Ratio target between 100% and 130% as living infrastructure assets are typically fully replaced with good condition as they approach 72.5% consumption, and very rarely are the assets run to 100% consumption before replacement.

- **10+ Year Long-Term Funding Ratio:** This ratio is similar to the Renewal Funding Ratio. However, rather than measuring the previous year's renewal expenditure, it assesses whether Council's 10+ Year planned renewal expenditure is adequate in supporting the services and expectations of Council's existing infrastructure and the forecasted depreciation expense.

$$\text{LTFR} = \left(\frac{\text{PLANNED ASSET RENEWAL EXPENDITURE (10+YRS)}}{\text{ACCUMULATED DEPRECIATION EXPENSE (10+YRS)}} \right) \times 100$$

As with the targets set for the Renewal Funding Ratio, Council sets its 10+ Year Long-Term Funding Ratio target between 100% and 130% as living infrastructure assets are typically full replaced as they approach 72.5% consumption and restored to good condition. Very rarely are the assets run to 100% consumption before full replacement.

- **Backlog Ratio:** This ratio measures the proportion of infrastructure assets that are in Condition 4 – Poor and Condition 5 – Very Poor that require renewal. The backlog ratio allows Council to assess the extent of deferred renewal, renewal funding adequacy, and risks to community service levels.

$$\text{BACKLOG RATIO} = \left(\frac{\text{TOTAL ASSET BACKLOG REPLACEMENT COST}}{\text{TOTAL ASSET REPLACEMENT COST}} \right) \times 100$$

Council aims to achieve a backlog ratio of less than 2% to demonstrate that renewal programs are prioritised to deteriorating assets as to prevent decline into poor condition and to minimise risks to the community.

Table LV11: Financial Sustainability Service Level Performance – Living Infrastructure Asset Class

PERFORMANCE MEASUREMENT	ASSET TYPE / CATEGORY	TARGET PERFORMANCE	PERFORMANCE AS AT 30/06/2024
Asset Consumption Ratio	All living infrastructure asset types.	Between 30% and 50%	46%
Annual Renewal Funding Ratio	All living infrastructure asset types.	Between 100% and 130%	110%
10+ Year Long-Term Funding Ratio	All living infrastructure asset types.	Between 100% and 130%	193%
Backlog Ratio	All living infrastructure asset types.	Less than 2%	23.8%

6.5. Safety

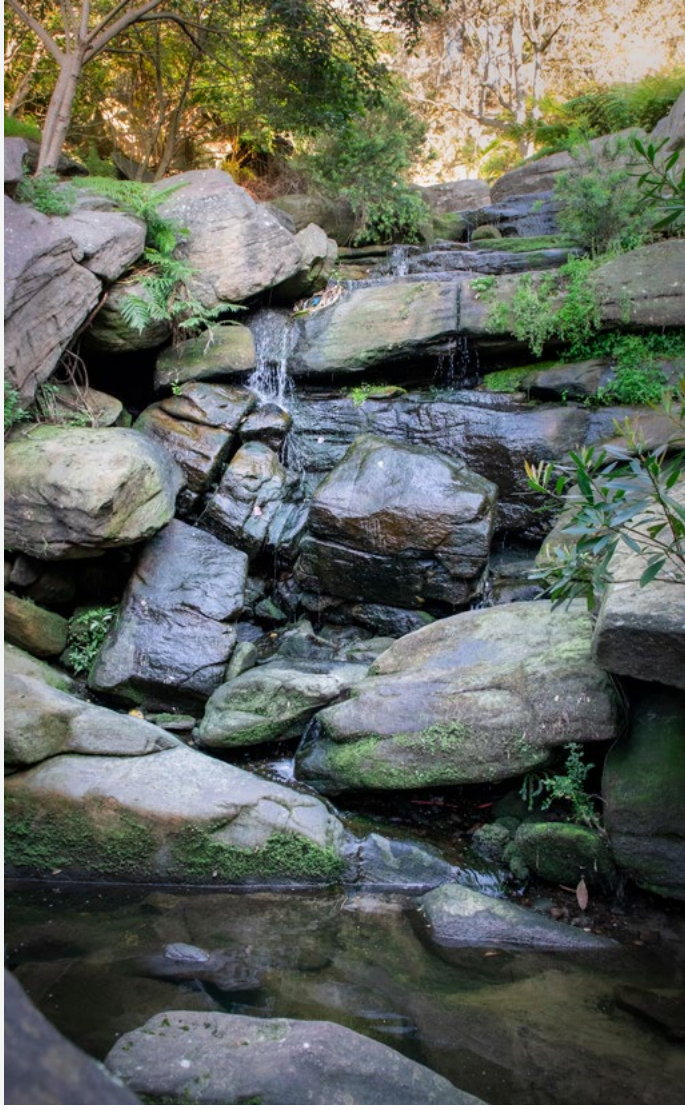
With the increased granularity of cost breakdowns and definition of the living infrastructure asset class, Council has identified a current asset condition backlog of 23.8%. The annual renewal funding ratio suggests that the renewal of these assets have been historically underfunded. Furthermore the 10+ Year long-term funding ratio indicates Council's commitment to restoring ageing and backlog assets that are currently in condition 4 and 5.

The Asset Consumption Ratio in combination with the backlog ratio suggests that Council maintains a portfolio of deteriorating living infrastructure assets that require additional maintenance and care to restore to a good condition. The 10+ Year Long-Term Funding ratio represents Council's prioritisation to the living infrastructure in the upcoming years to reduce backlog and restore these assets to their expected service levels.

Table LV12: Safety Service Level Performance – Living Infrastructure Asset Class

PERFORMANCE MEASUREMENT	ASSET TYPE / CATEGORY	TARGET PERFORMANCE
Annual inspections, operational reports and safety audits	All living infrastructure asset types.	Three-year annual average living infrastructure incidents are decreasing
Compliance and customer surveys	All living infrastructure asset types.	Compliance with relevant Australian Standards and regulatory requirements

7. Long Term Financial Plan and Sustainable Funding Scenario



In December 2024, Waverley Council engaged external financial and asset management consultants to assess Council's long term financial sustainability and advise on the development of Council's Asset Management Strategy. A sustainable funding scenario was developed based on the technical levels of service, which were used to calculate the funding that would be required to sustainably treat and manage the assets.

The technical levels of service model guides service delivery through the MoRUN framework: Maintenance and Operations, Renewal, Upgrade and New. The scenario prioritises asset renewal and replacement to maintain service levels, acknowledging that the construction of new and upgraded infrastructure results in higher ongoing maintenance and operations costs.

Table LV13: Average Annual Funding Requirement based on Sustainable Funding Scenario - Living Infrastructure Asset Class

ASSET CATEGORY	CURRENT REPLACEMENT COST (CRC)	ANNUAL O&M COST REQUIREMENT AS A PERCENTAGE OF CRC	ANNUAL O&M COST REQUIREMENT	ANNUAL CAPITAL RENEWAL REQUIREMENT	ANNUAL CAPITAL NEW & UPGRADE REQUIREMENT
Landscaping	$22,169,308	10.00%	$2,216,931	$207,869	$-
Native Vegetation	$40,700,000	0.50%	$203,500	$381,621	$-
Trees	$65,539,700	2.50%	$1,638,493	$614,529	$-
Total	**$128,409,008**	**3.2%**	**$4,058,923**	**$1,204,020**	**$-**

The Sustainable Funding Scenario equates to a full OPEX and CAPEX program of about $52.6 million over the next 10-Years, while the current Long Term Financial Plan Projection comprises about $47 million over the same period. There is an opportunity to improve segregation of operational expenditure into services across both the living infrastructure and living infrastructure asset class. Due to the current backlog of poor condition assets, Council strives to increase resource allocations to renewal over the course of the 10+ years.

Table LV14: Sustainable Funding Scenario Versus LTFP Projection - Living Infrastructure Asset Class

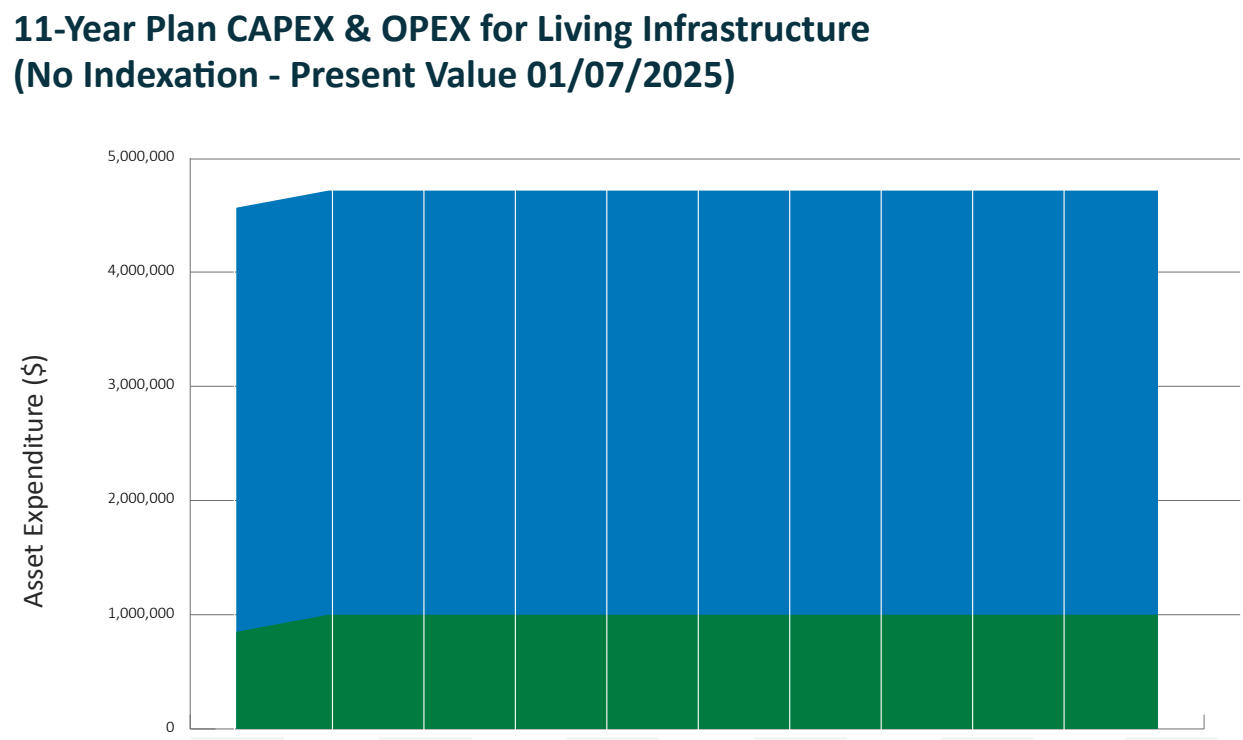
SCENARIO	ANNUAL O&M FUNDING REQUIREMENT	ANNUAL CAPITAL RENEWAL FUNDING REQUIREMENT	ANNUAL CAPITAL UPGRADE & NEW FUNDING REQUIREMENT	ANNUAL TOTAL	10-YEAR TOTAL
Sustainable Funding Scenario	$4,058,923	$1,204,020	$-	$5,262,943	$52,629,433
LTFP Projection	$3,713,295	$986,364	$-	$4,699,658	$46,996,583
Variance	-8.5%	-18.1%	0.0%	-10.7%	-10.7%

In developing Council's asset renewal plans, consideration is given to the target service levels in each asset category and the current condition of the asset inventory. Council's overall strategy for asset renewal is to initially ensure that the overall network condition is maintained. This will be achieved by renewing assets at the optimum point of their life cycle to maximise Council's renewal expenditure and achieve the desired service level. As such, Council's renewal strategy will be a bottom-up approach.

Table LV15: Council's Planned 11 Year LTFP Expenditure - Living Infrastructure Asset Class

LTFP 7 CAPITAL WORKS PROGRAM	GRANT FUNDING	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	TOTAL PROPOSED COSTS
Living Infrastructure	**$2,296,693**	$850,000	$1,025,000	$1,050,625	$1,076,891	$1,103,813	$1,131,408	$1,159,693	$1,188,686	$1,218,403	$1,248,863	$1,280,085	**$12,333,466**
SAMP Planting - Landscaping	**$1,378,016**	$600,000	$615,000	$630,375	$646,134	$662,288	$678,845	$695,816	$713,211	$731,042	$749,318	$768,051	**$7,490,080**
SAMP Landscape Planting and Renewals	**$1,378,016**	$600,000	$615,000	$630,375	$646,134	$662,288	$678,845	$695,816	$713,211	$731,042	$749,318	$768,051	**$7,490,080**
SAMP Management - Native Vegetation	**$229,669**	$100,000	$102,500	$105,063	$107,689	$110,381	$113,141	$115,969	$118,869	$121,840	$124,886	$128,008	**$1,248,347**
SAMP Native Vegetation Management	**$229,669**	$100,000	$102,500	$105,063	$107,689	$110,381	$113,141	$115,969	$118,869	$121,840	$124,886	$128,008	**$1,248,347**
SAMP Planting - Trees	**$689,008**	$150,000	$307,500	$315,188	$323,067	$331,144	$339,422	$347,908	$356,606	$365,521	$374,659	$384,025	**$3,595,040**
SAMP Tree Planting	$689,008	$150,000	$307,500	$315,188	$323,067	$331,144	$339,422	$347,908	$356,606	$365,521	$374,659	$384,025	**$3,595,040**

Graph LV16: Council's Planned 11 Year LTFP Expenditure – Living Infrastructure Asset Class



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
Capital Upgrade & New	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Capital Renewal	$850,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Operations and Maintenance	$3,713,295	$3,713,295	$3,713,295	$3,713,295	$3,713,295	$3,713,295	$3,713,295	$3,713,295	$3,713,295	$3,713,295	$3,713,295

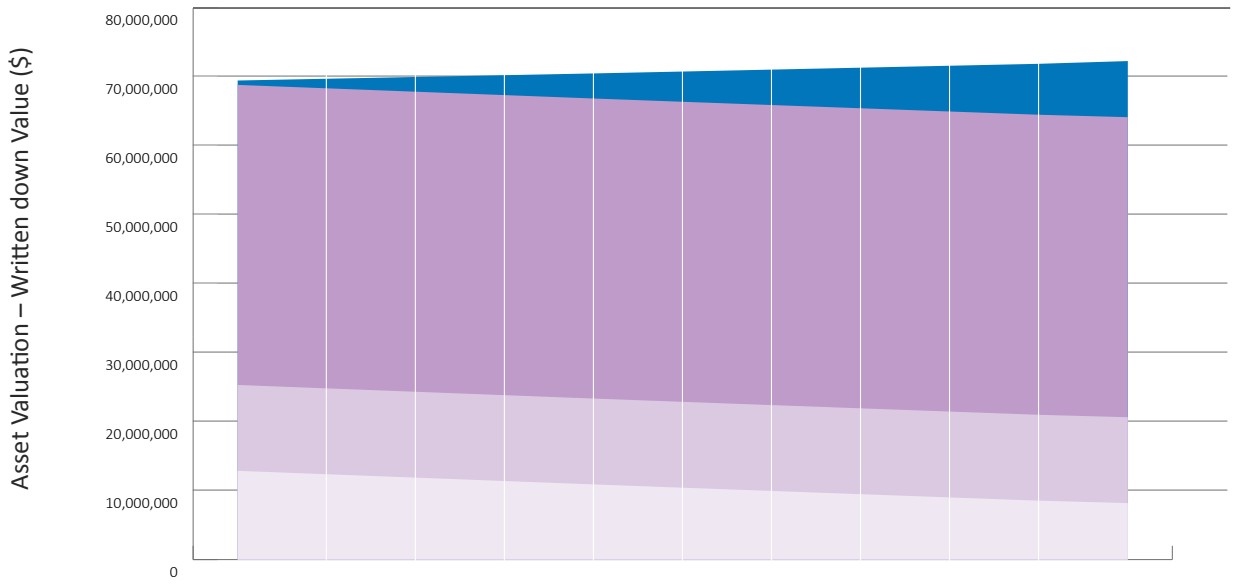
While the majority of living assets are not capitalised and captured in the Financial Asset Register, some assets do experience annual depreciation. The total annual depreciation expense for living infrastructure is $499,483. This means that without any renewals taking place, the living infrastructure asset class would deteriorate from 54% to 50% in the 11-years between FY2025/26 and FY2035/36. The implementation of the current LTFP will improve asset health to 53% in FY2035/36.

This projected asset health assumes 75% of Capital Renewal is capitalised as an addition to existing asset valuation. This is because capital renewals will typically replace assets that are at about 25% asset health.

Graph LV17: Asset Value Depreciation and Capitalisation over 11 Years – Living Infrastructure Asset Class

Note: This graph demonstrates the projected Written Down Value of Road Assets as they depreciate annually. It also demonstrates the impact of the LTFP capital upgrades, new, and renewals on the asset valuation.

Asset Value Depreciation and Capitalisation over 11 Years - Living Infrastructure (No Indexation - Present Value 01/07/2025)



	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
Accumulated Capital Upgrade and New	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Accumulated Capital Renewal	$637,500	$1,387,500	$2,137,500	$2,887,500	$3,637,500	$4,387,500	$5,137,500	$5,887,500	$6,637,500	$7,387,500	$8,137,500
Trees	$12,876,758	$12,383,235	$11,889,711	$11,396,188	$10,904,795	$10,428,696	$9,957,651	$9,488,152	$9,018,653	$8,549,154	$8,196,527
Native Vegetation	$12,454,750	$12,454,750	$12,454,750	$12,454,750	$12,454,750	$12,454,750	$12,454,750	$12,454,750	$12,454,750	$12,454,750	$12,454,750
Landscaping	$43,518,910	$43,518,910	$43,518,910	$43,518,910	$43,518,910	$43,518,910	$43,518,910	$43,518,910	$43,518,910	$43,518,910	$43,518,910

8. Maintenance, Operations and Renewals

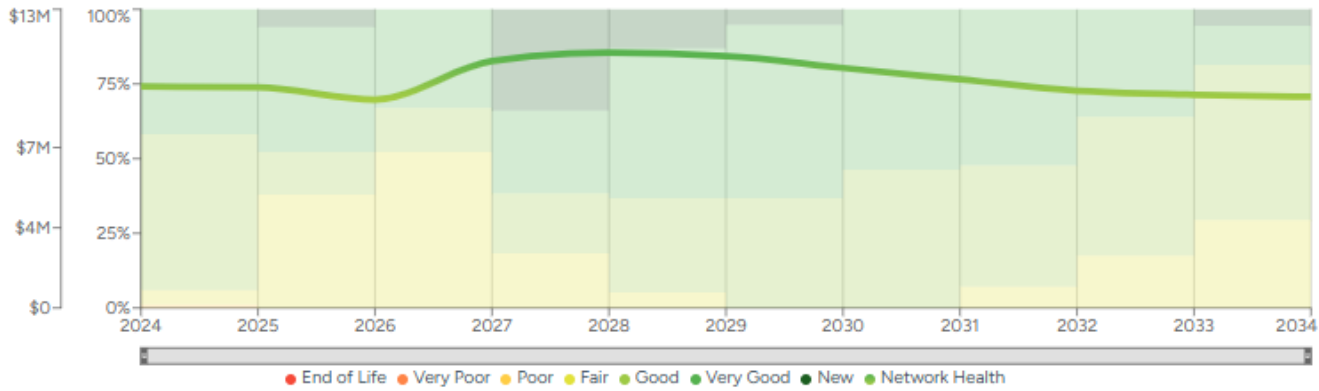
Waverley Council operates a periodic and preventive maintenance program for its Living Infrastructure, while also delivering capital renewal programs, and responding to reactive maintenance requests. Periodic and preventive maintenance takes place to uphold the safety and structural integrity of its living infrastructure, while also preventing further deterioration of aged assets.

Council used the Modelve funding scenario software to visualise the impact of various funding scenarios on the asset health of the living infrastructure asset class. When planning for living infrastructure asset replacements, the asset health is projected to improve over the 10 years in the Sustainable Funding Scenario.

Table LV18: Living Infrastructure Health and Value over 10-Year period

ELEMENT	SUSTAINABLE FUNDING SCENARIO
Capital Renewal Expenditure	$12,040,196
Capital New & Upgrade Expenditure	$0
Estimated Operations & Maintenance	$20,874,832
Estimated Depreciation	$6,237,863
Total Scenario Cost	**$39,152,891**
Asset Health as at 2024	54.39%
Asset Health estimated by 2034	70.69%
Current Worth as at 2024	$69,838,954
Projected Worth estimated by 2034	$90,772,328
Change of worth	**$20,933,374**

Figure LV19: Living Infrastructure Asset Network Health – Sustainable Funding Scenario (Modelve Software)



8.1. Trees

Waverley Council manages a tree register comprising 14,000 street trees and 3,100 park trees. Waverley operates a tree masterplan which guides the decision-making processes in selecting suitable species for increasing the urban tree canopy cover, increased tree planting, improving or 'greening' existing streetscapes and parks, and trialling new species.

Street and park trees contribute to the green leafy image of Waverley. This includes planting native and exotic trees on Council's streets and within our parks. Council aims to maximise the benefits of trees along streets and roads for the best environmental, social and economic outcomes.

The tree inventory register assists in long term planning of our streets by highlighting where trees need to planted, identifying which trees may be in decline, and identifying the best performing trees in given situations.

Park Trees at Thomas Hogan Reserve

Street Trees

The trees portfolio has a combined replacement cost of $65.5 million. The replacement cost includes the typical purchase of 45l trees from nurseries, plus removal of any previous tree, and supportive maintenance within the first two years required to promote growth to an established tree.

A 2.5% factor is applied to the current replacement cost of the trees asset category to estimate the operations and maintenance costs for below activities on an annual basis.

- Tree health and risk-based inspections
- Tree watering and irrigation for young trees
- Pruning, mulching, and soil improvement
- Pest and disease management
- Tree grate and pit maintenance
- Stake management and structural support
- Root barrier management

8.2. Native Vegetation

Native Remnant Vegetation

Waverley Council manages remnant and original pre-1788 vegetation that survives to this day. There is only 1%, or just under 5.61 hectares of pre-European remnant vegetation remaining in the Waverley local government area. Remnant vegetation is found along the Waverley coast and at a few inland locations such as Caffyn Park, Queens Park, and the York Road Eastern Suburbs Banksia Scrub (ESBS).

Remnant vegetation survives through natural processes, including seed dispersal and vegetative spread. If it is lost, it cannot be replaced; although non-remnant plants could be restored.

Eastern Suburbs Banksia Scrub at York Road

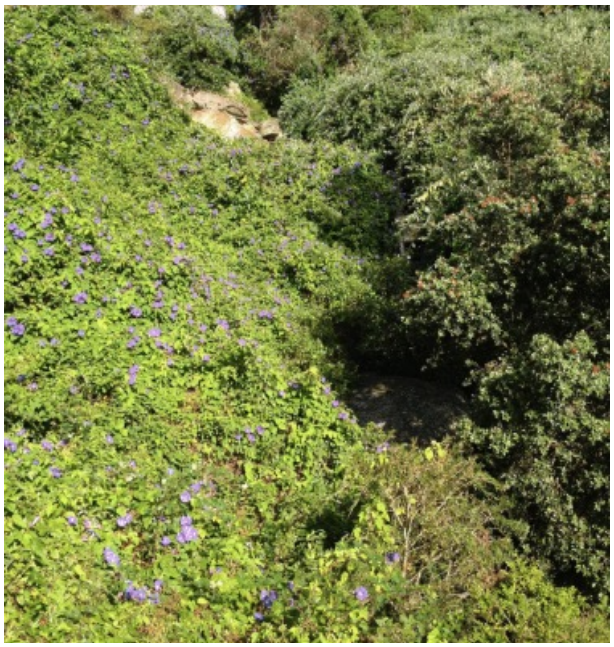
Restored Native Bushland

Waverley Council creates and maintains diverse native bushland to what had existed before European settlement. Major restoration sites include the Bronte Gully, Tamarama Gully, and Thomas Hogan Reserve. Council also creates and maintains native bushland and plantings across the local government area. Restored native bushland helps provide habitat, cooling, and improve the appearance of our parks.

Waverley Council currently maintains 5.7 hectares of restored native bushland.

Although some parts of restored areas are in poor condition due to high weed density and low species diversity, these areas still provide significant habitat and greenery to the local area.

Tamarama Waterfall before 2012



Tamarama Waterfall progress 2016

Maintenance and operations

A 0.5% factor is applied to the current replacement cost of the native vegetation asset category to estimate the operations and maintenance costs for below activities on an annual basis.

- Fortnightly to 6 monthly maintenance of native remnant vegetation sites delivered by professional bush regeneration contractors
- Managing weed, promoting growth, and recruiting remnant flora
- Native vegetation health monitoring
- Pest and disease management

8.3. Landscaping

Waverley Council manages a diverse network of 485 garden beds, 350,000m2 of park turf across our 79 parks and reserves, and approximately 300,000m2 of street turf.

Waverley's parks provide a green sanctuary for the community, flora and fauna, while protecting and promoting biodiversity. Park design responds to the community's aspirations for recreation and social activity. These spaces are welcoming, safe, and are well cared for to promote visitors today, and for future generations to come.

Park Turf at Tamarama Gully

Garden Beds at Blair Street

A 10% factor is applied to the current replacement cost of the landscaping asset category to estimate the operations and maintenance costs for below activities on an annual basis.

- Garden bed pest and disease management
- Periodic mowing
- Weeding and mulching
- Seasonal planting and replanting
- Fertilising and irrigation
- Pruning and shaping
- Reseeding, returfing and topdressing

9. Minimising Risks to Community and Council

In line with its asset management objectives, Waverley Council is committed to the mitigation of risks associated with its living infrastructure assets and services. The safety and wellbeing of the community, visitors and Council staff is paramount to open space asset management planning and delivery. Asset prioritisation decisions are made through the determination and application of risk prevention approaches that consider severity, likelihood, criticality and resilience across communities, infrastructure assets, and services. Waverley Council considers the below risk areas when prioritising living infrastructure maintenance, operations, renewal, and upgrade activities.

- Safety and wellbeing impacts
- Reputational impacts
- Financial impacts
- Regulatory compliance and legal risks
- Service delivery and asset availability risks
- Environmental impacts
- Loss of corporate knowledge, data loss, and risks to resilience and continuity

9.1. Critical Assets

Although no critical assets have been identified within the living infrastructure asset class, Waverley Council prioritises assets that are located in parks and reserves in the below order.

- Beach Parks (including Bondi Park)
- Parks with Sports Fields
- Neighbourhood Parks
- Local Parks

This is in line with Council's Open Space and Recreational strategy.

10. Continuous Improvement and Operational Efficiency

In line with its asset management objectives, Waverley Council strives to be proactive in enhancing the operational efficiency of its asset management processes, and in pursuing continuous improvement. The development and delivery of Council's Asset Management Improvement plan is crucial to ensuring that Council's asset management objectives are achieved in the most sustainable, resilient, and efficient manner.

Table LV20: Asset Management Improvement Plan – Living Infrastructure Asset Class

STRATEGY COMPONENT	TASK	DESCRIPTION OF REQUIREMENTS	EXPECTED TIMEFRAME FOR IMPLEMENTATION
Asset Information Management System	Define Data Attribute Requirements	Define data attribute requirements for informed decision making and implement into the Asset Information Management System.	12 months (Medium Priority)
Asset Financial Planning	Develop Asset Maintenance and Operations Plans	Develop asset maintenance and operations plans whereby reactive maintenance demand is accurately costed and based on historic annual requests. Routine and preventive maintenance demand is accurately costed and based on agreed levels of service. Identify resourcing requirements.	18 months (Medium Priority)
Work Order Management System	Define Work Orders and Defects	Define routine and reactive maintenance work orders and defect types. Configure and implement into the Work Order Management System.	18 months (Medium Priority)
Asset Management Culture	Asset Management Education	Conduct annual workshops with all asset stakeholders to understand the living infrastructure asset lifecycle management approach.	12 months (Medium Priority)
Asset Financial Planning	Asset Useful Life and Depreciation	Review asset useful lives based on the actual life of assets achieved by the Council. Consider applying different useful lives to locations and assets based on projected utilisation, wear, and tear. Consider applying asset depreciation models to different roads asset categories based on data, evidence and/or studies.	24 months (Medium Priority)
Asset Operations	Asset Condition Assessments and Defect Capture	Develop detailed roads asset condition assessment and defect capture manual. Ensure that operations and maintenance teams capture asset conditions and defects in the works management system.	24 months (Medium Priority)
Risk Management Approach	Develop Asset Criticality Matrix	Use demand and importance data on living infrastructure to develop a criticality matrix and scoring method for all living infrastructure assets to guide maintenance frequencies and response times, as well as renewal investment prioritisation.	24 months (Medium Priority)

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