





Bushwalks

Asset Management Plan

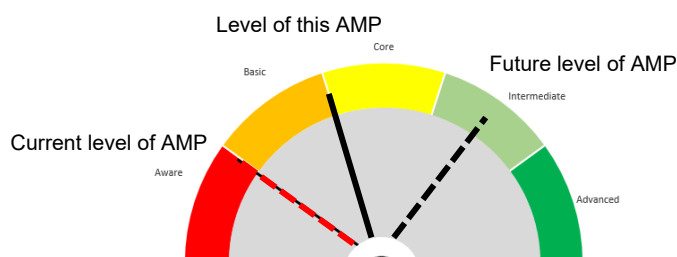


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Levels of Asset Management Plans (AMP)



The previous AMP for Walking Tracks was at the 'AWARE' level. This AMP for Bushwalks is at the 'BASIC – CORE' level. The next AMP aims to be at the 'INTERMEDIATE' level.

Basic: AMPs contain basic information of assets, service levels, planned works and financial forecasts, (5-10 years) and future improvements. Asset Management objectives are defined with consideration of strategic context.

Core: Approach to risk and critical assets described, top-down condition and performance assessment, future demand forecasts, description of supporting AM processes, 10 year financial forecasts, 3 year Asset Management improvement plan.

Intermediate: Analysis of asset condition and performance trends (past/future)), customer engagement in setting Levels of Service, Optimised Decision Making/risk techniques applied to major programmes. Strategic context analysed with risks, issues and responses described. Evidence of programmes driven by comprehensive Optimised Decision Making techniques, risk management programmes and level of service/cost trade-offs analysis.

Advanced: Improvement programmes largely complete with focus on ongoing maintenance of current practice.

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1. EXECUTIVE SUMMARY

1.1. THE PURPOSE OF THE PLAN

This Asset Management Plan (AMP) provides a framework for the management, replacement and future planning of bushwalks.

The Plan

- Describes the existing bushwalks managed by SCC
- Defines the level of service provided for those bushwalks
- Specifies the assets' current condition and the inspection regime to manage risk and inform life cycle management of the bushwalks
- Indicates replacement values of bushwalking-related assets – refer list in Section 1.2
- Identifies Council's regulatory responsibilities in relation to bushwalks
- Identifies the resources required to meet service levels

1.2. ASSET DESCRIPTION

A bushwalk in this plan is defined as *predominantly unsealed, non-structural tracks within a natural area that is managed by Council.*

Council manages 32 bushwalks with a total length of approximately 44 kilometres.

Bushwalk-related assets include:

- Boardwalks & bridges
- Pathways
- Viewing platforms
- Stairs/Steps
- Gates
- Fences
- Bollards
- Seating
- Signage

A city-wide overview of the locations of the bushwalks can be found in section 2 while maps of individual bushwalks are provided in Appendix B. Appendix A lists the attributes of each bushwalk.

Bushwalk assets are provided to:

- Provide a point of difference from urban areas so users can experience the natural environment;
- Contribute to the range of recreational opportunities for Shoalhaven communities and visitors;
- Provide access within bushland reserves, and to
- Protect the natural environment and rehabilitated areas from damage.

1.3. LEVELS OF SERVICE

Shoalhaven City Council is committed to providing a network of bushwalks for the use and benefit of residents and visitors that meet required service levels.

Levels of service are defined by the need to maintain:

- Public safety
- The integrity and stability of the land that the track traverses
- User satisfaction
- Council's legal requirements and meet its corporate objectives

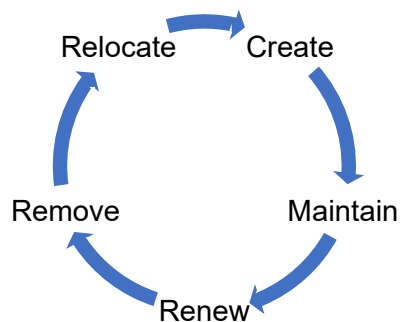
Performance is measured through:

- Customer request management system
- Formal risk inspections
- Informal, ongoing auditing by staff and contractors
- Requests from the Shoalhaven communities

1.4. FUTURE DEMAND

Drivers affecting demand include population change, changes in demographics, consumer preferences and expectations, impacts from climate change and growth in tourism.

1.5. LIFECYCLE MANAGEMENT PLAN



Create – the initial development of the asset

Maintain – as required to reduce deterioration, hazards and risks

Renew – major repairs or upgrades to restore the asset

Remove – after damage or at end of sustainable life

Relocate – planned retreat due to the impacts of changes to circumstances

Replace – create

1.6. RISK MANAGEMENT PLAN

The present funding level is insufficient to manage risk and maintain and renew the assets to meet customer expectations.

The main risk consequences are:

- Injury to users due to trip hazards on built infrastructure
- Damage to natural areas

We will manage these risks with available funding by:

- Regular maintenance and repair
- Regular inspections
- Advising users of any identified risks

1.7. FINANCIAL SUMMARY

The asset management process considers the whole of life costing of infrastructure assets including asset purchase, maintenance, operations, refurbishment, replacement, and demolition costs.

This AMP is at the 'BASIC – CORE' level and does not have the accuracy required to adequately budget for the long-term maintenance and renewal costs of the bushwalks.

More robust financial information will be provided in the next edition when data collection is more complete.

Bushwalk assets are currently valued in Council's Asset Register at approximately \$7.38M, with an estimated depreciation of \$269,000 per annum. Depreciation is an indicator of funding required to renew assets if service levels are to remain the same. This suggests that the funding gap is far more substantial than stated.

The improvement plan includes confirming the current values and expiry dates of the bushwalk asset types to ascertain the estimated annual replacement costs and to link into the Long-Term Financial Plan for the next AMP review in 2022.

1.8. MONITORING AND IMPROVEMENT PROGRAM

The next steps to improve Asset Management practices for Bushwalks are:

- Quantify the various components of each bushwalk e.g. track surface material, hand rail material, signage type and material, decking material
- Review and update the useful life and replacement cost of these components
- Inspect and update the overall condition of and life of components assets
- Define clear budget lines for capital, reactive and programmed maintenance
- Provide financial information of asset values, maintenance and operation costs for planning and input into the Long-Term Financial Plan.

2. INTRODUCTION

2.1. BACKGROUND

‘Bushwalks are predominantly unsealed, non-structural tracks within a natural area that is managed by Council’.

Some sections of a bushwalk may have hardscape surfaces such as bridges, boardwalks and steps which improve user safety and amenity and/or protect the surrounding natural environment.

This AMP does not apply to all ‘walks’ in the Shoalhaven. There are many bushwalking opportunities within natural settings in the Shoalhaven that may involve beach areas and other infrastructure such as shared pathways and road reserves.

Bushwalks covered by this plan are shown on the District Maps in section 2.4 while maps of individual walks are in Appendix B and attributes of each bushwalk in Appendix A is a spreadsheet that shows details of track attributes.

Shared paths, cycleways and sealed footpaths are dealt with in the *AMP for Footpaths & Cycleways (POL12/64)*.

This Plan incorporates past work from the (draft) *Walking Tracks Strategic Plan* and the *Walking Tracks Strategy* of 2000 and takes account of:

- The popularity of bushwalks as a recreation resource for residents and tourists
- Community expectations and use
- Increase in desire for improved accessibility options
- Developments in the management of natural resources
- The need to achieve and maintain healthy lifestyles

The Plan acknowledges the opportunities to better cater for and increase tourism by:

- Increasing funding to maintain and enhance the bushwalks
- Increasing promotion of the bushwalks
- Partnering with state and federal agencies
- Strengthening relationships with local indigenous communities and other community groups

This document updates the existing Asset Management Plan (AMP) – Walking Tracks (POL12/72) as well as incorporating and replacing the *Walking Tracks Strategy (WTS)* which was adopted in December 2009 (Min00.16747).

The development of this AMP included a review of relevant plans, studies, and policies, and identified actions that have/haven’t been achieved over the life of the Bushwalk Strategy and the previous version of the AMP.

2.2. GOALS AND OBJECTIVES OF ASSET OWNERSHIP

The goal in managing assets is to meet the defined level of service in the most cost-effective manner for present and future users. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated

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

- International Infrastructure Management Manual 2015 ¹
- ISO 55000²

2.3. ASSET MANAGEMENT PLAN FRAMEWORK

The key elements that affect this AMP are:

- The International Infrastructure Management Manual 2015
- Council's Asset Management Policy: guides the strategic management of Council's infrastructure assets.

It will be complemented by:

- Council's Asset Management Strategy: details how the Asset Management Policy will be implemented and how asset management practices can be improved.

The key elements of an AMP consist of:

- Level of service – specifying the services and levels of service to be provided
- Future demand – how this will impact on future service delivery and how this is to be met
- Life cycle management – how existing and future assets will be managed to provide the required services
- Financial summary – what funds are required to meet the levels of service and meet demand
- Plan Improvement and Monitoring – how the plan will be monitored to ensure it is meeting Council's objectives

This AMP contains basic physical and financial information about the assets. More accurate financial forecasts will be addressed in the next AMP. It will be subject to ongoing revision and evaluation.

¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13

² ISO 55000 Overview, principles and terminology

2.4. BUSHWALK LOCATIONS

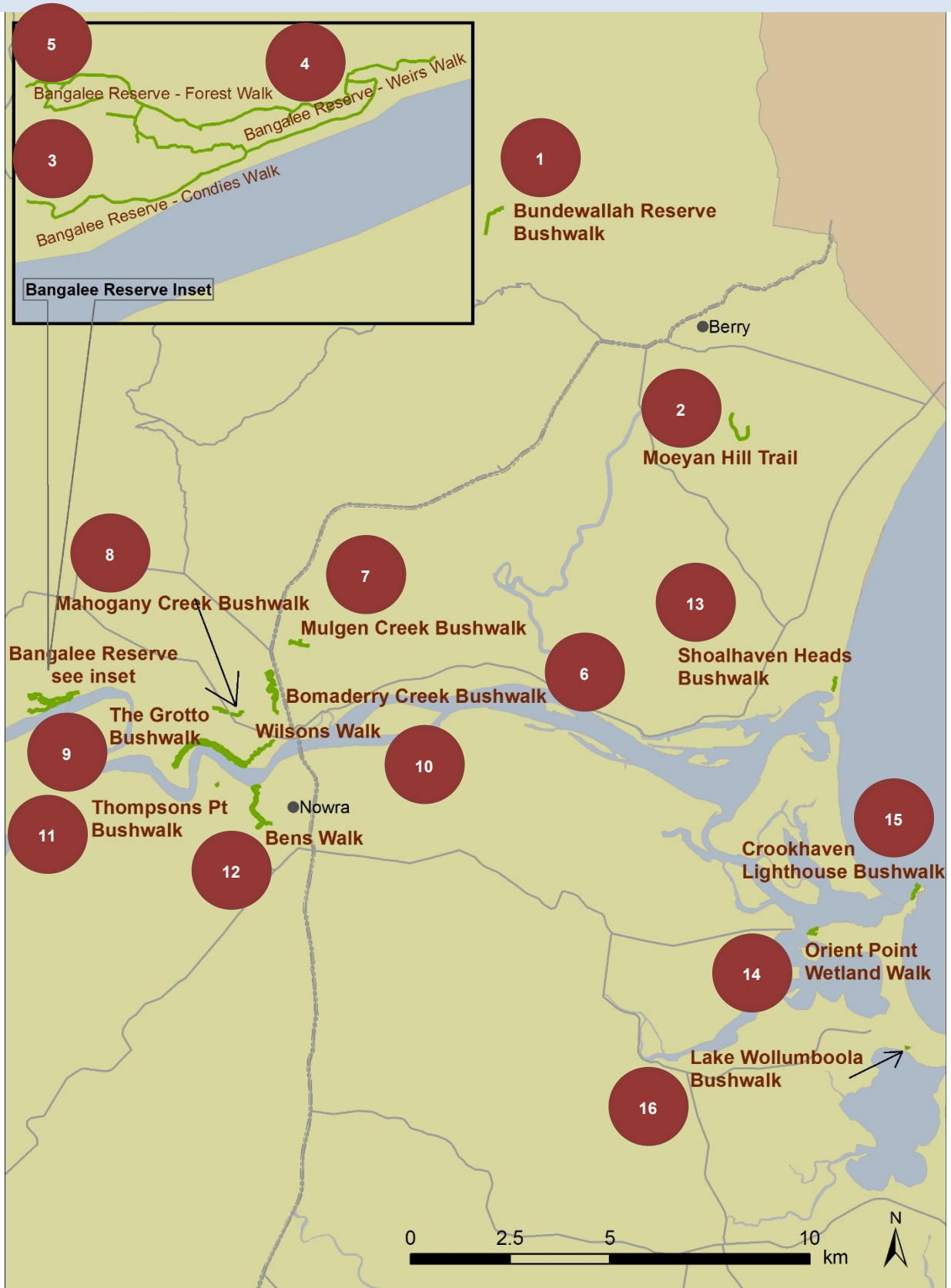


Figure 1: Overview – Bushwalk Locations - Northern Shoalhaven

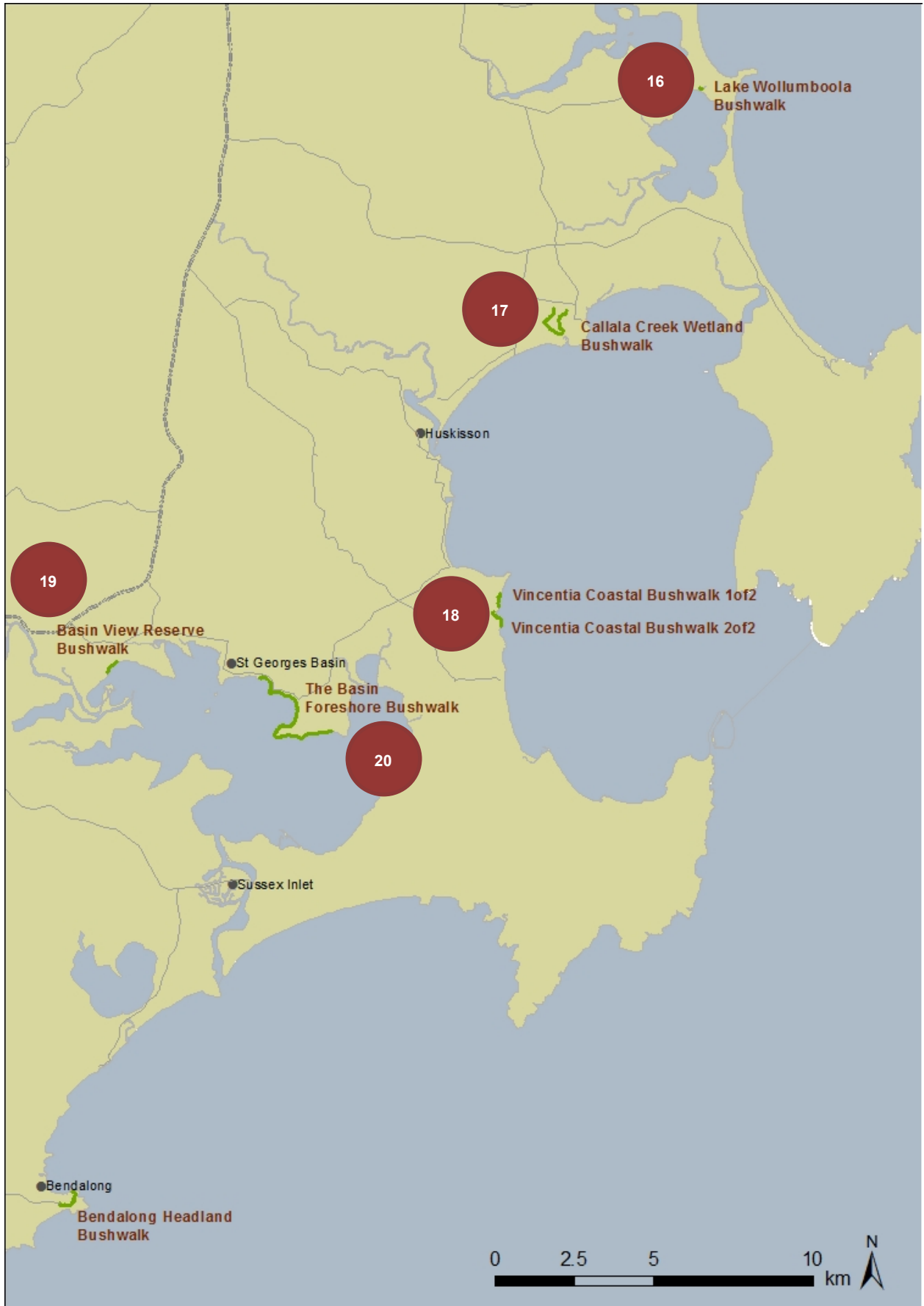


Figure 2: Overview – Bushwalk Locations - Central Shoalhaven

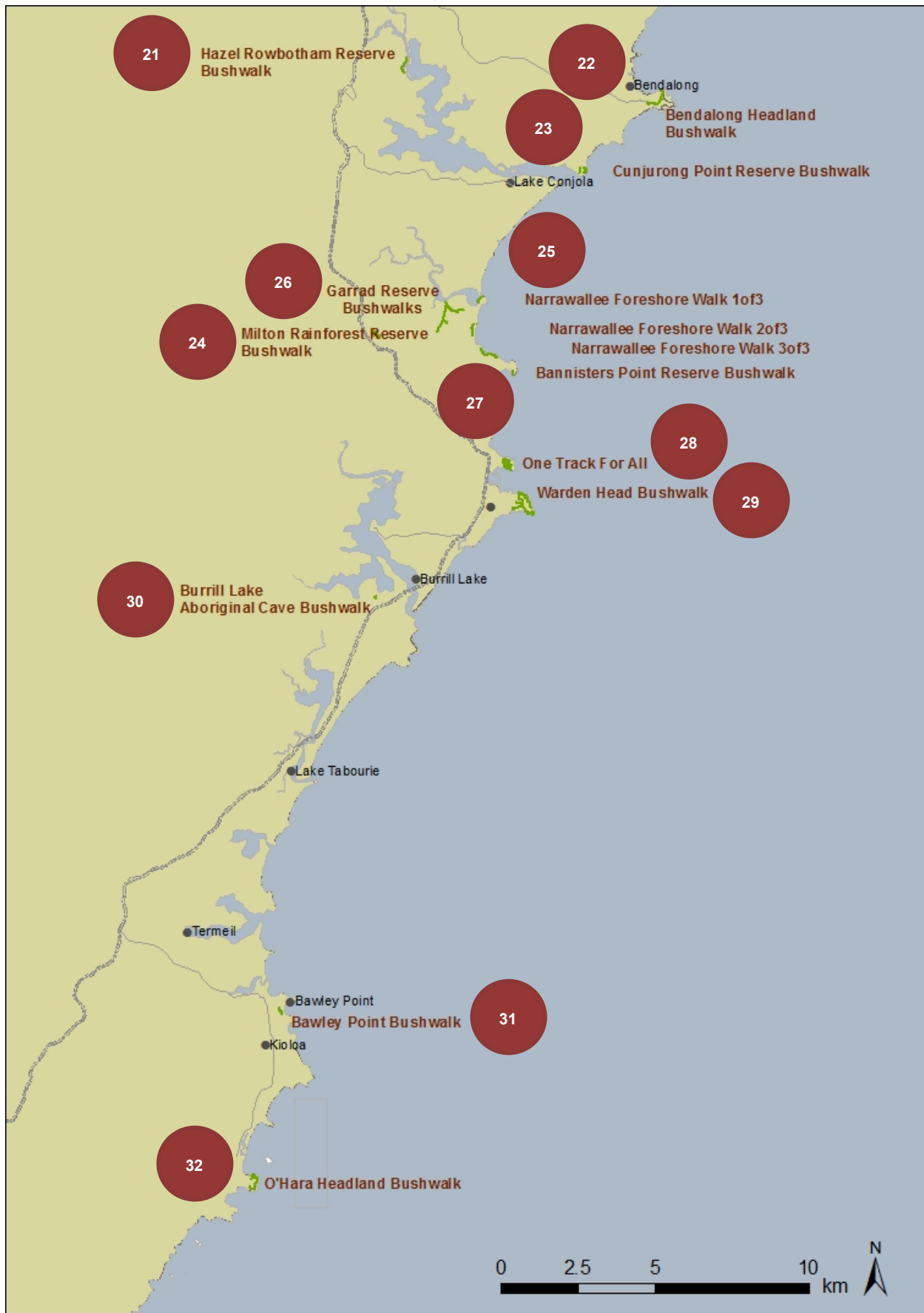


Figure 3: Overview – Bushwalk Locations - Southern Shoalhaven

3. LEVELS OF SERVICE

3.1. CUSTOMER RESEARCH AND EXPECTATIONS

Walking tracks, trails and boardwalks were ranked the third most popular attractions out of a list of 18 recreation facility types provided for selection in a community on-line survey in the [Community Infrastructure Strategic Plan, 2017-2036 \(CISP\)](#). Beaches and Natural Areas/Bushland were ranked first and second, respectively in the same survey. The CISP is available on [Council's website](#).

The public exhibition and community engagement processes for draft AMPs provide additional opportunities for the collection of input from stakeholders. Relevant stakeholders may be targeted as part of the public exhibition process. In this case, targeted groups are likely to include Bushcare groups, Community Consultative Bodies, special interest and walking groups the Coast & Estuary Management Group and Flood Risk Management Committees. Hard copies of the plan will be provided for viewing at Council's administration offices. The document will also be available electronically through Council's website.

Comments on the draft document are invited and can be posted, emailed and/or presented verbally at a meeting. After consideration of comments, the amended document will be reported to Council for formal adoption.

[Council's Community Engagement Policy](#) defines Asset Management as 'City Wide – Low Impact' with the Engagement Matrix displaying the appropriate elements for consultation.

3.2. STRATEGIC AND CORPORATE GOALS

Council's strategic goals attempt to meet a multitude of needs and requirements; the principles of Environmentally Sustainable Development, the quadruple bottom line³, legislative obligations, budgetary restraints and community expectations. With legislative variations and regular community engagement, Council's strategic goals and strategies will adapt accordingly. This may impact on the levels of service described in this Plan.

Generally, Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders.

The key elements are:

- Demonstrating responsible stewardship
- Taking a life cycle approach to asset ownership
- Defining the infrastructure assets physically and financially
- Providing a defined level of service and monitoring the performance against service levels and service expectations
- Understanding and meeting the demands of growth through demand management and infrastructure investment
- Managing risks associated with asset failure
- Support long term (strategic) financial planning

³ Social, Environmental, Economic & Civic Leadership

NSW Councils' activities are guided by locally produced [Integrated Strategic Plan \(ISP\)](#). ISPs head Councils' planning hierarchy and identify the community's main priorities and expectations for the future.

It states:

The significant environmental qualities of the Shoalhaven come from its extensive natural areas, vast biodiversity and relatively small area of settlement.

The extensive natural and rural landscapes form part of the cultural heritage and 'sense of connection' for the community and are important tourism and economic assets.

Council's Vision

- *To work together in the Shoalhaven to foster a safe and attractive community for people to live, work, stay and play; where sustainable growth, development and environmental protection are managed to provide a unique and relaxed lifestyle.*

Council's Mission

- *To enhance Shoalhaven's strong communities, natural, rural and built environments and appropriate economic activities through strategic leadership, good management, community engagement and innovative use of resources.*

ISP – objectives and strategies relevant to bushwalks

Objectives: Shoalhaven Environments

- A City that protects, values and cares for the Shoalhaven environment
- Population and urban settlement growth that is ecologically sustainable, carefully planned and managed to meet the needs of the community
- A community that seeks to reduce global warming impacts and increase our ability to adapt to the effects and impacts of climate change
- A City that shows leadership in ecologically sustainable development and living
- Community infrastructure and services that are environmentally responsible and ecologically sustainable

STRATEGIES

- Design, locate, construct and manage Council facilities, public spaces, buildings and landscapes to enhance neighborhood amenity and reflect community values and pride
- Provide and maintain a diverse range of high-quality passive and active open space
- Ensure that the ecological and biological environments of the Shoalhaven are protected and valued through careful management
- Enhance links between the natural environment and educational programs and recreational activities
- Create urban environments that meet community needs while ensuring the qualities and ecological integrity of the natural environment are protected
- Ensure that the provision of community infrastructure and services meets best practice environmental standards and controls
- Create active and connected foreshores and waterfronts that support recreational and community use and respect local environmental constraints

Council documents influencing this AMP:

- Infrastructure Strategic Plan
- Coastal Zone Management Plan 2018
- The Shoalhaven Adaptation Plan 2012
- Tourism Master Plan
- Foreshore Reserves Policy
- Relevant Bushcare Action Plans
- Natural resources management strategies
- Community Land Plans of Management
- Companion Animals Policy
- Access Area for Dogs Policy
- Various recreation strategies of Council
- Community Infrastructure Strategic Plan 2017-36

The Shoalhaven Adaptation Plan (2012) addresses a series of risks that were identified through a City-wide climate change risk assessment. See Risk Management section for risks and recommended actions considered relevant to this AMP.

3.3. KEY STAKEHOLDERS

The key stakeholders for Council's managed bushwalks are:

- Shoalhaven Communities and various interest groups
- Visitors to the Shoalhaven
- Natural Resources & Floodplain Unit (part of the Environmental Services Section & Planning & Development Services Group)
- Social & Infrastructure Planning Unit (part of the Recreation, Community & Culture Section of the Corporate & Community Services Group)
- Asset Strategy Unit (Part of the Asset Management Section, Assets & Works Group)
- Management Accounting Unit (part of the Finance Section of the Corporate & Community Services Group)

3.4. COMMUNITY FEEDBACK EQUALS RESEARCH

Local knowledge and resident reporting of asset condition is considered valuable 'customer research' and an indication of expectations. Customers provide Council with ongoing feedback (complaints & action requests) regarding bushwalk assets. Each request/comment is recorded in one of Council's corporate record-keeping and customer service systems and then assigned to the appropriate officer for action and/or response.

Complaints/action requests received by Council generally relate to:

- Track surface condition and maintenance and/or trip hazards (most requested)
- Vegetation management (encroaching vegetation, fallen branches etc.)
- Litter and rubbish

- Damaged or missing signage
- Damaged infrastructure

3.5. CURRENT LEVELS OF SERVICE

Council is committed to providing a network of bushwalks for the use and benefit of residents and visitors that, as far as practical, meets their expectations. Expectations must be tempered against the realities of the tracks being in natural settings that are subject to dynamic and natural processes.

The current levels of service are defined by:

- Public safety
- Protection of the environment the track traverses
- Budget allocations
- User satisfaction, enjoyment
- Corporate objectives

Performance is measured through:

- MERIT – customer request management system
- Phone calls, emails and letters direct to Council
- Formal risk inspections
- Informal, ongoing auditing by staff and contractors
- Requests from community consultative bodies
- Budget expenditure

The service level aims to ensure the tracks are maintained within the tolerance limits set out in section 6.1.

3.5.1 INSPECTION SCHEDULE

Inspections of the bushwalks are carried out throughout June, July & August with any required repairs implemented immediately. High use bushwalks and those in areas with known high visitor numbers are given priority.

Planned maintenance is repair work identified during the annual inspections that did not require immediate attention. This is the renewal and replacement program.

The development of this Plan has identified the need for a complete audit of the bushwalk assets to identify and quantify their components, their value, and condition. This will allow the development of a meaningful renewal and replacement plan and associated resource allocation.

3.5.2 PRIORITISING WORKS

The following issues are considered when prioritising responses to requests and complaints:

- Public safety/risk
- Degree of environmental damage being caused
- Budget availability
- Number of requests

Community engagement and education may prove effective where the desired level of service can't be met. Alternatively, it may be necessary to reassess/revise the allocation of resources.

Programmed replacement/renewals are undertaken under the Bushwalk Upgrade capital works budget and includes items such as:

- Provision of raised boardwalks and bridges to span low or wet areas and
- Provision of enhancements such as seats and interpretive material.

3.6. DESIRED LEVEL OF SERVICE

Level of service is driven by the community through requests and complaints as well as through regular inspections and audits. Generally, requests for service fall into the following categories:

Table 1: Types of Service

TYPE	CATEGORY
A	Track surface e.g. removal of protruding roots and rocks, loose gravel, eroded surface
B	Vegetation e.g. trimming of vegetation along track edges, removal of low branches, fallen timber, impeding views at lookouts
C	Damage to structures e.g. steps, platforms, bridges, signs
D	Provision of raised boardwalks and bridges to span wet sections or at environmentally sensitive sites
E	Provision of enhancements such as seats and interpretive material

3.7. EXISTING FUNDING

A, B & C-type requests fall into the risk management and general maintenance category and are funded through the operational (maintenance) budget while D & E-type works are upgrades/renewals and are funded through the capital budget stream.

Until the 2018-19 year there was no specific operational budget for minor repairs and maintenance of the bushwalks. In the process of preparing this AMP, an operational job number has been created using funds from an existing maintenance budget from Parks Operations.

The current level of (capital) funding is \$38,500 (2019-20) and provides for upgrading/renewal of existing assets. The (new) proposed annual maintenance budget is \$15,000.

Maintenance of the Garrad Reserve Bushwalk, Narrawallee is funded externally through the Biodiversity Conservation Trust.

4. FUTURE DEMAND

4.1. DEMAND DRIVERS

Population Change and tourism: With the increasing number of residents and visitors, an ageing population and more people accessing the coast who require assistance, it is likely that demand for asset upgrades will increase.

- More than 8 in 10 Australians (85%) live within 50 kilometers of the coastline of Australia. With Shoalhaven having an average width of 80kms, the entire population contributes to this statistic of coastal dwelling Australians. Furthermore, most of the Shoalhaven population is concentrated along the coastal fringe with 31 of the 49 towns and villages being coastal.
- The current population (2016) of Shoalhaven is approximately 101,942. By 2041 this is forecast to grow to 126,266.
- Shoalhaven City has a lower proportion of pre-schoolers and a higher proportion of people at post retirement age than Regional NSW. 30.4% of the population is over 55 years of age compared to 20.9% for NSW.
- 6.9% of Shoalhaven's population report needing assistance with core activities, compared with 5.8% for Regional NSW.
- The use of bushwalks by residents and tourists is expected to steadily rise, resulting in a decrease in track and related assets' condition over time through general 'wear and tear'.

Technology Change – usage, risk and public appeal: Smart phones and apps can provide users with readily available information about the location, length and features of bushwalks; Council is looking at ways to expand the visitor experience through the development of electronic interpretive material.

As the community further embraces and utilises social media channels, it is likely there will be increased usage and wider exposure of natural areas and public infrastructure, including Council assets such as bushwalks, lookouts and viewing platforms. It is vital that these assets are well-maintained, reducing the risk of trips and falls, particularly by visitors unfamiliar with the local terrain and conditions. The appearance of these assets in social media (particularly videos and photos) should also be considered from a 'public relations' perspective, as effectively Council is 'on display'.

Unfortunately, there is also increased potential for vandalism of these assets, which should be considered in maintenance and renewal schedules.

Climate Change: The bushwalks described in this AMP are embedded in the natural environment and are vulnerable to the range of dynamic processes inherent in natural systems. This vulnerability is accentuated by the impacts of climate change such as more frequent extreme storm events and more frequent and higher intensity bushfires. As a result, bushwalks will be exposed to more frequent and more severe damage which will increase maintenance and repair costs. To meet this challenge sustainably, it is anticipated that several tracks will require upgrading, enhancement and possibly re-routing to better tolerate these conditions.

Leisure trends: Walking has become Australia's most popular physical activity. The most popular facilities used for participating in physical recreational activities are parks, beaches and walking trails, with 58% of participants using these facilities. (*Participation in Sport and Physical Recreation, Australia 2009-10 ABS*).

A survey undertaken for the development of the *Community Infrastructure Strategic Plan 2016* found beaches, natural areas/bushland and tracks, trails and boardwalks the three most popular recreation facilities among survey respondents out of a list of 18 different recreation types.

Customer awareness, expectations and preferences: Expectations and demand may also be influenced by a better-informed community making comparisons with what they may experience interstate or overseas, together with heightened environmental awareness and greater focus on mental health.

A desire for low or no cost leisure activities, such as bushwalking, may also drive increased community usage, particularly in lower socio-economic areas or regions impacted by natural disaster such as bushfires or floods.

Ability and access requirements: The majority of Council's bushwalks are inaccessible to people with moderate physical limitations and may be difficult (in sections or their entirety) for older and less mobile residents and visitors. It is recommended that future consideration be given to the provision of more accessible bushwalking tracks and assets, either at new locations or existing sites. This will require significant investment by Council through its Long-Term Financial Plan (LTFP).

4.2. DEMAND FORECASTS

Improved and consistent data capture along with meaningful asset valuations, will allow for planning around future demand, opportunities for continuous improvement and asset replacement. This will be a goal of the next generation of the Bushwalk AMP.

4.3. DEMAND IMPACT ON ASSETS

Given the demand drivers described above it can be forecast that demand will increase and that a higher quality will be expected e.g.

- Increase in requests for hardening and/or smoothing of track surfaces
- Less tolerance of roots, rocks and encroaching vegetation
- More viewing platforms to replace informal lookouts
- Provision of parking and amenities.

4.4. DEMAND MANAGEMENT PLAN

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

Opportunities identified to date for demand management are shown in the table below. Further opportunities will be developed in future revisions of this AMP.

Table 2: Demand Management Summary

Demand Driver	Impact on Services	Demand Management Plan
Population Change and tourism	Increase in use	Upgrade/extend existing bushwalks
Technology Change – usage, risk and public appeal	Increase in use	Increase inspection & maintenance frequency (structural and aesthetics), improve design (in accordance with Australian Standards and industry best practice) and signage
Climate Change	Increase in damage due to natural events	Increase proactive and reactive maintenance budgets, review bushwalk suitability due to rising water levels
Customer awareness, expectations and preferences	Increase in use	Provision of new tracks and integration of existing tracks with other pedestrian facilities
Ability and access requirements	Increase in demand for more accessible bushwalks	Upgrade of existing and provision of new bushwalks and related assets

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Shoalhaven City Council plans to manage and operate the assets at the agreed levels of service (defined in Sections 3 & 6) while managing life cycle costs.

5.1. BACKGROUND DATA

5.1.1 PHYSICAL PARAMETERS

32 bushwalks are identified by this AMP. The list of tracks and their attributes is provided in Appendix A. The total length of these tracks is 44 kilometres. Bushwalk assets can include:

- Boardwalks & bridges
- Pathways
- Viewing platforms
- Stairs/Steps
- Gates
- Fences
- Bollards
- Seating
- Signage, both wayfinding and interpretive

5.1.2 BUSHWALK CLASSIFICATION SYSTEM

The Australian Standard for Bushwalks AS2156.1-2001 provides a classification system for walking tracks (bushwalks), guidance for the design, fabrication and use of track markers and information signs to be used for walking tracks. The Standard applies to outdoor areas where the environment is the focus of recreational activity.

The objective of the Standard is to provide managing authorities with guidance for walking track classification and signage in order to provide consistency of information to users to walking tracks. This is intended to minimise risk, preserve natural features and enhance recreation opportunities associated with the use of walking tracks.

Generally, Council's bushwalks fall within Classes 3 to 5 inclusive however classes 4 and 5 are used for the Council bushwalks as the inspection interval period nominated in the AS more closely aligns with existing resources. Several bushwalks meet the requirements for Class 3 however tracks classed 1-3 have inter-inspection periods that cannot be met.

New bushwalk signage that meets the Australian Standard is under development. The new signs will gradually be phased in as existing signs are replaced and/or promotional material developed.

Appendix E summarises the attributes used for the development of track-head signs.

5.2. ASSET CONDITION

Condition of the tracks is monitored via

- Annual formal condition inspections (see section 3.5.1)
- MERIT – (customer request management system) CCBs and correspondence.
- Informal, ongoing auditing by staff and contractors

Condition of assets should fall within the range of Excellent (1) to Poor (4) when assessed against the Condition Rank shown at Appendix C. The condition assessment form used at annual inspections is shown at Appendix D

Condition is measured using a basic condition grade model as shown in Table 3.

Table 3: Basic condition grade model

Condition Grade	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation

5.3. OPERATIONS AND MAINTENANCE PLAN

The **annual inspection** of bushwalks, carried out during June, July & August provides the systematic identification of defects and the prioritising of repairs as either *immediate-risk* or *renew/replace*. Generally, each bushwalk is inspected and any immediate, risk-based works completed before moving on to the next bushwalk.

Items requiring renewal/replacement are added to the renewal/replacement plan (see section 5.5). This data is held in *Conquest* with prioritisation based on severity of defect, extent of usage and risk. Programmed replacement/renewals are undertaken under the Bushwalk Upgrade capital works budget. This includes items such as:

- Provision of raised boardwalks and bridges to span low or wet areas
- Provision of enhancements such as seats and interpretative material

Priority of general and programmed renewals is based upon risk to the user primarily and risk/damage to the environment secondarily.

There now exists the ability to audit assets using GPS and electronic mapping which may allowing a more efficient risk and asset condition assessment process. This has not been fully applied to the inspection and auditing of bushwalks however it will gradually be incorporated into existing methods.

Outside of these formal inspections, maintenance is generally undertaken in response to complaints and/or requests. Distances, travel time, budgetary constraints and the fact that many assets are not accessible by vehicle, restrict more frequent inspections and maintenance. Storm events with rainfall > 200mm and winds >80kph may trigger additional inspections on bushwalks known to be prone to damage from stormwater, inundation, tree fall and the like.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

Maintenance expenditure levels are considered to be inadequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that they will result in a lesser level of service, the service consequences and service risks have been identified and highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the infrastructure risk management plan.

5.4. RENEWAL/REPLACEMENT PLAN

Data recorded during defect and risk inspections will be used to prepare annual operations and maintenance plans and inform and direct a Renewal/Replacement Plan. Until such time, annual renewal and replacement will continue to be prioritised as follows:

- level of risk to the public
- level of damage being caused to the environment
- extent of utilisation – high use/district tracks are a priority
- equitable spread of bushwalks across the City
- availability of funding

Opportunities to include track upgrades with other projects such as community activities and grant funds, state government initiatives and labour market programs will be actively sought and considered.

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

A Renewal/Replacement Plan is to be developed when a detailed 'whole of life' condition assessment is available. Currently, the upgrade and renewal (capital works) allocation is applied to manage and maintain tracks that pose the highest risk to users or the environment.

5.4.1 RENEWAL RANKING CRITERIA

A Renewal/Replacement Plan is to be developed when a detailed 'whole of life' condition assessment is available. Currently, the upgrade and renewal (capital works) allocation is applied to manage and maintain tracks that pose the highest risk to users or the environment.

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate
- To ensure the infrastructure is of sufficient quality to meet the service requirements

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure
- Have high use and subsequent impact on users would be greatest
- Have a total value representing the greatest net value
- Have the highest average age relative to their expected lives
- Are identified in the AM Plan as key cost factors
- Have high operational or maintenance costs
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings⁴

When additional bushwalks are proposed, a feasibility assessment will be completed which includes consideration of:

- Existing priorities
- Links to other bushwalks
- Need for access to a particular location or feature
- Impact on the environment
- Impact on cultural and heritage items
- Adequacy of funding (existing and future)
- Community support e.g. in-kind commitments
- Funding opportunities
- Ongoing maintenance costs

Upon completion of the assessment the proposed bushwalk will be considered by Council and a decision made as to whether the proposed track is to be included as an amendment to this AMP.

⁴ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

5.4.2 FUTURE RENEWAL AND REPLACEMENT EXPENDITURE

Projected future renewal and replacement expenditures will increase over time as the number of Council's bushwalks and related assets expand. An increase in budget year-on-year, plus inflation, will be required to ensure that any new assets are maintained to the required standard. A capital investment strategy for bushwalks has not yet been developed and is noted in the improvement plan for the next AMP.

Deferred renewal and replacement, i.e. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the risk management plan.

5.5. CREATION/ACQUISITION PLAN

New works are those that create a new asset that did not previously exist or works which will upgrade or substantially improve an existing asset beyond its current capacity/form. This may result from local resident or visitor growth, community need/desire or environmental protection, eg a raised boardwalk. Additional assets are considered in Section 4.4.

Creation of new assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others, such as other Council departments, CCBs, resident associations, NSW National Parks and Wildlife Service (NPWS), NSW Roads and Maritime Services (RMS), etc.

Candidate proposals are inspected to verify need and to develop a preliminary scope with works/renewal budget estimate. Consultation of the community may be via targeted (local) groups, key individuals or the whole municipality through public submissions, usually advertised in local print media and on Council's website. The proposals are refined based on feedback and feasibility, ranked in tentative priority order and then reported to Council for approval and budgeting – of both construction and on-going maintenance costs. Works are then scheduled in future programs according to the adopted priority ranking criteria – refer also Section 5.5.1.

5.5.1 FUTURE CREATION/AQUISITION EXPENDITURE

Expenditure on new assets in the capital works program will be accommodated in the LTFP, but only to the extent of the available funds. This section will be further developed in subsequent generations of the AMP.

5.6. DISPOSAL/RETIREMENT PLAN

Disposal includes any activity associated with the decommissioning of an asset through sale of land, demolition (retirement) or relocation. Potentially affected assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Costs or revenue gained from asset disposal is accommodated in Council's LTFP.

The opportunity to dispose of assets (remove and not replace) has not been fully determined at this time. There is a possibility that a track would be considered for closure due to environmental or public risk issues, especially where repairs are judged to be unsustainable. Any proposal to close a track, or a portion of existing track, would be subject to review and assessment along with community consultation and report to Council.

A bushwalk may cease to be identified as such if it no longer meets the definition of a bushwalk used in this AMP or is permanently closed.

6. RISK MANAGEMENT PLAN

Priority of general and programmed renewals is based firstly upon risk to the user and then risk/damage to the environment.

Risk inspections are primarily used to identify risks that require immediate correction.

Council is committed to maintaining the existing bushwalk network to the stated Australian Standard shown in Appendix A. There should be no significant hazards that would be unexpected if reasonable care is exercised by users, considering the dynamic nature of the environment.

The table in section 3.5 provides details of response times and intervention levels when the agreed tolerance limits are exceeded. The current inspection regime is limited by resource availability.

Outside of these formal inspections, maintenance is generally undertaken in response to complaints and/or requests received from members of the public and users of the bushwalks.

Storm events with rainfall > 200mm and winds >80kph may trigger additional risk inspections on tracks known to be prone to damage from stormwater, inundation, tree fall and the like.

Any hazards identified during the defect inspection will be prioritised and undertaken as either “Urgent Maintenance” or listed and undertaken as “Programmed Maintenance”.

6.1.RISK-TOLERANCE – BUSHWALK MAINTENANCE

Table 4: Accepted Tolerance Limits for Bushwalks

Attribute	Risk Issue	Comments
Formed Track Surface (gravel, bitumen, concrete, timber or plastic boardwalk)	Trip Hazard ≤ 50mm (5cm)	Monitor for protrusions/holes outside this tolerance
	Unevenness ≤ 150mm (15cm)	Undulations, dips, rises & tree roots in natural ground – use at own risk
	Slipperiness (°slope + material)	Is the track made slippery by the surface material or treatment?
Built Surfaces (bridges, stairs, platforms, boardwalks)	Protrusion/s	Built elements should be fit for purpose with appropriate safety features integral to the structure e.g. handrails, step heights
	Loose boards/rails	
	Missing boards/rails	
	Material failure	
	Trip Hazard ≤ 50mm (5cm)	
Signs	Reserve Name	Any signage provided should be clear and accurate. Directional signage is provided where track/trail direction is indistinct
	Track Head	
	Directional	
Edge-markers/Gates/Fencing	Protrusion/s	These elements, if present should be providing the desired access restriction or directional function
	Missing elements	
	Material failure	
Encroaching Vegetation	At Ground Level	Users should be able to pass along the track without vegetation touching them or posing a potential threat
	At ≤2m level	
Trees	Unstable trees/branches & roots	Unstable tree/s, hanging or broken branches may impact on track and/or users, root protrusions (refer above)
Grade	Correct	Is the current track classification appropriate?

6.2. CRITICAL ASSETS

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences.

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

6.3. RISK ASSESSMENT

The risk management process used in this project is shown in the figure below.

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

The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

Risk Management Process – Abridged

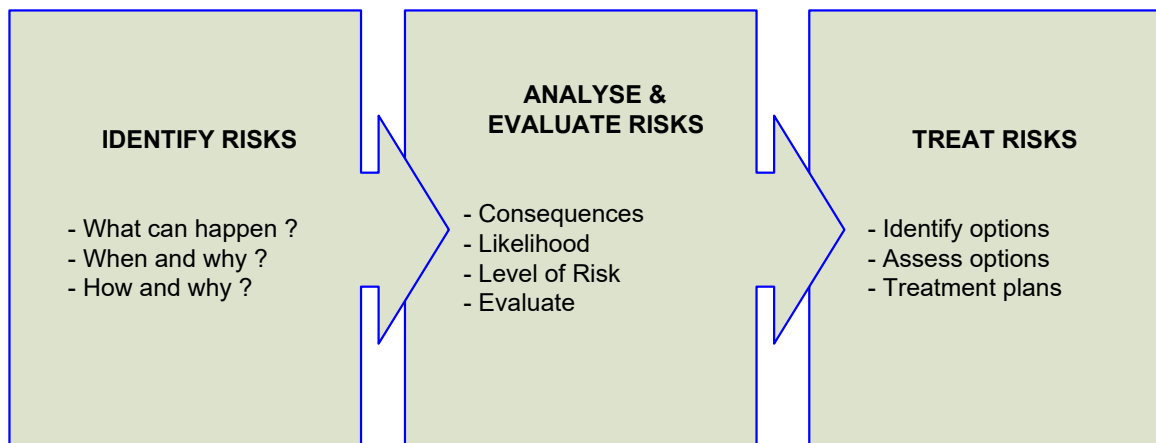


Table 5: Risk Ranking & Hierarchy of Controls

E = EXTREME H = HIGH M = MEDIUM L = LOW

LIKELIHOOD How likely is it to happen? ↓	CONSEQUENCES - How severely could it affect health and safety? →				
	CATASTROPHIC <i>Kill or cause Permanent Disability</i>	MAJOR <i>Serious Illness or Injury</i>	MODERATE <i>Medical Attention, Time off work</i>	MINOR <i>First Aid required</i>	INSIGNIFICANT <i>No injuries</i>
ALMOST CERTAIN <i>Is expected to occur</i>	E	E	H	H	M
LIKELY <i>Will probably occur</i>	E	H	H	M	M
POSSIBLE <i>Might occur</i>	H	H	H	M	L
UNLIKELY <i>Could occur</i>	H	M	M	L	L
RARE <i>May occur only in exceptional circumstances</i>	H	M	M	L	L

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

An assessment of risks associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, ‘financial shock’, or a reduction in service.

Critical risks are those assessed with ‘Very High’ (requiring immediate corrective action) and ‘High’ (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk, post corrective action is implemented, will need to be ascertained using the same approach and Council’s Risk Register amended.

6.4. INFRASTRUCTURE RESILIENCE APPROACH

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service.

Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

Our current measure of resilience is shown below: this includes the type of threats and hazards, resilience assessment and identified improvements and/or interventions.

Climate Change

Climate change is just one of many factors which need to be considered in asset management planning. [The Shoalhaven Adaptation Plan](#) was developed to address a series of identified risk using a climate change risk assessment. Sections of the Plan that are relevant to the management of bushwalks have been reproduced below and where appropriate, the climate change response has been incorporated into the Bushwalks AMP.

Intense Rainfall

Issue - Risks associated with community complacency and their unsafe/unpredictable behaviour during an event.

Response - Action 7: Implement suggested management measures (fencing and signage etc.) where required.

Extreme Heat

Issue - Deficiencies in strategic planning processes and current consideration of climate change impacts on ecosystems and assets within them.

Response - Action 33: Identify areas where 'ecosystem retreat' may occur impacting assets.

Issue - Community expectations of infrastructure delivery exceed Council ability.

Response - Action 34: Develop communications strategies that enable the community to be fully informed of Councils limitations in the delivery of infrastructure.

Issue - Additional costs associated with the management of Council's bushwalks.

Response - Action 35: Develop operational agreement for natural areas to ensure adequate budget for the sustainable management of the bushwalks.

Issue - The condition of roads, footpaths, cycleways, walkways and bridges deteriorate more quickly over time exposing users to a lower level of service.

Action 40: Review the adequacy and efficiency of existing control measures.

Continual review of existing and potential technology that may increase information and aid decision making.

Wind Risks

Issue - Increased cost of repairs to assets that could be affected by high winds.

Response - Action 55: Ensure that all new infrastructure or infrastructure being refurbished complies with worst wind category building standards.

Action 56: Review and update AMP to comply with worst wind standard. Identify priority adaptations to mitigate clean up expense in balanced consideration of other risks.

Action 57: For minor events, increase operational budget by 5% to accommodate increased clean- up costs.

Fire weather risks

Issue - Post fire effect on vegetation and assets cause increased risk of injury e.g. loss of fences / safety barriers, bushwalks.

Response - Action 58: Inspection and response strategy - tape off unsafe areas e.g. stabilise or isolate within two weeks post event.

Sea level rise

Issue - Council may have to purchase new land to relocate those recreational facilities that have been affected by sea level rise.

Response - Action 86: Identify those assets at risk and then plan accordingly to address the community's needs and expectations

Intense rainfall risks

Issue - Council property, buildings, bridges, road pavement, footpaths & equipment damage.

Response - Action 100: Identify potential resource shortfalls.

Issue - Increased level of enquiries and complaints.

Action 110: Increase education and community engagement programs.

Issue - Failure to respond to increased levels of community enquiries and complaints.

Response - Action 115: Identify the resource implications of increased extreme rainfall intensity events and prioritisation of complaints.

Action 116: Review options to disseminate results of information to residents.

Issue - More frequent landslides.

Response - Action 119: Review of Council's Strategic AMP.

Action 120: Use available LIDAR to build a land slip risk overlay to be incorporated into the LEP.

Adaptation actions

Issue - Potential impact of sea level rise on developments and Council infrastructure.

Response - Action 127: Review DCPs and DSPs; Climate Change Adaptation Planning

Issue - Lack of political and community acceptance that climate change is an issue resulting in lack of policy and strategic direction and inadequate investment.

Response - Action 128: Develop a community engagement and education strategy for climate change.

7. FINANCIAL INFORMATION

This section contains the financial requirements resulting from all the information presented in the previous sections of this AMP. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

7.1. FINANCIAL STATEMENTS AND PROJECTIONS

The asset management process considers the whole of life costing of infrastructure assets including asset purchase, maintenance, operations, refurbishment, replacement and demolition costs.

This AMP is at the 'BASIC – CORE' level, so does not have the level of analysis to accurately address the long-term maintenance and renewal costs of the bushwalks or the creation of new bushwalks and associated assets.

A financial review of bushwalk assets has identified gaps in the asset data set. A review of the useful lives of the asset types needs to be undertaken and data updated for financial revaluation and renewal projections. This is noted in the improvement plan at Section 8.2.

Detailed financial information will be provided in the next edition when data collection and quality is more complete.

Confirmation of the current values and expiry dates of the assets to provide estimated annual replacement costs and link into the LTFP for the next AMP review in 2023 are actions included in the Improvement Plan.

Council's bushwalk assets are currently valued at approximately \$7M in the Asset Management Register. The depreciation rate is estimated at \$269,000 per annum, based on asset types, value and overall age. Until more solid data can be obtained in the next iteration of the Bushwalks AMP, depreciation is used as an indicator of funding required to renew assets for service levels to remain the same.

The current budget for bushwalks includes an annual capital budget of \$38,500 and Operational budget of \$15,000. Maintenance of the Garrad Reserve Bushwalk in Narrawallee is funded externally through the Biodiversity Conservation Trust.

The budget allocations are set out in the table below. Natural Areas staff managing the bushwalks estimate that it would cost around \$77,000 to meet current service levels and adequately cover risk and maintain infrastructure more efficiently.

Table 6: Cost Analysis

Activity	Actual \$	Estimated Required Funds (\$)	Estimated Shortfall \$
Audit & Inspections - OpEx	10,000	10,000	0
Reactive Maintenance - OpEx	5,000	10,000	5,000
Programmed Maintenance - CapEx	13,500	15,000	1,500
Signage - CapEx	5,000	12,000	7,000
Upgrades/Renewals - CapEx	20,000	30,000	10,000
Totals	53,500	77,000	23,500

This highlights an estimated \$23,500 funding gap, which does not include any substantial upgrade of the bushwalks and essentially maintains these assets at the current standard.

7.2.FUNDING STRATEGY

Funding for assets is provided from Council's operational and capital budgets and are included in the LTFP.

The financial strategy of the entity determines how funding will be provided, whereas the AMP communicates how and when this will be spent, along with the service and risk consequences of differing options.

7.3.FORECAST RELIABILITY AND CONFIDENCE

The expenditure and valuations projections in this AMP are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a five-level scale⁵ - see Table 7 below.

Table 7: Data confidence grading system

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate $\pm 10\%$
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy $\pm 40\%$
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AMP is considered to be **B – Reliable**.

⁵ IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

8. PLAN IMPROVEMENT AND MONITORING

8.1. ASSET MANAGEMENT DATA SOURCES

Valuations are

- Based on replacement costs identified in contract tenders/quotations
- Dependent on scale, construction type and location
- Affected by whole of life i.e. new structures will cost more and attract higher valuations

Asset valuation data has not yet been included in Council's Asset Register software called Conquest.

8.2. HISTORICAL DATA

Type of data available and location

- TRIM (Council's electronic records system)
- MERIT (Council's customer request recording system)
- 2012 AMP TRIM POL12/72
- Operations and Maintenance Plans: Environmental Services drive – Natural Resources & Floodplain Unit

Historical expenditure

- Council's Financial Information System (FIS) from 2012-2018
- Bushwalk Upgrade budget 82361
- Various budgets with the Parks Maintenance budget

8.3.IMPROVEMENT PLAN

The asset management improvement plan is set out in the table below.

Table 8: Improvement Plan

Task No	Task	Responsibility	Resources Required	Completion Date
1	Define clear budget lines for capital, inspections, reactive and programmed maintenance as well as management/co-ordination of Bushwalks	Natural Resources/Finance	Existing Staff	Ongoing
2	Audit the Bushwalks to confirm listed components: e.g. materials/type track surface, handrails, signs	Natural Resources/Asset Strategy Units	Existing or contract staff	June 2021
3	Undertake 'Whole of Life' condition assessment & undertake valuation	Natural Resources/Asset Strategy Units	Existing or contract staff	December 2021
4	Produce the renewal/replacement plan	Natural Resources/Asset Strategy Units	Existing or contract staff	June 2022
5	Prepare a Financial Forecast (10yrs+) inclusive of programmed maintenance forecast budget	Natural Resources/Asset Strategy Units	Existing or contract staff	December 2022
6	Maintain data in Council's Asset Register	Natural Resources/Asset Strategy Units	Existing Staff	Ongoing
7	Develop asset capacity and performance measures	Natural Resources/	Existing Staff	December 2023
8	Financial revaluations and renewal projections	Asset Strategy Units	Existing Staff	December 2023

8.4. MONITORING AND REVIEW PROCEDURES

This AMP will be reviewed during annual budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the LTFP

The AMP has a life of four years and is due for complete revision and updating by mid-2024.

8.5. PERFORMANCE MEASURES

The effectiveness of the AMP can be measured in the following ways:

- The degree to which the required projected expenditures identified in this AMP are incorporated into the long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the AMP
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans
- The Asset Renewal Funding Ratio achieving the target of 1.0

9. REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney

10. APPENDIX A – LIST OF BUSHWALKS AND THEIR ATTRIBUTES

TRACK NO.	LOCALITY (North to South)	NAME OF BUSHWALK	LENGTH (m) (approx)	LOOP?	CLASSIFICATION (Aust Standard)	INSPECTION INTERVAL mths
1	BUNDEWALLAH	Bundewallah Reserve Bushwalk	960	NO	5	12+
2	BERRY	Moeyan Hill Trail	1240	NO	4	12
3	BANGALEE	Bangalee Reserve - Condis Walk	1450	NO	4	12
4		Bangalee Reserve - Weirs Walk	1820	NO	4	12
5		Bangalee Reserve - Forest Walk	720	NO	4	12
6	BOMADERRY	Bomaderry Creek Bushwalk	2780	NO	4	12
7		Mulgen Creek Bushwalk	860	NO	4	12
8	NORTH NOWRA	Mahogany Creek Track	1040	NO	4	12
9		The Grotto Bushwalk	5260	YES	4	12
10		Wilson's Walk	1060	NO	4	12
11	MUNDAMIA (West Nowra)	Thompsons Point Bushwalk	110	NO	4	12
12	NOWRA	Bens Walk	3020	NO	4	12

TRACK NO.	LOCALITY (North to South)	NAME OF BUSHWALK	LENGTH (m) (approx)	LOOP?	CLASSIFICATION (Aust Standard)	INSPECTION INTERVAL mths
13	SHOALHAVEN HEADS	Shoalhaven Heads Bushwalk	390	NO	4	12
14	ORIENT POINT	Orient Point Wetland Walk	500	NO	3	6
15	CULBURRA BEACH	Crookhaven Lighthouse Bushwalk	460	NO	4	12
16		Lake Wollumboola Bushwalk	120	NO	4	12
17	CALLALA BAY	Callala Creek Wetland Bushwalk	2270	NO	4	12
18	VINCENTIA	Vincentia Coastal Bushwalk - section 1 of 2	530	NO	4	12
		Vincentia Coastal Bushwalk - section 2 of 2	660	NO	4	12
19	BASIN VIEW	Basin View Reserve Bushwalk	490	NO	4	12
20	SANCTUARY POINT	The Basin Foreshore Bushwalk	5220	NO	4	12
21	FISHERMANS PARADISE	Hazel Rowbotham Reserve Bushwalk	590	NO	4	12
22	BENDALONG	Bendalong Headland Bushwalk	1075	NO	4	12
23	CUNJURONG POINT	Cunjurong Point Reserve Bushwalk	510	NO	4	12
24	MILTON	Milton Rainforest Reserve Bushwalk	740	NO	4	12

TRACK NO.	LOCALITY (North to South)	NAME OF BUSHWALK	LENGTH (m) (approx)	LOOP?	CLASSIFICATION (Aust Standard)	INSPECTION INTERVAL mths
25	NARRAWALLEE	Narrawallee Foreshore Walk - section 1 of 3	290	NO	4	12
		Narrawallee Foreshore Walk - section 2 of 3	465	NO	4	12
		Narrawallee Foreshore Walk - section 3 of 3	760	NO	4	12
26		Garrad Reserve Bushwalks	2080	NO	4	12
27	MOLLYMOOK BEACH	Bannister Point Reserve Bushwalk	220	NO	4	12
28	ULLADULLA	One Track For All (North Head)	1800	YES	4	12
29		Warden Head Bushwalk	2970	NO	4	12
30	BURRILL LAKE	Burrill Lake Aboriginal Cave Bushwalk	130	NO	4	12
21	BAWLEY POINT	Bawley Point Bushwalk	270	NO	4	12
32	KIOLOA	O'Hara Headland Bushwalk	1140	NO	4	12

11. APPENDIX B – BUSHWALK ASSETS AND THEIR ESTIMATED FINANCIAL VALUE

Asset Description	Asset Type	Material	Overall Condition	Length	Measurement	Rate (unit or \$)	Replacement Cost (\$)
Forest Walk	Fencing		Good	0.50	0.50	Per metre - 180	90.00
	Signage		Fair	1.20	1.00	1,000.00	1,000.00
	Signage		Fair	1.50	1.00	1,000.00	1,000.00
	Signage		Fair	1.20	1.00	1,000.00	1,000.00
	Signage		Fair	1.20	1.00	1,000.00	1,000.00
	Signage		Fair	1.20	1.00	1,000.00	1,000.00
	Signage		Fair	1.20	1.00	1,000.00	1,000.00
	Signage		Fair	1.00	1.00	1,000.00	1,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	7.00	7.00	Per metre - 500	3,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	15.00	15.00	Per metre - 500	7,500.00
	Pedestrian-Path-Walking Track		Fair	720.00	720.00	Per metre - 120	86,400.00
	Pedestrian-Viewing Barrier	Steel		5.00	1.00	8,000.00	8,000.00
Subtotal							\$ 112,490.00

Weirs Walk	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Poor	0.50	1.00	1,000.00	1,000.00
	Signage		Poor	0.50	1.00	1,000.00	1,000.00
	Signage		Poor	0.50	1.00	1,000.00	1,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	40.00	40.00	Per metre - 500	20,000.00
	Pedestrian-Viewing Structure	Steel	Fair		1.00	8,000.00	8,000.00
	Pedestrian-Viewing Structure	Steel	Fair		1.00	8,000.00	8,000.00

	Pedestrian-Viewing Structure	Steel	Fair		1.00	8,000.00	8,000.00
	Retaining Wall	Stone	Fair	12.00	1.00	Per metre - 500	6,000.00
	Retaining Wall	Stone	Poor	3.60	3.60	Per metre - 500	1,800.00
	Pedestrian-Path-Walking Track		Fair	1,820.00	2,184.00	Per metre - 120	218,400.00
Subtotal							\$ 282,200.00
Condies Walk	Signage		Fair	0.70	1.00	800.00	800.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	1.80	1.00	800.00	800.00
	Signage		Fair	1.50	1.00	1,000.00	1,000.00
	Signage		Fair	1.20	1.00	1,000.00	1,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	40.00	40.00	Per metre - 500	20,000.00
	Retaining Wall	Stone	Fair	7.00	8.00	Per metre - 500	3,500.00
	Pedestrian-Path-Walking Track		Fair	1,450.00	1,450.00	Per metre - 120	174,000.00
Subtotal							\$ 202,100.00

Basin View Walking Track	Signage		Fair		2.00	1,000.00	2,000.00
	Pedestrian-Path-Boardwalks	Timber	Fair	40.00	40.00	300.00	12,000.00
	Pedestrian-Path-Walking Track		Fair	445.00	445.00	120.00	53,400.00
Subtotal	Subtotal						\$ 67,400.00
Bawley Point Walking Track	Pedestrian-Path-Walking Track		Fair	271.00	325.00	120.00	39,000.00
	Pedestrian-Bridge		Very Poor	9.00	10.80	Per metre - 650	5,850.00
Subtotal							\$ 44,850.00
Bendalong Headland Walking Track	Pedestrian-Path-Walking Track		Fair	1,075.00	2,150.00	Per metre - 120	129,000.00
	Signage		Fair	Approx 12 signs	Per Item Cost	300.00	3,600.00
Subtotal							\$ 132,600.00
Moeyan Hill	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00

	Pedestrian-Path-Walking Track		Fair	1,240.00	3,720.00	Per metre - 120	148,800.00
Subtotal							\$ 152,000.00
Bomaderry Creek Walk	Pedestrian-Boardwalk		Fair	4.00	1.20	300.00	1,200.00
	Pedestrian-Boardwalk		Fair	4.00	1.20	300.00	1,200.00
	Pedestrian-Bridge		Poor	9.00	9.00	3,800.00	34,200.00
	Pedestrian-Bridge		Fair	4.50	5.40	3,800.00	20,520.00
	Pedestrian-Bridge		Fair	5.00	5.00	3,800.00	19,000.00
	Fencing		Fair		1.00	2,500.00	2,500.00
	Pedestrian-Handrail		Fair	5.00	9.00	200.00	1,800.00
	Fencing		Good	14.00	14.00	65.00	910.00
	Pedestrian-Path-Walking Track	Gravel			154.66	100.00	15,466.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Very Poor	0.50	1.00	1,000.00	1,000.00
	Signage		Very Poor	0.50	1.00	1,000.00	1,000.00

	Signage		Poor	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Poor	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	3.50	3.50	Per metre - 500	1,750.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	3.00	3.00	Per metre - 500	1,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	2.50	2.50	Per metre - 500	1,250.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	1.50	1.50	Per metre - 500	750.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Poor	1.50	1.50	Per metre - 500	750.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	10.00	10.00	Per metre - 500	5,000.00

	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	12.00	12.00	Per metre - 500	6,000.00
	Pedestrian-Handrail		Fair	5.00	9.00	200.00	1,800.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	5.00	5.00	Per metre - 500	2,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	3.00	3.00	Per metre - 500	1,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	33.00	33.00	Per metre - 500	16,500.00
	Pedestrian-Viewing Platform	Timber	Fair		7.00	3,000.00	21,000.00
	Pedestrian-Path-Walking Track		Fair	2,770.00	3,324.00	Per metre - 120	332,400.00
Subtotal							\$ 501,496.00
Mulgen Creek Walk	Pedestrian-Bridge		Fair	8.00	12.00	Per metre - 650	5,200.00
	Pedestrian-Bridge		Fair	2.00	4.80	Per metre - 650	1,300.00
	Pedestrian-Bridge		Fair	4.00	4.80	Per metre - 650	2,600.00
	Fencing		Excellent Condition	10.00	10.00	Per metre - 180	1,800.00
	Fencing		Excellent Condition	14.00	14.00	Per metre - 180	2,520.00

	Fencing		Excellent Condition	12.00	12.00	Per metre - 180	2,160.00
	Fencing		Excellent Condition	29.00	29.00	Per metre - 180	5,220.00
	Fencing		Excellent Condition	46.00	46.00	Per metre - 180	8,280.00
	Pedestrian-Path-Walking Track	Concrete		80.00	120.00	Per metre - 180	14,400.00
	Fencing		Fair	3.00	12.00	Per metre - 180	2,160.00
	Signage		Poor	0.60	1.00	200.00	200.00
	Signage		Poor	0.60	1.00	200.00	200.00
	Signage		Fair	0.60	1.00	200.00	200.00
	Signage		Fair	0.60	1.00	200.00	200.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	10.00	10.00	Per metre - 500	5,000.00
	Pedestrian-Path-Walking Track		Fair	870.00	870.00	120.00	104,400.00
Subtotal							\$ 155,840.00
Bundewallah Walking Track	Pedestrian-Path-Walking Track		Fair	960.00	1,152.00	120.00	138,240.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	220.00	264.00	Per metre - 500	110,000.00

	Signage		Fair	Approx 8 signs	Per Item Cost	300.00	2,400.00
Subtotal							\$ 250,640.00
Burrill Lake Aboriginal Cave Walk							
	Signage		Fair	0.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.75	1.00	800.00	800.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Poor	10.00	10.00	Per metre - 500	5,000.00
	Pedestrian-Handrail	Galvanised Steel	Excellent	25.00	1.00	Per metre - 200	5,000.00
	Pedestrian-Path-Walking Track		Fair	130.00	130.00	Per metre - 120	15,600.00
Subtotal							\$ 27,400.00
Callala Creek Reserve Walking Track	Pedestrian-Path-Walking Track	Natural Ground	Fair	2,270.00	2,270.00	Per metre - 120	272,400.00
	Signage	Recycled Plastic	Good	Approx 15 signs	Per Item Cost	350.00	5,250.00
Subtotal							\$ 277,650.00
Crookhaven Lighthouse Walking Track	Pedestrian-Path-Walking Track	Natural Ground	Fair	74.00	111.00	Per metre - 120	13,320.00
	Pedestrian-Viewing Platform 1	Timber	Fair	4.00	10.00	20,000.00	20,000.00

	Pedestrian-Viewing Platform 2	Timber	Poor	4.00	10.00	20,000.00	20,000.00
	Pedestrian-Path-Walking Track	Natural Ground	Fair	348.00	522.00	Per metre - 120	62,640.00
	Pedestrian-Boardwalk		Good	1.50	11.00	Per metre - 300	450.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Fair	2.50	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	1.00	1.00	1,000.00	1,000.00
	Signage		Fair	1.00	1.00	1,000.00	1,000.00
	Signage		Fair	1.00	1.00	1,000.00	1,000.00
	Signage		Fair	1.00	1.00	1,000.00	1,000.00
	Signage		Very Poor	1.00	1.00	1,000.00	1,000.00
	Pedestrian-Handrail	Timber	Fair	34.00		Per metre - 120	4,080.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	45.00	45.00	Per metre - 500	22,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	35.00	35.00	Per metre - 500	17,500.00

	Pedestrian-Path-Walking Track	Natural Ground	Poor	75.00	75.00	Per metre - 120	9,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Poor	45.00	45.00	Per metre - 500	22,500.00
Subtotal							\$ 199,390.00
Sheepwash Creek Walk	Signage		Fair	Approx 2 signs	Per Item Cost	1,000.00	2,000.00
	Pedestrian-Bridge	Concrete	Good	8.00	1.00	60,000.00	60,000.00
	Pedestrian-Path-Walking Track		Fair	120.00	240.00	Per metre - 120	14,400.00
Subtotal							\$ 76,400.00
Cunjurong Walking Track	Pedestrian-Path-Walking Track		Fair	510.00	1,020.00	Per metre - 120	61,200.00
	Pedestrian-Viewing Platform	Timber	Poor	3.00	1.00	3,500.00	3,500.00
Subtotal							\$ 64,700.00
Hazel Rowbotham Reserve Walking Track	Pedestrian-Path-Walking Track		Fair	590.00	590.00	Per metre - 120	70,800.00
	Pedestrian-Bridges		Fair		3 timber bridges?	Per bridge - 4500	13,500.00
	Pedestrian - Boardwalk		Poor	22.00	22.00	Per metre - 300	6,600.00

Subtotal							\$ 90,900.00
Ohara Headland Walking Track	Pedestrian-Path-Walking Track		Fair	1,140.00	1,140.00	100.00	114,000.00
	Black Replas Walking Track Signs	Recycled plastic	Good	Approx 12 signs	Per Item Cost	350.00	4,200.00
Subtotal							\$ 118,200.00
Milton Rainforest Walking Track	Pedestrian-Path-Walking Track		Poor	740.00	740.00	120.00	88,800.00
	Pedestrian - Bridge	Steel	Very Poor	6.00	1.20	3,500.00	21,000.00
	Pedestrian - Bridge	Timber	Fair	6.00	1.20	720.00	4,320.00
	Pedestrian - Boardwalk	Timber	Poor	90.00	1.20	300.00	27,000.00
	Display Structure	Timber & Tin Roof	Good	2.4m x 2.4m	1.00	14,000.00	14,000.00
	Pedestrian - Steps	Timber & Gravel Backfill	Poor	15.00	1.20	500.00	7,500.00
	Signage	Metal	Fair	Approx 6 signs	Per Item Cost	450.00	2,700.00
Subtotal							\$ 165,320.00
Bannister Point Rainforest Walk	Signage		Fair	0.60	1.00	800.00	800.00
	Fencing		Fair	7.00	7.00	1,700.00	1,700.00

	Signage		Fair	2.00	1.00	1,000.00	1,000.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Pedestrian - Bench Seat	Timber	Poor	2.00	Per Item Cost	1,100.00	1,100.00
	Pedestrian-Path-Walking Track	Bitumen	Poor	220.00	264.00	Per metre - 250	55,000.00
Subtotal							\$ 60,400.00
Narrawallee Foreshore Reserves Walking Track 1 - 3	Pedestrian-Path-Walking Track		Good	290.00	290.00	Per metre - 120	34,800.00
	Signage		Fair	2.00	2.00	800.00	1,600.00
	Pedestrian-Path-Walking Track		Fair	465.00	930.00	Per metre - 120	55,800.00
	Picnic Table	Free Standing	Good	1.00	1.00	5,000.00	5,000.00
	Picnic Table	Free Standing		1.00	1.00	5,000.00	5,000.00
	Signage	Recycled Plastic	Good	Approx 15 signs	Per Item Cost	350.00	5,250.00
	Pedestrian-Path-Walking Track		Fair	765.00	1,150.00	Per metre - 120	91,200.00
	Pedestrian-Path-Walking Track	Gravel			87.80	Per metre - 120	10,560.00
	Pedestrian-Path-Walking Track	Gravel			103.21	Per metre - 120	12,360.00

	Pedestrian-Path-Walking Track	Gravel			271.14	Per metre - 120	32,520.00
	Fencing	Timber	Very Poor	111.00	111.00	Per metre - 130	14,430.00
	Seating	Recycled Plastic	Good	2m x 2m	1.00	1,300.00	1,300.00
Subtotal							\$ 269,820.00
Garrad Reserve Walking Track	Pedestrian-Path-Walking Track		Fair	2,085.00	4,170.00	Per metre - 120	250,200.00
	Pedestrian-Elevated Boardwalk	Timber & FRP	Fair	Approx 120m	144.00	Per metre - 300	36,000.00
	Signage	Timber & Metal	Fair	Approx 12 signs	Per Item Cost	300.00	3,600.00
Subtotal							\$ 289,800.00
Mahogany Creek Walk	Pedestrian-Bridge		Fair	17.00	20.40	3,800.00	64,600.00
	Pedestrian-Bridge		Fair	6.00	7.20	3,800.00	22,800.00
	Pedestrian-Bridge		Good	9.00	10.80	1,400.00	15,120.00
	Pedestrian-Path-Walking Track	Gravel	Good	47.00	56.00	120.00	6,720.00
	Pedestrian-Path-Walking Track	Gravel	Good	108.00	130.00	120.00	15,600.00
	Pedestrian-Path-Walking Track	Gravel	Good	43.00	52.00	120.00	6,240.00

	Pedestrian-Path-Walking Track	Gravel	Good	258.00	310.65	120.00	37,278.00
	Pedestrian-Path-Walking Track	Gravel	Good	72.00	87.00	120.00	10,440.00
	Signage		Fair	2.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.60	1.00	1,000.00	1,000.00
	Signage		Fair	2.50	1.00	1,000.00	1,000.00
	Pedestrian-Path-Walking Track		Fair	1,040.00	1,248.00	Per metre - 120	124,800.00
Subtotal							\$ 306,598.00
The Grotto Walk	Pedestrian-Boardwalk		Fair	19.00	19.00	300.00	5,700.00
	Pedestrian-Bridge		Fair	6.50	6.50	720.00	4,680.00
	Fencing		Poor	29.00	29.00	65.00	1,885.00
	Fencing		Poor	50.00	50.00	65.00	3,250.00
	Fencing		Fair	56.00	56.00	65.00	3,640.00
	Fencing		Fair	32.00	32.00	65.00	2,080.00
	Fencing		Fair	3.00	1.00	2,500.00	2,500.00
	Fencing		Fair	3.00	1.00	2,500.00	2,500.00

	Pedestrian-Handrail		Good	8.00	1.00	200.00	200.00
	Pedestrian-Handrail		Good	6.00	1.00	200.00	200.00
	Pedestrian-Handrail		Good	3.50	1.00	200.00	200.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00

	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Pedestrian-Path-Walking Track	Gravel	Good		1.00	120.00	120.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	2.50	1.00	200.00	200.00
	Signage		Fair	0.60	1.00	200.00	200.00

	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	200.00	200.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	2.50	1.00	1,000.00	1,000.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	1.00	1.00	1,000.00	1,000.00
	Signage		Poor	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	200.00	200.00
	Signage		Poor	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Poor	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Very Poor	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00

	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Poor	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	8.00	8.00	500.00	4,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	5.00	5.00	500.00	2,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	8.00	8.00	500.00	4,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	3.00	3.00	500.00	1,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	5.00	5.00	500.00	2,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	5.00	5.00	500.00	2,500.00
	Pedestrian-Path-Walking Track		Fair	5,260.00	5,260.00	120.00	631,200.00
	Pedestrian-Viewing Barrier	Steel	Fair	4.00	4.00	450.00	1,800.00
	Pedestrian-Viewing Barrier	Steel	Fair	4.00	4.00	450.00	1,800.00

	Pedestrian-Viewing Barrier	Steel	Fair	4.00	4.00	450.00	1,800.00
	Pedestrian-Viewing Barrier	Steel	Fair	4.00	4.00	450.00	1,800.00
Subtotal							\$ 704,675.00
Wilsons Walk	Pedestrian-Path-Walking Track		Fair	1,060.00	1,060.00	120.00	127,200.00
	Pedestrian-Bridge		Fair		3.00	720.00	2,160.00
	Pedestrian-Bridge		Fair		3.00	720.00	2,160.00
	Bench Seats		Fair	2.00	2.00	2,700.00	5,400.00
Subtotal							\$ 136,920.00
Bens Walk	Pedestrian-Bridge		Fair	6.00	7.20	720.00	5,184.00
	Pedestrian-Bridge		Fair	6.00	7.20	720.00	5,184.00
	Pedestrian-Bridge		Fair	6.00	7.20	720.00	5,184.00
	Pedestrian-Bridge		Fair	6.00	7.20	720.00	5,184.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00

	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00

	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Path-Walking Track	Natural	Good	TBC	TBC	120.00	120.00
	Pedestrian-Ramp	Timber	Fair	6.00	6.00	500.00	3,000.00
	Pedestrian-Path-Walking Track	Gravel	Fair		TBC	100.00	100.00
	Pedestrian-Path-Walking Track	Gravel	Fair		TBC	100.00	100.00
	Pedestrian-Path-Walking Track	Gravel	Fair		TBC	100.00	100.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Poor		1.00	800.00	800.00
	Signage		Fair		1.00	200.00	200.00
	Signage		Fair		1.00	200.00	200.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Fair		1.00	800.00	800.00

	Signage		Fair		1.00	800.00	800.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Fair		1.00	800.00	800.00
	Picnic Table	4 way uncovered	Poor		1.00	3,000.00	3,000.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Fair		1.00	800.00	800.00
	Signage		Excellent		1.00	800.00	800.00
	Signage		Excellent		1.00	800.00	800.00
	Signage		Fair		1.00	1,000.00	1,000.00
	Pedestrian-Stairs	Timber	Fair	116.00	116.00	650.00	75,400.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	85.00	85.00	417.00	35,445.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	21.00	21.00	417.00	8,757.00
	Pedestrian-Path-Walking Track		Fair	3,020.00	3,624.00	120.00	434,880.00
	Picnic Table	Free Standing	Fair	1.00	1.00	5,000.00	5,000.00

Subtotal							\$ 600,478.00
Basin Walk	Pedestrian-Boardwalk	Timber	Good	11.00	11.00	300.00	3,300.00
	Pedestrian-Boardwalk	Timber	Fair	34.00	34.00	300.00	10,200.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	4.00	4.80	300.00	1,440.00
	Pedestrian-Bridge	Timber	Fair	3.00	3.60	300.00	1,080.00
	Pedestrian-Bridge	Timber	Fair	3.00	3.60	300.00	1,080.00
	Pedestrian-Bridge	Timber	Fair	4.50	5.40	300.00	1,620.00
	Pedestrian-Bridge	Timber	Fair	9.00	10.80	300.00	3,240.00
	Pedestrian-Bridge	Timber	Fair	8.00	12.00	300.00	3,600.00

	Pedestrian-Bridge	Timber	Fair	21.00	31.50	300.00	9,450.00
	Pedestrian-Bridge	Timber	Fair	1.00	1.00	300.00	300.00
	Pedestrian-Bridge	Timber	Fair	5.00	6.00	300.00	1,800.00
	Pedestrian-Bridge	Timber	Fair	1.00	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	0.60	0.60	300.00	180.00
	Pedestrian-Bridge	Timber	Fair	0.45	0.45	300.00	135.00
	Pedestrian-Bridge	Timber	Fair	3.50	4.20	300.00	1,260.00
	Pedestrian-Bridge	Timber	Fair	0.30	0.30	300.00	90.00
	Pedestrian-Bridge	Timber	Fair	0.30	0.30	300.00	90.00
	Pedestrian-Bridge	Timber	Fair	3.50	3.50	300.00	1,050.00
	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00
	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00
	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00
	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00
	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00
	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00
	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00

	Pedestrian-Bridge	Timber	Fair	0.75	0.75	300.00	225.00
	Pedestrian-Bridge	Timber	Fair	1.00	1.00	300.00	300.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Bridge	Timber	Fair	1.20	1.20	300.00	360.00
	Pedestrian-Boardwalk	Timber	Fair	22.00	22.00	300.00	6,600.00
	Pedestrian-Boardwalk	Timber	Fair	1.00	8.00	300.00	2,400.00
	Pedestrian-Boardwalk	Timber	Fair	1.00	8.00	300.00	2,400.00
	Pedestrian-Boardwalk	Timber	Fair	1.00	8.00	300.00	2,400.00
	Pedestrian-Boardwalk	Timber	Fair	1.00	8.00	300.00	2,400.00
	Fencing		Fair		1.00	2,500.00	2,500.00
	Fencing		Fair		1.00	2,500.00	2,500.00
	Pedestrian-Path-Walking Track	Bitumen	Poor	50.00	50.00	200.00	10,000.00
	Pedestrian-Ramp	Timber	Fair	43.00	43.00	300.00	12,900.00
	Signage		Fair	0.25	1.00	1,000.00	1,000.00

	Signage		Fair	1.00	1.00	1,000.00	1,000.00
	Signage		Good	0.60	1.00	800.00	800.00
	Signage		Good	0.25	1.00	1,000.00	1,000.00
	Signage		Fair	0.25	1.00	1,000.00	1,000.00
	Signage		Fair	0.60	1.00	1,000.00	1,000.00
	Signage		Good	0.60	1.00	200.00	200.00
	Signage		Fair	0.50	1.00	200.00	200.00
	Signage		Good	0.25	1.00	200.00	200.00
	Signage		Fair	0.25	1.00	200.00	200.00
	Signage		Good	0.25	1.00	200.00	200.00
	Signage		Fair	0.25	1.00	200.00	200.00
	Signage		Fair	0.25	1.00	200.00	200.00
	Signage		Fair	0.25	1.00	200.00	200.00
	Signage		Poor	0.25	1.00	200.00	200.00
	Signage		Fair	0.75	1.00	200.00	200.00
	Signage		Fair	0.60	1.00	200.00	200.00
	Signage		Fair	0.75	1.00	200.00	200.00

	Signage		Good	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Good	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	1.50	1.00	800.00	800.00
	Pedestrian-Stairs	Timber	Fair	8.00	8.00	700.00	5,600.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	10.00	10.00	500.00	5,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	14.00	14.00	500.00	7,000.00
	Pedestrian-Stairs	Timber	Fair	23.00	23.00	700.00	16,100.00
	Pedestrian-Stairs	Concrete	Poor	41.00	41.00	700.00	28,700.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	32.00	32.00	500.00	16,000.00

	Pedestrian-Path-Walking Track		Fair	5,224.00	5,224.00	120.00	626,880.00
Subtotal							\$ 810,395.00
Shoalhaven Heads Walking Track	Pedestrian-Path-Walking Track		Fair	390.00	780.00	120.00	93,600.00
	Signage		Fair			1,000.00	1,000.00
	Signage		Fair			1,000.00	1,000.00
Subtotal							\$ 95,600.00
Coomee Nulunga Cultural Walk/Warden Head Walking Track	Pedestrian-Path-Walking Track		Fair	2,970.00	3,564.00	120.00	356,400.00
	Pedestrian-Boardwalk		Fair		3.00	300.00	900.00
	Pedestrian-Boardwalk		Fair		60.00	300.00	18,000.00
	Pedestrian-Boardwalk		Good	0.00	26.00	300.00	7,800.00
	Pedestrian-Boardwalk		Good	0.00	50.00	300.00	15,000.00
	Pedestrian-Handrail		Fair	24.00	24.00	50.00	1,200.00
	Pedestrian-Handrail		Good	38.00	24.00	50.00	1,200.00
	Pedestrian-Bridge		Good	19.00	22.80	300.00	6,840.00

	Pedestrian-Boardwalk		Fair	0.30	11.00	300.00	3,300.00
	Fencing		Fair	12.00	12.00	90.00	1,080.00
	Fencing		Fair	8.00	8.00	90.00	720.00
	Fencing		Fair	15.00	15.00	90.00	1,350.00
	Fencing		Excellent	30.00	30.00	90.00	2,700.00
	Fencing		Excellent	15.00	15.00	90.00	1,350.00
	Fencing		Fair	10.00	10.00	90.00	900.00
	Fencing		Fair	17.00	17.00	90.00	1,530.00
	Fencing		Fair	65.00	65.00	90.00	5,850.00
	Fencing		Fair	50.00	50.00	90.00	4,500.00
	Retaining Wall	Pine Log	Good	40.00	40.00	350.00	14,000.00
	Signage	Recycled Plastic	Good	Approx 15 signs	Per Item Cost	350.00	5,250.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	1.50	1.00	800.00	800.00
	Signage		Fair	2.00	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00

	Signage		Very Poor	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	800.00	800.00
	Signage		Fair	0.60	1.00	1,000.00	1,000.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Good	29.00	29.00	500.00	14,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Poor	13.00	13.00	500.00	6,500.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Very Poor	17.00	17.00	500.00	8,500.00
	Pedestrian-Handrail		Fair	30.00	30.00	50.00	1,500.00
	Pedestrian-Lookout	Unformed	Fair	7.00	1.00	3,000.00	3,000.00
	Pedestrian-Lookout	Unformed	Fair	5.00	1.00	2,700.00	2,700.00
	Pedestrian-Lookout	Unformed	Fair	7.00	1.00	3,000.00	3,000.00
	Pedestrian-Lookout	Unformed	Fair	5.00	1.00	2,700.00	2,700.00
	Pedestrian-Handrail		Fair	45.00	45.00	50.00	2,250.00
	Pedestrian-Handrail		Good	11.00	11.00	50.00	550.00
	Pedestrian-Handrail		Good	11.00	11.00	50.00	550.00
	Pedestrian-Handrail		Good	11.00	11.00	50.00	550.00
Subtotal							\$ 501,970.00

One Track For All	Fencing		Good		1.00	2,500.00	2,500.00
	Signage		Good	0.60	1.00	800.00	800.00
	Fencing				1.00	2,500.00	2,500.00
	Pedestrian-Path-Walking Track	Bitumen	Poor	1,796.00	3,592.00	200.00	359,200.00
	Picnic Table	Free Standing	Good	1.00	1.00	5,000.00	5,000.00
	Picnic Table	Free Standing	Good	1.00	1.00	5,000.00	5,000.00
	Pedestrian-Viewing Barrier	Timber	Good	3.00	3.00	1,500.00	4,500.00
	Pedestrian-Viewing Barrier	Steel	Good	2.50	2.50	1,800.00	4,500.00
	Pedestrian-Viewing Barrier	Steel	Good	4.00	4.00	1,800.00	7,200.00
	Pedestrian-Viewing Barrier	Steel	Good	11.00	11.00	1,800.00	19,800.00
	Pedestrian-Viewing Platform	Timber	Fair	5.00	1.00	12,000.00	12,000.00
	Pedestrian-Viewing Platform	Timber	Very Poor	5.00	1.00	12,000.00	12,000.00
	Pedestrian-Viewing Platform	Timber	Fair	4.00	1.00	12,000.00	12,000.00

	Pedestrian-Viewing Platform	Timber	Good	3.00	1.00	5,000.00	5,000.00
Subtotal							\$ 452,000.00
Vincentia Coastal Walking Tracks 1 - 2	Pedestrian-Path-Walking Track		Fair	530.00	530.00	120.00	63,600.00
	Pedestrian-Path-Boardwalks	Timber	Fair	50.00	50.00	300.00	15,000.00
	Pedestrian-Viewing Barrier	Steel	Poor	6.00	1.00	3,500.00	3,500.00
	Signage		Fair		3.00	500.00	1,500.00
	Pedestrian-Path-Walking Track		Fair	660.00	660.00	120.00	79,200.00
	Pedestrian-Stairs	Timber & Gravel Backfill	Fair	60.00	60.00	500.00	30,000.00
	Signage			Approx 6 signs	Per Item Cost	300.00	1,800.00
Subtotal							\$ 194,600.00
Thompsons Point Walking Track	Pedestrian-Path-Walking Track		Poor	115.00	115.00	120.00	13,800.00
	Fencing		Poor	12.00	12.00	65.00	780.00
	Pedestrian-Path-Walking Track	Gravel	Good		78.00	120.00	9,360.00

	Picnic Table	Free Standing	Poor	1.00	1.00	4,000.00	4,000.00
	Signage		Good	0.60	1.00	800.00	800.00
	Signage		Fair	2.20	1.00	1,000.00	1,000.00
	Pedestrian-Viewing Barrier	Steel	Fair	4.00	4.00	1,800.00	7,200.00
Subtotal							\$ 36,940.00
TOTAL REPLACEMENT VALUE OF ALL BUSHWALKING ASSETS							\$ 7,381,772

12. APPENDIX C – MAPS OF BUSHWALK LOCATIONS

The bushwalks are shown in order from North to South.



BUNDEWALLAH

Bundewallah Reserve Bushwalk

1

◆ Access

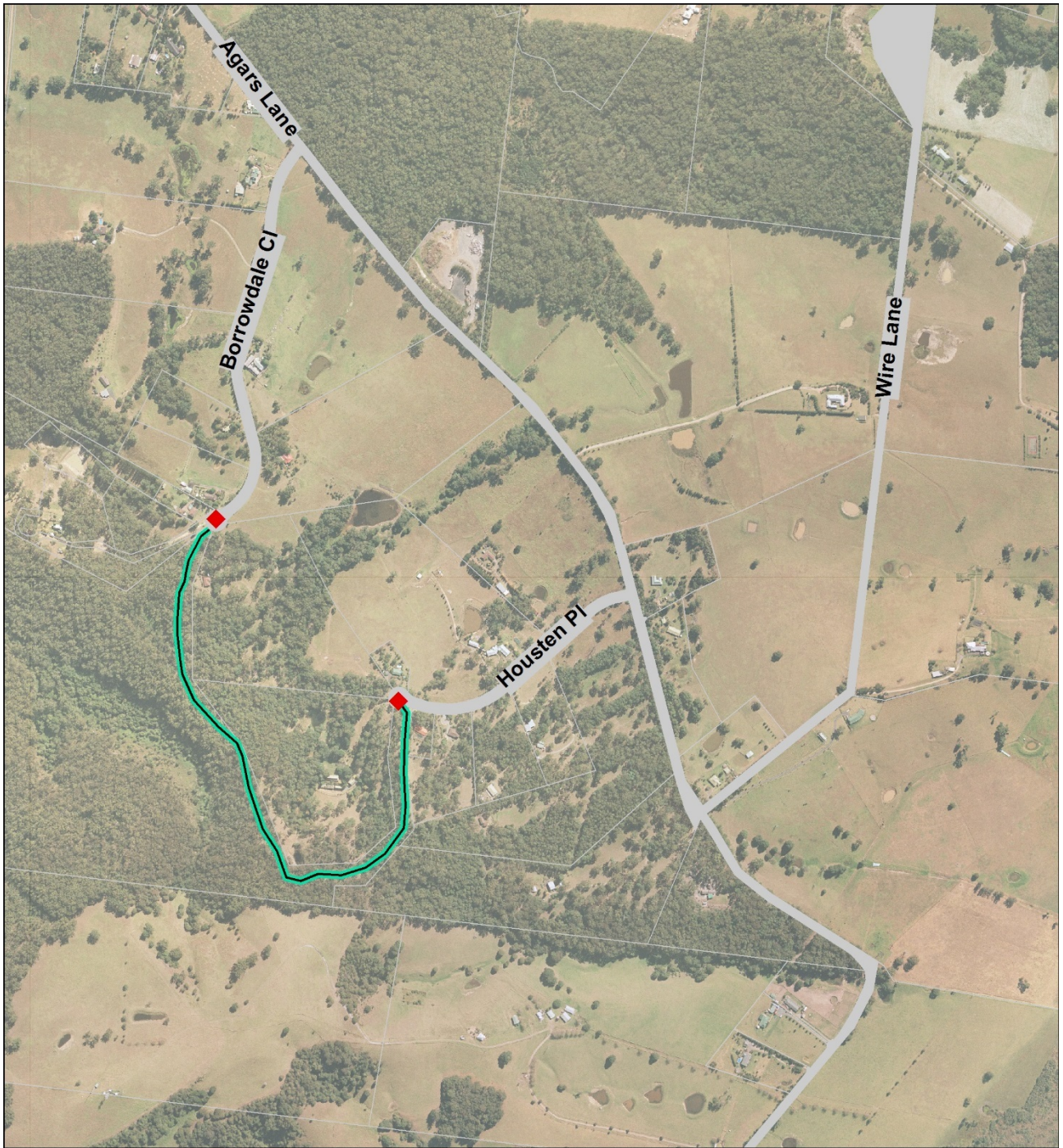
Length: 1800m return
Class: 5

— Bushwalk



0 250 500 m

August 2019



BERRY
Moeyan Hill Trail

Length: 1,240m
 Class: 4

◆ Access
 — Bushwalk

0 250 500 m

August 2019

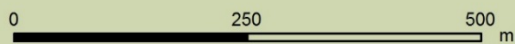
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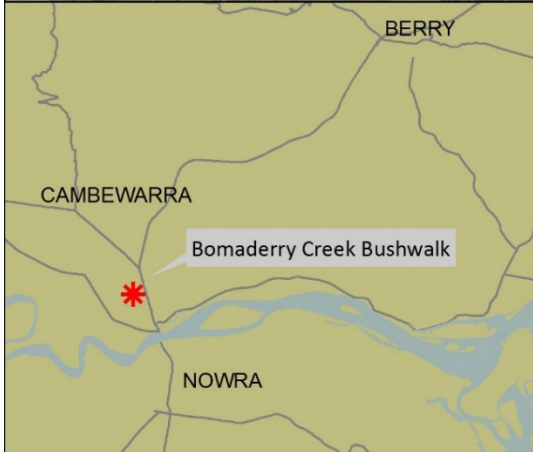
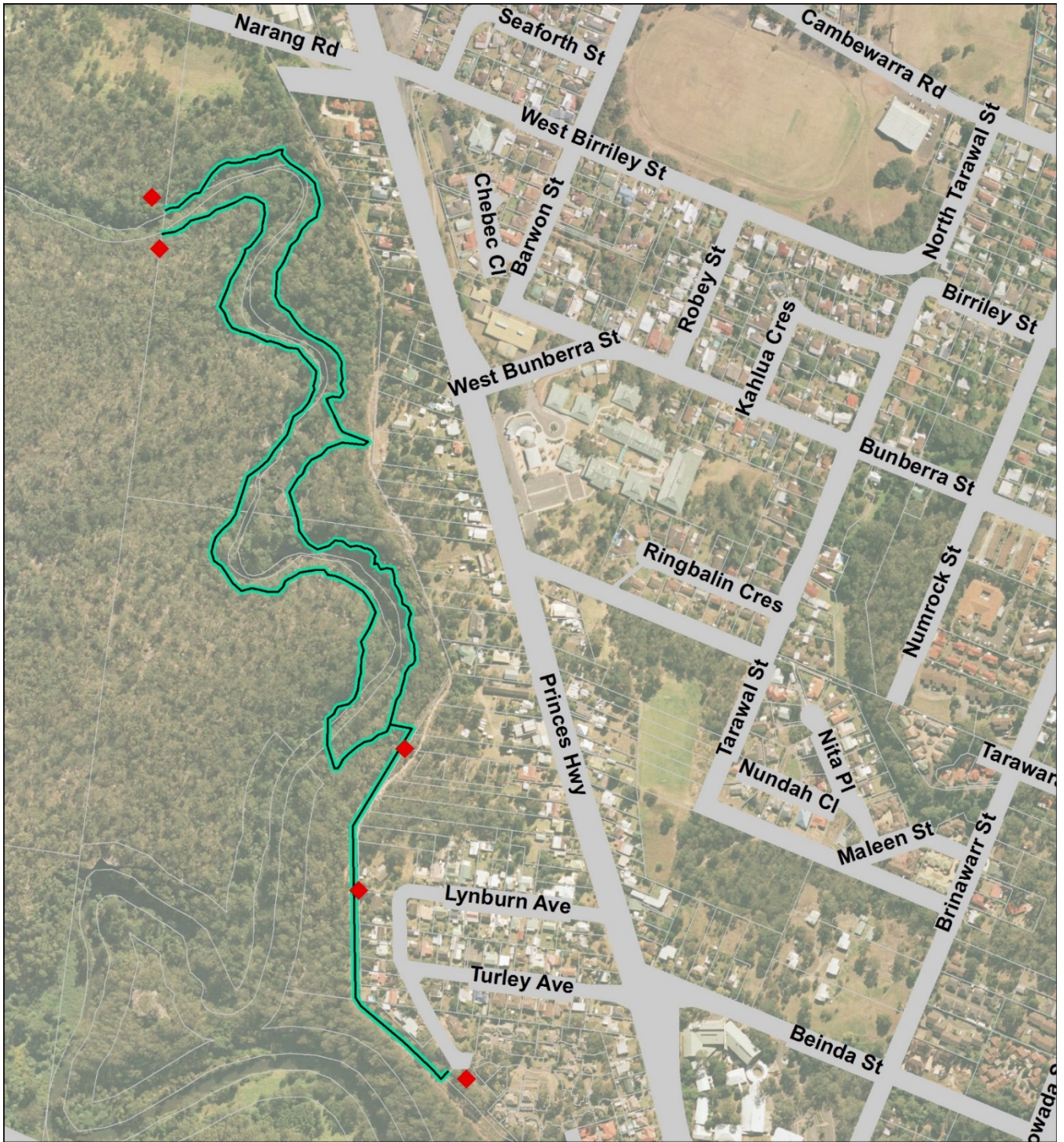
BANGALEE

- ◆ Access
- Lookout
- - - Condies Walk Length: 1,450m
- - - Forest Walk Length: 720m
- Weirs Walk Length: 1,820m

Class: 4



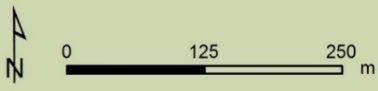
August 2019



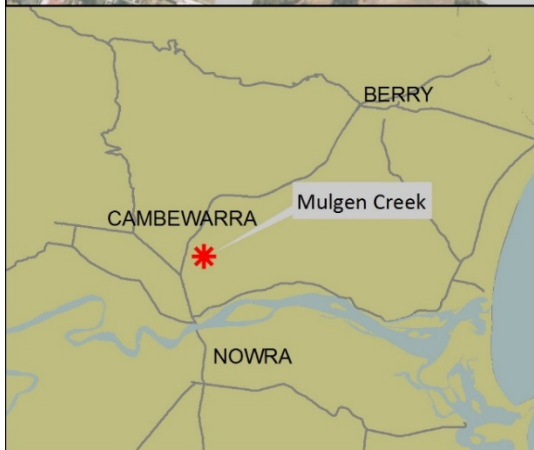
BOMADERRY
Bomaderry Creek Bushwalk

6

- ◆ Access
 - Bushwalk
- Length: 2,780m
 Class: 4



August 2019

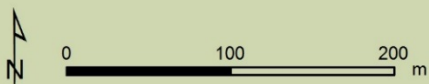


BOMADERRY Mulgen Creek Bushwalk

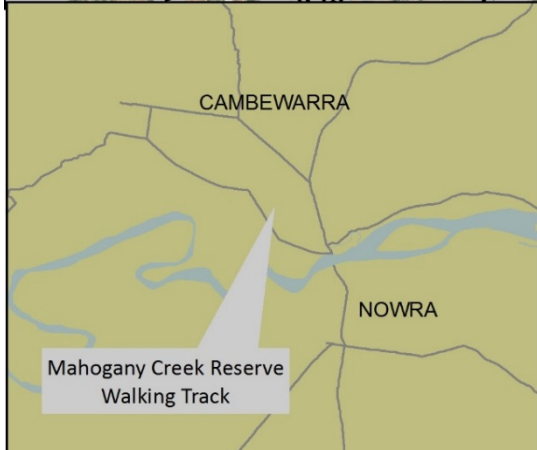
7

- ◆ Access
- Bushwalk

Length: 860m
Class: 4



August 2019



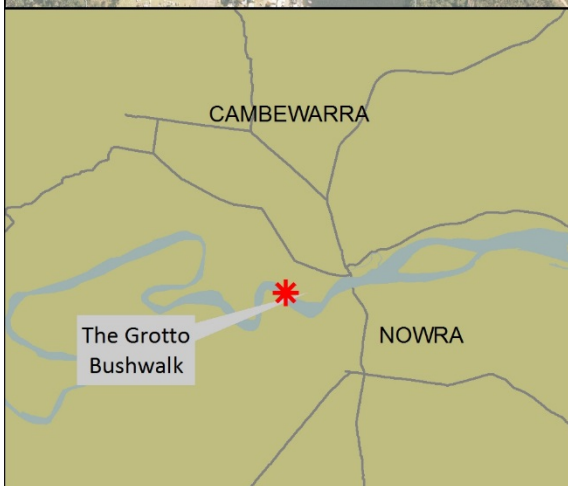
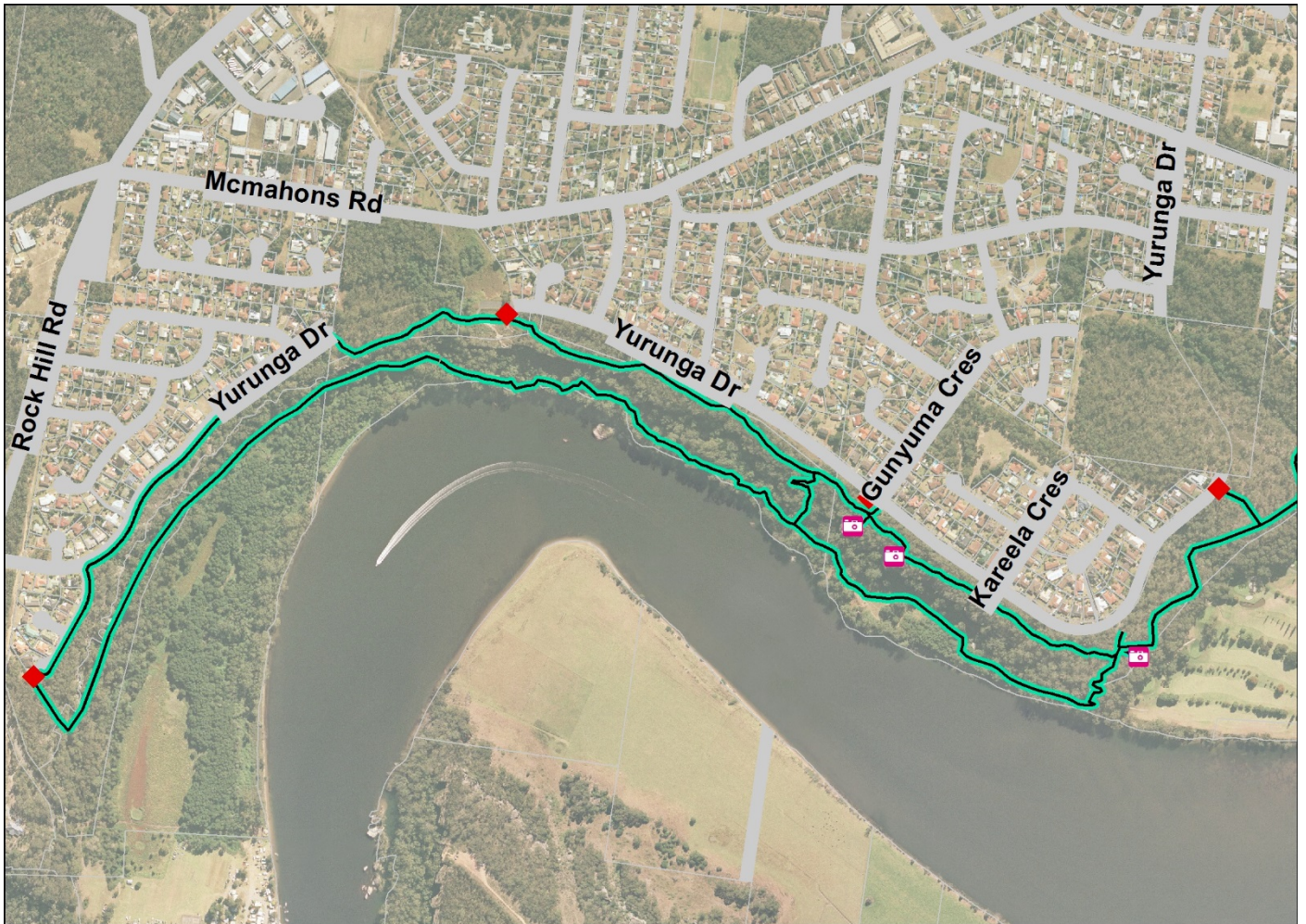
8

NORTH NOWRA Mahogany Creek Track

- ◆ Access
- Bushwalk




Length: 1040m
Class: 4

August 2019

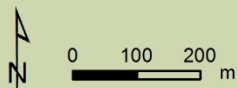


NORTH NOWRA The Grotto Bushwalk

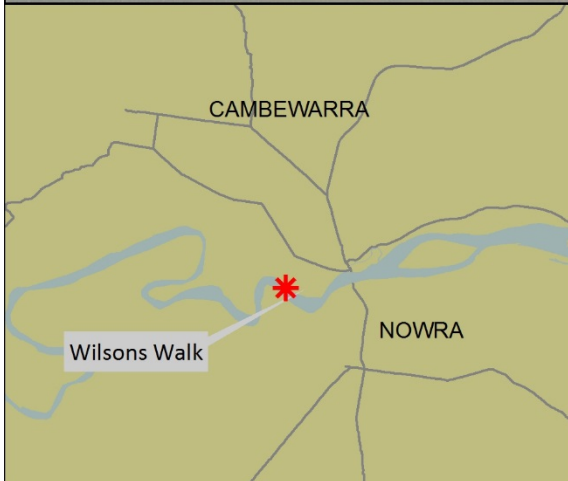
9

-  Access
-  Lookout
-  Bushwalk

Length: 5,260m
Class: 4



August 2019

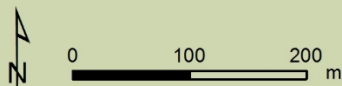


NORTH NOWRA Wilsons Walk

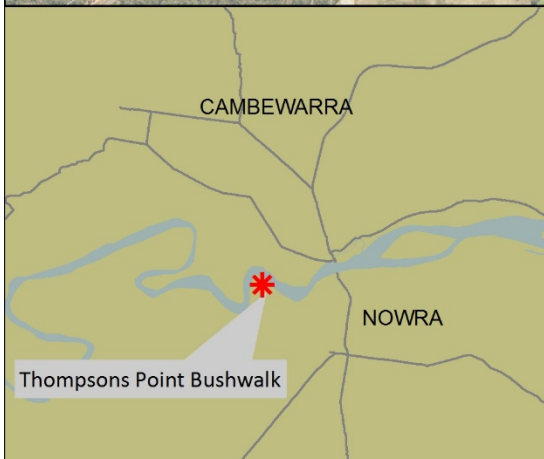
10

- ◆ Access
- Lookout
- Bushwalk

Length: 1,060m
Class: 4



August 2019



MUNDAMIA (West Nowra) Thompsons Point Bushwalk

11

◆ Access

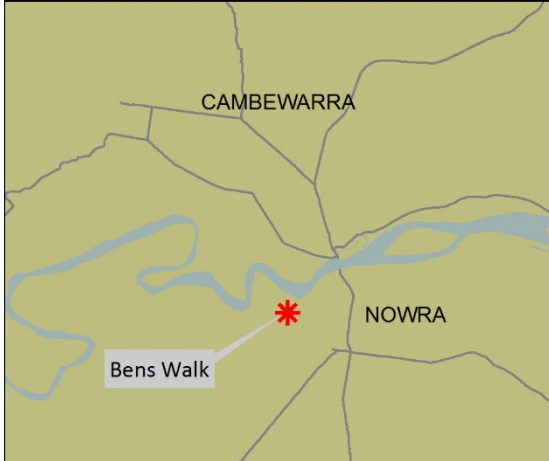
— Bushwalk

Length: 110m
Class: 4



0 100 200 m

August 2019

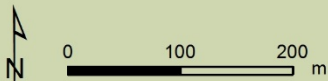


NOWRA Bens Walk

12

- ◆ Access
- Lookout
- Bushwalk

Length: 3,020m
Class: 4



August 2019



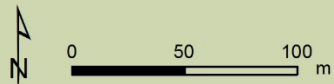
SHOALHAVEN HEADS

Shoalhaven Heads Bushwalk

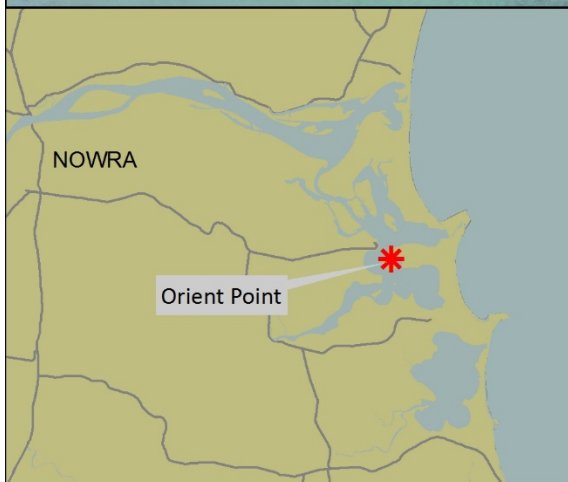
13

- ◆ Access
- Bushwalk

Length: 390m
Class: 4



August 2019



ORIENT POINT

Orient Point Wetland Bushwalk

14

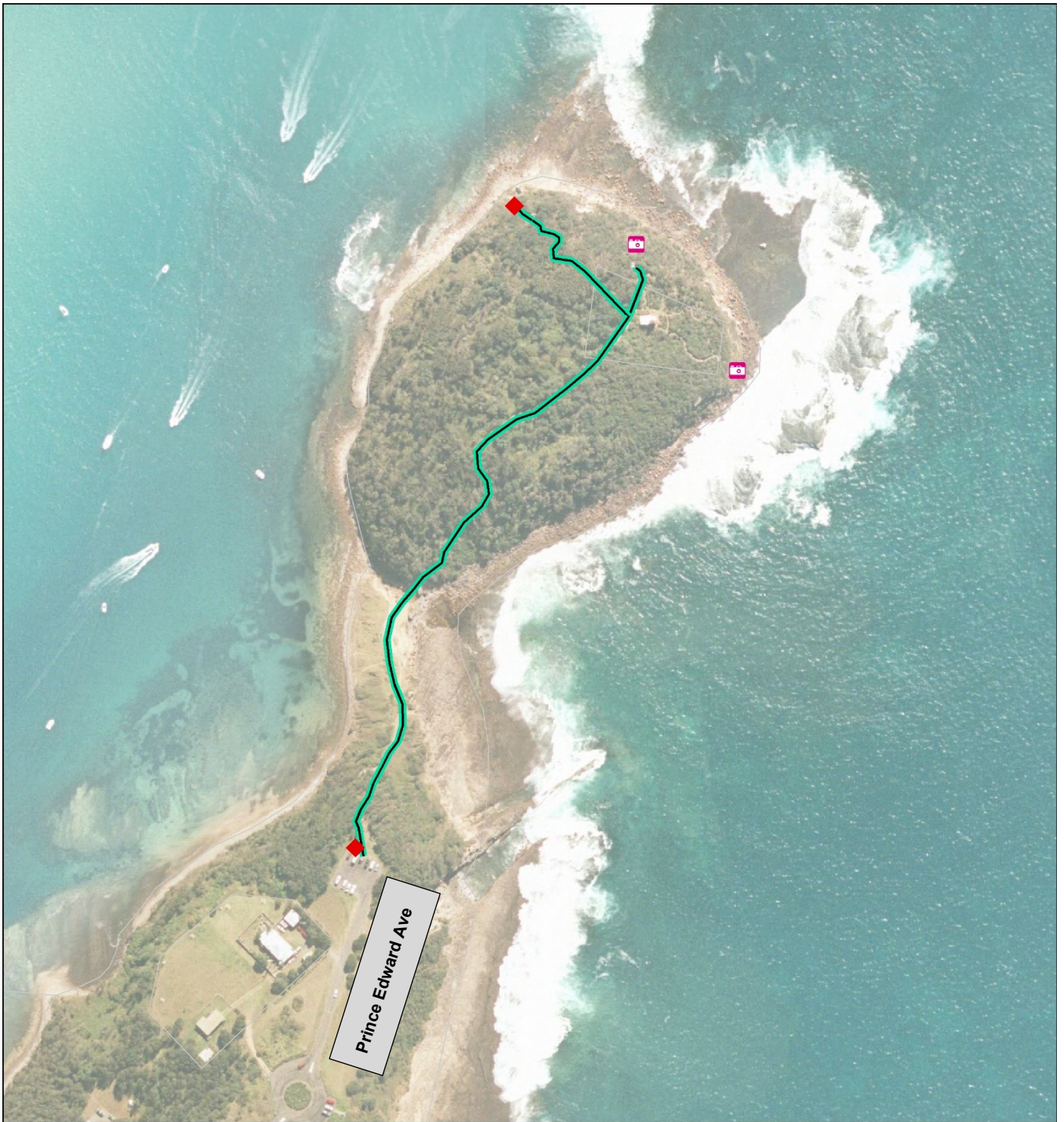
- ◆ Access
- Bushwalk

Length: 500m
Class: 3

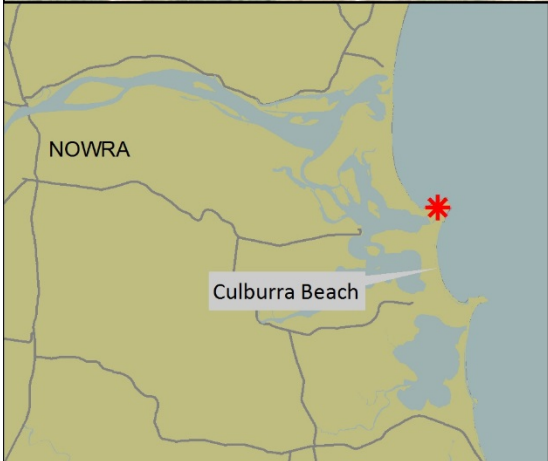


0 100 200 m

August 2019



Prince Edward Ave

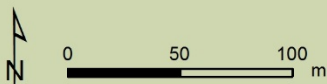


CULBURRA BEACH Crookhaven Lighthouse Bushwalk

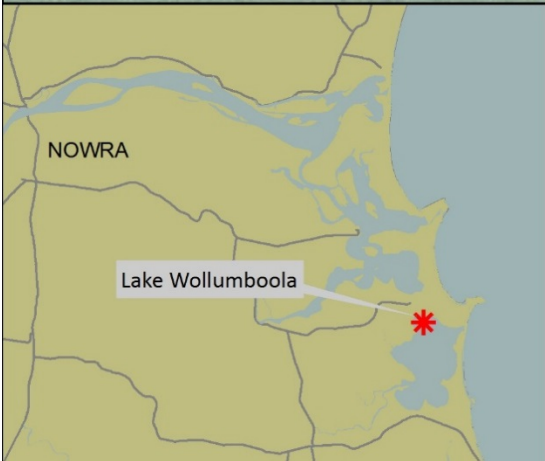
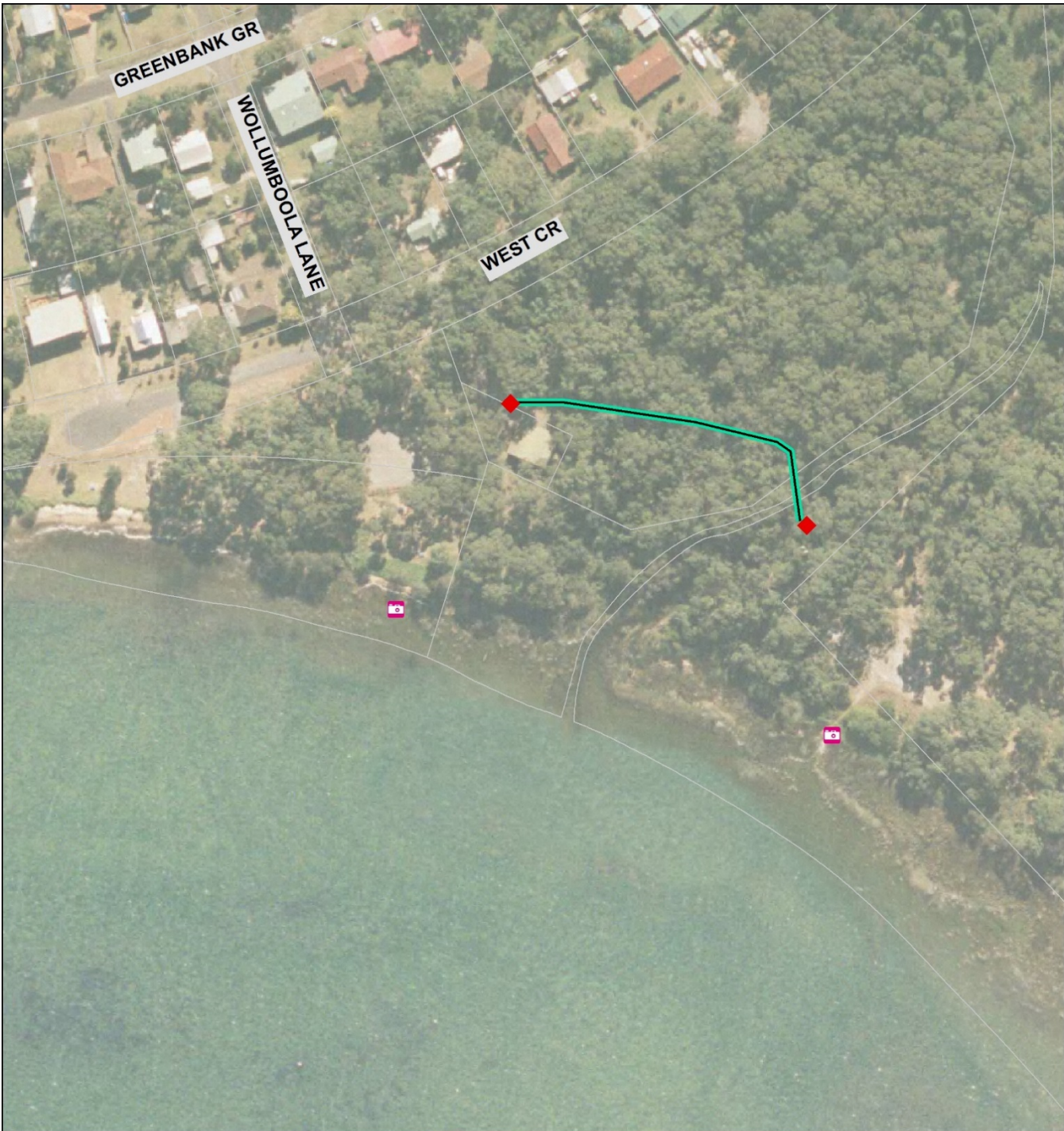
15

- ◆ Access
- ◻ Lookout
- Bushwalk

Length: 460m
Class: 4



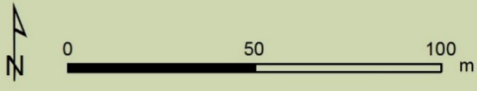
August 2019



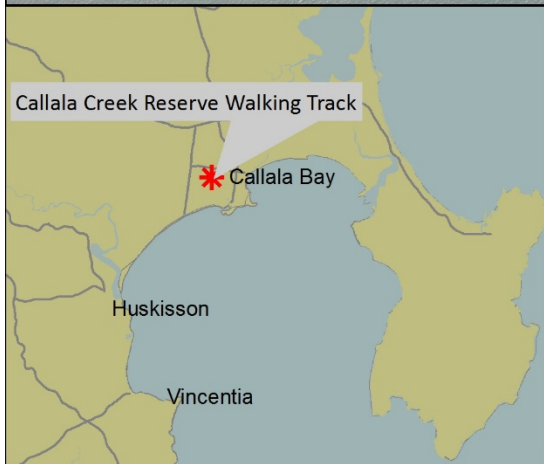
CULBURRA BEACH
Lake Wollumboola Bushwalk

16

- ◆ Access
 - 📷 Lookout
 - Bushwalk
- Length: 120m
 Class: 4



August 2019

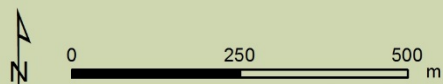


CALLALA BAY

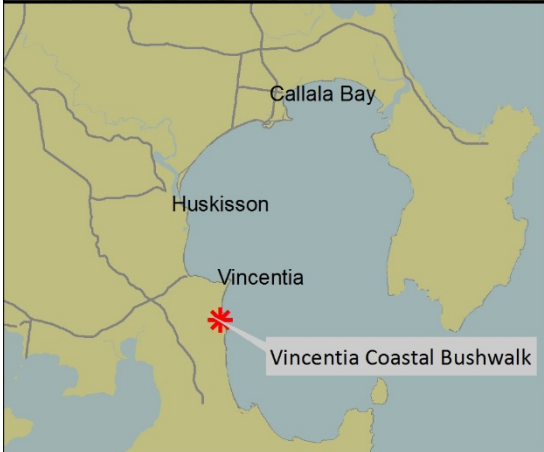
Callala Creek Wetland Bushwalk

17

- ◆ Access
 - ◻ Lookout
 - Bushwalk
- Length: 2,270m
Class: 4



August 2019



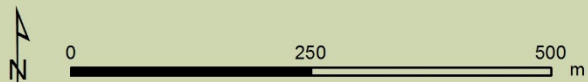
VINCENTIA

Vincentia Coastal Bushwalk

18

- ◆ Access
- Bushwalk

Length: 530m + 660m
Class: 4



August 2019

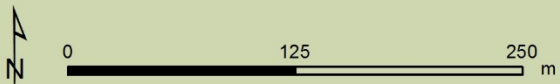


BASIN VIEW

Basin View Reserve Bushwalk

19

- ◆ Access
 - Bushwalk
- Length: 490m
Class: 4



August 2019



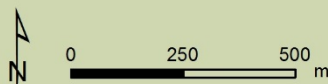
SANCTUARY POINT

The Basin Foreshore Bushwalk

20

- ◆ Access
- Bushwalk

Length: 5,220m
Class: 4



August 2019



FISHERMANS PARADISE Hazel Robotham Reserve Bushwalk

21

- ◆ Access
 - Bushwalk
- Length: 590m
Class: 4



August 2019



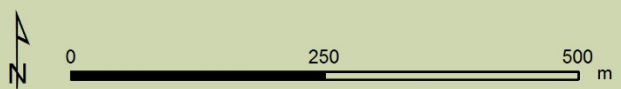
BENDALONG

Bendalong Headland Bushwalk

22

- ◆ Access
- Bushwalk

Length: 1,075m
Class: 4



August 2019

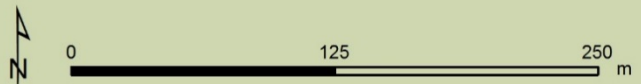


CUNJURONG POINT Cunjurong Point Reserve Bushwalk

23

- ◆ Access
- Bushwalk

Length: 510m
Class: 4



August 2019



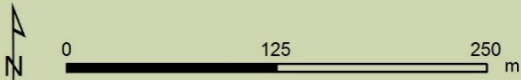
MILTON

Milton Rainforest Reserve Bushwalk

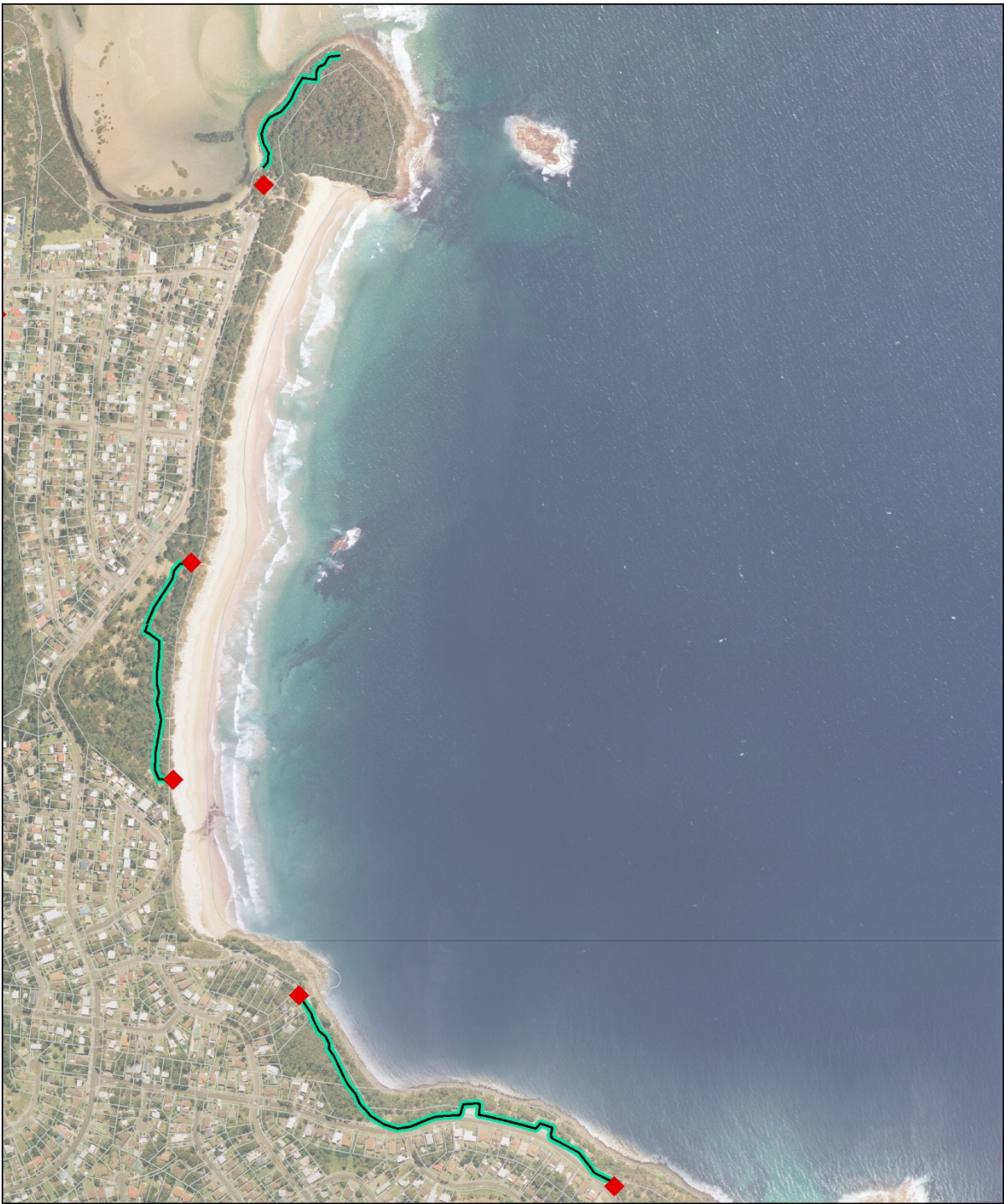
24

- ◆ Access
- Bushwalk

Length: 740m
Class: 4



August 2019



NARRAWALLEE

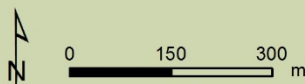
Narrawallee Foreshore Walk

25

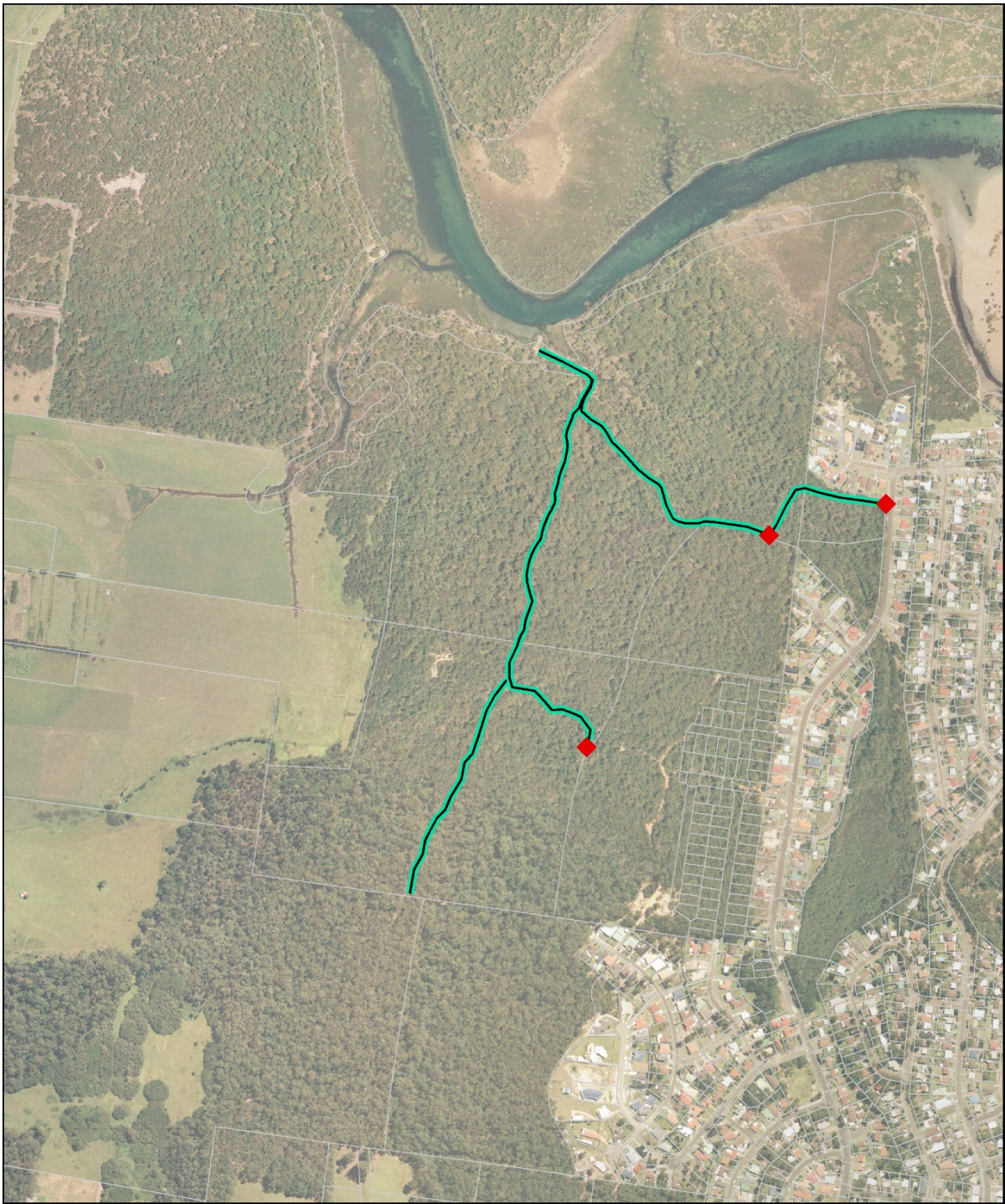
- ◆ Access
- Bushwalk

Length:
 Section 1: 290m
 Section 2: 465m
 Section 3: 760m
TOTAL 1,515m

Class: 4



August 2019



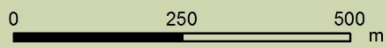
NARRAWALLEE

Garrad Reserve Bushwalks

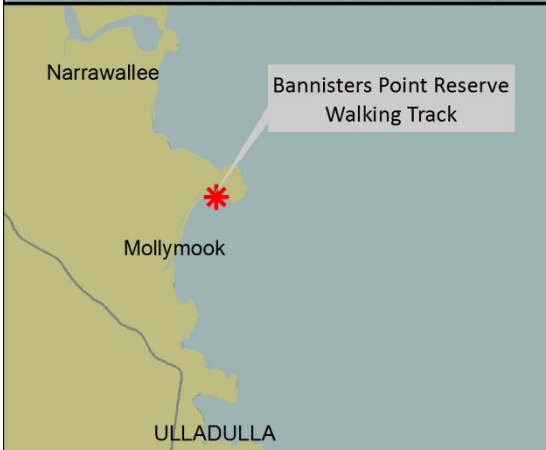
26

- ◆ Access
- Bushwalk

Length: 2,080m
Class: 4



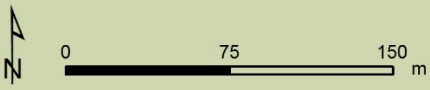
August 2019



MOLLYMOOK BEACH Bannisters Point Reserve Bushwalk

27

- ◆ Access
 - Bushwalk
- Length: 220m
Class: 4



August 2019

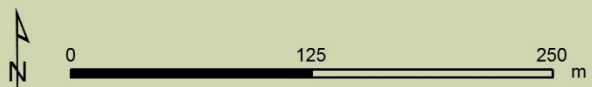


ULLADULLA One Track For All

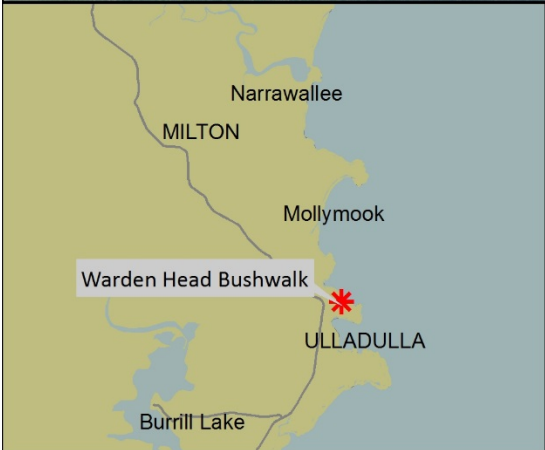
28

- ◆ Access
- Bushwalk

Length: 1,800m
Class: 4



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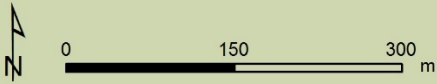


ULLADULLA Warden Head Bushwalk

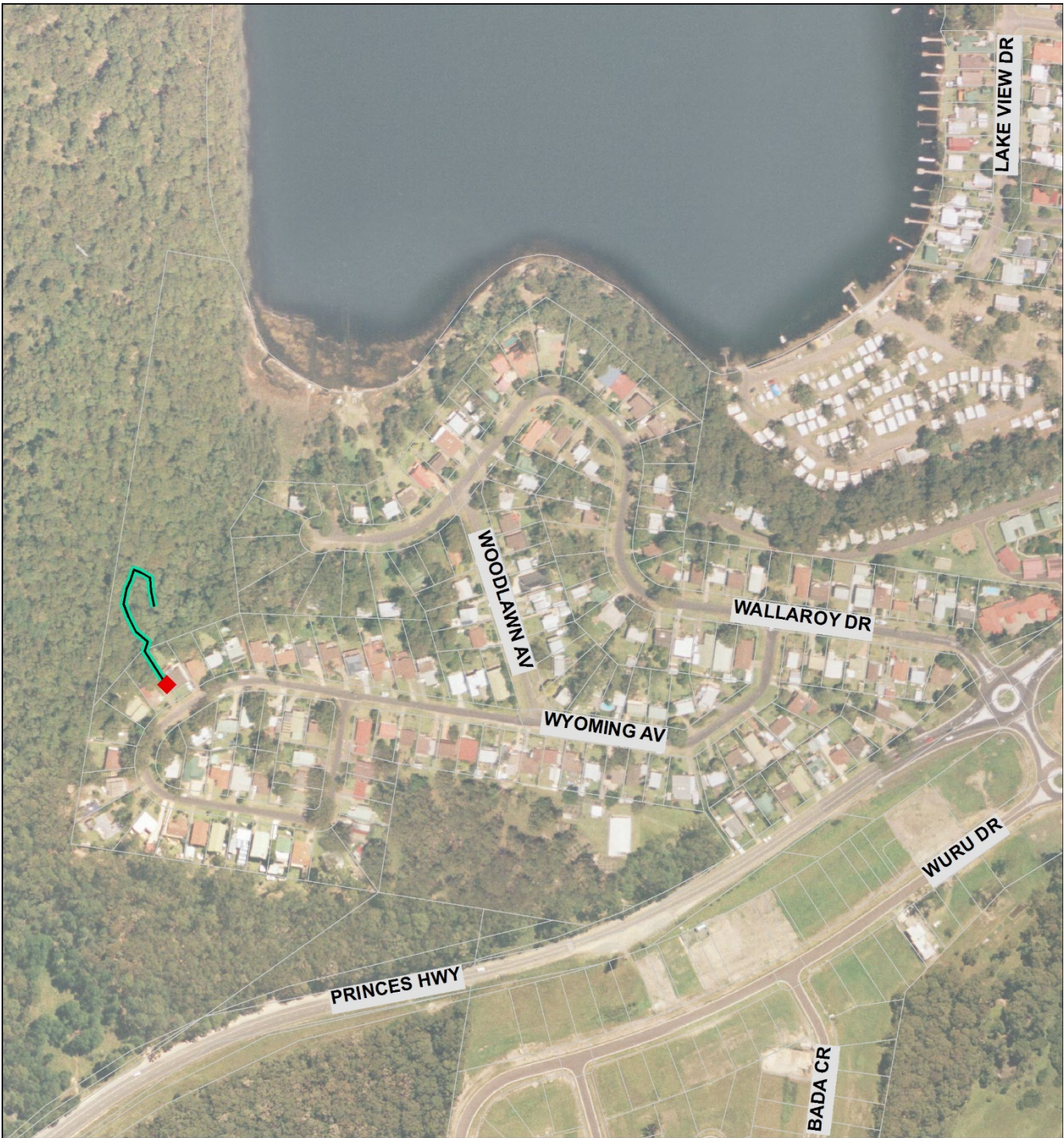
29

- ◆ Access
- Bushwalk

Length: 2,970m
Class: 4



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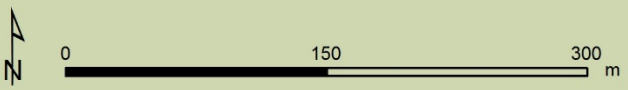


BURRILL LAKE
Aboriginal Cave Bushwalk

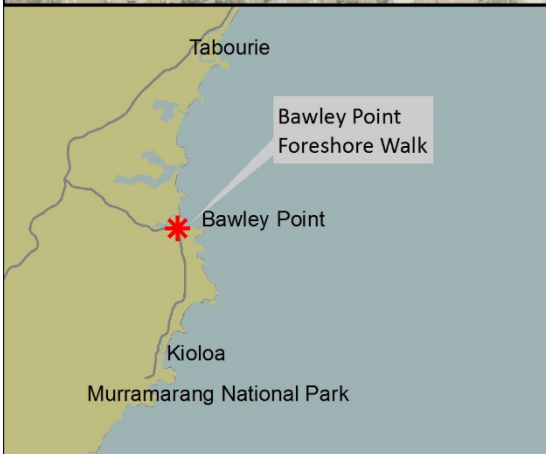
30

- ◆ Access
- Bushwalk

Length: 130m
 Class: 4



August 2019

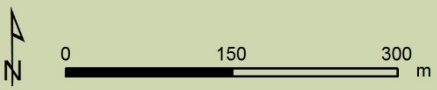


BAWLEY POINT Bawley Point Bushwalk

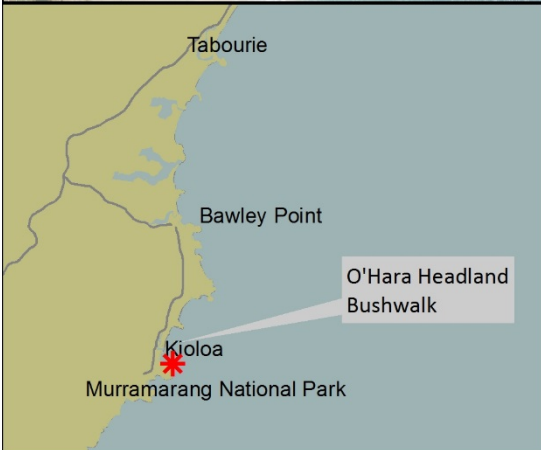
31

- ◆ Access
- Bushwalk

Length: 270m
Class: 4



August 2019

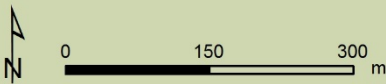


KIOLOA O'Hara Headland Bushwalk

32






- ◆ Access
- Bushwalk

Length: 1,140m
Class: 4



August 2019

13. APPENDIX D - CONDITION RANKING

CONDITION RANK*				
1	2	3	4	5
Excellent (new)	Good	Fair	Poor	Very Poor
20 years	15 years	10 years	5 years	Replace/repair/retire
No obvious wear and tear or defects. No warping or cracks	Showing minor wear & tear and minor deterioration of surfaces	Structurally sound. Fit for purpose. Minor damage to surface. May have warping.	Showing signs of damage, rotting. In need of painting or maintenance Cracks or lack of stability.	Stability risk, in need of repair
				

*Base life 20 Years

14. APPENDIX E - EXAMPLE OF CONDITION ASSESSMENT – WOODEN INFRASTRUCTURE

Location/Section	Asset	Length (m)	Area m ²	Condition	Inspection Date	Inspector	Comments	Projected Replacement
Track Name: Basin Walk – St Georges Basin and Sanctuary Point								
Blackett Park	Boardwalks/bridges	18	21.6	Excellent	30/1/15	ED		2025
Basin Walk – Loralyn Ave to Walmer Ave	Bridge over creek with handrail	6	7.2	Good	6/2/15	ED		2023
	Boardwalks/bridges no handrails	21	25.2	3m = good 6m = poor 12m = fair	6/2/15	ED	Faults reported for repair	2019-2022
Walmer Ave – Palm Beach	Boardwalks/bridges	244	292.8	Only 14m is in excellent condition – the rest is good condition	3/2/15	ED	50 m has handrails.	2023
Walmer Ave – Palm Beach	Soak/drain covers		0.36each x 34 = 14.70	Good	3/2/15	ED	Numerous along the track. Recorded & photographed. All except one are in good condition.	2023
Palm Beach – BooBook Reserve	Boardwalks	8	9.6	5m = good 3m = fair	5/2/15	ED		2022-2024
	Bridge	3	3.6	Good	6/2/15	ED		2024

15. APPENDIX F – ASSOCIATED LEGISLATION

Legislation	Requirement
National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have a long-term strategy, financial statements and annual reporting mechanisms
DLG Integrated Planning NSW	Key requirement is to integrate community plans with operational and delivery plans
Local Government Act 1993 (NSW)	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by AMPs for sustainable service delivery
Work Health and Safety Act 2011 (NSW)	Aims to secure the health, safety and welfare of people at work. It lays down general requirements which must be met at places of work in NSW. The provisions of the Act cover every place of work in NSW. The Act covers self-employed people as well as employees, employers, students, contractors and other visitors
Work Health and Safety Regulation 2011 (NSW)	Regulations on the control and management of risk in the workplace
The protection of the Environment Operations Act 1997 (POEO Act)	Is the key piece of environment protection legislation administered by the Department of Environment and Climate Change (DECC). The POEO Act enables the Government to set out explicit protection of the environment policies (PEPs) and adopt more innovative approaches to reducing pollution
Disability Discrimination Act 1992	Sets out responsibilities of Council and staff in dealing with access and use of public infrastructure
Australian Accounting Standards	Sets out the financial reporting standards relating to infrastructure assets. Standards of relevance to infrastructure assets
Australian Accounting Standards	Sets out the financial reporting standards relating to infrastructure assets. Standards of relevance to Infrastructure assets include the below standards:
AASB116 Property Plant and Equipment	Prescribes requirement for recognition and depreciation of property, plant and equipment assets
AASB136 Impairment of Assets	Aims to ensure that assets are carried at amounts that are not in excess of their recoverable amounts

AASB1021 Depreciation of Non-Current Assets	Specifies how depreciation is to be calculated
AASB1001 Accounting Policies	Specifies the policies that Council is to have for recognition of assets and depreciation
AASB1041 Accounting for the reduction of Non-Current Assets	Specifies the frequency and basis of calculation depreciation and revaluation basis used for assets
AASB1015 Accounting for acquisition of assets	Method of allocating the value to new assets on acquisition
Crown Lands Act 1989	Defined principles for the use and management of Crown Land which may be under Trust to Council. They may prescribe
AS2156 Bushwalks	Infrastructure Design Classification and signage