



GIPPSLAND LAKES AQUATIC TRAIL

Implementation Strategy

PRIORITISED WORKS PACKAGE | July 2021

Destination **GIPPSLAND**

This report was prepared by TRC Tourism for Destination Gippsland in relation to the development of Gippsland Lake Aquatic Trail.

DISCLAIMER

Any representation, statement, opinion or advice expressed or implied in this document is made in good faith but on the basis that TRC Tourism Pty. Ltd., directors, employees and associated entities are not liable for any damage or loss whatsoever which has occurred or may occur in relation to taking or not taking action in respect of any representation, statement or advice referred to in this document.

ACKNOWLEDGEMENT

We acknowledge the Indigenous peoples of the lands, waters and communities we work together with. We pay our respects to their cultures; and to their Elders – past, present and emerging.

Images: TRC Tourism, Destination Gippsland



©Copyright TRC Tourism Ltd | www.trctourism.com

Contents

<u>Executive Summary</u>	<u>iv</u>
<u>Introduction</u>	<u>1</u>
<u>Summary of Work Packages</u>	<u>2</u>
<u>1. Trail upgrades</u>	<u>3</u>
<u>2. Kayak launch facilities</u>	<u>46</u>
<u>3. Overnight nodes</u>	<u>56</u>
<u>4. Signage and Information</u>	<u>76</u>
<u>5. Trailhead nodes</u>	<u>87</u>
<u>6. Boat Jetty Nodes</u>	<u>95</u>

TABLE OF FIGURES

Figure 1.	Location Map - Kalimna Jetty – Nyerimilang New Trail	12
Figure 2.	Location Map - Sperm Whale Head Trail Development plan.....	19
Figure 3.	Location Map - Sperm Whale Head Trail – Section 1	20
Figure 4.	Location Map - Sperm Whale Head Trail - Section 2.....	21
Figure 5.	Location Map – Trail #1 – Day 3	28
Figure 6.	Location Map - Red Bluff Traverse Map	32
Figure 7.	Red Bluff map - location of proposed stairs.....	33
Figure 8.	Location Map - Current track/s – Lake Tyers Beach - Existing community trails	34
Figure 9.	Location map- Trail Improvements Latrobe River – Heart Morass Sale	39

Figure 10.	Location Map - Gunaikurnai Forestec Trails	43
Figure 11.	Location Map – Trail #1 – Day 3	51
Figure 12.	Bunga Arm – paddle trailhead concept	53
Figure 13.	Bunga Arm kayak landing / launching site concept.....	55
Figure 14.	Nyerimilang – Eco Camping accommodation concepts	60
Figure 15.	Location Map – Trail #1 - Day 1	61
Figure 16.	Precedent Imagery – Glamping Tents	62
Figure 17.	Rotamah Islands - Potential accommodation options	65
Figure 18.	Rotamah eco-accommodation and homestead concept	66
Figure 19.	Location Map - Trail #3 – Day 2	71
Figure 20.	Camerons Arm Campground site analysis- Parks Victoria Draft Plans .	72
Figure 21.	Precedent (existing) wayfinding signage	80
Figure 22.	Precedent (existing) interpretation signage	83
Figure 23.	Precedent (existing) interpretation signage	84
Figure 24.	Lakes Entrance - Trail 2 – Start Location Trailhead node.....	88
Figure 25.	Lakes Entrance departure point concept mock-up	89
Figure 26.	Loch Sport – Concept of Trail 2 Major Trailhead node	90
Figure 27.	Loch Sport – concept drawing of trail head / conclusion to the trail ...	91
Figure 28.	Location Map: Trail Improvements Latrobe River –Trail #4 Ride Route Heart Morass-Sale	97
Figure 29.	Location Map: Proposed jettysite, eastern end of Heart Morass.....	101
Figure 30.	Proposed jetty site options, McArdeels old shipyard	104

Executive Summary

The Gippsland Lakes Aquatic Trail concept is anchored in a set of active travel itineraries that showcase Gippsland Lakes' aquatic environments, associated landscapes, flora, fauna and cultural heritage.

The proposed trails – incorporating existing and proposed upgraded and new land-based trails matched to on-water linking routes – are designed to leverage multiple modes of active outdoor exploration on foot, by bike and via paddlecraft and boat. The coordinated trail network will be showcased by a leading Signature Trail experience with three supporting trail itineraries that will enable visitors to immerse themselves in the Gippsland Lakes environments for a meaningful interaction with nature and its associated cultural highlights, particularly that of the Gunaikurnai people.

The experience design is intended to provide a highly marketable tourism product that will be accessible and diverse, offering a range of itineraries that will service a broad visitor demographic from fully supported travel on a set itinerary to independent travellers with flexible time. Itineraries are intended to be undertaken in full or can be customisable as a 'choose your own adventure'. All experiences will focus on eco-sustainability and cultural sensitivity.

The trail itineraries are designed to tap into existing tourism nodes, activities, accommodation and services in the Gippsland Lakes region. Further, they will create impetus for the development and realisation of new tourism

opportunities and economic stimulus potential, especially for tourism service businesses such as tour guides, logistics support and accommodation.

The Gippsland Lakes Aquatic Trails concept has progressed as a recommendation of the Gippsland Tracks and Trails Feasibility Study, followed by a more detailed The Gippsland Lakes Aquatic Trail Pre-Feasibility Assessment (Jan 2021). This Implementation Plan is a partner document to the Gippsland Lakes Aquatic Trail Feasibility Business Case and Detailed Design plan.

The implementation of the Gippsland Lakes Aquatic Trail concept will respond to a recognised growth in visitors primarily seeking active, nature-based experiences. It will also address the current lack of cohesive trail network planning and marketing, and respond to a changing dynamic of user preferences across multiple modes of active and soft adventure engagement, including walking, cycling and paddling, these activities ideally suited to the accessible, yet wild and ecologically diverse landscapes and waterways of the Gippsland Lakes region.

The implementation of the Gippsland Lakes Aquatic Trail is a priority for Destination Gippsland as a centrepiece of facilitating nature-based tourism in the region, extending visitor stay and encouraging community and cultural engagement in an outdoor context.

Implementing the required track infrastructure and facilities, upgrading existing assets, establishing required overnight nodes, and creating high quality interpretation and information about the Gippsland Lakes environment will provide the setting for high quality immersive nature-based experiences suited to the Experience Seeker markets as well as a better and more sustainable experience in general.

It will offer viable opportunities for public/private partnerships in delivering visitor experiences. It will also offer the opportunity for engagement with and significant involvement of the local Gunaikurnai community to strengthen the visitor experience and storytelling about Aboriginal culture and country.

The improvements recommended are anticipated to have tourism, business and employment benefits for the region as well as encouraging visitors to stay longer in the Gippsland Lakes region. Trail tourists tend to stay longer in an area and, due to the slower pace of travel and need for provisions, equipment, transport and facilitation, can be significant spenders in local businesses and generate development of additional tourism facilities.

The total spend estimate for public infrastructure is \$11,982,360 including a 20% contingency.

NB: Budget figures contained herewith are indicative only, based on initial scope site visits and on general concept designs. Figures are not to be read in lieu of a Bill of Quantities and as such all nominated quantities, dimensions, areas, rates, inclusions, costs, subtotals and totals should be verified by a certified Quantity Survey in association with a detailed trail and site survey and audit. The figures exclude cost to transport workers and materials to the site.



1 Introduction

Vision

The Gippsland Lakes Aquatic Trail will connect the best of nature and culture through exceptional land and water-based experiences.

This will be achieved through:

- opportunities for visitors to engage with Gunaikurnai people to understand cultural stories and connect with country
- a suite of trail elements enabling the visitor to curate their own experience, be guided or follow a range of pre-defined itineraries
- well planned, designed and sustainable infrastructure and effective governance
- Industry partnerships (including with Gunaikurnai) to deliver supported, interpreted and accommodated experiences.

Guiding Principles

Aboriginal Participation

Opportunities align with aspirations of the Gunaikurnai people (through GLAWAC), contribute to awareness and understanding of their culture, respect cultural values and provide benefits for local people.

Education

The trail facilitates opportunities for learning for a broad range of users.

Engagement and community benefit

The community and user groups are involved in trail development, become ambassadors and benefit from the trails recreationally, socially and economically.

Partnerships

The optimal experiences are delivered through partnerships across sectors including tourism, education, health and environment.

Quality Trails

Trails comply with Australian / International standards and meet and/or surpass visitor expectations.

Sustainability

Trail planning and development takes into account short and long term community health, social, economic, cultural and environmental considerations and conforms to the planning and regulatory framework.

Outstanding Design to Compliment Nature

The design of the experience, infrastructure, and trails will be to a very high level that helps inspire users about the area and its people.

Trail experiences

Consideration for the range of trail expectations including walk, cycle, water-based and new and emerging trail experiences.

Working together

The Gippsland visitor economy works together to attract, retain and benefit from increased visitation.

Summary of Work Packages

TYPE	WORKS	PRIORITY
1. Trails Upgrades	1.1 Detailed all-of-trail audit and upgrade specification, including Design Manual	1
	1.2 Environmental and cultural planning for all-of-trail re-alignment / new trail sections	1
	1.3 Priority One Works: Kalimna-Nyerimilang trail and foot bridge	1
	1.4 Priority One Works: Sperm Whale Head trail (walk) network	1
	1.5 Priority One works: Bunga Arm trails (ride/walk)	1
	1.6 Priority One Works: Red Bluff linking trails (walk) and Red Bluff stairs	1
	1.7 Priority Two Works: minor upgrade trails (ride) Sale Wetlands to Heart Morass Wetlands	2
	1.8 Priority Two Works: minor upgrade trails (ride) Forestec – Discovery Trail	2
2. Kayak launch facilities	2.1 Environmental and cultural planning	1
	2.2 Bunga Arm (1), Nyerimilang (2) & Ocean Grange paddle launches (2)	1 + 2
3. Overnight nodes	3.1 Feasibility assessment and environmental and cultural planning - Nyerimilang and Rotamah eco camps	1
	3.2 Design and construction Nyerimilang eco camp	1
	3.3 Design and construction Rotamah eco camp	1
	3.4 Investigate commercial and cultural partnerships for overnight nodes	1
	3.5 Design and construction – Cameron Arm campsite upgrade	2
4. Signage and information	4.1 Whole of track wayfinding strategy	1
	4.2 Whole of track interpretation strategy (including cultural, heritage and environmental storytelling)	1
	4.3 Signage and interpretation implementation	1 + 2
5. Trailhead nodes	5.1 Trail Gateway design and environmental and cultural planning	1
6. Boat jetty nodes	6.1 Design and environmental and cultural planning – river jetties, Latrobe River	1
	6.2 Priority One: Latrobe River jetty – Heart Morass & Old Boatyards	1 + 2

2 Trail upgrades

2.1 Detailed track audit and upgrade specification including design manual.

Description

Considerable work is required to create a desirably safe, sustainable and high quality experience across the Gippsland Lakes Aquatic Trails network. Trail infrastructure and alignments should provide for an enjoyable and varied walking, riding and paddling experience while showcasing, protecting and nurturing the environments through which they are located.

Land-based walking trails will be aimed at Australian Walking Track Grading System grades 1-3 with the majority averaged at Grade 2: “No bushwalking experience required. The track is hardened or compacted surface and may have a gentle hill section or sections and occasional steps. Walks no greater than 10km”.

Where off-road, cycling sections will be rated as IMBA-standard white (easiest) or green (easy). Paddling sections are all on open water lake environments with paddle difficulty dictated by weather conditions, but routes chosen for short water crossings and protection where possible.

Whilst a broad assessment has been completed of the network, a more comprehensive and detailed track audit and design is required to identify specifically detailed trail build and upgrade requirements. This is with a view to developing a Design Manual consistent with prescribed land manager requirements and values and recognition and reflection of important cultural values, specifically those of the Gunaikurnai Traditional Owners.

The trail audit will provide the detail specifications necessary for the implementation of trail works in a consistent and sustainable manner. This document would be used to develop detailed costing, seek contract pricing, and guide trail work teams in establishing a sustainable Gippsland Lakes Aquatic Trail network.

The Gippsland Lakes Aquatic Trail Design Manual will guide appropriate and consistent construction techniques and it is expected that these will include:

- Natural surface trail (predominant)
- Some elevated Fibreglass Reinforced Polymer (FRP) mesh walkway in areas of inundation or ecological sensitivity
- Stone steps
- Hardwood timber steps
- Rock wall walkway
- Footbridge/s

Estimates of costs as detailed in each specific Priority Works listing to follow have attempted to include all factors including some with significant uncertainty – for example site establishment and transport costs for remote worksites.

Primary outcomes

A professionally detailed listing of construction specification for trail alignments and infrastructure works covering the entire trail network encompassed in the Gippsland Lakes Aquatic Trail. It will form the basis for:

- Accurate costing, works requirements and prioritisation schedules
- Improved metre-by-metre understanding of any environmental, cultural or other in-situ challenges (and opportunities) to trail development
- Improved environmental condition and visual amenity of trails
- Better visitor experience suited to holistic and consistent promotion of the Gippsland Lakes Aquatic Trail as a signature experience
- Improved visitor safety
- Jobs creation for construction
- Reduced maintenance through improving trail sustainability
- Better capacity to cater for increases in visitor numbers.

Budget

Budget	
Consultants' fees	\$40,000
Primary walk trail audit/design, new alignments, approx. 13km / 3 locations	
Primary walk trail audit upgrade review approx. 40km	
Primary cycle trail audit review approx. 61km	
Data handling + report/s	
Engineering inspections and initial assessments - Kalimna wall-walk + Nyerimilang footbridge section	\$50,000
Project management* 10%	\$9,000

**Cultural and heritage assessment consultancy costs covered across all of project in section 1.2.*

Implementation timeframe

The trail network audit can be completed within 2-3 months of appointing a consultant, availabilities pending. The on ground audit and report can be completed within a 4 week window of agreed start date.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	
Engagement & community benefit	✓
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	✓
Bushfire overlay	✓
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	

Current trail examples



Image 1. Double track, above –Red Bluff



Image 3. Double track, Bunga Arm



Image 2. Double track – Sperm Whale Head



Image 4. Double track – near Ocean Grange

Precedent Images - Materials recommended for use



Image 5. Precedent Image 3m-wide shared use trail (walk, cycle, management vehicle)



Image 6. Precedent Image: 1.8m natural surface (in situ) walk trail



Precedent Image 1.8m-wide shared use compacted gravel trail (walk, cycle)



Image 7. Precedent Image :>800mm surfaced and side-armored multi-use trail



Image 8. PRECEDENT IMAGE: Stairs – hardwood and natural materials



Image 9. PRECEDENT IMAGE: Stairs – rock and natural materials

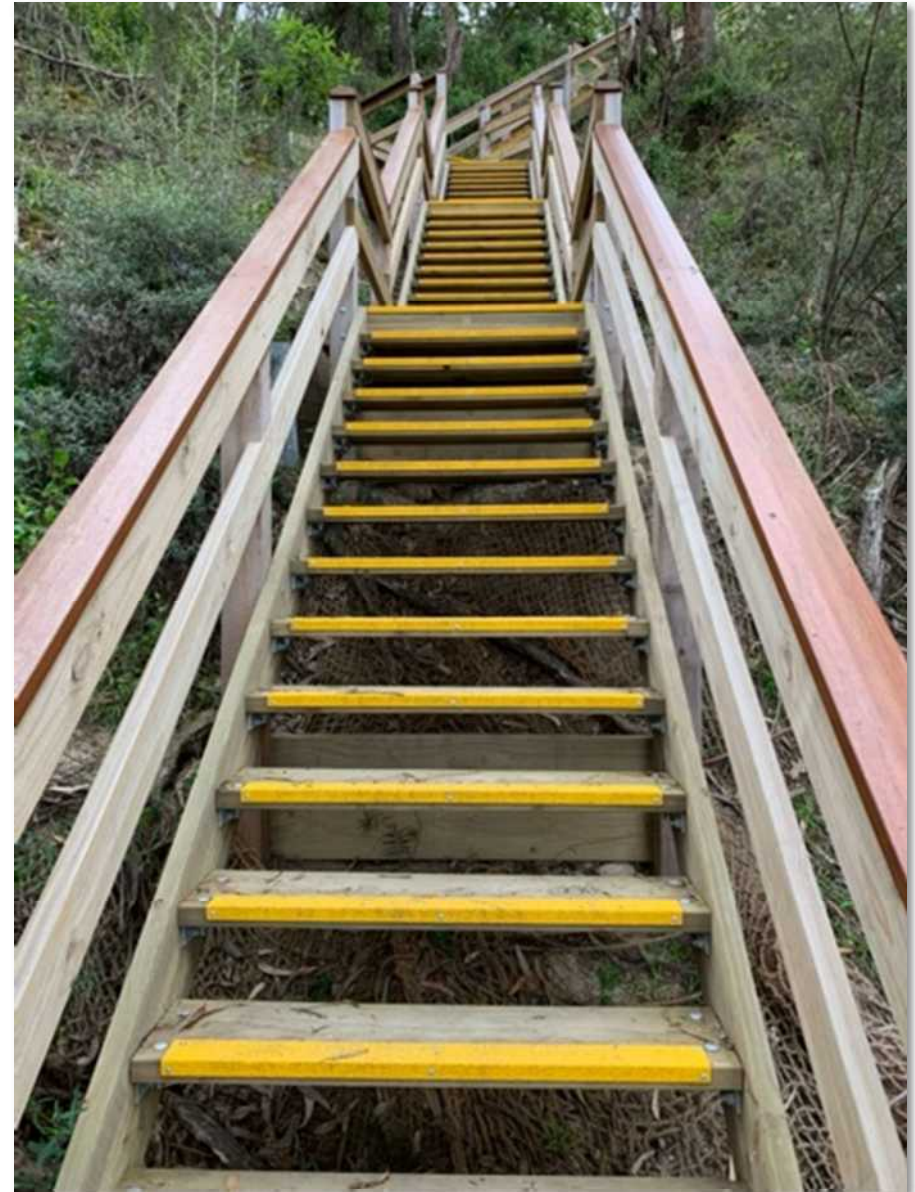


Image 10. PRECEDENT IMAGE: Stairs – wooden



Image 11. Precedent Image: FPR boardwalk



Image 12. Precedent Image: FPR boardwalk

2.2 Environmental and cultural assessments and planning for all-of-trail re-alignment / new trail sections

Description

The preliminary trail assessment as undertaken for the initial Business Case and Feasibility Report (not a detailed track audit as discussed in 1.1, which is still required) was sufficient to identify defined areas requiring either upgrade or new trail construction.

Full environmental, cultural and heritage assessments will be required for each section undergoing upgrade or new construction. Assessments will be carried out post detailed trail audit and undertaken by professional assessors in each specialisation to ensure proposed works that significantly alter existing trails or natural-state vegetation remain sustainable, environmentally and culturally sensitive and appropriate, and that works remain low impact.

The detailed track audit will likely determine that 8-14km of new trail will need to be built to improve network functionality, experience quality and sustainability.

The largest single component of this is a new 7km section of trail following the northern coast of Sperm Whale Head from Pelican Point to Point Wilson. A further approx. 5km of trail at Point Wilson will require significant re-alignment and/or upgrade equivalent to new trail build.

Another approx. 700 metres of trail will be a significant infrastructure build of either a rock wall or raised platform walkway from Kalimna Jetty linking to a proposed new footbridge crossing to Nyerimilang. Another 500-600metres of trail and a new staircase is required at Red Bluff. Other trails will require upgrades as to be identified, but not significant realignments.

Wherever proposed work involves expanding the impact beyond an existing trail envelope these works will be the subject of a Review of Environmental Factors (REF) and a cultural impact assessment. Individual reports will be required detailing the likely impacts of any proposed works on:

- Flora (including any Endangered Ecological Communities)
- Fauna
- Marine environment
- Aboriginal Cultural Heritage
- Historic Heritage

The studies undertaken to prepare these reports will include fieldwork assessing a 10m wide corridor (5m either side of any proposed new trail centreline).

Primary outcomes

Environmental and cultural planning will result in:

- Environmental and cultural framework to guide all of network upgrades and new works
- Identification of environmentally sensitive and culturally important sites
- Identifying management approach and sustainability plans for environmentally sensitive and culturally important sites
- Legitimate consent for works
- Improved environmental condition of trails
- Better visitor experience suited to signature experience
- Improved visitor safety
- Jobs creation for construction
- Reduced maintenance through sustainable track condition
- Better capacity to cater for increases in visitor numbers
- Increased focus on and protection of Gunaikurnai places of significance relevant to a visitor experience and appropriate cultural interpretation

Budget

Budget	
Consultants' fees – covering 14km new trail across 3 site locations	\$45,000
Project management	\$4,500
TOTAL (Ex GST)	\$49,500

Implementation timeframe

The value and integrity of fieldwork will be dictated by seasonal influences and these must be considered in the scheduling of any assessment works.

Generally, unless targeting specific species, the preferred time for surveys is spring through early summer (September – December). From the appointment of a consultant, three months should be allowed to complete this package.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	✓
Engagement & community benefit	✓
Partnerships	✓
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	✓
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	✓
Bushfire overlay	✓
Traditional Owner recognition	✓
Native vegetation and offsets – Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	
Revitalise visitor servicing	
Create industry partnerships	

2.3 Priority One Works: Kalimna-Nyerimilang trail and footbridge (Trail #1)

Description

The Signature Trail (#1) highlighted in the Gippsland Lakes Aquatic Trail experience includes a (proposed) section of new trail from Kalimna Jetty, aligned for 650-700 metres further west, skirting the existing headland to reach a narrow inlet, where a new pedestrian footbridge is also proposed to link to Nyerimilang Heritage Park.

Initial site visits identify that the headland and available (crown land) easement is not suitable nor viable for a land-based trail alignment. It is proposed that a 1.8 metre wide rock wall trail with shallow water foundations, be constructed around the foot of the headland to enable the linking trail. This proposal and rock wall trail construction methodology mirrors the existing rock wall trail in use to the east of Kalimna Jetty. The latter trail and associated pathways link the jetty to Lakes Entrance township allowing pedestrians to access Kalimna Jetty on foot. The proposed new trail continuing west from Kalimna Jetty would - along with the proposed footbridge - allow pedestrians to continue their journey west to access the Nyerimilang Heritage Park, a significant natural and heritage attraction and site of a proposed eco-accommodation servicing the Aquatic Trail market.

An alternative engineering solution would be a concrete pole foundation raised concrete or FRP grate walkway. FRP is a corrosion-resistant, high-strength, lightweight and non-slip alternative to traditional the steel grating ideal for marine environments where corrosion is a maintenance issue.

Levy-style walkways, boardwalks and raised walkways can be an attraction in their own right. The linking of trails using environmentally sensitive but visually-engaging engineering solutions can add value to the visitor experience.

A 70-80m footbridge across a small inlet separating Nyerimilang from the Kalimna headland would be required to complete the link. The footbridge would likely

require a centrepiece height that enables small boating craft and paddle craft to access the inlet (i.e. for recreational fishing and sightseeing). It is proposed a swingbridge style solution be installed and/or design solutions opened to creative tender. A short length (20-40m) of raised boardwalk may be required pending environmental and ecological assessments on the western side of the inlet to link the route to stable trail footing.

Professional engineering advice should be sought in the design of all structures with regard to foundation bearing, live loadings and stability with specific regard for the sensitive marine environment the infrastructure will interact with. Design is to be in accordance with the applicable Australian Standards in terms of design and safety.

Primary outcomes

New trail build, walkway and bridge construction works will result in:

- Critical linking of trail from Lakes Entrance/Kalimna Jetty to Nyerimilang Heritage Park
- Creation of a significant infrastructure attraction and experience incorporated into Aquatic Trail experience while also acting a stand-alone short-visit attraction
- Improvement of community asset base
- Improved environmental condition
- Better visitor experience suited to promotion of signature trail experience
- Improved visitor safety
- Jobs creation for construction
- Reduced maintenance through sustainable trail engineering
- Better capacity to cater for increases in visitor numbers.

Figure 1. Location Map - Kalimna Jetty – Nyerimilang New Trail



Current trail condition imagery



Image 13. Kalimna headland looking east across inlet from Nyerimilang Heritage Park. Crossing location for footbridge out of shot to left.



Image 14. Sand spit leading from western side of inlet, looking west towards Nyerimilang Heritage Park. Footbridge ends on spit leading to proposed raised boardwalk located as shown.



Image 15. Inlet entrance looking north, Kalimna Jetty out of frame to right, Nyerimilang Heritage Park to left. Footbridge to cross as shortest gap of inlet

Precedent Imagery



Image 16. Kalimna Jetty. Existing rock wall walkway to east (frame right).



Image 17. PRECEDENT IMAGE: Existing compacted crushed gravel rock wall walkway to east of Kalimna Jetty. Proposed extension to west around headland.



Image 18. PRECEDENT IMAGE: sample coastal raised platform walkway with over-water section.



Image 20. IMAGE: Proposed location of footbridge across inlet linking Kalimna Jetty to Nyerimilang.



Image 19. PRECEDENT IMAGE: sample coastal walkway New Plymouth, NZ.



Image 21. PRECEDENT IMAGE: sample raised coastal walkway



Image 22. PRECEDENT IMAGE: sample pedestrian bridge



Image 23. PRECEDENT IMAGE: sample pedestrian bridge

Budget

Track construction costs - general		
Natural surface compacted trail, 800mm wide, undulating, light vegetation, crushed rock	\$50-\$60 / lineal metre	
Stabilised compacted gravel, rock wall trail, water-immersed / reclamation footing 1800-2000mm width.	\$2,000 / lineal metre	
Elevated FRP walkway, 1.8m width	\$1,000 per lineal metre no balustrade (\$1200 l/m with balustrade)	
Stone steps, 1.2m width, 200mm riser	\$400 - \$600 per step	
Hardwood timber steps, 1.2m, 200mm riser	\$200 - \$420 per step	

Priority One – Walkway and footbridge construction costs specific		
700m rock compacted walkway, marine footings	700m @\$2000/lm	\$1.4 million
Design, engineering, assessments* - walkway		\$100,000
Footbridge	70m, cable	\$800,000
Design, engineering, assessments* - footbridge		\$50,000
40m FPR boardwalk 1.2m wide, no balustrade	\$1000/lm	\$40,000
Total		\$2,390,000

*not including environmental, cultural, heritage assessments

Implementation timeframe

The walkway and footbridge construction works should be undertaken as a single project. They represent a significant infrastructure development and works timelines, planning and approval processes will reflect as such.

Design, planning and approvals: 12 months | Construction: 6 months

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	
Engagement & community benefit	✓
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	
Traditional Owner recognition	
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	

2.4 Priority One Works - Sperm Whale Head trail network

Description

Sperm Whale Head is a significant location for the Gippsland Lakes Aquatic Trail being a major feature of both the Signature Trail (#1) and Trail #2. Its environment and trail network is a critical component on consideration in terms of offering visitors multiple means of engaging in the nature based experience including all of walking, cycling and paddling. It also offers a focused area of significant landscapes and aquatic environments.

The location currently features numerous walking trails, however there is no cohesive network to adequately serve recreational purpose nor are there adequate logical links between trails and areas.

For this reason, Sperm Whale Head represents the majority of new trail proposed, along with significant trail upgrades and realignments in order to best serve delivering a high quality visitor experience while increasing sustainability of the trails.

Currently a singletrack trail exists leading from the western end (car park on The Boulevard) along the coast to Pelican Point. It is unclear if this trail is formal as it does not appear on many maps, however has trail infrastructure present. It is linked to fire trails that lead back to the interior and Emu Bight Camp. There are no (walking) trails that link east through to the Point Wilson precinct, a significant tourism attraction. This precinct has a basic network of trails, however the quality and network is below the standard of a Signature Trail experience.

Required works include:

- Establishing approximately 7km of new build singletrack aligned parallel to the northern shore of Sperm Whale Head from Pelican Point through to Lake Killarney and Point Wilson. This would be low impact, 800mm, natural topping trail aligned sympathetically to the environment and vegetation.
- Potentially including short sections of raised boardwalk and/or stairs where required, to be identified by detailed trail audit
- Trail infrastructure as required including point of interest benches
- Upgrading trails from Loch Sport to Pelican Point (6.5km if including from Loch Sport Marina)
- Upgrading and re-aligning where required the trail network around Pt Wilson and Lake Killarney, approx. 5km
- Creating a trailhead at The Boulevard, Loch Sport.

Primary outcomes

New trail build and associated infrastructure works will result in:

- Improved connectivity and user amenity
- Fit for purpose trail network
- Improved environmental condition
- Better visitor experience suited to promotion of signature trail experience
- Improved visitor safety
- Jobs creation for construction
- Reduced maintenance through sustainable trail engineering
- Better capacity to cater for increases in visitor numbers.

Figure 2. Location Map - Sperm Whale Head Trail Development plan

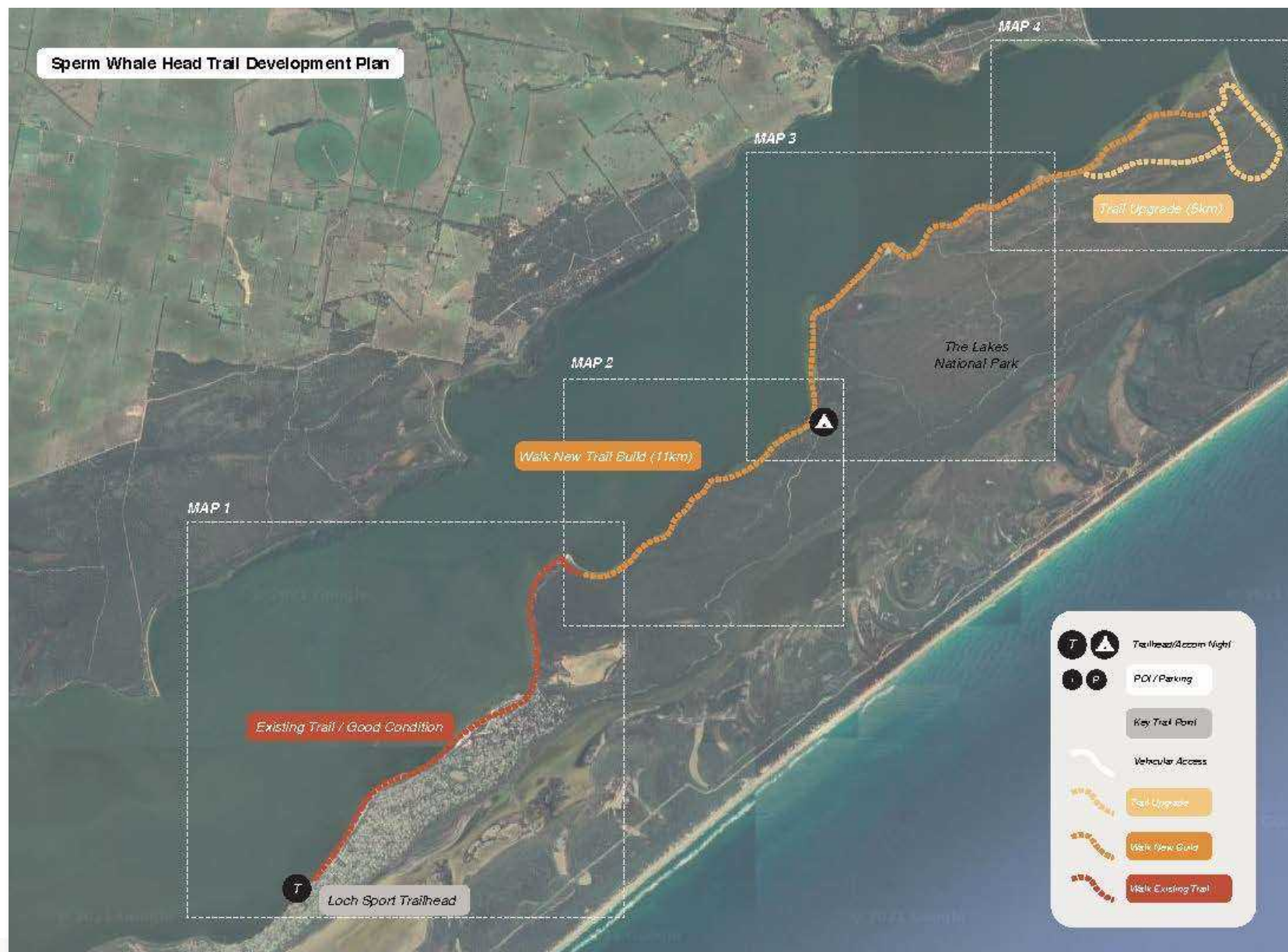


Figure 3. Location Map - Sperm Whale Head Trail – Section 1



Figure 4. Location Map - Sperm Whale Head Trail - Section 2



Figure 5. Location Map - Sperm Whale Head Trail - Section 3



Figure 6. Location Map - Sperm Whale Head Trail - Section 4



Current trails



Precedent imagery



Image 24. PRECEDENT IMAGE: natural (in situ) surface walk trail 800mm-1800mm wide

Budget

Track construction costs – general guide	
Natural surfaced compacted trail, 800mm wide, undulating, light vegetation	\$50-\$60 / lineal metre
Elevated FRP walkway, 1.8m width	\$1000 per lineal metre (\$1200 l/m with balustrade)
Stone steps, 1.2m width, 200mm riser	\$600 per step
Hardwood timber steps, 1.2m width, 200mm riser	\$200 - \$420 per step

Priority One – trail construction and upgrade Sperm Whale Head specific		
6.5km trail upgrade - Loch Sport Marina – Pelican Head	6500m@ \$50-\$60	Up to \$390,000
7km new trail construction, 800mm wide, natural topping surface	7000m@\$60	\$420,000
5km trail upgrade - Point Wilson	5000m@\$40	\$200,000
FRP boardwalk allowance	500m@\$1000	\$500,000
Stairs – allowance (800mm wide)	200* steps@\$420 (allows for 40m of vertical gain via steps)	\$84,000
Total	19,000m + 200 steps	\$1,594,000

Implementation timeframe

From the appointment of a contractor, 4 months should be allowed to complete the Priority One track works on Sperm Whale Head (if fully funded).

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	✓
Traditional Owner recognition	
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	

2.5 Priority One Works - Bunga Arm Trails

Description

Itinerary day 3 of the Signature Trail (#1) has visitors alight from a boat transfer at a jetty located at Mosquito Point, opposite the township of Metung, on the northern side of Bunga Arm.

Currently, trails exist in average to poor condition, but 100% navigable, from the jetty leading south and then west. Pending if a user is on foot or cycling, existing trails can lead to a proposed kayak launch (4km walk) on the southern side of Bunga Arm, further to the east, or following a 12km route leading further south west, to a proposed boat pick up point.

Trails are currently double track wide (approx. 2.5-3m), navigable by vehicle, over undulating terrain, with a mix of dirt, sand and low heathland grasses.

Note that trails require minimal upgrade consisting of a clean and clear with some compacted surface topping for some sections (exact lengths pending detailed trail audit) along with any drainage for sustainability.

Required works include:

- Minor upgrading of trail (total 13km) to level suitable for white/green-rated cycling (easy) and AWTGS Grade 2 walking track, with natural firm-surface topping, clearing of debris, slashing of bracken
- Trail infrastructure as required including point of interest benches
- Secondary trailhead map locator and interpretation at Mosquito Point
- Walker/rider gate arrangement at bridge midway (currently locked management gate over road)

Kayak-docking and boat landing infrastructure as required at trail terminus x 2, south shore Bunga Arm

Primary outcomes

Trail upgrade and associated infrastructure works will result in:

- Improved user amenity
- Fit for purpose trail network
- Improved environmental condition
- Better visitor experience suited to promotion of signature trail experience
- Improved visitor safety
- Reduced maintenance through sustainable trail engineering
- Better capacity to cater for increases in visitor numbers.

Figure 7. Location Map – Trail #1 – Day 3



Current track



Image 25. Trail condition, Bunga Arm

Precedent imagery



Image 26. cleared trail, firm surface with wayfinding markers

Budget

Track construction costs – general guide

Natural surfaced compacted trail, 1800mm-2000mm wide, undulating, light vegetation, existing trail	\$35 lineal metre
Hardwood timber steps, 1.2m width, 200mm riser	\$200 - \$420 per step

Priority One track work – Bunga Arm trails specific

Upgrade, clearing, resurfacing, drainage	12,000m@\$35	\$420,000
Walker/rider gate midway	X1	\$15,000
Stairs	2 x locations approx. 3m rise @\$300/step	\$9,000
Total	12km	\$444,000

Implementation timeframe

From commissioning of contractor, 1-2 month should be sufficient for trail upgrade given accessibility and current condition.

Meeting Objectives

GUIDING PRINCIPLES

Aboriginal participation	
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	✓
Traditional Owner recognition	
Native vegetation and offsets – Vic. Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	
Create industry partnerships	

2.6 Priority One Works - Red Bluff linking trail and stairs

Description

Gippsland Lakes Aquatic Trail #3 focuses on a ride-paddle-coaster (walk) itinerary with a critical component incorporating a 10km walk section that creates a link between Lake Tyers Beach and Lakes Entrance.

The walk section leaves from Lake Tyers Beach in front of the Waterwheel Tavern, following existing paths around the headland to continue on west towards Lakes Entrance. Users can choose to use the beach as their preferred route or alternatively use community trails routed through hinterland vegetation between the beach proper and residential streets.

The trail leading around the headland from Lake Tyers Beach village is in poor condition and subject to regular inundation and may require a boardwalk installation. Trails through the hinterland are generally in good condition.

At the western end, the community trails reach Red Bluff Car Park at the end of Red Bluff Road. There exists hinterland trails linking further west via a trail beginning midway along Red Bluff Road leading through bushland to Cliff Road. There are no formal linking trails to then connect through to Lake Bunga, the outskirts of Lakes Entrance and associated access trails. For a final link to be created there is a requirement for stairs to drop the trail onto the beach on the east side of Lake Bunga, so walkers can continue west along the beach to Lakes Entrance Main Beach or alternatively link into hinterland trails back into the township.

NB: beach walkers coming from Lake Tyers can feasibly continue around Red Bluff at the base of the cliffs to reach the west side, however safely only at low to mid tide. A trail on the escarpment is necessary for all-conditions safe passage.

Initial investigations discovered some evidence of informal trails within the missing link section, inclusive of informal, earthen stairs and hand hold poles leading down the beach. This appears to be the most likely option for a formalised trail and stair construction. It is noted that there has been some community call for a trail to link Lakes Entrance and Lake Tyers Beach.

Required works include:

- approximately 500-600 metres of new trail constructed through hinterland vegetation (existing informal trails noted)
- construction of stairs dropping approximately 30-40m
- relevant environmental and cultural assessments given fragile nature of dune and clifftop ecology
- approximately 350m raised FPR walkway on existing alignment, Lake Tyers Beach

Primary outcomes

Trail upgrade and associated infrastructure works will result in:

- Improved user amenity
- Fit for purpose trail network
- Improved environmental condition
- Improved connectivity and community amenity
- Better visitor experience suited to promotion of signature trail experience
- Improved visitor safety
- Reduced maintenance through sustainable trail engineering
- Better capacity to cater for increases in visitor numbers.

Figure 8. Location Map - Red Bluff Traverse Map



Figure 9. Red Bluff map - location of proposed stairs

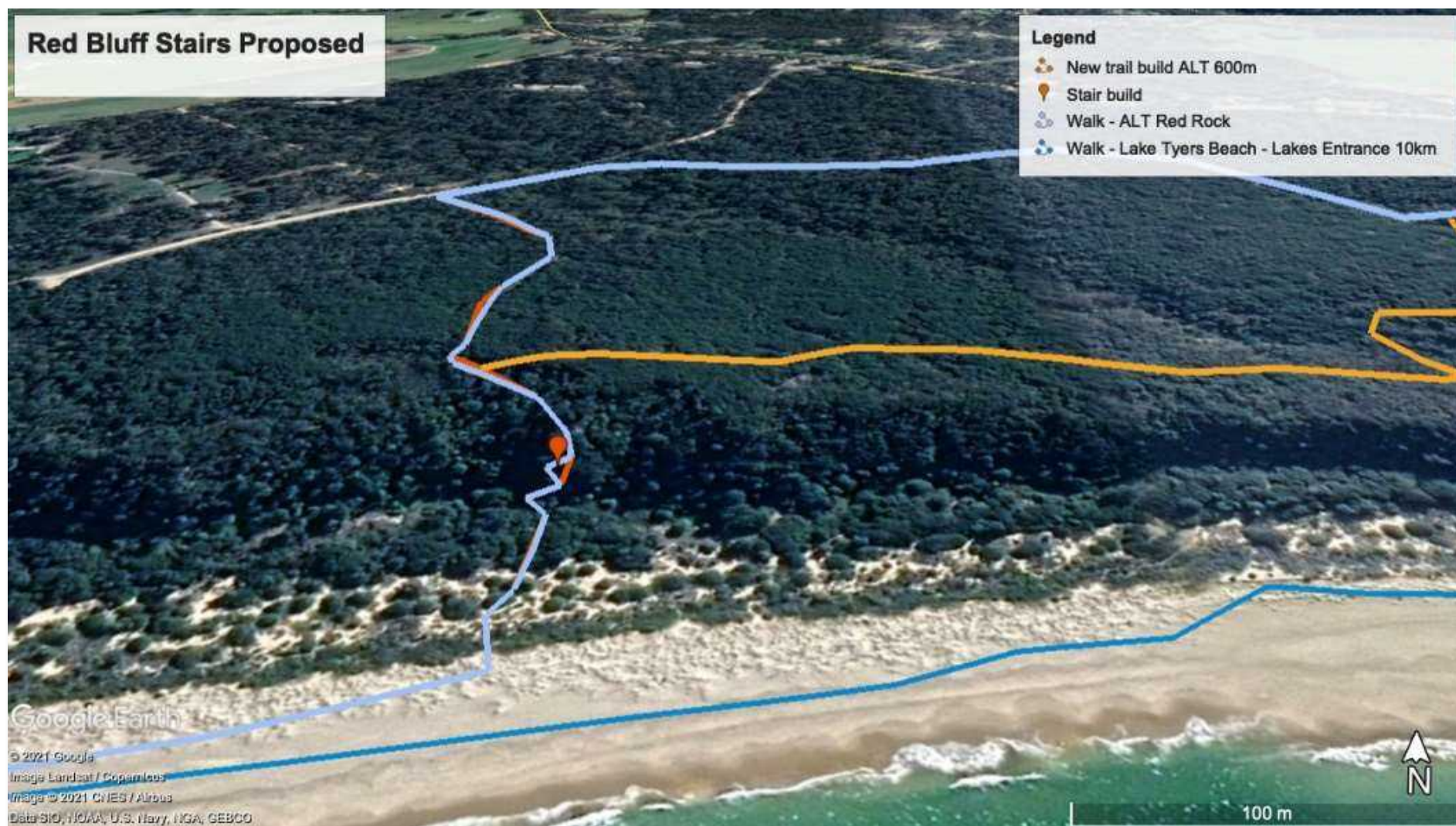


Figure 10. Location Map - Current track/s – Lake Tyers Beach - Existing community trails

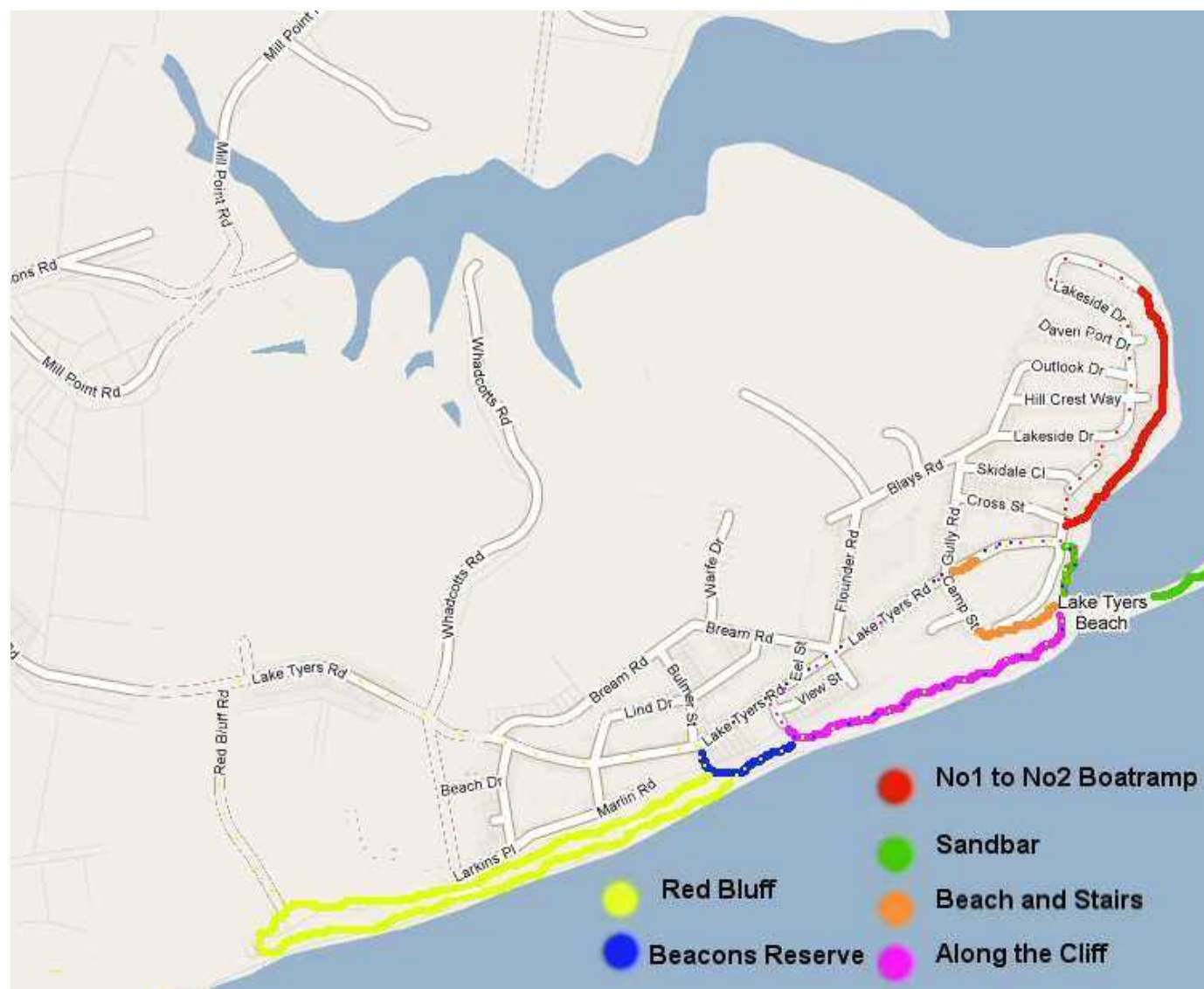




Image 27. Red Bluff looking west. Trail access / proposed stair site located in vegetated dunes in centre of image.



Image 28. Existing hinterland trail west of Red Bluff Rd



Image 29. informal trail through typical hinterland scrub (to proposed stairs), located on new build trail alignment



Image 30. informal trail on potential alternative alignment for new build trail (to proposed stairs)



Image 31. Informal trail, stairs and hand hold poles on proposed ALIGNMENT/location of stairs

Precedent Imagery



Image 32. Trail Lake Tyers Beach



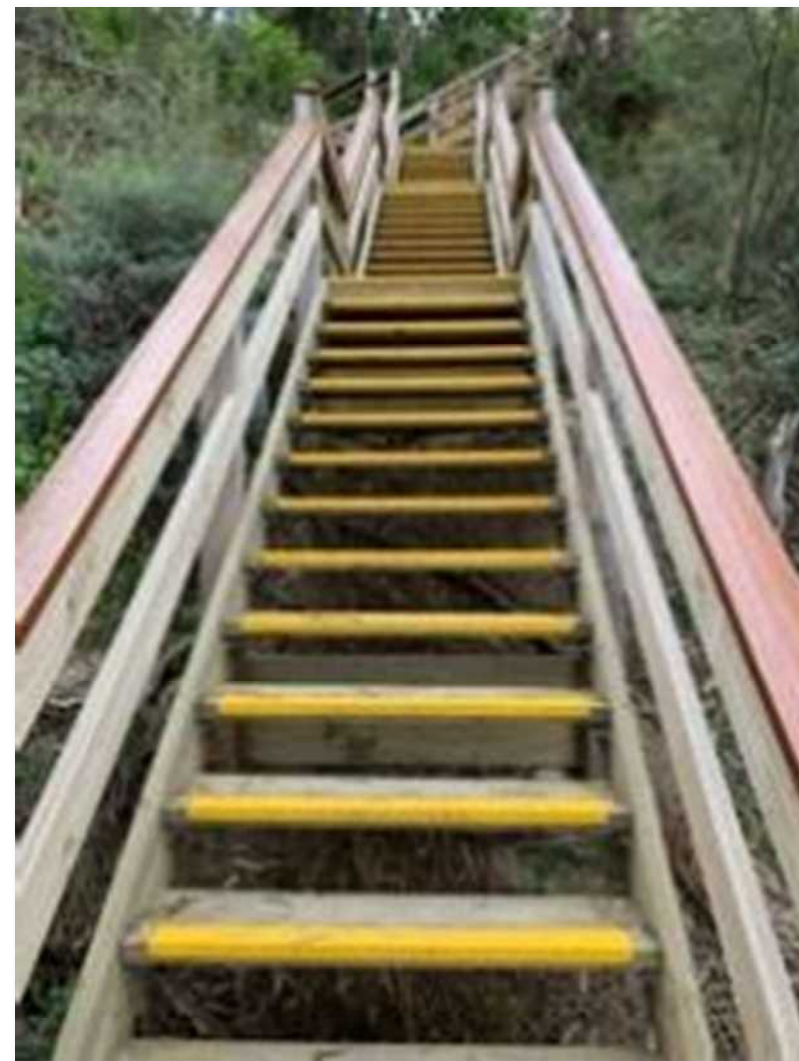
Image 33. : Stair build Lake Tyers Beach



Image 34. beach bluff stair example



Image 35. beach bluff stair example



Budget

Track construction costs - general		
Natural surfaced compacted trail, 800mm wide, undulating, light vegetation	\$50-\$60 / lineal metre	
Sealed stabilised tread, 1.2m width	\$620 per lineal metre	
Elevated FRP walkway, 1.2m width	\$700 per lineal metre	
Hardwood timber steps, 1.2m width, 200mm riser	\$200 - \$420 per step	

Priority One track work – Red Bluff tails and stairs		
600m new build trail, 800mm wide	600m @\$50/lm	\$30,000
Hardwood Timber Stairs, 40m total drop, 200mm riser	200 stairs @ average \$300/stair	\$60,000
FPR walkway - Lake Tyers Beach Headland* w/ balustrade one side	\$1200 per lineal metre @350m	\$420,000
Total	950m	\$510,000

**optional. Potentially other remedial earth/rock works could be implemented*

Implementation timeframe

From the appointment of a contractor, 2-3 months should be allowed for implementation assuming prior environmental, cultural assessments completed.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	
Engagement & community benefit	✓
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
Gunaikurnai and Victorian Government Joint Management Plan	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	✓
Traditional Owner recognition	
Native vegetation and offsets - Victorian Planning Provisions	✓
Gippsland Destination Management Plan	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	
Create industry partnerships	

2.7 Priority Two Works - minor upgrades to trails Sale Wetlands – Heart Morass

Description

Gippsland Lakes Aquatic Trail #4 incorporates a return 17km cycle leg from Heart Morass Wetlands, via Flooding Creek and Sale Wetlands to the Port of Sale.

At present it is possible to ride adequate-condition trails from approximately 1km west of Heart Morass Boat Ramp, all the way back east to the Port of Sale. The alignment is on existing double track currently used by management and caretakers of the wetlands area.

The track is mixed-surface, predominantly gravel vehicular track transitioning to hardened-earth grass trails alongside Flooding Creek and into the Sale Wetlands area where there is also packed gravel sections and a roadway section leading into Sale.

A boat jetty or similar unloading access facility is proposed for a boat using the Latrobe River to transport visitors from Port of Sale upriver/ to the west and/or from the proposed Nunduk Spa Resort on Lake Wellington to the east.

Required works:

- Review and minor upgrade of track from Heart Morass to Port of Sale, 17km total, actual length requiring upgrade estimated at <5km
- install 1-2 boat jetties for walker/rider drop-off/pick-ups (referenced in Section 6, costs not included here)

Primary outcomes

Trail upgrade (and associated infrastructure works listed under section 6) will result in:

- Improved user amenity
- Fit for purpose trail network
- Improved environmental condition
- Improved connectivity and community amenity
- Better visitor experience suited to promotion of signature trail experience
- Improved visitor safety
- Better capacity to cater for increases in visitor numbers.

Figure 11. Location map- Trail Improvements Latrobe River – Heart Morass Sale



Current track sections imagery



Image 36. Sale Common Wetlands entrance near Sale



Image 38. eastern end of trail, Heart Morass Wetlands / potential boat jetty location



Image 40. IMAGE: middle section of trail, leading away from Flooding Creek trail terminus, Heart Morass Wetlands



Image 37. IMAGE: existing bridge near Sale township



Image 39. Trail section, east Morass Wetlands



Image 41. trail section, Heart Morass Wetlands / potential boat jetty location

Budget

Track construction costs - general		
Stabilised crushed gravel tread, 3m width, upgrade		\$30

Priority One track work – Trail #4 ride specific		
Upgrade allowance – approx. 30% distance / 5km	5000m@\$30	\$150,000
Total	5000m	\$150,000

Implementation timeframe

From the appointment of a contractor, 1-2 months should be allowed to complete the Priority Two track works, not including jetty construction referenced in Section 6.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	
Traditional Owner recognition	
Native vegetation and offsets - Victorian Planning Provisions	
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	
Create industry partnerships	

2.8 Priority Two Works - minor upgrade Limestone Box Forest Trail

Description

Trail #3 begins with a 2km ride heading east along Limestone Box Forest trail to the intersection of the Gippsland Discovery Trail and Log Crossing Picnic Area.

This trail requires further investigation as to potential upgrade requirements in order to transform current difficulty rating to match an IMBA white/green (easy) grading suitable for riders without technical mountain biking experience.

Note that users seeking a technical ride to link to the Discovery Trail can use other mountain bike-specific trails further to the north of the Forestec Discovery Centre.

Required works:

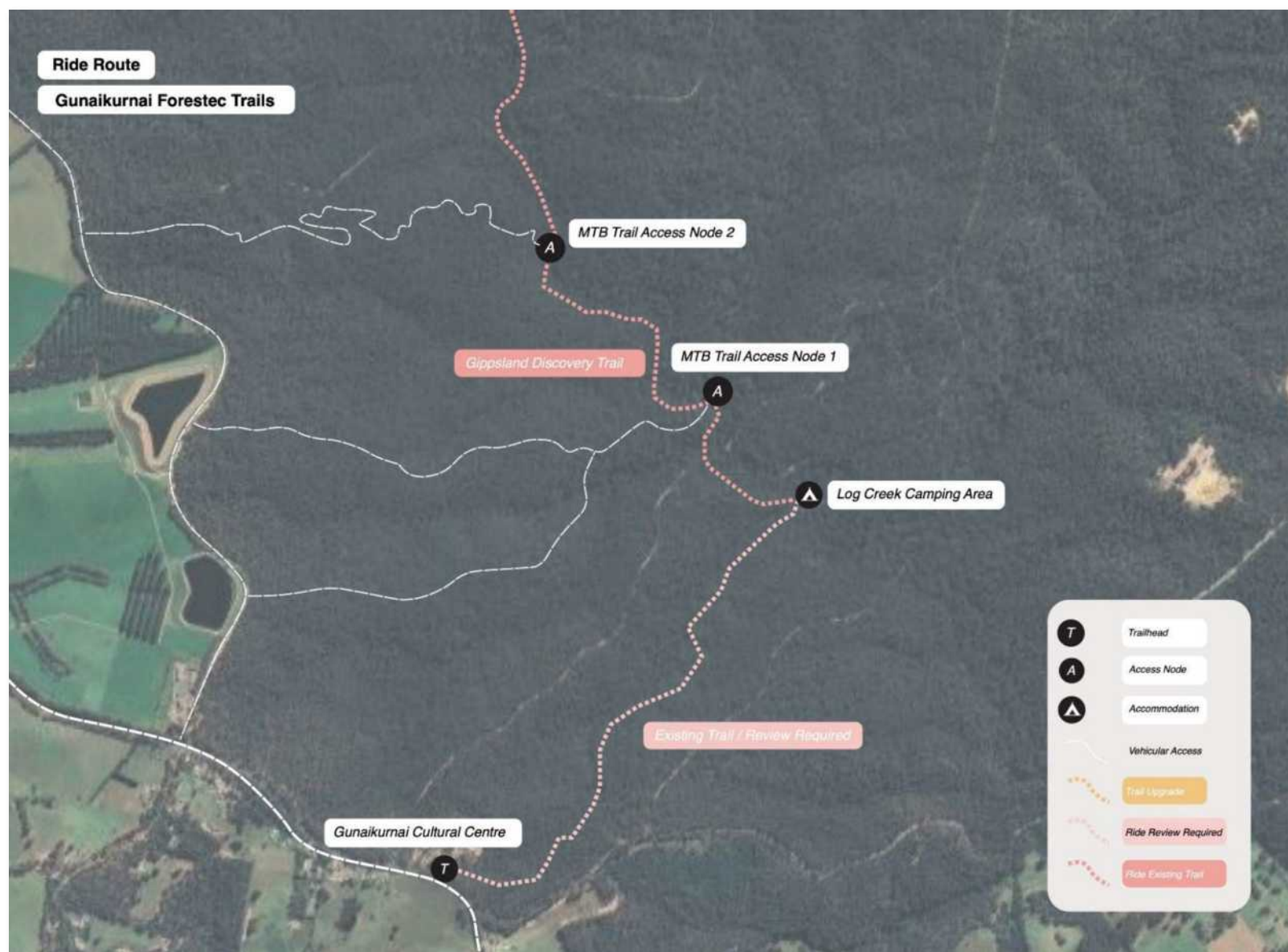
- Review and potential minor upgrade of Limestone Box Forest trail, 2km

Primary outcomes

Trail upgrade will result in:

- Improved user amenity
- Fit for purpose trail network
- Improved environmental condition
- Improved connectivity and community amenity
- Better visitor experience
- Improved visitor safety
- Better capacity to cater for increases in visitor numbers.

Figure 12. Location Map - Gunaikurnai Forestec Trails



Precedent imagery – Cycling Trail

Image 42. Example white/green (easy) cycling trail (Discovery Trail, Gippsland)



Budget

Track construction costs		
Natural surface trail, upgrade	\$35 per lineal metre	

Priority Two track work		
Upgrade Limestone Box Forest Trail	2000m@\$35	\$70,000
Total	2000m	\$70,000

Implementation timeframe

Works should be completed within one month of agreed upgrade works start date.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	✓
Traditional Owner recognition	
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	
Create industry partnerships	

3 Kayak launch facilities

3.1 Priority One works - environmental and cultural planning for kayak launches

Description

All Gippsland Lakes Aquatic Trail itineraries include options for paddle-craft activity, the most suitable craft being kayaks. Users will be able to undertake paddling legs as self-sufficient paddlers or engage the services of tour operators.

Most kayak launch and docking sites will rely on shallow-water, sand-based landing sites and require little to no infrastructure bar signage indicating landing is permissible. There is, however, one site – Bunga Arm – that will require kayak docking and launch facilities and two minor sites – Nyerimilang and Ocean Grange – requiring land based kayak anchorage (i.e. tie up facility).

Wherever proposed work involves shoreline impact these works will be the subject of a Review of Environmental Factors (REF) and a cultural impact assessment. Individual reports will be required detailing the likely impacts of any proposed works on:

- Flora (including any Endangered Ecological Communities)
- Fauna
- Marine environment
- Aboriginal Cultural Heritage
- Historic Heritage

The studies undertaken to prepare these reports will include fieldwork assessing a site-specific appropriate impact zone (minimum 5m from of any proposed new infrastructure and any in-ground or seabed incursions).

**These environmental and cultural assessments may be carried out in coordination with other trail-based studies as per item 1.2.*

Location, design and construction should reference standards and guidance from relevant land managers (i.e. Parks Victoria) and waterway managers along with regulatory authority advice such as that available via Maritime Safety Victoria and as applicable via the Marine Safety Act 2010 (Vic) and Marine Safety Regulations 2021 (Vic).

Any future kayak infrastructure planning should reference the Victorian Recreational Boating Strategy¹, currently in development and due for release mid to late 2021. It should also reference the Gippsland Boating Coastal Action Plan 2013 (GBCAP 2013).

Assessments should consider site characteristics, land and marine environment and ecology, in conjunction with the required user interaction.

Whether or not a launch/docking site will be effective and provide sustainable access depends largely upon its location; the characteristics of the water body (which may change between launch points); how the launch is used; and the skill and expectation of users.

¹ <https://engage.vic.gov.au/rec-boating-strategy>

Access is preferable in areas featuring:

- Low exposure to strong currents and wind such as an eddy, or in a cove or inlet
- No physical barriers
- Distance from other boat traffic, so that paddlers do not have to cross heavy traffic areas
- Adequate water levels
- Minimal impact on shoreline required

Where possible, kayak launch sites should make use of natural shallow water, low gradient shorelines where minimal if any infrastructure is required, allowing easy and safe bow-on-shore beaching. Where shoreline environments are sensitive and/or of steeper gradient, infrastructure preferred is of float and tether variety with shore based infrastructure anchoring, or minimal pole and foundation engineering, to ensure minimal to no sediment or sea floor displacement. Float-based jetties allow infrastructure to rise and fall with tide. Ensuring consistent deck height relative to boat for safe and easy paddler access.

Kayak jetty and shoreline access should also consider accessibility needs to encompass the broadest range of skills, abilities and physical capacities. Approach should conform to Universal Access Design principles.

There is no specific Australian Standard for the design of boat ramps and boating facilities. Australian Standard Guidelines for Design of Marinas (AS 3962-2001) is generally used as a guideline. Some relevant guidelines are provided in the Australian Standard AS 3962, Section 7 – Onshore boat facilities and AS 4997-2005 Guidelines for design of maritime structures.

Design and engineering should reference the Disability Discrimination Act (1992), which promotes the rights of people with disabilities to ensure they have equal access to facilities and services. Out of this Act came a number of Australian Standards that are relevant when reviewing public facilities, including non-powered boat launch facilities.

Primary outcomes

Environmental and cultural planning will result in:

- Report detailing expected site-specific environmental, cultural and heritage sensitivities arising from planned kayak infrastructure
- Legitimate consent for works
- Improved environmental condition of shoreline
- Better visitor experience suited to signature experience
- Infrastructure best suited to specific land-water, launch/dock requirements
- Improved visitor safety
- Better capacity to cater for increases in visitor numbers
- Public amenity
- Increased focus on and protection of Gunaikurnai places of significance relevant to a visitor experience and appropriate cultural interpretation.

Precedent images – kayaks or canoes launch facilities



Budget

Budget	
Consultants' fees – covering 3 site locations	\$20,000
Project management	\$2,000
Total (Ex GST)	\$22,000

Implementation timeframe

The value and integrity of fieldwork will be dictated by seasonal influences and these must be considered in the scheduling of any assessment works.

Generally the preferred time for surveys is spring through early summer (September – December). From the appointment of a consultant, 2-4 weeks should be allowed to complete this assessment.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	✓
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	✓
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	
Traditional Owner recognition	✓
Native vegetation and offsets – Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	
Create industry partnerships	

3.2 Priority One works - Bunga Arm, Nyerimilang & Ocean Grange – design and construction

Description

Guided by the outcome of the environmental and cultural planning process for kayak launch facilities (2.1), three sites across Trails 1 and 2 will require facility implementation.

Required works (all Trail 1):

- Kayak launch facility – Bunga Arm
- Kayak landing / tie-up infrastructure – Nyerimilang
- Kayak landing / tie-up infrastructure – Ocean Grange
- Boat landing – Bunga Arm (bike pick up)

Bunga arm will require a floating kayak launch tethered to shore, with stairs leading up a small embankment to meet trail. To facilitate alternative cycle pick-up, assessments are required for the feasibility of a ramp solution enabling bicycles to be loaded onto a transfer boat at the trail terminus of the cycling leg for this section of Trail 1.

Nyerimilang and Ocean Grange have shallow shoreline characteristics ideal for natural landing sites, requiring only a form of infrastructure that allows tethering of kayaks for safety i.e. poles with clip in features.

Note that there are other kayak launch and landing sites across the Gippsland Lakes Aquatic Trail network that do not need development or are contained in other sections of this Implementation report:

- Nowa Nowa (Trail 3) – has existing appropriate jetty infrastructure and shallow bank access
- Cameron Arm (Trail 3) – does not need additional facilities with adequate existing natural shallow berth access.
- Lake Tyers Beach (Trail 3) – has existing shallow bank and boat ramp access
- Rotamah island (Trail 1 and 2) – has existing shallow bank access
- Sperm Whale Head (Trail 1 and 2) – has existing shallow bank and boat jetty access
- Loch Sport (Trail 1 and 2) – has existing shallow bank and boat jetty access
- Latrobe River (Trail 4) – kayak docking to be addressed in Boat Jetty nodes, item 6.

Primary outcomes

Boat launch/docking infrastructure development will result in:

- Improved user safety and amenity
- Fit for purpose (paddle-craft recreation) trail infrastructure
- Improved environmental protection
- Improved connectivity and community amenity
- Better visitor experience suited to signature trail experience
- Better capacity to cater for increases in visitor numbers.

Figure 13. Location Map – Trail #1 – Day 3

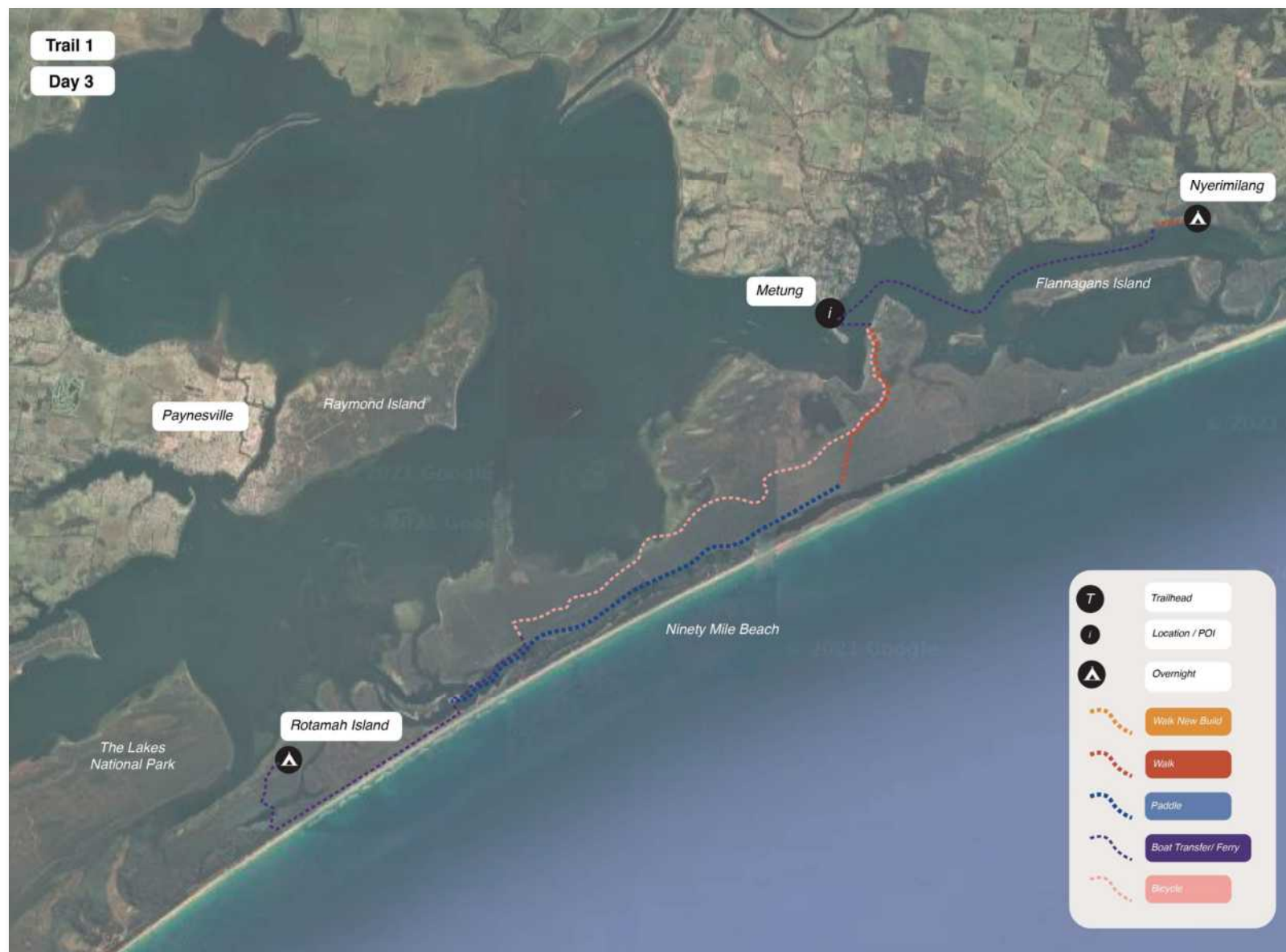




Image 43. Bunga Arm kayak landing / launching site proposed



Image 44. Bunga Arm kayak landing / launching site proposed

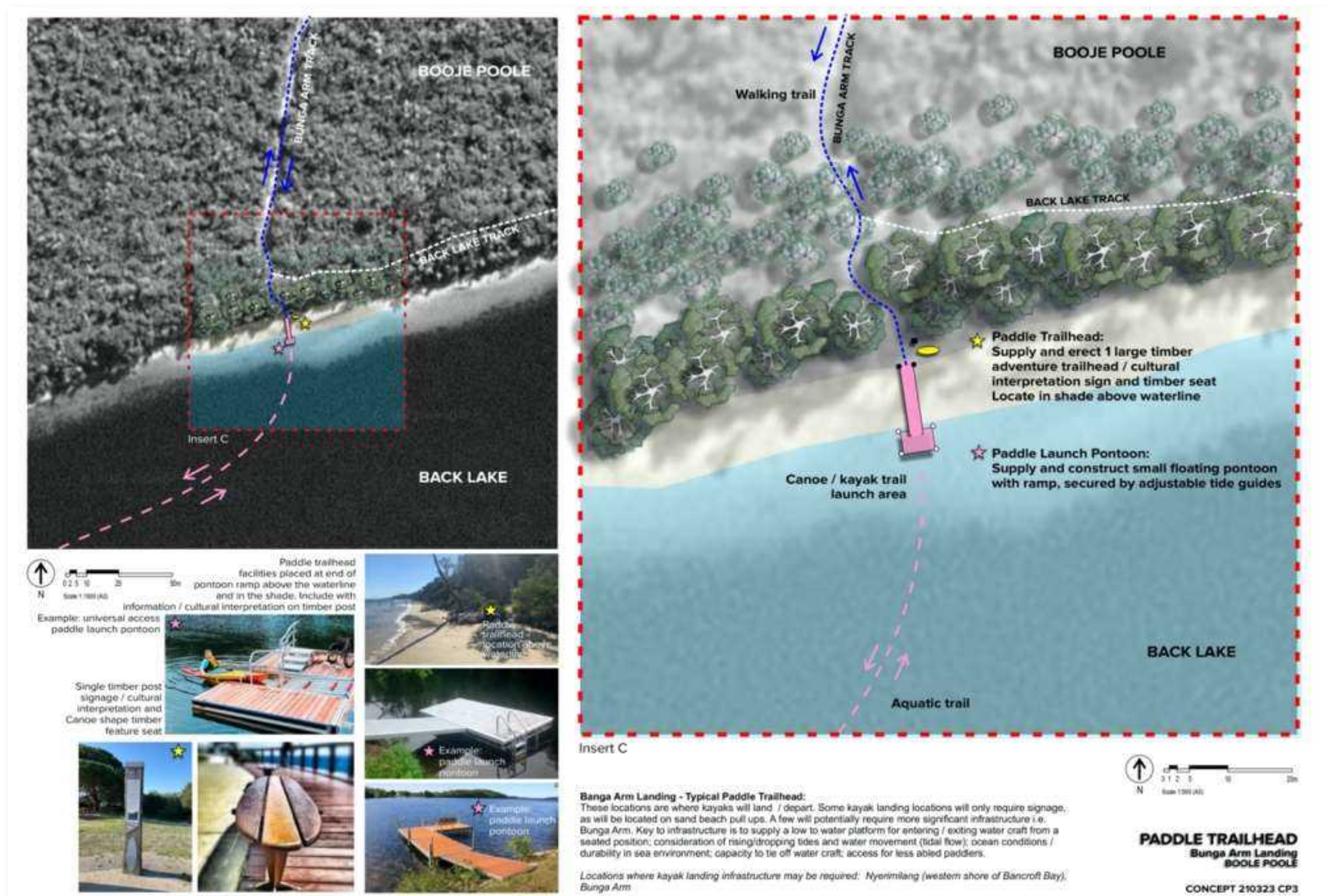


Image 45. Ocean Grange kayak landing / launching site – shallow water, natural site



Image 46. Nyerimilang kayak landing / launching site proposed

Figure 14. Bunga Arm – paddle trailhead concept



“These images are mock up only for the purposes of the Business Case. Detailed design will be required to meet Parks Victoria and Gunaikurnai standards”

Budget

Kayak infrastructure		
Tethering infrastructure, storage	Nyerimilang, Ocean Grange	\$70,000
Kayak launch - floating platform jetty	Bunga Arm	\$150,000
Boat ramp for cycle pick up	Bunga Arm	\$50,000
Hardwood Timber Stairs – Bunga Arm, 3m total drop, 200mm riser	15 stairs @ average \$420/stair	\$6,300
Total		\$266,300

Implementation timeframe

From the appointment of a contractor, 6 months should be allowed to complete the kayak infrastructure design and implementation works.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	
Traditional Owner recognition	
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	

Figure 15. Bunga Arm kayak landing / launching site concept



“These images are mock up only for the purposes of the Business Case. Detailed design will be required to meet Parks Victoria and Gunaikurnai standards”

4 Overnight nodes

4.1 Priority One works - feasibility assessment, environmental and cultural planning for eco-camps

Description

In order to set a Signature Trail 'quality of experience' precedent for the Gippsland Lakes Aquatic Trail via the proposed Trail #1 itinerary, overnight accommodation nodes are required to service small group, high yield visitation.

Two sites have been prioritised as suitable locations at Nyerimilang Heritage Park and Rotamah Island Homestead site. The Nyerimilang site exists in a natural state with no services and light vegetation. It has no current structures. The Rotamah site is centred on the existing Rotamah Homestead, in a cleared state with numerous structures in average to dilapidated condition.

Wherever proposed work involves expanding development beyond an existing trail, infrastructure or building envelope, a Review of Environmental Factors (REF) is required to assess potential impacts. Assessments of cultural and heritage values are also a requirement to ensure development does not negatively impact either with a view to reinforcing the protection and sustainability of cultural and heritage values.

Individual reports across cultural, environmental and heritage assessments will be required detailing the likely impacts of the proposed works on each site, including:

- Flora (including Endangered Ecological Communities)
- Fauna
- Aboriginal Cultural Heritage
- Historic Heritage

The studies undertaken to prepare these reports will include fieldwork assessing the proposed development land parcels and adjoining landscapes.

Primary outcomes

A set of detailed reports supporting proposed track works that will form the basis for:

- Understanding of the nature-based accommodation market and demand and operational feasibility
- Agreement with Gunaikurnai community to development footprints
- Legitimate consent for works
- Required accommodation capacity identified as required for tourism product
- Identification of potential Gunaikurnai cultural integration, training and employment opportunities attached to eco-camp design and operation
- Expression of Interest process to proceed on basis that sites are acceptable for the purpose
- Improved environmental condition of site and surrounding environment/s
- Better visitor experience suited to promotion of Gippsland Lakes Aquatic Trail as signature experience
- Jobs creation for construction and ongoing operation
- Better capacity to cater for increases in visitor numbers.

Budget

Budget	
Consultants' fees – environmental / heritage	\$40,000
Consultants' fees - cultural	\$40,000
Project management	\$15,000
TOTAL (Ex GST)	\$95,000

Implementation timeframe

The value and integrity of fieldwork will be dictated by seasonal influences and these must be considered in the scheduling of this package.

Generally, unless targeting specific species, the preferred time for surveys is spring through early summer (September – December). From the appointment of a consultant, three months should be allowed to complete this package.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	✓
Bushfire overlay	✓
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓

4.2 Priority One – Design & Construction Nyerimilang eco camp

The Nyerimilang land parcel is located towards the south-east end of the park, on the southern side of an existing trail sited high on the escarpment overlooking the Lakes.

The site has been identified for its secluded position and proximity to the eastern end of the Park where a pedestrian bridge and/or kayak berthing location is proposed, allowing short walk access to visitors journeying from Lakes Entrance on their first day of the Signature Gippsland Lakes Aquatic Trails experience.

This eco camp operates as a two-night stay for those engaging in a circumnavigation paddle on Day Two of the proposed Trail 1 itinerary.

The site is currently in a natural state, with no structures or services, and is lightly vegetated with low undergrowth and some stands of tall eucalypt trees.

Primary outcomes

Establishment of the eco-camp will result in:

- Better visitor experience suited to promotion of Gippsland Lakes Aquatic Trail as a Signature experience
- improved overnight stay amenity
- longer in-region stay
- improved environmental condition and visual amenity
- business development opportunities direct (operational) and indirect
- better capacity to cater for increases in visitor numbers and meet market expectation
- Gunaikurnai engagement opportunities

Indicative Construction Budget – public investment

\$1million services, utilities, access

Indicative Construction Budget – private sector

Nyerimilang		
Eco accommodation*	Allowance 10 pods	\$1 million
Paths (natural surface) + landscaping	500m @ \$35/m Landscaping allowance \$120,000	\$137,500
Communal facilities (dining and kitchen)	\$700,000	\$700,000
Toilets	\$150,000	\$150,000
Facility support infrastructure (micro grid systems, lighting, etc)		\$300,000
Design and engineering		\$150,000
Other construction, permits, consultants		\$150,000
Project management		\$150,000,000
Contingency incl. native vegetation offsets		\$300,000
Total		\$3,037,500

*Indicative only, based on previous similar setting/development but depending on actual eco accommodation design

**Budget figures are indicative only, based on concept and not to be read in lieu of a Bill of Materials and as such all nominated quantities, dimensions, areas, rates, inclusions, costs, subtotals and totals should be verified by a certified Quantity Surveyor. The figures exclude the cost to transport workers and materials to the site.

Implementation timeframe

From finalising design of site plan and subsequent approvals, 8-12 months should be allowed for construction.

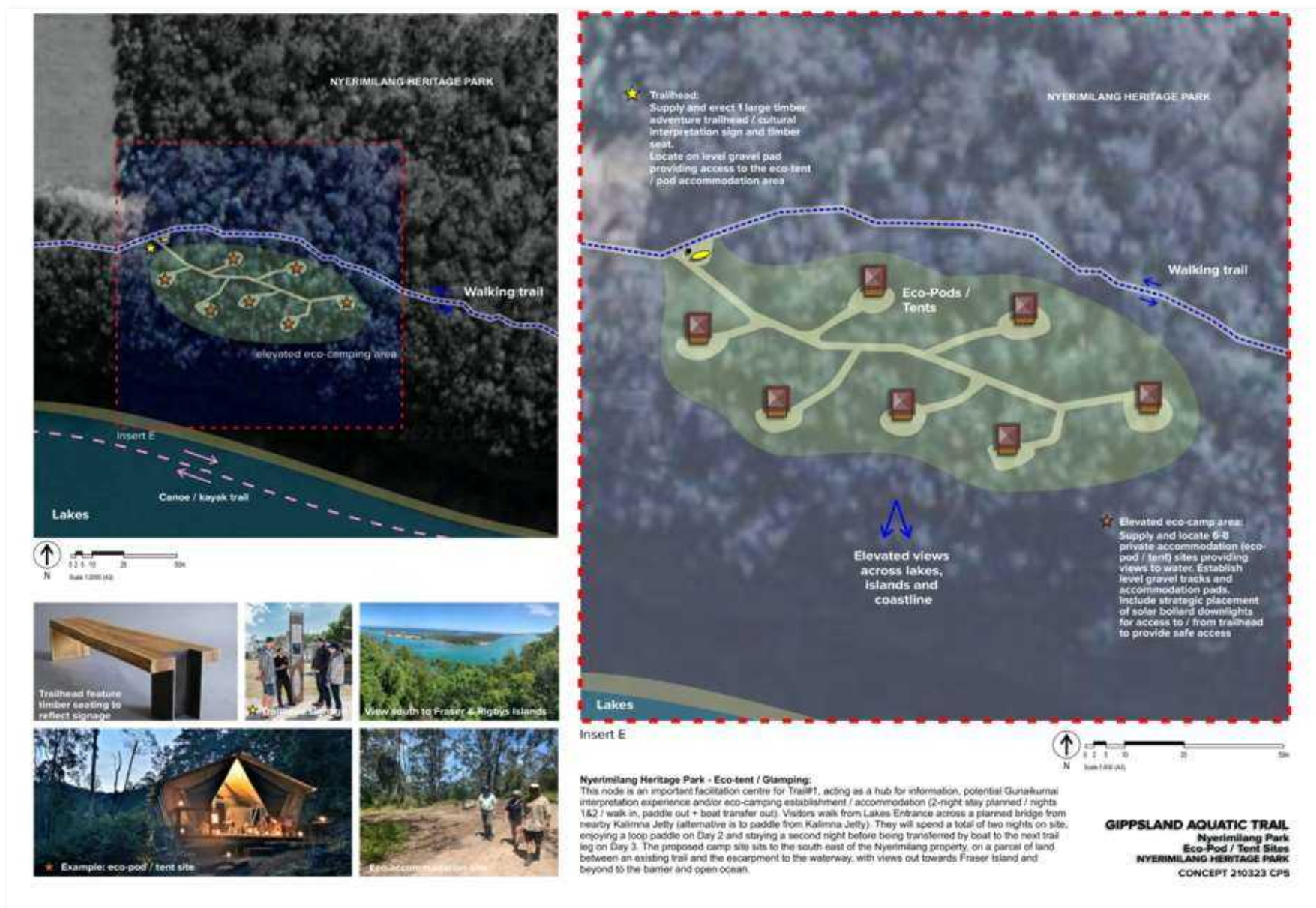
Meeting Objectives

<i>GUIDING PRINCIPLES</i>	
Aboriginal participation	✓
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	✓
Bushfire overlay	✓
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓

Concept – Eco Camping Tent



Figure 16. Nyerimilang – Eco Camping accommodation concepts



“These images are mock up only for the purposes of the Business Case. Detailed design will be required to meet Parks Victoria and Gunaikurnai standards”

Figure 17. Location Map – Trail #1 - Day 1



Figure 18. Precedent Imagery – Glamping Tents



4.3 Priority One – Design & Construction Rotamah eco camp

The Rotamah accommodation site is anchored by the existing Rotamah Homestead, currently in use as a bird watching hub known as the Rotamah Island Bird Observatory.

The homestead building is in use, however is in need of major refurbishment. Other buildings on site are in a dilapidated condition and likely require removal and/or replacement.

It is proposed to use this existing parcel of land to revitalise into an eco-accommodation hub used as a base for Gippsland Lakes Aquatic Trail 1 and potentially visitors exploring Trail 2. Options for engagement include exclusive small group guided tour use or extend to individual bookings making use of communal spaces including using the Homestead as a kitchen and recreational hub.

An extension proposal is to site a camping facility close by to cater to campers undertaking independent Gippsland Lakes Aquatic Trail itineraries and/or more localised explorations.

Suggested that this development be constructed in parallel with Nyerimilang site with similar design principles and construction techniques applied for cost savings created in efficiencies of scale.

Primary outcomes

Establishment of the eco-camp will result in:

- Better visitor experience suited to promotion of Gippsland Lakes Aquatic Trail as a Signature experience
- improved overnight stay amenity
- longer in-region stay
- improved environmental condition and visual amenity
- business development opportunities direct (operational) and indirect
- better capacity to cater for increases in visitor numbers and meet market expectation
- Gunaikurnai engagement opportunities

Indicative Construction Budget – public investment

\$1million services, utilities, access

Indicative Construction Budget – private sector

Rottamah Island		
Eco accommodation*	Allowance 10 pods	\$1 million
Communal facilities (dining and kitchen) – refurbishment of homestead	\$950,000	\$950,000
Toilets	\$150,000	\$150,000
Facility support infrastructure (micro grid systems, lighting, etc)		\$300,000
Design and engineering		\$150,000
Other construction, permits, consultants		\$150,000
Project management		\$150,000
Contingency incl. native vegetation offsets		\$200,000
Total		\$3,050,000

*Indicative only, depending on actual eco accommodation design

**Budget figures are indicative only, based on concept and not to be read in lieu of a Bill of Quantities and as such all nominated quantities, dimensions, areas, rates, inclusions, costs, subtotals and totals should be verified by a certified Quantity Surveyor. The figures exclude the cost to transport workers and materials to the site.

Implementation timeframe

From finalising design of site plan and subsequent approvals, 8-12 months should be allowed for the construction of the eco-camp.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	
Engagement & community benefit	
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	✓
Bushfire overlay	✓
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓

Figure 19. Rotamah Islands - Potential accommodation options



“These images are mock up only for the purposes of the Business Case. Detailed design will be required to meet Parks Victoria and Gunaikurnai standards”

Figure 20. Rotamah eco-accommodation and homestead concept



4.4 Priority One - Investigate commercial and cultural partnerships for overnight accommodation nodes

Description

Creating a high quality visitor experience for new and emerging markets will ideally be undertaken in partnership with the Gunaikurnai community and its representatives and with the private commercial sector.

This will allow for commercial operators and entrepreneurs to develop facilities and packages that suit the market and allow for immersive and diverse experiences that are also culturally focused and sensitive.

This package will provide for the detailed planning, investigations (potentially including specification and expression of interest process) to offer the identified opportunities to the market.

This will include:

- Design and sustainability criteria requirements
- The relative investment required by private/public sector
- Lease and license terms and conditions
- Cultural considerations and opportunities for integration into the accommodation experience.

Ideally one Expression of Interest will be generated for the range of opportunities associated with the Gippsland Lakes Aquatic Trail including:

- Two permanent overnight eco-accommodation nodes as determined
- Other accommodation nodes including upgraded or co-located campsites
- Design and construction
- Management, servicing and marketing.

Likely assumptions include:

- Development can be staged as demand increases (operators can offer off-site accommodation until demand warrants infrastructure investment)
- The management/packaging of the accommodation will be at the operator's discretion and could be by commercial guided tour only, or able to be booked with the operator by independents
- The operator will be required to manage/maintain the sites, but bookings may be linked through to other tourism websites
- Should there be no take up of commercial sites, Parks Victoria could establish and maintain with the option of transferring to the private sector if interest emerged
- Involvement of Gunaikurnai community seeking cultural development opportunities.

Primary outcomes

By offering a range of opportunities through one Expression of Interest process, operators will be able to determine preferred business model/s to meet known and predicted market needs.

A report investigating partnerships will detail:

- innovative approaches to creating the experience and accommodation option that best meets the needs of the market
- identify opportunities for business investment
- guide private/public sector coordination in the delivery and management of visitor facilities at overnight nodes
- opportunities for additional revenue for land manager/s for re-investment
- likely jobs creation for construction and operation
- capacity to cater for increases in visitor numbers
- draft expressions of interest process.

Budget

Budget	
Consultants' fees	\$30,000
Total (ex GST)	\$30,000

Implementation timeframe

Allow 3 months from appointment of consultant

Meeting Objectives

<i>GUIDING PRINCIPLES</i>	
Aboriginal participation	✓
Education	✓
Engagement & community benefit	✓
Partnerships	✓
Quality Trails	✓
Sustainability	
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	✓
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	
Joint management intent	✓
Bushfire overlay	
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	✓
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓

4.5 Priority Two – Upgrading Camerons Arm Camp

Trail 3 in the Gippsland Lakes Aquatic Trail suite has been designed to cater to small group tours but is also particularly appealing to visitors seeking an independent nature based experience either partially supported (i.e. hire gear, food drop, gear drop, equipment rental) or fully self-supported. This market often seeks a camping based accommodation experience.

Trail 3 has existing camping facilities in Lakes Entrance township or near the trail start (at Log Crossing), with further commercial camping facilities available at Nowa Nowa. The second leg of the Trail 3 itinerary takes in a multi-day paddle down Boggy Creek / the north arm of Lake Tyers. Paddlers can choose to camp at a number of existing legal sites on the east bank: Camerons Arm, Reedy Arm, Trident Arm and Glasshouse. There are also informal but often used sites at other east bank locations i.e. Happy Valley.

These campsites and the Lake Tyers State Park area are under development recommendation via the *Lake Tyers State Park Draft Camping and Access Strategy* (March 2021).

Recommendations in the report pertinent to this Priority include:

- Installation of a fishing/kayak platform at Camerons Arm Camp
- Installation of toilets at Camerons Arm Camp
- Establishment of formal walking track from shoreline to camp sites.

Upgrading of the current campsite at Camerons Arm, which is best-sited for a 2-day paddle down the north arm, allows for group camping across 4-5 medium sites for up to approximately 30 people.

Establishment of new toilet facilities, fire pits, site information, nature-based landscaping, formalisation of trails and rehabilitation of eroded areas – all as per recommended in *Lake Tyers State Park Draft Camping and Access Strategy* – will service the user market targeted by the Gippsland Lakes Aquatic Trail.

Note that the Strategy includes recommendations for upgrading other campsites along the north arm that could also be used by paddlers, including Trident Arm, Ironbark, and Glasshouse, and has recommendations for installation of other fishing and kayak jetties at day-visit locations suitable for rest breaks for paddlers.

Required works include:

- Finalise revitalised site plan for Camerons Camp
- Install new toilet facilities
- Install walking tracks between facilities and shoreline
- Upgrade furniture and signage
- Rehabilitate landscapes.

Primary outcomes

- An improvement in the visitor experience for groups using Camerons Arm
- Better facilitation of paddling-based visitation
- Improved environmental condition and visual amenity of the campsite
- Reduced maintenance through sustainable campsite
- Better capacity to cater for increases in visitor numbers.

Indicative Budget

Camerons Arm		
Paths (natural surface)	300 lineal metres @ \$35/lm	\$10,500
Landscaping, earthworks	Allowance \$20,000	\$20,000
Toilet	\$80,000	\$80,000
Project management	\$NA – Parks Vic	NA
Total		\$110,500

Implementation timeframe

Work on this site should commence under the planning and guidelines of the final *Lake Tyers State Park Draft Camping and Access Strategy*. Finalising site plan and the subsequent approval should be achieved relatively quickly as an already operational camping site. 1-2 months should be allowed for site development.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	
Engagement & community benefit	✓
Partnerships	✓
Quality Trails	
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	✓
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	✓
Bushfire overlay	✓
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	✓
Strengthen destination appeal through awareness	
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓

Figure 21. Location Map - Trail #3 – Day 2

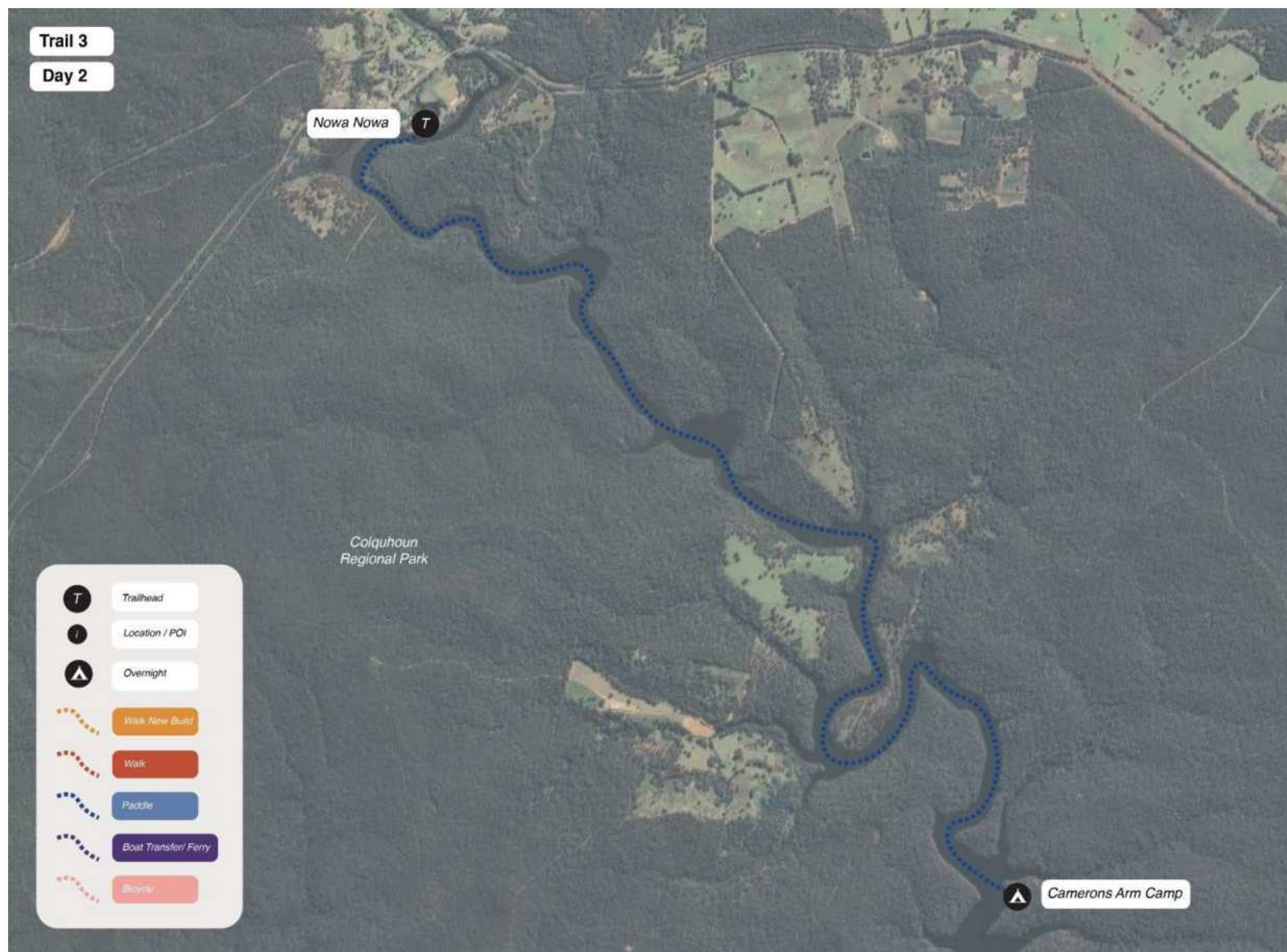


Figure 22. Camerons Arm Campground site analysis- Parks Victoria Draft Plans

Camerons Arm Track No. 1 Campground

Site analysis



Current use

Camping, in designated areas away from lake edge.
Fishing.



Existing amenities

Picnic tables.



Existing access

Unsealed road with minor drainage issues. No formal turn-around point.

Key issues

Shoreline fishing, camping and high volume pedestrian access to fishing causing compaction and erosion.
Illegal firewood collection.

EVC

Limestone Box Forest.

Planning zone

Conservation and Recreation Zone.



Vehicle access, drainage issues



Uncontrolled foreshore camping



Advisory signage for unauthorised access



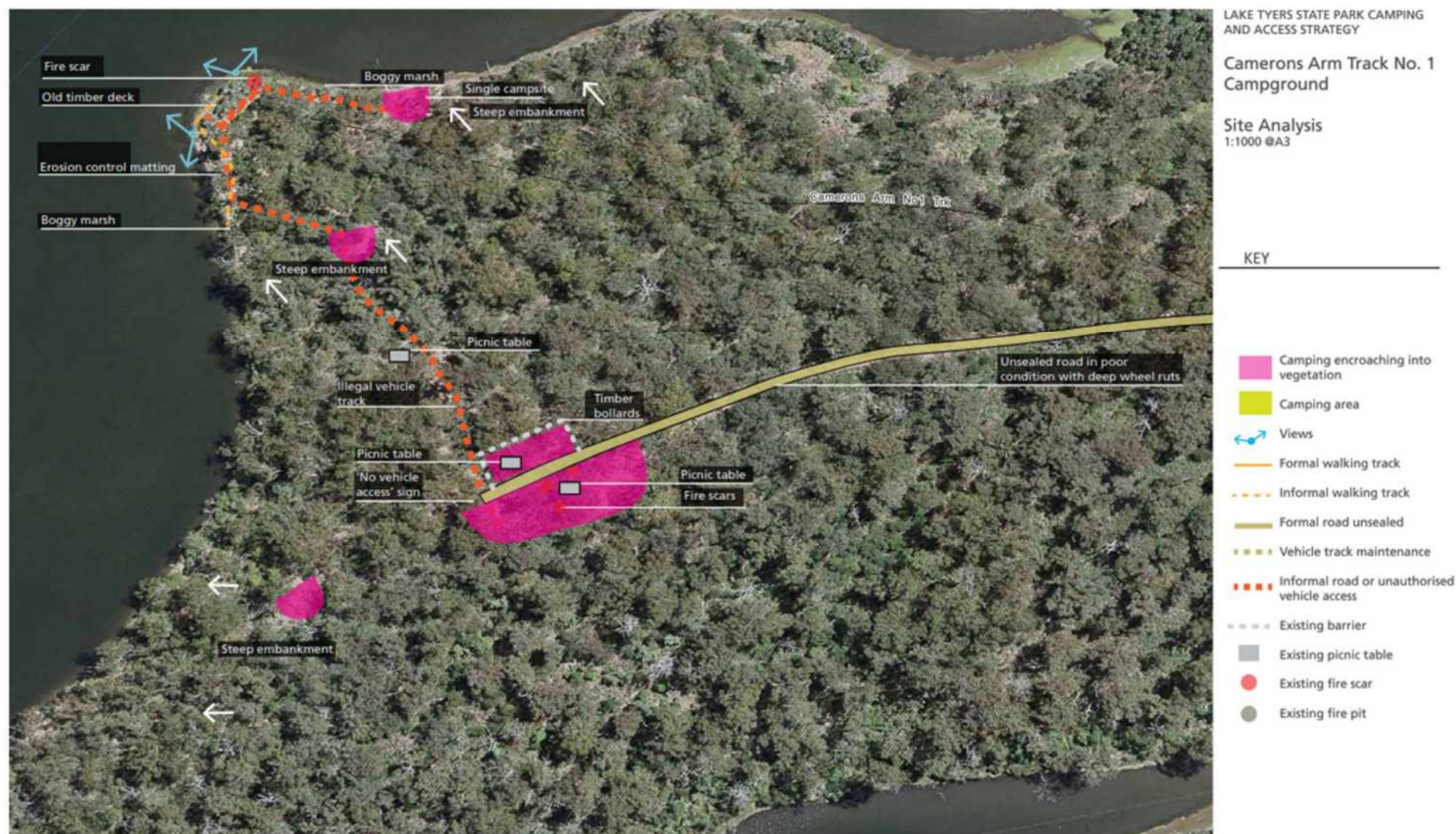
Firewood collection



Bollard defined camping area



Uncontrolled fire site



Source: <https://media.vrfish.com.au/wp-content/uploads/2020/07/24033516/19.-Camerons-Arm-Track-No.-1-Campground.pdf>

Camerons Arm Track No. 1 Campground

Key changes



Future use

This camp site has a secluded bush camp feeling. The box forest high canopy draws visitors towards the lake edge.



Continue to offer bush camping in designated areas away from the lakes edge. (4-5 small to medium sites)



Free camping without permit.



Fishing and kayak launch at the end of a new walking track connecting the camping area down to the lake.



Future amenities

Fishing platform/kayak launch, graded walking track path to water edge, turning circle and barriers.

Fire pits.

New toilet.

Information board.

Future access

Improved/graded unsealed road. Develop the illegal vehicle track into a walking track to the waters edge.

Key issues addressed

Damage to shoreline ecology and vegetation.

Staging and priorities

Medium priority.

Install full scope.

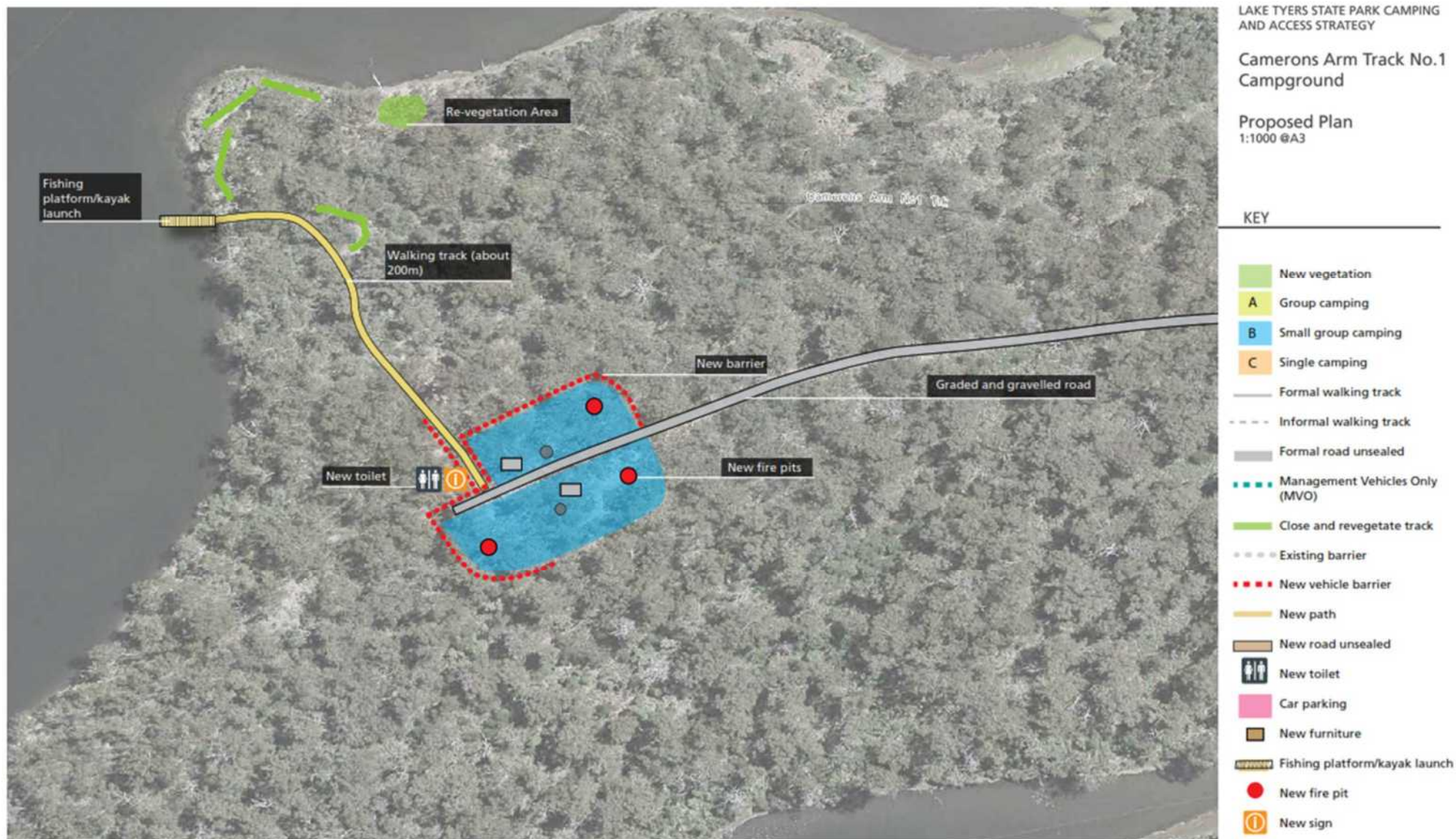
Zoning

Area to be included in a 'set aside' for camping once plan approved

Permits

Cultural Heritage Management Plan required for fishing platform/kayak launch.





5 Signage and Information

5.1 Whole of track wayfinding strategy

Description

A whole-of-track wayfinding strategy is proposed to ensure a coordinated approach to delivering a Gippsland Lakes Aquatic Trails signage and mapping design and protocol manual with a view to ensuring effective wayfinding is enjoyed across the network.

This overarching approach will need to take into consideration the vast regional area and variety of land and water environments and routes encompassed by the Gippsland Lakes Aquatic Trails network.

Importantly, it will need to consider interaction with other existing wayfinding protocols and signage, given the Gippsland Lakes Aquatic Trails network overlays and encompasses trails and locations already operational under multiple nature based experiences and multiple land manager auspices. Gippsland Lakes Aquatic Trail-specific wayfinding will need to work in parallel to and logical cohesion with other wayfinding signage that will remain on trail/s.

Primary outcomes

- Wayfinding design and implementation strategy document
- Improved user navigation and safety
- Better visitor experience suited to promotion of the Gippsland Lakes Aquatic Trail signature experience
- Meet the needs of the experience seeker and true traveller markets for immersion in nature and quality experiences
- Improved environmental condition and visual amenity of the overall trail network
- Better capacity to cater for increases in visitor numbers.

Indicative Budget

Wayfinding plan		
Consultant - wayfinding design		\$40,000
Project management		\$4,000
Total		\$44,000

Implementation timeframe

The Wayfinding Strategy and Design Plan including concepts, designs and placement mapping can be developed within 2-3 months of engagement of a consultant.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	
Engagement & community benefit	✓
Partnerships	
Quality Trails	✓
Sustainability	
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
Gunaikurnai and Victorian Government Joint Management Plan	
Conservation zoning	
Joint management intent	
Bushfire overlay	
Traditional Owner recognition	
Native vegetation and offsets - Victorian Planning Provisions	
Gippsland Destination Management Plan	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	

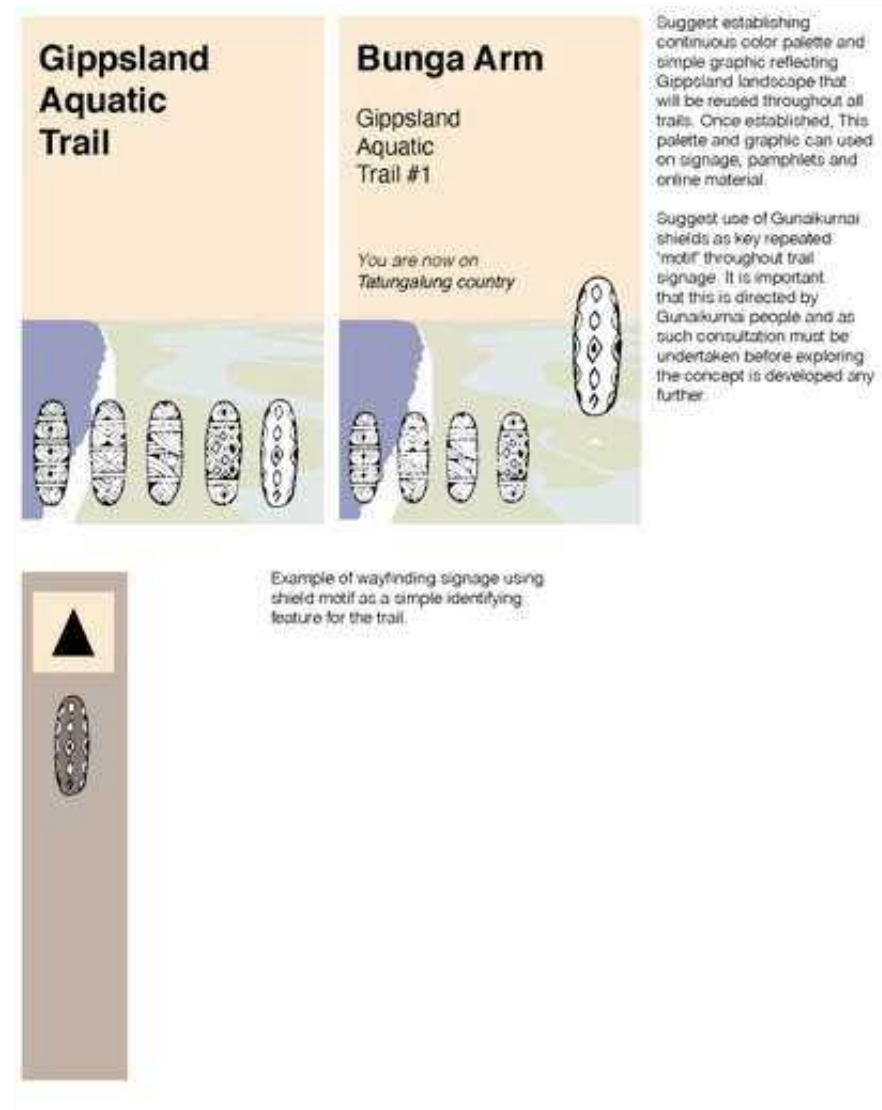
Current wayfinding signage







Figure 23. Precedent (existing) wayfinding signage



5.2 Whole of track interpretation strategy

A whole of track implementation strategy is proposed to ensure a coordinated vision for the interpretation of the range of values and stories associated with the Gippsland Lakes Aquatic Trail experience.

A variety of interpretation will be offered across the range of trails, landscapes and waterways, delivered both online and in situ and likely to include:

- High quality web-based, downloadable and/or app based Gippsland Lakes Aquatic Trails guide
- Information and interpretation at trailheads and nodes
- QR codes at significant locations with online story telling (e.g. Gunaikurnai Welcome at gateways, storytelling at significant sites, birdcalls etc.)
- Trained and accredited guides employed by commercial tour operators, with a focus on Gunaikurnai recruitment.

There will be a focused opportunity to highlight Gunaikurnai history and stories of the area interpreted by Gunaikurnai guides and/or information provided by them. Interpretation could be delivered at the Forestec Gunaikurnai Gateway Interpretation Centre, in situ on trail or at the overnight nodes, as well as via digital means.

The interpretation strategy will include significant consultation with the Gunaikurnai community to determine the way in which they want stories told and any training needs for non-Aboriginal guides.

Any cultural interpretation will further the aims of Native Title rights and interests of the Gunaikurnai people with significant involvement of Gunaikurnai Land and Waters Aboriginal Corporation (GLWAC).

The interpretation strategy will also address any other historical and environmental interpretation and storytelling that best and sensitively showcases the unique history and important natural values of the region, inclusive flora and fauna.

Interpretation will also be required to communicate safety directives, with specific focus on all waterway sections of the curated Gippsland Lakes Aquatic Trail network.

There exists a precedent in terms of signage and iconography present in situ across the Gippsland Lakes, especially in Parks Victoria and Gunaikurnai jointly-managed managed zones. The recommended direction is to continue the current direction of rich cultural signage. This requires meaningful direction from Gunaikurnai Traditional Owners. The Aquatic Trail direction should build upon established approach in the Joint Management Plan, with the intent to reflect the 'Gunaikurnai Strategic initiative 4: Protect and present Gunaikurnai culture in JM parks'.

As per item 4.1 regarding wayfinding, an interpretation strategy will need to consider interaction with other existing interpretation protocols and signage, given the Gippsland Lakes Aquatic Trails network overlays and encompasses trails and locations already operational under multiple nature based experiences and multiple land manager auspices. Gippsland Lakes Aquatic Trail-specific interpretation will need to work in parallel to and logical cohesion with other interpretation signage that will remain on trail/s, unless it is planned to replace existing.

Primary outcomes

- Visitors better appreciate the range of cultural, historic and environmental values associated with Gippsland Lakes Aquatic Trail and its parks, landscapes and waterways
- Improved understanding of Gunaikurnai culture through interpretation of country, heritage and living culture
- Meet the statutory obligations of Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) and Parks Victoria in protecting and promoting Aboriginal culture and heritage
- Add value and outcomes to Joint Management Agreement between Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) and Parks Victoria
- Improved environmental condition and visual amenity of track
- Better visitor experience suited to promotion of Gippsland Lakes Aquatic Trail as a Signature Experience
- Jobs creation for construction
- Create a more immersive and connected nature-based experience
- Communicate clear safety guidelines

Indicative Budget

INTERPRETATION PLAN	
Consultant - interpretation design	\$60,000
Project management	\$6,000
Cultural advisor	\$10,000
Total	\$76,000

Implementation timeframe

The Interpretation Strategy can be developed with 6 months of engagement of a consultant.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	✓
Engagement & community benefit	✓
Partnerships	✓
Quality Trails	✓
Sustainability	
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	✓
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	
Joint management intent	✓
Bushfire overlay	
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	✓
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓

Figure 24. Precedent (existing) interpretation signage



Figure 25. Precedent (existing) interpretation signage



5.3 Signage & Interpretation implementation

Implementation of the Whole of Track Wayfinding and Interpretation Strategies will allow for the representation of a range of values and stories associated with the Gippsland Lakes Aquatic Trail. It will also provide the necessary navigational tools online and offline (in situ) to guide and deliver a high-quality nature based experience.

Given the multi-faceted, layered approach of the Gippsland Lakes Aquatic Trail concept, and the nature of its itineraries being overlaid on existing trail networks and experiences, the installation of signage, wayfinding and interpretation is a critical step toward activation. Clear communication and facilitation of the experience will be pivotal to its success, visitor engagement and satisfaction, along with safety.

Stage 1 priority will focus on developing Trail 1 wayfinding and interpretation as the 'hero' Signature Trail Experience. Wayfinding and interpretation for Trail 2 should also be classified as prioritised development given its focus on Sperm Whale Head, which is also a focus encompassed in Trail 1.

Stage 2 wayfinding and interpretation development will concentrate on Trail 3 (Lakes Entrance-Nowa Nowa-Lake Tyers Beach-Lakes Entrance).

Trail 4 will be the final stage to focus on with the Nunduck Spa Resort development timeline indeterminate and likelihood of boat jetty development on Latrobe River being a medium to long term development.

Primary outcomes

- Digital wayfinding and mapping resources created and made available via appropriate online channels
- Wayfinding and mapping signage and infrastructure installed in situ
- Wayfinding and mapping offline support assets (i.e. map brochures) produced and made available via identified distribution channels (tourism centres, cultural centres, accommodation etc.)
- Interpretation digital assets created, tested and made 'live'
- Interpretation boards and signage designed and installed in situ
- Visitors able to pre-plan experience using digital resources
- On trail navigation accessible, consistent and easily understandable for best visitor experience
- Improved visitor safety
- Improved environmental condition and visual amenity of the overall trail network
- Visitors better appreciate the range of cultural, historic and environmental values associated with the Gippsland Lakes Aquatic Trail and its associated parks, landscapes and waterways
- Improved understanding of Gunaikurnai culture through interpretation of country, heritage and living culture.

Indicative Budget

Wayfinding & Interpretation implementation		
Trailhead signage and mapping	estimation	\$160,000
- production and installation		
Wayfinding	estimation	\$100,000
- production and installation		
Interpretation	estimation	\$250,000
- production and installation		
Digital content development	estimation	\$150,000
Project management		\$30,000
Cultural advisor		\$30,000
Total		\$720,000

Implementation timeframe

Once wayfinding and interpretation strategies have been confirmed, including content and design sign off and mapping of infrastructure placement, construction and installation can proceed and is expected to take approximately 2-3 months per Trail, or a total of 8-12 months.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	
Education	✓
Engagement & community benefit	✓
Partnerships	
Quality Trails	✓
Sustainability	
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	
Joint management intent	
Bushfire overlay	
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓

6 Trailhead nodes

6.1 Rail Gateway design, environmental and cultural planning and implementation

The Gippsland Aquatic Trails network feature four major described itineraries with a major trailhead of ‘gateway’ node location nominated for each.

Trailhead nodes represent the initial departure point for each trail and/or end of trip location. They serve as a point of welcome and trip departure while delivering in-situ pre-trip information and interpretation. They feature installed signage infrastructure inclusive of locator and all-of-trail mapping partnered with appropriate ‘scene setting’ interpretation.

Trailhead nodes also offer visitor facilities including car parking, toilets, and drinking water, and are often co-located with other visitor attractions and/or nearby township centres and facilities.

Major trailheads for the Gippsland Aquatic Trail network are:

1. Lakes Entrance (Trail 1; finish Trail 3) - Bullock Island Road Car Park (north) / Boat Ramp (near skate park)
2. Loch Sport (Trail 2; finish Trail 1) – The Boulevard
3. Forestec / Gunaikurnai Cultural Centre (All trails + Trail 3)
4. Port of Sale (Trail 4)

Each trailhead location will require full site surveys with appropriate cultural, heritage, environmental and town planning assessments against proposed development designs.

Only two of the listed trailhead nodes require significant infrastructure development and placemaking: Lakes Entrance gateway and Loch Sport gateway.

Forestec Gunaikurnai Cultural Centre is an existing interpretive facility, where development will be limited to incorporation of interpretation and facilitation information pertinent to the Gippsland Lakes Aquatic Trails within the context of the facility as it exists.

This Centre will also operate as a central ‘gateway’ introduction and interpretation facility for all visitors undertaking any of the itineraries available on the Gippsland Lakes Aquatic Trails. As such, a significant ‘gateway’ installation visually celebrating the Gippsland Lakes Aquatic Trail should be considered.

Port of Sale, inclusive of a Visitor Information Centre, Art Gallery and river port facility, will only require minimal overlay or additional interpretation and trailhead information, sensitively sited alongside current wayfinding, mapping and interpretation.

Primary outcomes

- Design and engineering plan for trail head site/s
- Cultural, environment and heritage assessment reports
- Legitimate consent for works
- Wayfinding, mapping signage, interpretation and infrastructure installed
- Trailhead information accessible, consistent and easily understandable for best visitor experience
- Improved visitor safety
- Improved environmental condition and visual amenity of the trailhead site
- Visitors better appreciate the range of cultural, historic and environmental values associated with the Gippsland Lakes Aquatic Trail and its associated parks, landscapes and waterways
- Improved understanding of Gunaikurnai culture through interpretation of country, heritage and living culture.

Figure 26. Lakes Entrance - Trail 2 – Start Location Trailhead node



“These images are mock up only for the purposes of the Business Case. Detailed design will be required to meet Parks Victoria and Gunaikurnai standards”

Figure 27. Lakes Entrance departure point concept mock-up



[illegible]

insert B

The Boulevard Boat Ramp - End Location Major Trailhead Node:

These locations are where users may begin, break or end their journey (multi-day itinerary, major rest stop). Requires major mapboard with minor locator maps positioning location within all of trail context. Requires some interpretation/ regards features to be explored in locality.

Example locations: Kalimna Jetty, Nyerimilang, Ocean Grange, Rotamah Island, Point Wilson (Sperm Whale Head)
Sample site for B&C to design: Point Wilson (see examples of signage Point Wilson for existing interpretation design).



MAJOR TRAILHEAD
The Boulevard Boat Ramp
The Boulevard
LOCH SPORT
CONCEPT 210323 CP2

GIPPSLAND LAKES | GIPPSLAND LAKES AQUATIC TRAIL
Implementation Strategy | June 2021

Figure 29. Loch Sport – concept drawing of trail head / conclusion to the trail



“These images are mock up only for the purposes of the Business Case. Detailed design will be required to meet Parks Victoria and Gunaikurnai standards”

Forestec Gunaikurnai Cultural Gateway – All trails + Trail 3



Image 47. IMAGE: Existing Gunaikurnai Cultural centre



Image 49. Existing Gunaikurnai Cultural centre



Image 48. Existing Gunaikurnai Cultural centre



Image 50. Cultural interpretation and experiences at Gunaikurnai Cultural centre

Indicative Budget

Trailhead gateway nodes		
Lakes Entrance	estimation	\$160,000
Loch Sport	estimation	\$100,000
Gunaikurnai Cultural Centre	estimation	\$250,000
Port of Sale	estimation	\$150,000
Project management		\$30,000
Cultural advisor		\$30,000
Total		\$720,000

Implementation timeframe

Once wayfinding and interpretation strategies have been confirmed (both of which will also inform trailhead gateway/node development) including content and design sign off and mapping of infrastructure placement, construction and installation can proceed. Timeline expectations vary according to site but are estimated at

- Lakes Entrance: 1-2 months
- Loch Sport: 1-2 months
- Forestec Gunaikurnai Cultural Centre: 1 month
- Port of Sale: 2 weeks – 1 month

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	✓
Engagement & community benefit	✓
Partnerships	✓
Quality Trails	✓
Sustainability	
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	
Joint management intent	✓
Bushfire overlay	
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	✓
Create industry partnerships	✓



7 Boat Jetty Nodes

7.1 Latrobe River - design, environmental and cultural planning

Gippsland Lakes Aquatic Trail 4 incorporates passage east from the Port of Sale along the Latrobe River towards Heart Morass Wetlands and Lake Wellington.

The section can be undertaken by boat or paddlecraft, or a combination of the two, matched to a 4km walk leg through the Sale Common Wetlands and a 17km return cycle leg from Heart Morass into Sale.

The use of a boat transfer (the *Rubeena* currently services tours part way along this route to the historical swingbridge) requires the ability to dock a small boat (or paddlecraft) on the northern riverbank. At present, there exists boat jetty or docking facilities at the Port of Sale and a location to the east of the historical swingbridge.

Proposed itineraries include a drop-off at McArdell's Gap (old ship building slip), in order for visitors to experience a 4km wetlands walk. There is also a proposed passenger transfer-to-land at the eastern end of the Latrobe River at heart Morass where passengers would then cycle 17km back into Sale via Flooding Creek and the Sale Common Wetlands.

Required works:

- Priority 1 - Heart Morass boat jetty with low deck suitable for paddle craft
- Priority 2 – McArdell's with low deck suitable for paddle craft.

Wherever proposed work involves shoreline impact these works will be the subject of a Review of Environmental Factors (REF) and a cultural impact assessment.

Individual reports will be required detailing the likely impacts of any proposed works on:

- Flora (including any Endangered Ecological Communities)
- Fauna
- Marine environment
- Aboriginal Cultural Heritage
- Historic Heritage.

The studies undertaken to prepare these reports will include fieldwork assessing a site-specific appropriate impact zone (minimum 5m from of any proposed new infrastructure and any in-ground or riverbed incursions).

**These environmental and cultural assessments may be carried out in coordination with other trail-based studies as per item 1.2.*

Location, design and construction should reference standards and guidance from relevant land managers and waterway managers along with regulatory authority advice such as that available via Maritime Safety Victoria and as applicable via the Marine Safety Act 2010 (Vic) and Marine Safety Regulations 2021 (Vic).

Any future boating infrastructure planning should reference the Victorian Recreational Boating Strategy², currently in development and due for release mid to late 2021. It should also reference the Gippsland Boating Coastal Action Plan 2013 (GBCAP 2013).

Assessments should consider site characteristics, land and river environment and ecology, in conjunction with the required user interaction.

Whether or not a launch/docking site will be effective and provide sustainable access depends largely upon its location; the characteristics of the water body (which may change between launch points); how the launch is used; and expectation of users.

² <https://engage.vic.gov.au/rec-boating-strategy>

Access is preferable in areas featuring:

- Low exposure to strong currents and wind
- No physical barriers
- Distance from other boat traffic
- Adequate water levels
- Minimal impact on shoreline required.

Where shoreline environments are sensitive and/or of steeper gradient, infrastructure preferred is of float and tether variety with shore based infrastructure anchoring, or minimal pole and foundation engineering, to ensure minimal to no sediment or riverbed displacement. Float-based jetties allow infrastructure to rise and fall with river levels. Ensuring consistent deck height relative to boat for safe and easy access.

Jetty and riverbank access should also consider accessibility needs to encompass the broadest range of skills, abilities and physical capacities. Approach should conform to Universal Access Design principles.

Australian Standard Guidelines for Design of Marinas (AS 3962-2001) is generally used as a guideline for boat jetties. Some relevant guidelines are provided in the Australian Standard AS 3962, Section 7 – Onshore boat facilities and AS 4997-2005 Guidelines for design of maritime structures.

Design and engineering should reference the Disability Discrimination Act (1992), which promotes the rights of people with disabilities to ensure they have equal access to facilities and services. Out of this Act came a number of Australian Standards that are relevant when reviewing public facilities, including non-powered boat launch facilities.

Primary outcomes

- Environmental and cultural planning will result in:
- Report detailing expected site-specific environmental, cultural and heritage sensitivities arising from planned boat jetty infrastructure
- Legitimate consent for works
- Improved environmental condition of shoreline
- Better visitor experience suited to signature experience
- Infrastructure best suited to specific land-water, launch/dock requirements
- Improved visitor safety
- Better capacity to cater for increases in visitor numbers
- Public amenity.

Figure 30. Location Map: Trail Improvements Latrobe River –Trail #4 Ride Route Heart Morass-Sale





Image 51. Rubeena boat transfer at historic swingbridge



Image 52. Rubeena boat transfer at historic swingbridge



Image 53. Rubeena docked at Port of Sale showing existing float platform ideal for both boat and paddlecraft docking



Image 54. Existing boat jetty platform located eastern side of historical swingbridge, Latrobe River

Budget – design, environmental, cultural and heritage

Budget	
Consultants' fees – environmental / heritage	\$20,000
Consultants' fees – cultural	\$20,000
Designer / engineering fees	\$40,000
Project management	\$15,000
TOTAL (Ex GST)	\$95,000

Implementation timeframe

Allow 3 months from appointment of cultural, environmental and heritage consultants. Allow three months for designer and engineer documentation.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	✓
Engagement & community benefit	✓
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	✓
Joint management intent	
Bushfire overlay	
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	✓
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	
Create industry partnerships	

7.2 Latrobe River Jetties – Heart Morass & Old Boat Yards

Priority One – Heart Morass

There currently exists a boat ramp at the furthest point east along the Latrobe River which is accessible by land, however there is no linking trail back to the west to join with the route proposed for the cycling leg of the Gippsland Lakes Aquatic Trail 4. Further, the land needed to be crossed should the existing boat ramp be deemed a preferred docking site is frequently inundated and not suitable for development of a linking trail.

Instead, several sites to the west of the boat ramp have been identified as suitable for potential boat jetty construction. These sites are located adjacent to existing trail and would require little trail upgrade and are already accessible by motor vehicle.

The Heart Morass boat jetty would facilitate visitors alighting from a boat transfer (from either Port of Sale or potentially travelling from Nunduck Resort (proposed). Visitors would then be able to ride (or walk) 17km return leg to Sale via Flooding Creek and the Sale Common Wetlands. The jetty could also service paddlecraft.

This boat jetty is critical to the development of Trail 4.

Required works:

- Boat jetty with low craft access
- Seating and picnic area



Image 55. Proposed jettysite, eastern end of Heart Morass

Figure 31. Location Map: Proposed jettysite, eastern end of Heart Morass



Priority Two – McArdell's (old shipyards)

Trail 4 itinerary currently describes a section where visitors have the option of alighting from water transfer to enjoy a 4km one-way walk through the Sale Common Wetlands. The concept relies on a drop off location at McArdell's, with visitors walking 4km downstream to a pick up location just past the existing historical swingbridge attraction. Visitors are then able to re-board their river transfer vessel at an existing jetty just south of the swingbridge.

The addition of a boat docking solution at McArdell's may also precipitate some consideration of developing the old boatyards as a historical point of interest and attraction with expanded interpretation (not covered in this scope).

Required works:

- Boat jetty with low craft access
- Seating and picnic area

NB: it is feasible to extend the walk to a 7km loop walk out and back from the existing jetty at the swingbridge, however this alters the itinerary timeline and attractiveness given the longer walk that is also in reverse direction to water transfer.



Image 56. Proposed jetty site, McArdell's old shipyard



Image 57. Proposed jetty site, McArdell's old shipyard



Image 58. Proposed jetty site, McArdells old shipyard interpretation existing

Precedent



Image 59. Static and floating jetty, Port of Sale



Image 60. Static jetty, historic swingbridge, Latrobe River

Figure 32. Proposed jetty site options, McArdeels old shipyard



Indicative Budget

Priority One – Walkway and footbridge construction costs specific		
Heart Morass boat jetty		\$150,000
Picnic and seating facilities		\$100,000
McCardell's boat jetty	70m	\$150,000
Picnic and seating facilities		\$100,000
Total		\$500,000

Implementation timeframe

Build of each jetty from engagement of contractors should take 4-6 months.

Meeting Objectives

GUIDING PRINCIPLES	
Aboriginal participation	✓
Education	✓
Engagement & community benefit	✓
Partnerships	
Quality Trails	✓
Sustainability	✓
Outstanding Design to Compliment Nature	✓
Trail experiences	✓
Working together	
<i>Gunaikurnai and Victorian Government Joint Management Plan</i>	
Conservation zoning	
Joint management intent	✓
Bushfire overlay	
Traditional Owner recognition	✓
Native vegetation and offsets - Victorian Planning Provisions	
<i>Gippsland Destination Management Plan</i>	
Collaborative & effective governance, industry and community	
Strengthen destination appeal through awareness	✓
Develop experiences, encourage new markets	✓
Invest and diversify regional events	
Invest in placemaking	✓
Revitalise visitor servicing	
Create industry partnerships	

www.trctourism.com



INSPIRING SOLUTIONS
FOR PEOPLE AND PLACES