



Master Concept Plan



Kentish Park and Lake Barrington Park



Natural Acumen for Kentish Council



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1. Introduction

1.1. Background

Since its construction as water storage for the generation of electricity in 1969, Lake Barrington has developed as a focus for water and nature-based recreation in northwest Tasmania. The lake forms part of the Mersey-Forth run-of-rivers hydro power scheme that comprises seven water storages/lakes and four rivers. The lake is also a valuable source of drinking water for the North West Coast of Tasmania.

Lake Barrington is a popular venue for a variety of activities including: rowing, water-skiing, jet-skiing, wakeboarding, kayaking, fishing, camping, picnicking and sightseeing. The lake is also recognised as a significant recreational asset as a venue for State, national and international sporting events, particularly rowing, kayaking and water-skiing.

Due to the mix of topography and land tenure surrounding the lake recreational access to the lake and its shoreline is restricted to a limited number of sites with the three key sites being the Kentish Park, Lake Barrington Park and the Rowing Course at Weeks Flat.

Kentish Park and Lake Barrington Park are situated on opposite shores of the northern end of Lake Barrington. Kentish Park is located on the eastern shore, approximately 12 kilometres from the town of Sheffield and Lake Barrington Park is situated on the western shore approximately 4 kilometres from Wilmot. These two sites are popular sites for day visitors and campers who enjoy picnicking, sightseeing and are often used as a base for activities on the lake.

Kentish Council has responsibility for the management of the camping and day facilities within the two parks. Hydro Tasmania is responsible for the management of the lake including water quality and levels, dam infrastructure and the use of the lakeshore to the high water mark.

1.2. Purpose

The *Mersey-Forth Catchment Recreation Development and Management Plan* was developed in 2013 to provide an integrated approach to the development and management of recreation across the entire Mersey-Forth catchment. A key action identified by that plan was the development of a combined Site Plan for Kentish Park and Lake Barrington Park.

The purpose of this project was to prepare a Concept Master Plan for Kentish Park and Lake Barrington Park. The main aims of this plan were to:

- assess existing usage and facility provision, and likely future demand
- identify issues (including those between the different users), mitigation strategies, and opportunities
- have user friendly parks with respect to infrastructure provision and navigation throughout
- identify priorities for on-ground works, including infrastructure provision
- assist Kentish Council to manage the parks considering any future increase in usage.

The Concept Master Plan does not address on-water issues as these have been addressed in the Mersey-Forth Recreation Development and Management Plan (Natural Acumen 2013).

1.3. Approach

Key elements of the development of the Concept Master Plan for Kentish Park and Lake Barrington Park were:

- Initial project briefing
- Initial site inspection focusing on environmental impacts and recreation footprint
- Background research including data search and review of existing reports
- Stakeholder consultation with user groups
- Site visits with Kentish Council Economic and Community Development Manager
- Site visits by a surveyor to map existing infrastructure
- Site visits during Christmas – New Year and Easter holiday periods – observation of use and discussions with campers and day-visitors
- Community consultations at public meetings – Spreyton and Wilmot

- Online survey of users accessed via the Kentish Council's website
- Consultation with the Lake Barrington Recreation Management Committee
- Development of the Draft Kentish Park and Lake Barrington Park Concept Master Plan
- Review of Draft Kentish Park and Lake Barrington Park Concept Master Plan by Kentish Council
- Finalise the Kentish Park and Lake Barrington Park Concept Master Plan

1.4. Acknowledgements

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Cait Clarke, Councillor

Bart Wisse, Councillor

Annie Willock, Councillor

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The Mersey-Forth Recreation Management Committee for their input and feedback.

Jim Caulfield of MAST for placing a link to the online survey on the MAST website.

Brian Knowles, Visitor Research Officer, Parks and Wildlife Service for his assistance in interpreting Metro-count traffic data collected at Kentish Park and Lake Barrington Park over the 2013-14 Christmas – New Year period.

2. Management context

This section provides an overview of the current management arrangements and the various statutory, management and planning documents relevant to the management of Lake Barrington and Kentish Parks.

2.1. Current management arrangements

The management of Lake Barrington and Kentish Parks is principally the responsibility of Kentish Council while the lake and a ribbon of land that abounds the lake are managed by Hydro Tasmania, including responsibility for the boat ramps and pontoons. In the past, the Recreation Boating Fund, administered by Marine and Safety Tasmania (MAST), has provided the majority of the funding for the provision and maintenance of boating infrastructure with assistance and contributions also from Hydro Tasmania and Kentish Council. MAST has managed planning and installation.

Hydro Tasmania manages short-term leases with Kentish Aquatic Club for an area at Luttrells Point to the south of Kentish Park, and with Horsehead Water Ski Club for land to its north (Natural Acumen 2013).

The Inland Fisheries Service (IFS) manages the Lake Barrington as a family fishery and regularly stocks the lake with rainbow trout and Atlantic salmon. IFS also administer and issue angling licences that are required by anyone wishing to fish at Lake Barrington.

MAST manage all the functions relating to the safe operation of all recreational boats and commercial vessels up to 500 tonnes, or 35 metres in length. MAST is responsible for the regulation and safety of boating on Lake Barrington, including registration of vessels and the licensing of motor boat operators.

There are a number of statutory, management and other planning documents that relate to the management of Lake Barrington and Kentish Parks.

2.2. Living on the Coast: Cradle Coast Regional Land Use Planning Framework 2010

The Cradle Coast Land Use Planning Framework, and the Cradle Coast Regional Land Use Strategy 2010 – 2030 it encompasses, is a statutory planning instrument under the Tasmanian Resource Management and Planning Scheme designed to inform the purpose and content of local planning schemes. The Framework recognises the high economic value of the hydroelectricity schemes and their associated storage lakes, nature-based tourism and the natural environment as being vital to the health and lifestyle of the people of the Cradle Coast.

Cradle Coast Regional Land Use Strategy 2010 – 2030 (Cradle Coast Authority 2010: 139) requires land-use planning processes for sustainable tourism to:

- a. facilitate tourism operations and facilities in locates [sic] that -
 - i. leverage attraction and uniqueness of authentic experience in natural and wild places, including iconic destinations
 - ii. integrate with other economic activity, including agriculture and mining
 - iii. capitalise on natural and cultural heritage and landscapes
 - iv. provide choice and diversity in character, distribution and scale
- b. protect attributes which attract and enhance tourism experience in the vicinity of designated tourist trails, identified points of interest and high value environmental, cultural and scenic sites
- c. promote nature based and cultural tourist orientated development in conservation and natural value locations
- d. promote tourism incidental to resource, industrial and settlement activity
- e. require tourist facilities are environmentally and socially sustainable with appropriate standards for transport, water supply and waste water infrastructure
- f. integrate tourist experience and infrastructure into settlement centres to support and reinforce economic function
- g. avoid alienation and displacement of local communities and significant change in local character, function and identity
- h. ensure regulatory requirements and approval processes do not unduly direct or restrain the location, nature and flexibility of tourism operations and visitor accommodation.

The Strategy (Cradle Coast Authority 2010: 140) also states that policies must:

- a. facilitate a range of visitor accommodation options

- b. locate high-capacity accommodation in major settlement centres and key tourist locations
- c. designate sites for camping, caravan and mobile home use
- d. restrict permanent settlement within designated tourist sites and facilities.

2.3. The Kentish Interim Planning Scheme 2013

The Kentish Interim Planning Scheme is consistent with and aimed at furthering the policies of the Cradle Coast Regional Land Use Strategy 2010 – 2030 (see Section 2.1). Amongst other things, the Scheme promotes the 'wise use of natural resources for economic, cultural and environmental purposes' and 'coordinate[s] the] sustainable use or development of land within the municipal area'.

Under the Scheme Kentish Park has been zoned for Environmental Management. The Scheme (2013: Section 29.1.2.) states that Environmental Management land is protected, conserved and managed to:

- a. sustain biodiversity and ecological process;
- b. retain habitat value for native vegetation communities and fauna species;
- c. protect significant geological features, natural landforms, and aesthetic or scenic landscape, including within the coastline and waterways;
- d. protect places of special cultural value or heritage importance;
- e. retain capacity of naturally occurring or renewable resources for productive economic use;
- f. support recreation and tourism use; and
- g. minimise against intrusion and impact of conflicting use such as settlement and intensive primary production
- h. Restrict new use or development on land with a high level of risk from exposure to a natural hazard.

Lake Barrington Park is encompassed within the Rural Resource Zone and a reading of the Local Area Objectives suggests the zoning of this parcel of land is incongruent with its long standing use and potential. That said, the Scheme (2013: Section 26.1.2.) notes that land within this zone may be used and developed for:

- economic, community, and utility activity that cannot reasonably be accommodated on land within a settlement or nature conservation area;
- tourism and recreation use dependent upon a rural location or undertaken in association with primary industry.

2.4. Hydro Tasmania Group Recreation Principles 2012

As noted earlier, Hydro Tasmania manages Lake Barrington and the ribbon of shoreline that is vested with them by the Tasmanian Government. Relevant to this area are the Hydro Tasmania Group Recreation Principles (Hydro Tasmania 2012b). This document articulates a vision for Hydro Tasmania's management of recreation on the land and water for which it is responsible. That vision states that:

Hydro Tasmania will endeavour to effectively manage recreational opportunities on our land and water bodies. We will continue to develop and participate in collaborative management partnerships with stakeholders including government land managers, local councils, recreational clubs, community groups and private businesses. We will work cooperatively with our neighbours to limit impacts on surrounding land uses and activities.

Importantly, five principles have been adopted to guide Hydro Tasmania's planning, development and management of recreation opportunities on its land and water bodies. These are:

Operational safety and security

Hydro Tasmania aims to manage recreational sites, infrastructure and services in line with asset safety and security protection using contemporary standards and practices for health risk and public safety.

Environmental management

Hydro Tasmania aims to manage recreational use to protect and enhance biodiversity, water quality and environmental services with consideration to the predicted impacts of climate change. Other considerations will include the protection of our cultural heritage including social, aesthetic landscape and historic values.

Access to multiple-use recreational opportunities

Hydro Tasmania aims to provide access to a diversity of public recreational activities on our land and water bodies that are compatible with our operations and community needs. Recreational opportunities and facilities will endeavour to cater for a range of user groups and the public benefit in general.

Community engagement and support

Hydro Tasmania will continue to communicate and engage with stakeholders about access, use and management of our recreational assets. We will ensure that there is open communication with user groups.

Economic benefits

Hydro Tasmania recognises the connection between access to and use of our recreation assets in the provision of benefits to local and regional economies. Wherever possible we will also promote private investment in appropriate recreation opportunities.

2.5. Other relevant documents

2.5.1. *Statewide Directions Paper – Review of Council Recreational Vehicle Overnight Camping Services (May 2012)*

The Tasmanian Economic Regulator released a *Statewide Directions Paper – Review of Council Recreational Vehicle Overnight Camping Services*, hereafter the (*Statewide Directions Paper*) in 2012 following consideration of a number of complaints from private caravan park site owners with respect to free or low-cost services being provided to RV users by councils. Having considered competitive neutrality principles under the National Competition Policy, and acknowledging the importance of promoting tourism in regional areas, the review concluded that:

'each council-owned service in Tasmania is likely to be competing with a privately-owned caravan park, either within its own municipality or in surrounding municipalities, and needs to price its services to reflect costs'

"that council must adhere to the principles of competitive neutrality and should apply a 'full cost attribution model' approach when operating these services" (State Government and the Local Government Association of Tasmania 2012: 1).

Importantly, the Directions Paper includes a decision making guide, a full cost attribution checklist, a worked example and indicative figures to assist councils in complying with the National Competition Policy competitive neutrality principles.

2.5.2. *Kentish Council Reserves, Parks and Gardens By-Law, By-Law No 1 of 2012 and By-Law No 1 of 2014*

By-Law No 1 of 2012, made by the Kentish Council under Section 145 of the Local Government Act sets out a number of regulations for camping in the public reserves at Kentish Park and Lake Barrington Park, Lake Barrington (Kentish Council 2012). These by-laws require prospective campers to secure a permit for overnight camping at these locations. The By-Law also sets out the fees associated with such permits, the conditions permit holders must abide by and any penalties associated with breaches of these.

Amongst the conditions specified in the 2012 By-Law is a requirement that people camping at Kentish Park or Lake Barrington Park do not do so for 'more than 21 days in any 2 consecutive monthly periods' (Kentish Council 2012, Section 16, Sub-clause 2). The subsequent By-Law of 2014 includes 'police as authorised officers and giving [sic] the Council power to remove any shelter of vehicle that is being used for the purpose of camping where there is a breach of the time limit requirements' (Kentish Council 2012: 1).

2.5.3. *Inland Waters Boating Infrastructure Plan 2010*

In 2010 the IFS completed the Inland Waters Boating and Infrastructure Plan (Marine and Safety Tasmania, Hydro Tasmania and Inland Fisheries Service 2010). The Plan is the outcome of an assessment by Hydro Tasmania, IFS and MAST of public boat launching facilities on inland waters throughout Tasmania. Assessments were conducted to (Marine and Safety Tasmania, Hydro Tasmania and Inland Fisheries Service 2010: 1):

- gauge the current condition of boating facilities on inland waters (Lakes and Lagoons)
- assess current and potential future demand for boating facilities at each location
- consider historical, current and future recreational and operational management priorities
- make recommendations for current and future maintenance

- make recommendations for future developments, upgrades and improvements.

The Plan presents the results of an assessment of the condition of boat ramps at the time of inspection and provides a list of projects to guide future development subject to funding and approvals processes. The Plan states that 'considerations for infrastructure development will be provided at the completion of the Lake Barrington Recreational Plan' (Marine and Safety Tasmania, Hydro Tasmania and Inland Fisheries Service 2010: 10).

2.6. The Mersey-Forth Recreation Management Committee

The Mersey-Forth Recreation Management Committee (MFRMC), formerly the Lake Barrington Recreation Management Committee, was established in 2010 in response to the development of the Lake Barrington Management Framework (Inspiring Place 2010). Following the development of the Mersey-Forth Recreation Development and Management Plan (Natural Acumen 2013), the MFRMC expanded their remit to encompass the entire Mersey-Forth catchment to better coordinate the provision and management of recreation opportunities. The Committee underpins stakeholder collaboration to ensure that the Lake Barrington and the broader catchment is sustainably developed and managed as a major multi-use recreational asset for the benefit of the Tasmanian community and visitors to the State.

2.7. Draft Lake Barrington Erosion Management Guiding Principles

Hydro Tasmania, Kentish Council, the Horsehead Water Ski Club and the Kentish Aquatic Club collaborated on the development of the Draft Lake Barrington Erosion Management Guiding Principles (Appendix A). With final approval pending, the draft guiding principles state:

1. that the management of erosion is a shared responsibility managed through a collaborative partnership between land managers and recreational users
2. that priority sites for the management of erosion is where there is a risk to assets collectively owned by the land managers including public assets and where safe use of those assets is at risk
3. that the impacts of erosion to environmental, bio-diversity or heritage values is managed to protect the social values of Lake Barrington.

2.8. Lake Barrington Erosion Priority Risk Assessment and Action Plan (Wild & Koehnken 2014)

This Lake Barrington Erosion Priority Risk Assessment and Action Plan by Wild and Koehnken (2014) presents the results of a risk assessment of shoreline erosion of Lake Barrington with respect to assets and infrastructure, natural and recreation values. The report prioritises these risks and presents an Action Plan for mitigation and management options for appropriate priority risk areas. These are discussed in further detail later in this report.

3. The values and recreation use of Lake Barrington and Kentish Parks

This section provides an overview of the natural, cultural and recreation values and provides a broad insight into visitors from interstate and overseas. The information presented is based on reviews of existing databases and literature, in particular the Natural Values Atlas managed by the Conservation Values Information Section of the Resource Management and Conservation Division within the Department of Primary Industries and Water, as well as a review of the current knowledge of the Aboriginal Heritage in the area (Hydro Tasmania 2012a).

The recreation values were identified through literature review and verification, consultation with user groups and key stakeholders, site inspection and inventory and on-site face-to-face interviews with visitors recreating in the area during Easter 2013.

Lake Barrington and Kentish Parks are situated on the shore of Lake Barrington and developed following the filling of the lake at the flooded ends of the road that once ran between West Kentish and Wilmot. The lake is principally a water impoundment for the generation of hydro-electricity via the Devils Gate Power Station that was commissioned in 1969 and is managed by Hydro Tasmania.

3.1. Natural values

Lake Barrington is situated in a mixed rural, native bushland setting. Lake Barrington is characterised by mainly steep topography that limits access to all but a few locations along its shore where camping areas, water access and associated facilities have developed. The Natural Values Atlas (NVA) of Tasmania identifies the steeper terrain at both Lake Barrington Park and Kentish Park as 'landslip hazard' areas.

The lake is situated in a temperate maritime climate, characterised by predominantly westerly winds, cool winters and summers that are milder and drier (Table 1).

Table 1 Annual rainfall, minimum temperature, maximum temperature, coolest month and warmest month for Cradle Valley, Moina and Sheffield. Source: BOM.

BOM Station	Annual rainfall	Min temp. (Average)	Max temp. (Average)	Coolest month (Ave min/max)	Warmest month (Ave min/max)
Moina – 091064	1785.2mm	3.4	13.9	Jul 0.4 / Jul 8.3	Feb 6.9 / Feb 19.8
Sheffield – 091091	1179.1mm	6.2	15.8	Jul 2.5 / Jul 10.6	Feb 10.3 / Feb 21.5

Lake Barrington is characterised by cleared agricultural land and wet and dry Eucalypt forest types and substantial areas of silvicultural plantations. Specific on-site surveys for vegetation communities, flora and fauna were outside the scope of this project; however desk-top research was undertaken. The following descriptions are based on a search of the NVA and have not been field verified. According to the NVA, the vegetation communities recorded for Kentish Park are:

Eucalyptus obliqua dry forest (DOB)

Acacia dealbata forest (NAD)

Agricultural land (FAG)

According to the NVA, no threatened flora is found within 500m of Kentish Park, however one threatened fauna species (giant freshwater crayfish) has been sighted and others have the potential to occur, within 500m of the site. These are outlined in Table 2.

Table 2 Conservation status of threatened fauna species within 500m of Kentish Park. Source: NVA

Species	Common name	Record	Status listing*	
			TSPA	EPBCA
<i>Astacopsis gouldi</i>	giant freshwater crayfish	Sighting	V	Not listed
<i>Dasyurus maculatus</i>	spotted-tailed quoll	Habitat mapping	R	V
<i>Alcedo azurea</i> subsp. <i>diemenensis</i>	azure kingfisher or azure kingfisher (Tasmanian)	Habitat mapping	E	E
<i>Pseudemedia pagenstecheri</i>	tussock skink	Habitat mapping	V	Not listed
<i>Litoria raniformis</i>	green and gold frog	Habitat mapping	V	V
<i>Astacopsis gouldi</i>	giant freshwater crayfish	Habitat mapping	V	V
<i>Lathamus discolor</i>	swift parrot	Habitat mapping	E	E
<i>Sarcophilus harrisii</i>	tasmanian devil	Habitat mapping	E	E
<i>Prototroctes maraena</i>	australian grayling	Habitat mapping	V	V

* Endangered, Vulnerable, Rare. TSPA: Tasmanian Threatened Species Protection Act 1995. EPBCA: Commonwealth Environmental Protection and Biodiversity Conservation Act 1999.

For Lake Barrington Park the NVA shows *Acacia dealbata* forest (NAD) and Agricultural land (FAG) to be present. A search of the NVA indicated no threatened flora is found within 500m of Lake Barrington Park; however habitat mapping suggests a number of threatened fauna species have the potential to occur within 500m of the site. These are outlined in Table 3.

Table 3 Conservation status of threatened fauna species with the potential to occur within 500m of Lake Barrington Park. Source: NVA

Species	Common name	Record	Status listing*	
			TSPA	EPBCA
<i>Perameles gunnii</i>	eastern barred bandicoot	Habitat mapping	Not listed	V
<i>Dasyurus maculatus</i>	spotted-tailed quoll	Habitat mapping	R	V
<i>Alcedo azurea subsp. diemenensis</i>	azure kingfisher or azure kingfisher (Tasmanian)	Habitat mapping	E	E
<i>Pseudemoia pagenstecheri</i>	tussock skink	Habitat mapping	V	Not listed
<i>Litoria raniformis</i>	green and gold frog	Habitat mapping	V	V
<i>Astacopsis gouldi</i>	giant freshwater crayfish	Habitat mapping	V	V
<i>Lathamus discolor</i>	swift parrot	Habitat mapping	E	E
<i>Sarcophilus harrisii</i>	tasmanian devil	Habitat mapping	E	E
<i>Prototroctes maraena</i>	australian grayling	Habitat mapping	V	V

* Endangered, Vulnerable, Rare. TSPA: Tasmanian Threatened Species Protection Act 1995. EPBCA: Commonwealth Environmental Protection and Biodiversity Conservation Act 1999.

3.2. Cultural values

Places and items of Aboriginal cultural significance including physical artefacts and archaeological sites, resources such as food and material plants, spiritual values and traditional practices have been found dispersed throughout the Mersey-Forth catchment (Hydro Tasmania 2012a). Though some values have been identified by surveys conducted to date, many are likely to remain undocumented.

Internet and desk-top research of information in the public domain revealed little documented information regarding Aboriginal heritage at Lake Barrington. Places and items of Aboriginal cultural significance including physical artefacts and archaeological sites, resources such as food and material plants, spiritual values and traditional practices have been found dispersed throughout the Mersey-Forth catchment but relatively few relics at Lake Barrington (Hydro Tasmania 2012a). However, it is well known that such records are only as reliable as the amount, type and age of search effort in a specific region and artefact visibility (groundcover conditions) at the time of searching. A lack of records does not mean a lack of artefacts.

The most recent study of Aboriginal heritage values pertinent to the area was undertaken by Hydro Tasmania; however this report remains confidential at the request of the Aboriginal community (Hydro Tasmania 2013). As such, there is no publically available record of Aboriginal relics¹ having been identified at either Kentish Park or Lake Barrington Park.

In 2011, Hydro Tasmania assessed the heritage value of its hydro-electricity assets and included the Devils Gate Dam wall as being of significance due to the technological achievement displayed in its design and construction (Hydro Tasmania 2011).

Consultation and on-site interviews has shown that campers, water-skiers, fishers and other regular visitors to Lake Barrington and Kentish Parks have developed a strong sense of place and 'ownership'. These values have developed over years of repeat visits by individuals and families and in many cases this affinity has been passed on through the generations. The connection with place is such that many visitors prefer to camp in the same location every time they visit and many sites are known for who camps there.

¹ Under the *Aboriginal Relics Act 1975*, an Aboriginal heritage site is referred to as a 'relic', and defined as:

- any artefact, painting, carving, engraving, arrangement of stones, midden, or other object made or created by any of the original inhabitants of Australia or the descendants of any such inhabitants;
- any object, site, or place that bears signs of the activities of any such original inhabitants or their descendants; or
- the remains of the body of such an original inhabitant or of a descendant of such an inhabitant who died before the year 1876 that are not interred in -
 - any land that is or has been held, set aside, reserved, or used for the purposes of a burial ground or cemetery pursuant to any Act, deed, or other instrument; or
 - a marked grave in any other land.

3.3. Recreation values

Lake Barrington and Kentish Parks have been the focus for public recreation on the lake since 1970 as they provide the principal points of access for activities other than rowing. These locations provide free-camping and day-use facilities which are, for the most part, used by people coming to enjoy water-based activities associated with the lake.

There is little data with respect to the number, length of stay or origin of campers at these sites, though anecdotal evidence and observation shows the Christmas – New Year season, the Australia Day long weekend and the Easter holidays are the peak use times. Consultation undertaken for this project suggests the majority of users are from across north-west Tasmania due to its proximity to where they live, however the quality of the recreation experiences and the setting are such that people do travel from other parts of Tasmania to camp and enjoy the lake and the activities it affords. It is also clear that both Lake Barrington and Kentish Parks have a national profile as free-camping venues and are visited by people from mainland Australia and overseas alike.

Lake Barrington itself is principally valued as a venue water-based recreation such as water-skiing, angling, kayaking and rowing which is based at the international standard rowing course. The lake's popularity can be attributed to its alignment that protects it from the prevailing westerly wind direction, its natural setting, its proximity to population centres across the north-west and the free camping opportunities it provides.

Lake Barrington is the focus for water-skiing and is concentrated in the wider sections of the northern part of the lake and northward toward Devils Gate Dam. Access is gained via boat ramps at Lake Barrington Park and Kentish Park. The majority of the non-club water-skiing activity is associated with the Kentish Park area with fewer people accessing the lake via the boat ramp at Lake Barrington Park.

Two water-ski clubs were established at the lake in the early 1970s following the filling of the lake. The Horsehead Ski Club is situated to the north of Kentish Park, while the Kentish Aquatic Club is located immediately to the south of Kentish Park and is accessed via the Parks road network. While self-sufficient in terms of camping, toilet and boat launching facilities, the clubs and their members' activities are key aspects of recreation in the area.

Lake Barrington is the most popular location for angling in the Mersey-Forth catchment (IFS 2013). The lake is open year round and is stocked with Atlantic salmon and rainbow trout by the Inland Fisheries Service, and has self-sustaining populations of brown trout and blackfish. Like the other lakes and rivers in the catchment, all fishing methods are permitted at Lake Barrington². Fishing occurs across all areas of the lake, but it is likely that much of the activity occurs north of the rowing course at Weeks Flat due to the time required to travel to the southern end of the lake.

People also ride unlicensed and unregistered trail-bikes and quad-bikes at Kentish Park. This activity has been explicitly prohibited at both Lake Barrington and Kentish Parks since the introduction of the Kentish Council Reserves, Parks and Gardens By-Law, By-Law No 1 of 2012.

The lake is also one of Australia's premier rowing courses and has a reputation amongst rowers internationally as one of the world's most attractive rowing venues due to its natural setting. Rowing is principally focussed around the rowing course at Weeks Flat, approximately 6km south of Lake Barrington and Kentish Parks, where a national level competition venue hosts local, state and national events³ on a regular basis and the course and associated facilities are used by schools, clubs, elite training, masters rowing, as well as informal training groups. Rowers do not use either Lake Barrington Park or Kentish Park for their activities though there is occasional on-water conflict between water-skiers and rowers.

The rowing course is also used increasingly by flat-water kayakers as the venue is gaining a national profile. In contrast, recreational kayakers come to the lake to enjoy the natural setting and centre their activity within comfortable paddling distance of the access points at Lake Barrington and Kentish Parks.

3.4. Visitors and tourism

From a site specific scale, there is limited hard data with respect to visitation to Lake Barrington and Kentish Parks. The only source of site specific data is restricted to traffic counter data collected by Kentish Council during the 2013-14 Christmas – New Year period. This data is limited with respect to the conclusions that can be drawn from it due to the level of a) internal site traffic⁴ and b) the number of campers who make short visits to Wilmot/Sheffield for shopping and the like. However, it can be said that the vast bulk of traffic in and out of Lake Barrington and Kentish Parks appears to be associated with vehicles without trailers. Observation and the traffic counter data suggests that for Kentish Park, the launching and retrieval of boats is, on the whole, a daily affair for campers. In contrast, campers at Lake Barrington Park make use of 'private' pontoons at which they moor their boats, thus minimising the frequency of launching and retrieving their craft, as well as the need to park

² Artificial lure, bait and fly.

³ Lake Barrington has hosted the Australian Championships in 1984, 1987, 1987, 1990, 1994, 1997, 2003, 2006, and 2009. The next Australian Championships at Lake Barrington will be in 2015.

⁴ For example people driving around lost on the road network at Kentish Park, people driving to the boat ramps or toilets.

vehicles with their trailers in the vicinity of the boat ramp.

Fieldwork and consultation conducted whilst preparing this plan suggests visitation is predominantly by Tasmanians, and mainly from the north-west. Peak use periods are the Christmas – New Year, Australia Day long weekend and Easter when, depending on the weather, the campgrounds can be full to capacity. However, visitation appears to be fickle. Due to the relatively close proximity of Lake Barrington and Kentish Parks to where the majority of visitors reside, decisions of whether to 'go camping' or go home can be made at the last minute (made easier by the absence of fees or the need to book a campsite).

The Tasmanian Visitor Survey (TVS) provides the best insight into the potential use by interstate and international visitors. Though not specific to Lake Barrington, the TVS provides insight into the number and type of people from interstate and overseas that visit Sheffield or Mole Creek; the key gateways for access to the area. Visitation to these two towns, and Tasmania as a whole, has decreased following the Global Financial Crisis (Figure 1). As reported in the Mersey-Forth Recreation Development and Management Plan (Natural Acumen 2013), the number of people visiting friends and relatives (VFR) has remained relatively stable despite the total number of visitors and those taking holidays decreasing in the years since 2007.

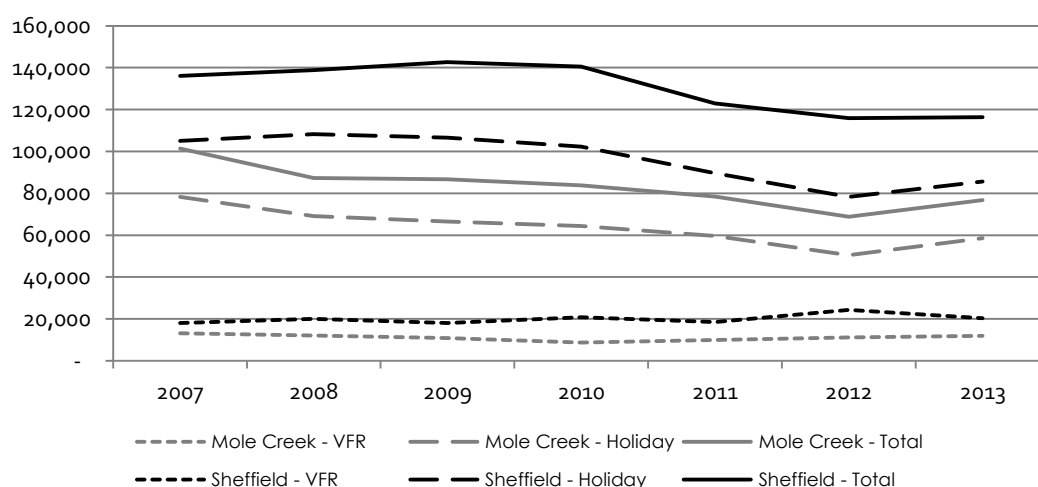


Figure 1 The number of visitors (Total, Holiday and Visiting Friends and Relatives) aged 14 years or more to Mole Creek and Sheffield: 2007 – 2013 (Source: TVS)

Leisure visitors⁵ rather than people whose main reason for visiting the State was for business, employment or to attend a conference/convention, are the most likely of travellers from interstate and overseas to visit Lake Barrington. Most leisure visitors from interstate or overseas did not stay overnight in Sheffield or Mole Creek, but rather passed through on their way to another destination or stopped for a break, e.g. sightseeing and shopping (Table 4).

Table 4 The number of leisure visitors (holiday + VFR) who just passed through, stopped but didn't stay overnight, stayed overnight and visited Mole Creek and Sheffield during 2013. Source: TVS.

	Just passed through	Stopped but didn't stay overnight	Stayed overnight	Visited*
Mole Creek	25,150	35,150	10,000	70,350
Sheffield	29,200	61,700	15,150	106,050

* Visited = Just passed through + Stopped but didn't stay overnight + Stayed overnight

⁵ Leisure visitors are those whose main reason for visiting Tasmania was for a holiday or to visit friends and relatives.

The TVS reveals the following profile of leisure visitors to Mole Creek or Sheffield during 2013 (TVS 2013):

- 5.3% travelled in their own car/4WD, car/4WD with caravan or campervan, or their own campervan/motorhome.
- 2.5% travelled in a rental car/4WD with caravan or campervan, or a rental campervan/motorhome.
- 43.5% undertook a bushwalk for less than 2 hours
- 34.3% undertook a bushwalk for 2 to 4 hours
- 21.4% undertook a bushwalk for over 4 hours (but not overnight)
- 3.5% undertook an overnight bushwalk
- 74.3% visited National Parks
- 2.8% canoed or sea-kayaked
- 5.0% fished for trout
- 4.5% fished for species other than trout.

4. 10 Guiding principles

The following principles were developed and presented in the *Mersey-Forth Catchment Recreation and Development Plan* to guide policy development and decision making with respect to the management and development of recreation in the Catchment (Natural Acumen 2013: 51-52).

1. Recognise that the protection of natural, cultural heritage and utilitarian values as a fundamental objective in managing the Catchment.
2. Ensure the existing and future activities seek to contribute to the ecological, social and economic well-being of the areas being used.
3. Provide for a diversity of recreation opportunities within the Catchment (e.g. rowing, water skiing, camping, fishing, kayaking, canoeing, other aquatic activities, picnicking, boating, nature study, walking and managed recreational vehicle use). Such provision will consider, and be in context with, the range of recreation opportunities available across the region.
4. Ensure any future recreation and tourism use has minimal adverse impact on existing recreation use of the Catchment.
5. Recognise Lake Barrington's significance as a national level competition rowing facility that regularly hosts local, state and national events.
6. Facilitate community access to the Catchment to enable participation by as broad a range as possible of various levels of skill, age groups, socio-economic situations, ability/disability and cultural backgrounds.
7. Provide safe access and appropriate management practices to help minimise conflicts between different recreational users.
8. Support management of land use and recreational activities in partnership between all levels of government and the community.
9. Provide for meaningful community involvement and transparency of decision-making.
10. Monitor management performance and outcomes on an ongoing basis.

These guiding principles provide the filter for consideration and management of the issues and opportunities identified in the preparation of the Master Concept Plan. These issues and opportunities, as well as the issues and constraints, potential opportunities, the master concept plan and action plans are presented for Kentish Park and Lake Barrington Park in the following sections.

5. Kentish Park

5.1. Issues and opportunities

5.1.1. Issues and observations

The issues and opportunities outlined in this section have been identified from stakeholder consultation, user-survey, site visits, on-site interviews and background research. Firstly, the issues and opportunities identified through consultation with stakeholders is summarised, then a strategic assessment that considers potential management responses and constraints is presented.

The key issues identified by participants at the Spreyton Community Meeting, on-site interviews and from other consultation with users and stakeholders⁶ were:

Toilets were the most prominent issue at Kentish Park. The issues included the capacity of existing facilities to cope at peak-use times, the absence of disabled toilets and the lack of toilets in the upper campground area. The absence of toilets in this area, the distance between the upper campground and the condition of the walking tracks is leading to inappropriate toileting in the bushland.

The need to ease the congestion at the boat ramps and thereby increase safety and efficiency at these high-use nodes.

The need to minimise social conflict and upgrade and maintain facilities.

The need to keep parking clear of the boat launching area.

Long-term occupancy of campsites.

Limited and rundown day-use facilities (bbq, picnic tables and shelter).

Social conflict at peak-use times particularly such as the Christmas – New Year period and long-weekends.

Cleanliness of the toilets and overflow of rubbish bins at peak use times.

The aforementioned user survey reinforced the outcomes of the Community Meeting. Respondents to the survey were asked to rate the following items on a 5-point scale from very poor to very good. The results were as follows:

Item	Rating
Cleanliness and condition of toilets	Fair – Good
Directional signage	Fair
Condition of walking tracks	Fair
Condition of boat ramps	Good – Very good
Enforcement of park rules	Poor - Fair
Preservation of natural surroundings	Fair – Good
Free electric barbeque – Council provided	Fair – Good
Day-use shelter	Poor – Fair
Campsite drainage	Fair – Good

Ratings were: very poor, poor, fair, good or very good.

Respondents to the survey were also asked what, if any, problems they encountered with other visitors/campers at Kentish Park. Issues identified were (verbatim):

Dogs allowed to run around other camp sites, down at the pontoons, peeing on your eskis and ski gear, walking with wet red muddy feet all over your gear growling [and] putting fear into children. Dog poo where you walk and eat. Ban dogs. its a general public area, state laws dogs need to be under control on a lead at all times.

Visitors parking and blocking access to boat ramps. Signs boat trailer parking only, no parking signs blocking access to boat ramps etc.

Camp Fires on ground leave mess at boat ramps. No Fire signs at Boat ramps and pontoons.

⁶ These issues are consistent with those identified during consultation conducted during the development of the *Lake Barrington Management Framework* (Inspiring Place 2010), the *Mersey-Forth Water Management Review* undertaken by Hydro Tasmania (2012) and the *Mersey-Forth Recreation Development and Management Plan* (Natural Acumen 2013).

Drunken & threatening behaviour, no respect for others i.e. loud music blaring at 4AM when your children are trying to sleep. When addressing the issue, threatened by some people.

Excessive trail bike use and fireworks Have been camping there when the police have been required to attend

Loutish behaviour, swearing, loud music to 4:00am. Dirty campers that don't clean up their mess. They light fires any where. Dusty access roads that they speed on.

Noise well into the early hours, motor bikes/quad bikes honing around illegally. If a caretaker was on-site, so 'policing' could occur.

Rowdy groups. Fire works and crackers. Explosions, morons putting disposable gas canisters in camp fires. Only real solution is to have the site monitored regularly or a care taker type position.

Silly behaviour such as cars travelling at excessive speed, my husband has spoken (yelled) at a few over the years which has helped. Also worry about idiots with fire who are too drunk to put it out properly when they go to bed. Also idiots shooting fire crackers into the paddock next door (26/12/13). Probably requires a few people to let these youth know that it is not on.

Some campers set up their camps weeks before Christmas and stay all holidays. It would be nice if everyone could enjoy the park

Teenagers getting drunk and loud. Having no respect for other campers. During summer excessive dust issues.

Trail bike riding late. Some noisy people late. Seems to have improved recently. Ranger polices it a bit

Unregistered motor bike use Solutions – Police or Transport presence particular on public holiday week ends

Use of trail bikes, noisy, unsafe, no helmets, kids double up on them. Excessive underage drinking. People perceiving they own areas, intimidating day users and other campers into leaving certain spots

Weekenders and teenagers excess drinking and loud music until 2 or 3 am on a regular basis. New Years eve always issues on the camp areas up the top.

When asked how the experience Kentish Park provides could be improved – keeping in mind that the area is currently free to use and that Kentish Council has limited resources to manage the area – respondents provided the following (verbatim) comments:

A few more toilets would be nice. Showers would also be nice (willing for user pays). Maybe flatten out a few more camping areas up higher.

Better parking. Pontoons to tie up boats to & free floating pontoons around the lake. Better toilet facilities.

Better toilet facilities, (eg extra toilet at top area) some minor excavation to improve flatness/number of camp sites/parking

Ensure toilets serviced more regularly on very busy periods christmas and long weekends.

Extra toilets near camping

Have a caretaker on site with the power to evict/control louts. Renew toilet facilities. They are 40 odd years old. Same with the shelter. Remove majority of acacia's (wattles) that grow every where

It is difficult to ask for much if we want something for free. One BIG suggestion is to ban camping along the lakes banks. eg, between any access roads and the lakes banks. One particular site located in the bay southeast of the main boat ramp (bay between main boat ramp the Kentish Ski Club) is always fully occupied by the same group of people. This causes a lot of problems, parking, access on the road and excludes a great spot to the general public. This is probably the best spot for lake access especially for skiers etc. This would be a good location for a couple of PUBLIC pontoons. Camping in this area should be banned.

Keep as is

more BBQ areas

more bbq facilities and better toilets. Fresh water taps for drinking. Camping areas mowed regularly, more rubbish bins.

more levelled camp sites

More picnic areas and tables/seating undercover. Ban dogs. Ban all fires that are not in a fire pot.

More toilets.

Second toilet block further up the hill. More flat camping spots further up the hill

Suggest a noise curfew. Council marked vehicle surveillance.

Time limit on camping

Toilets, showers, extra day shelter and some picnic tables. More or less happy, but area needs some general maintenance.

The survey also asked respondents about the ability to find a campsite upon arrival, site preference, bookings and their willingness to pay for the ability to reserve a campsite during busy times. The survey found:

- The vast majority 88% of campers who responded to the survey were able to find a campsite when they arrived at Kentish Park and more than half (54%) preferred to camp in the same place they visited each year.
- Almost 60% of campers stated they would prefer to be able to reserve/book a campsite during peak use times such as Christmas / New Year and Australia Day long weekend.
- Of those respondents who would prefer to reserve/book a campsite, 14% were not prepared to pay any fee and of those prepared to pay, no one would pay more than \$10 a night per person.

Respondents provided the following (verbatim) comments they had about reserving/booking campsites and fees:

Stop people leaving vans on site for weeks without using them

Am happy to pay a small fee if facilities were upgraded. Toilets are constantly blocked during busy times.

Being free or alternatively very cheap is a big factor in why it is so attractive to camp here. If payment was required, I would expect more toilet/ shower blocks and a manager to deal with unruly campers. My day use would probably go up and overnight decrease if we had to pay

Booking might eliminate the regulars that take over, intimidate and prevent others from camping there.

Bookings creates over regulation. Costs money Becomes too much like national parks mentality

fees ok if money is actually spend upgrading area. Booking system only needed in busy periods. More level sites could easily be provided, perhaps negating need for booking system (eg top area could be leveled off to 'benches')

For current facilities I would expect to pay \$0-5. If toilet and shower facilities were expanded eg more toilet blocks across the site and updated clean and modern facilities I would pay \$10-15. On this sort of site I would expect facilities and prices to be similar to national parks.

Free camping is great

Happy with it as it is. Free is good. Ensures if weather turns bad we can leave without loss of money.

I believe a small fee to camp would be appropriate and funds raised may be used for park improvements I don't think it is appropriate for one group/family to have exclusive access to any particular camp site.

I believe there would be a lot of unhappy people if fees were introduced without improving facilities

It is disappointing some people seem to set up for the entire summer in the one spot. May have reduced recently with new rules

It should be on a first in bases

Pay for camping as long as when my allotted time arrived, someone was on hand to move the previous campers in the site on as so many people overstay on some site.

Since there are very little amenities, eg, power, showers, decent toilets or level camping spots it would

need to be cheap to reserve a spot or it wouldn't be worth it.

This would help share sites better so the same families don't hog sites year in year out

Willing to pay if Kentish Park was upgrade, camp sites, water, toilets,

The main issues and areas for improvement identified at Kentish Park are illustrated in Figure 2. Matters that relate to management or those that cannot be easily located on a plan are discussed below under 'constraints'.

5.1.2. Issues and constraints

The key constraints affecting the management of Kentish Park are the:

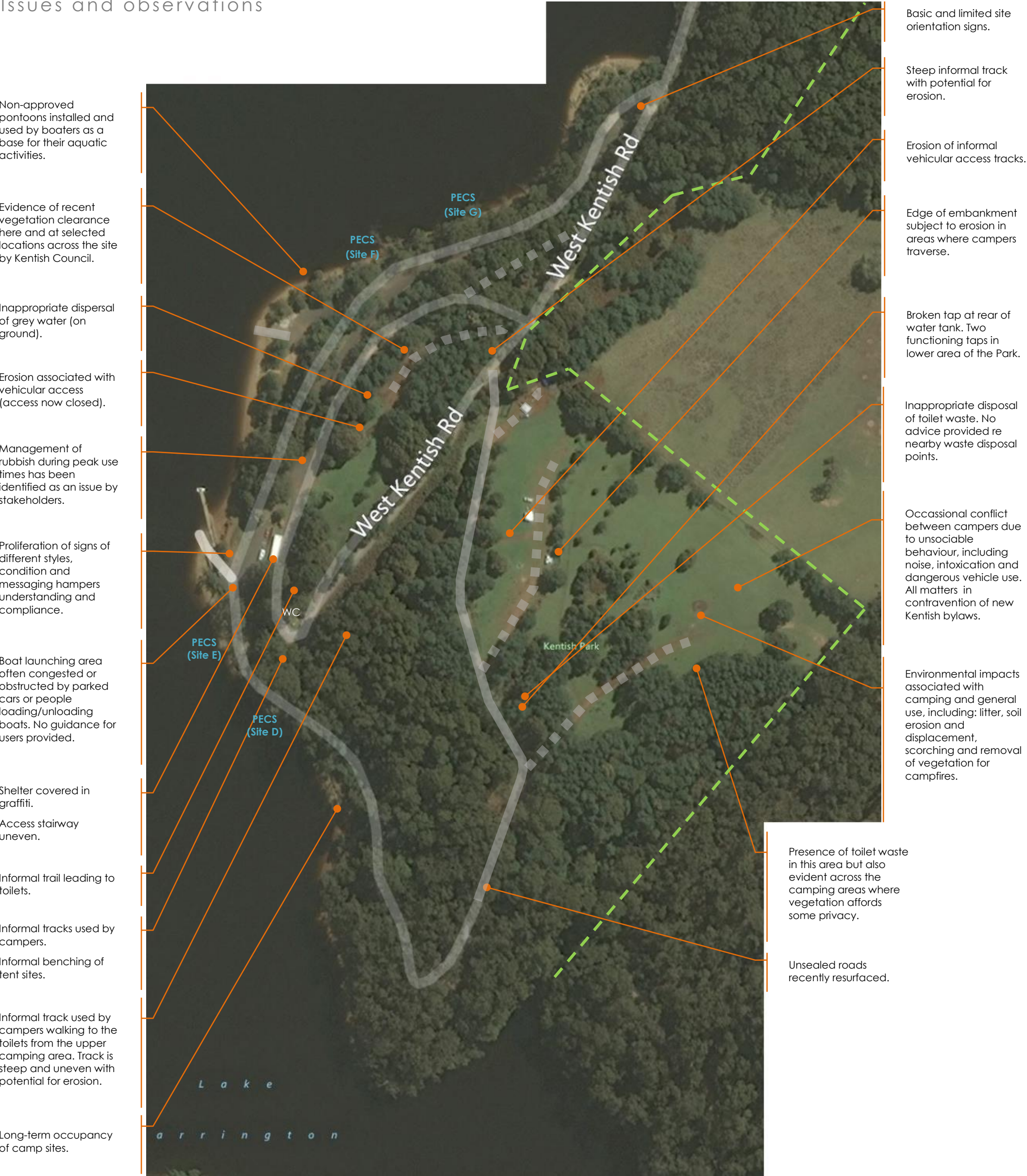
- limited resources available for Kentish Council to manage, improve and maintain the site
- topography of the site that restricts the level area available for parking and sightseeing. Access points to the lakeshore are particularly limited and are points of high demand.
- identification of much of the site as a potential landslip hazard area, particularly the areas of steeper incline (Natural Values Atlas).
- interlinked management responsibilities of Kentish Council, Hydro Tasmania, MAST and the Inland Fisheries Service.
- The lack of reticulated sewage services.
- seasonality of recreational use, i.e. use peaks particularly during the Christmas – New Year holidays and the Australia Day long weekend. Visitation is further heightened when these times coincide with warm sunny weather.
- sense of ownership that has developed amongst users as a result of long-term and, in some cases, intergenerational use.
- limited awareness and understanding of the relatively new Kentish Council Reserves, Parks and Gardens By-Law – By-Law No.1 of 2012
- remoteness of site from regulatory influence
- no/poor mobile phone reception that inhibits the ability to contact police in response to dangerous and unruly behaviour.
- need to consider issues of competitive neutrality discussed in the *Statewide Directions Paper – Review of Council Recreational Vehicle Overnight Camping Services* (May 2012).

5.1.3. Potential opportunities

General opportunities:

- Enhancing recreation and visitor experience through the upgrade of basic infrastructure
- Improved management of environmental impacts associated with recreational use
- Addressing lakeside erosion threats to infrastructure and site amenity
- Increased visitor safety via improved site layout
- Improved communication with visitors with respect to site orientation, rules and regulations and safety.

Figure 2
Kentish Park, Lake Barrington
Issues and observations



Source: www.bing.com

PECS Priority Erosion Control Site

Formal roads

Informal roads

Approx. boundary



NORTH



Opportunities to enhance the camping experience include:

- creating flat campsites that are dispersed to make camping more comfortable and to reduce the potential for conflict between groups camped within close proximity to each other
- decreasing conflict amongst campers through increased awareness of by-laws and increased enforcement, particularly during the Christmas – New Year and Australia Day periods
- increasing visitor safety by formalising and upgrading key walking tracks
- providing a toilet in the campground during peak use periods, i.e. Christmas – New Year and Australia Day long weekend and Easter
- providing site orientation and directional signage to improve traffic flow and better direct visitors to their desired destination.

Opportunities to enhance the experience of day-users and sightseers include:

- rejuvenation of existing day-use facilities
- designate what to date has been a waterside campsite as a day-use only area thereby improving accessibility to the lakeshore.

Opportunities to enhance the experience of water-skiers, fishers and other water users include:

- minimising user conflict by creation of 'Keep Clear' zones at the head of the boat ramps
- improving traffic flow by providing separate parking areas for cars with trailers and those without
- easing congestion by creating additional and more efficient parking for cars with trailers and those without.

5.2. Kentish Park Master Concept Plan

Figures 3 through 6 illustrate the Concept Master Plan for Kentish Park. Figure 3 provides a key for each of the three sub-areas within the site: the entrance and northern boat ramp (Figure 4), the main boat ramp, parking and day-use area (Figure 5) and the campground (Figure 6). Each of these figures is followed by a table that outlines the recommended actions and the rationale for the recommendations. The numbered actions in the tables correlate with the numbered actions on the Concept Master Plans.

Figure 3
Kentish Park, Lake Barrington
Concept Master Plan

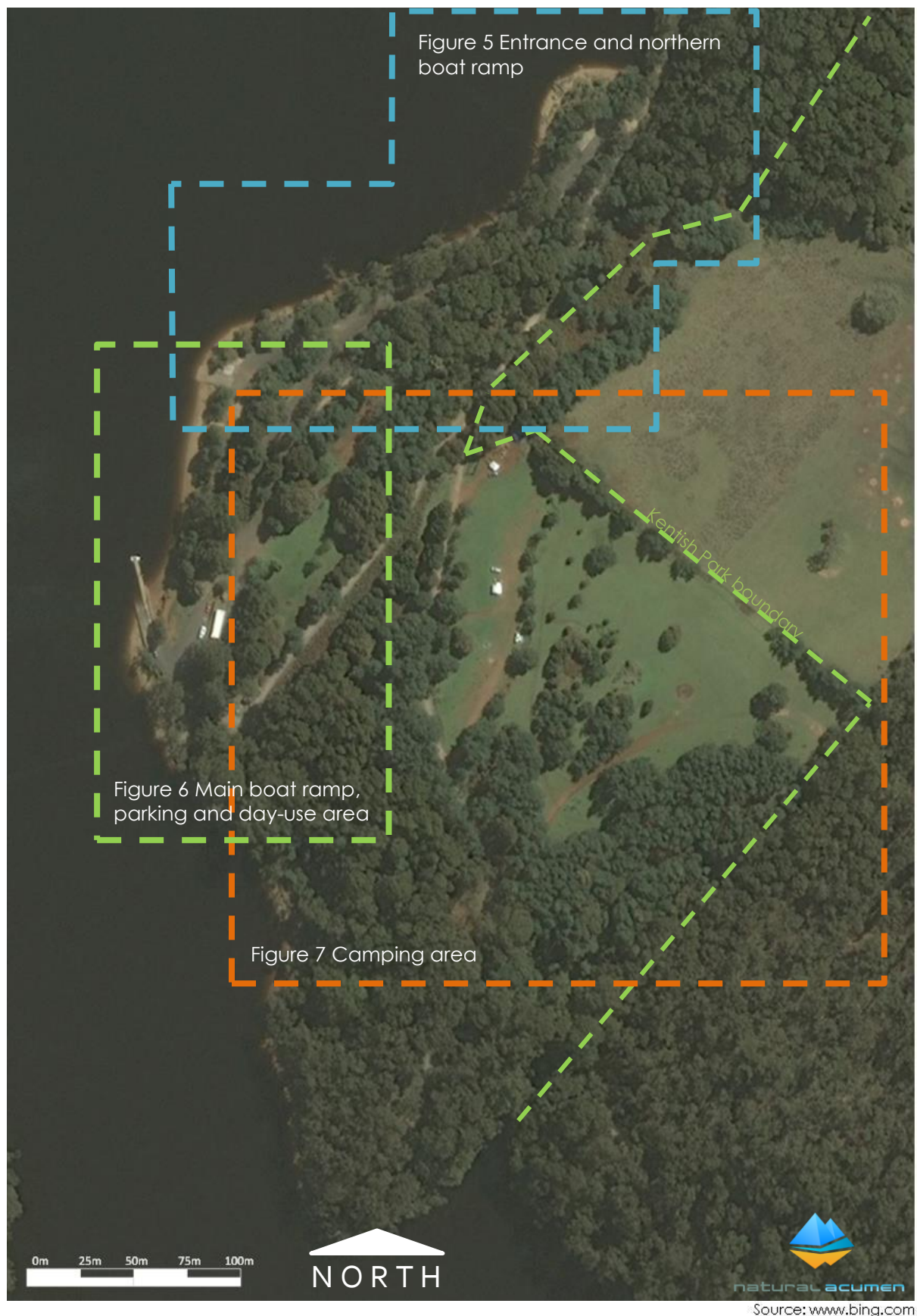


Figure 4
Kentish Park – Entrance and northern boat ramp
Concept Master Plan

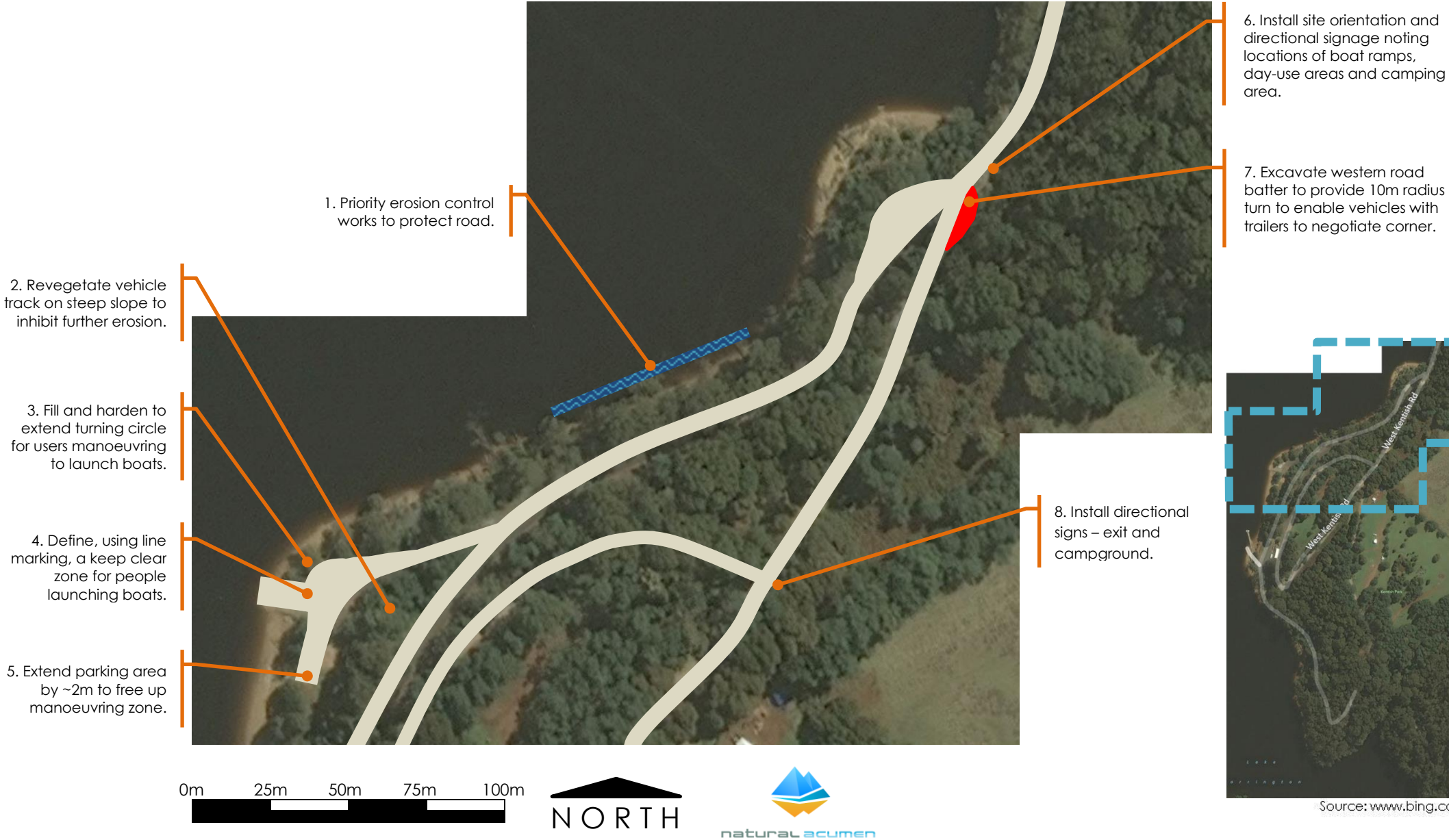


Table 5 Kentish Park – Entrance and northern boat ramp (Figure 4)

No.	Recommended action	Rationale
1.	Priority erosion control works to protect road.	The presence of active slumping and recent tree falls along the bank demonstrates that erosional processes are active on the bank. If erosion progresses, there is a high risk the road will collapse. This would prevent access to Kentish Park, and the Kentish Aquatic Club via the lakeside track, thus greatly reducing the amenity of the park (boat launching, picnicking, camping, water skiing etc). See Appendix B for further detail.
2.	Revegetate vehicle track on steep slope to inhibit further erosion. Install water bars and FBRs to prevent further use.	Revegetation/rehabilitation of this informal track is required to prevent further loss of topsoil due to surface water flow. This will also increase the amenity of this area.
3.	Fill and harden to extend turning circle by ~1m for users manoeuvring to launch boats.	Increased turning area is necessary in order to provide an adequate manoeuvring space for vehicles with trailers consistent with the Australian Standard AS 3962 – 2001. Hardening of the road edge is required to minimise erosion due to runoff from the adjacent bitumen and to better the resist the erosional forces associated with turning vehicles – increased at this site due to the downward slope of the bank.
4.	Define, using line marking, a keep clear zone for people launching boats.	To ensure adequate manoeuvring space is maintained for visitors launching and retrieving boats.
5.	Extend parking area by ~2m to free up manoeuvring zone by moving barrier.	The length of the available parking space here is the minimum necessary to provide a clear and safe manoeuvring area for visitors launching and retrieving boats. Extending this area by 2m will provide for a safer and less constrained area for vehicles using this area.
6.	Install site orientation and directional signage noting locations of boat ramps, day-use areas and camping area.	To better direct visitors to their desired destination, e.g. the camping area, boat ramp, day-use area. This will help minimise traffic flow and aid emergency response. Signs should conform to the Draft Mersey-Forth Catchment Signage Strategy.
7.	Excavate western road batter to provide 10m radius turn and level out inside of corner to enable vehicles with trailers to negotiate corner.	Excavation is necessary in order to provide an adequate turning radius for vehicles with trailers consistent with the Australian Standard AS 3962 – 2001.
8.	Install directional signs – exit and campground.	To better direct visitors to their desired destination. This will help minimise traffic flow.

Further specific detail with respect to the actions and costing estimates are contained in the Action Plan (Section 4.4).

Figure 5

Kentish Park – Main boat ramp, parking and day-use area Concept Master Plan

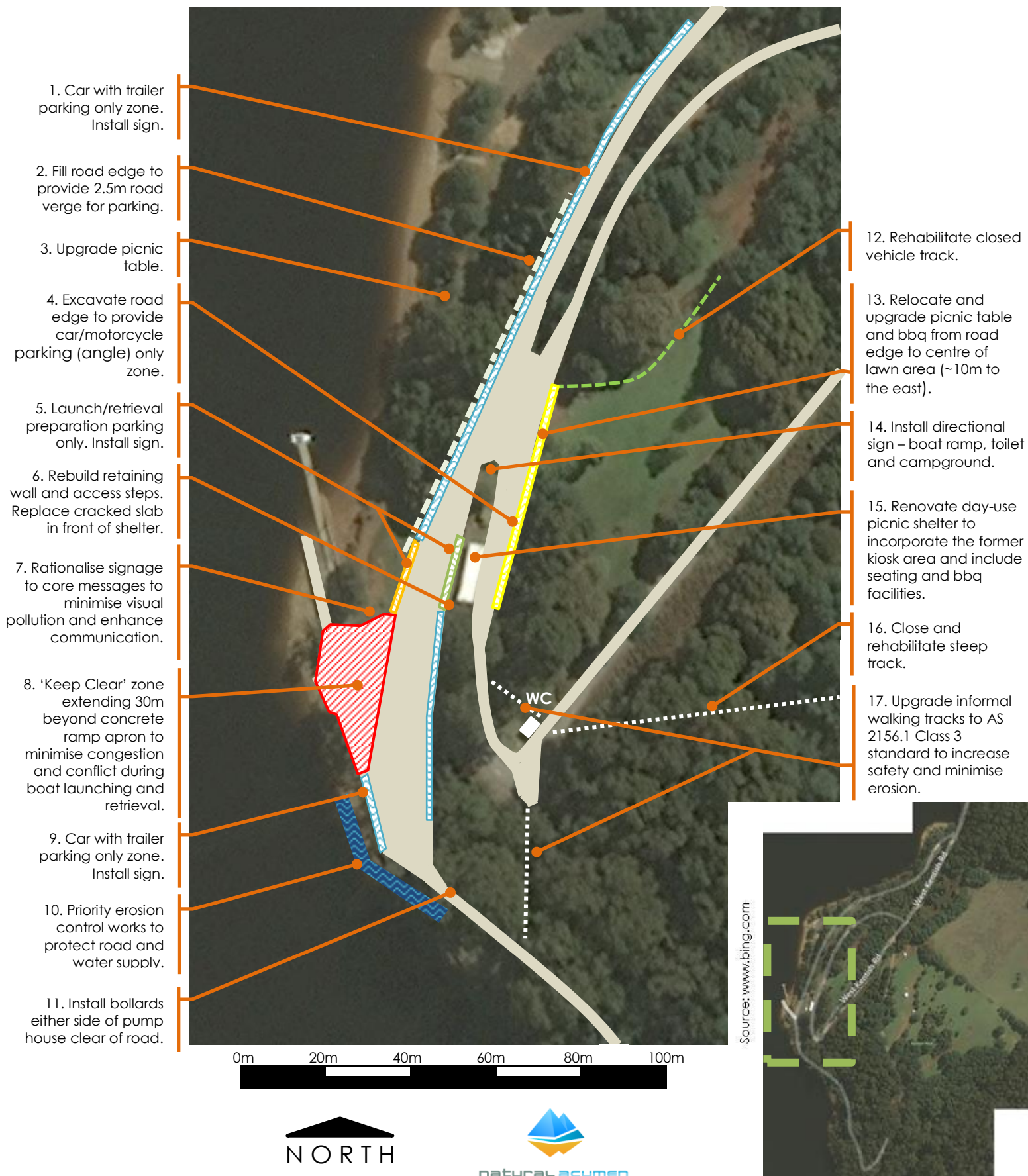


Table 6 Recommended actions for Kentish Park – Main boat ramp, parking and day-use area (Figure 5)

No.	Recommended action	Rationale
1.	Car with trailer parking only	<p>Separate car with trailer parking areas have been identified to minimise haphazard parking and increase the efficient use of parking space and minimise congestion surrounding the head of the ramp.</p> <p>The provision of angle parking was considered as this is generally thought to be optimal for cars with trailers. However, the topography and existing layout of Kentish Park restricts the development of area/s for angle parking.</p> <p>The only location large enough is further away than the recommended roadside parking. It is likely that most people would still park along the roadside even if such angle parking was provided simply to be closer to the boat ramp. It was noted numerous times by users that they like vehicles close-by for access to things like food, kid's gear and baby changing supplies.</p> <p>On looking at implementation, it was noted that works required to create angle parking would include:</p> <ol style="list-style-type: none"> Removal of existing camping area Substantial excavation Tree removal Drainage Retaining wall (potentially) substantial additional areas of road hardening.
2.	Fill road edge to provide 2.5m road verge for parking. Extension to existing culvert required.	To ease congestion and conflict. Parking at Kentish Park during times of peak use is constrained, particularly due to the growth in popularity of Lake Barrington as a destination for water-skiing during the warmer months and associated holiday periods.
3.	Upgrade picnic table.	The picnic table has slumped and as a result has been lowered in height. As a result, one of the bench seats is currently unusable.
4.	Excavate road edge (~3m x 50m) to provide a car/motorcycle parking (angle) only zone.	Parking for vehicles without trailers has been separated to discourage cars from entering the ramp manoeuvring area and minimise conflict between user groups. Angle parking will increase the number of cars that can be parked.
5.	Launch/retrieval preparation parking only. Install sign.	A clear space has been provided to ensure people preparing to launch or retrieve their vessel from the water have somewhere to park and make preparations that does not obstruct those seeking or preparing to launch their craft.
6.	Remove trees and rebuild retaining wall and access steps. Replace cracked slab in front of shelter.	Tree roots have cracked and dislodged the retaining wall, made access steps uneven and cracked slab in front of the shelter.
7.	Rationalise signage to core messages to minimise visual pollution and enhance communication.	Currently there is a proliferation of signage that is preventing important safety and other information from being communicated effectively.
8.	'Keep Clear' zone extending 30m beyond concrete ramp apron to minimise congestion and conflict during boat launching and retrieval.	To provide a clear and unobstructed area at the head of the ramp to permit the necessary manoeuvring to enable straight-line backing down the ramp as per the <i>Guidelines for planning, design and construction of boat launching facilities</i> (South Australian Boating Facility Advisory Committee 1997).
9.	Car with trailer parking only.	Separate car with trailer parking areas have been identified to minimise haphazard parking and increase the efficient use of parking space and minimise congestion surrounding the head of the ramp.
10.	Priority erosion control works to protect road and water supply infrastructure.	<p>Wild & Koehnken (2014) report previous bank stabilisation works in this location are deeply undercut, or have collapsed. There is no evidence that the erosion has ceased or stabilised. The undercutting extends to a depth of ~1.5 m in some areas, indicating it is progressing under the road. This is consistent with the presence of tension cracks in the road, indicating a subsidence of the lake side road margin. A collapse of the existing road would limit access to camping areas and the ski club. The collapse of the bank supporting the water supply infrastructure would likely rupture the water intake pipe leading to a cut in the supply of water to the park.</p> <p>The likelihood of the erosion in this area continuing is certain, and</p>

No.	Recommended action	Rationale
		the consequence is considered critical as it threatens the infrastructure of Kentish Park, and would inhibit access to camping areas and the ski club. See Appendix C for further detail.
11.	Install bollards either side of pump house to protect from damage from passing vehicles.	The pump house is an important piece of infrastructure that supplies water for the toilets and taps at Kentish Park. The pump house is currently situated at the edge of the road and exposed to the risk of damage from passing traffic as the road at that point is only 3 metres wide with a sharp drop to the lake's edge on the opposite side of the round.
12.	Rehabilitate closed vehicle track.	Active rehabilitation of the closed track is necessary to minimise surface water flow, prevent further degradation/erosion and to improve the area's visual amenity.
13.	Relocate and upgrade picnic table and bbq from road edge to centre of lawn area (~10m to the east).	The proximity of the current location to the road presents a risk to visitors using this site. Relocating the site away from the road and associated traffic will enhance visitor safety and improve the quality of their experience and enjoyment of the natural setting.
14.	Install directional sign – boat ramp, toilet, picnic/bbq and campground.	To better direct visitors to their desired destination, e.g. the camping area, boat ramp, day-use area. This will help minimise traffic flow and assist emergency response. Signs should conform to the Draft Mersey-Forth Catchment Signage Strategy.
15.	Renovate day-use picnic shelter to incorporate the former kiosk area and include seating and bbq facilities.	Day-use/picnic facilities are currently limited with bbq facilities removed from sheltered seating, of which none currently exists.
16.	Close and rehabilitate track. <i>Same as recommendation 7 in Table 6 and Figure 5.</i>	This informal walking track is steep and actively eroding and its standard is unsuited to the current level of use. The track is used by visitors to access the existing toilet from the campground above. The provision of a toilet in the campground during peak times i.e. Christmas – New Year, Australia Day long weekend and Easter will remove demand for this access.
17.	Upgrade informal walking tracks to AS 2156.1 Class 3 standard to increase safety and minimise erosion.	These informal walking tracks are actively eroding and their standard is unsuited to the current level of use. Upgraded tracks will limit further erosion, improve the amenity of the area and provide a safer experience.

Further specific detail with respect to the actions and costing estimates are contained in the Action Plan (Section 4.4).

Figure 6
Kentish Park – Camping area
Concept Master Plan



Table 7 Kentish Park – Camping area (Figure 6)

No.	Recommended action	Rationale
1.	Close and rehabilitate track running up steep embankment.	Rehabilitation of this informal track is required to prevent further loss of topsoil due to surface water flow. This will also increase the amenity of this area. It may be necessary to use physical barriers to discourage use.
2.	Install directional signage – camping area, toilets, boat ramp and exit/entry.	To better direct visitors to their desired destination, e.g. the camping area, boat ramp, day-use area. This will help minimise traffic flow and assist emergency response. Signs should conform to the Draft Mersey-Forth Catchment Signage Strategy.
3.	Improve access (gravel) to mitigate erosion of vehicle track.	Hardening of this vehicle access track is necessary to mitigate erosion due to use and water-flow following rainfall.
4.	Maintain corridor for vehicle access.	Maintaining this corridor open for vehicles will assist in dispersing impacts associated with people driving to/from campsites.
5.	Close and rehabilitate vehicle track.	Revegetation/rehabilitation of this informal track is required to prevent further loss of topsoil due to surface water flow and further track expansion arising from drivers attempting to avoid slippery mud when wet. This will contain future management cost and increase the amenity of this area. It may be necessary to use physical barriers to discourage use.
6.	Formalise and upgrade walking tracks to AS 2156.1 Class 3 standard.	These informal walking tracks are actively eroding and their standard is unsuited to the current level of use. Upgraded tracks will limit further erosion, improve the amenity of the area and provide a safer experience.
7.	Close and rehabilitate steep track. <i>Same as recommendation 16 in Table 5 and Figure 6.</i>	This informal walking track is steep and actively eroding and its standard is unsuited to the current level of use. The track is used by visitors to access the existing toilet. The provision of a toilet in the campground during peak times i.e. Christmas – New Year, Australia Day long weekend and Easter will remove demand for this access.
8.	Weed control for thistles – <i>Onopordum acanthium</i> / <i>Cirsium vulgare</i> / <i>Cirsium arvense</i>	Thistles spread via the dispersal of wind-borne seed ⁷ and is highly competitive in areas such as disturbed pasture and natural vegetation as well as roadsides ⁸ . Seed production is high and if left uncontrolled is invasive. The size and spininess of these thistles will exclude campers from invaded areas.
9.	Install directional sign – campground.	To better direct visitors to their desired destination, e.g. the camping area, boat ramp, day-use area. This will help minimise traffic flow and assist emergency response. Signs should conform to the Draft Mersey-Forth Catchment Signage Strategy.
10.	Change to day-use site (no camping) and install 2 picnic tables.	This is one of the few locations on Lake Barrington with easy access to the lake shore. Camping in this location inhibits/restricts access for a broader number of visitors/campers. Camping within such proximity to the lake also poses risks to water quality from inappropriate toileting and disposal of grey water.
11.	Close and rehabilitate vehicle track.	This steep track is actively eroding and unsuited to most 2 wheel drive vehicles. Closing an rehabilitating this track will improve the environmental condition and amenity of the area.
12.	Cut and fill to provide level benched campsites. Slope benches to facilitate drainage.	To enhance the camping experience as much of the camping area is sloped at a gradient that is unconducive to comfortable tent camping and difficult to level out caravans and motorhomes. The dispersal of the benched campsites will encourage dispersed camping and minimise the potential for social conflict.
13.	Install FBRs to prevent vehicle driving over absorption trenches. Sign as no camping area.	Two 30m long absorption trenches providing waste treatment are located here. Vehicles passing over them is likely to cause collapse. Camping in this area will also compact the soil overtime and diminish its absorption capacity.

Further specific detail with respect to the actions and costing estimates are contained in the Action Plan (Section 4.4).

⁷ *Cirsium arvense* also has the ability to spread vegetatively. http://www.environment.gov.au/cgi-bin/biodiversity/invasive/weeds/weeddetails.pl?taxon_id=5501

⁸ http://www.environment.gov.au/cgi-bin/biodiversity/invasive/weeds/weeddetails.pl?taxon_id=9636
<http://www.weeds.org.au/cgi-bin/weedident.cgi?tpl=plant.tpl&state=&s=®ion=all&card=H21>
http://www.environment.gov.au/cgi-bin/biodiversity/invasive/weeds/weeddetails.pl?taxon_id=5501

5.3. Recommended management

Consultation and site visits revealed toilets unable to cope with high-use levels during times of peak visitation, inappropriate toileting and dumping of waste in the bush and the long distance to the existing toilet facilities from the main campground as key issues. Therefore, it is recommended that **a toilet facility be placed in the main camping area during the Christmas – New Year, Australia Day long weekend and Easter periods**. Such a facility should be transportable to allow removal during low-use periods thereby maximising security (e.g. damage, graffiti, arson) and to minimise maintenance. As noted earlier, installation of a toilet during peak use times will allow the access track to the existing toilet to be rehabilitated. If no toilet is provided, the track should be upgraded to AS 2156.1 Class 3 (~1m wide, benched, stepped as necessary with water bars) standard to increase safety and minimise erosion (see Section 5.4, Action 5.16).

Despite the introduction of the Parks and Gardens by-laws, 2012 (Section 2.5.2) and the installation of signage advising of the regulations that applies to use of the park, consultation with campers and personal experience during site visits indicates unsocial behaviour, reckless and unlicensed driving of vehicles and riding of trail and quad-bikes are common. Issues such as parking congestion and campers being 'locked in' due to obstruction of traffic corridors in the upper campground have also been identified.

Two management approaches are recommended: communication/education and regulation. **Development of a communication strategy is recommended to raise awareness of the by-laws and encourage user-based regulation** with respect to acceptable behaviours. Such a strategy should facilitate a two-way flow of information and has the potential to render improved and ongoing insight into the experience of users.

Improved communication and user-based regulation needs to be supported by a more formal approach. Recognising that distance from the nearest police station and the often late hour of social disturbance, **increased regulatory influence** is required. **Enhanced collaboration is required between Tasmania Police and the Kentish Council to improve enforcement** and build an image of Lake Barrington Park as a family friendly environment where unsocial behaviour will not be tolerated.

While the Master Concept Plan has made recommendations for the location and topic/message to be conveyed by proposed signs, such as that for directional signage, the **preparation of a detailed sign plan** that is consistent with the *Draft Mersey-Forth Catchment Signage Strategy* (Mersey-Forth Recreation Management Committee 2013) is recommended to maximise communication opportunities.

Variable lake levels impact access to the lake where infrastructure such as boat-ramps, pontoons and stairways are provided. When inspected, the recently installed stairways to the waterline (between the boat-ramps) were in good condition. However, it is recommended that their condition and that of any **infrastructure in the 'transition zone' be monitored for erosion, deterioration and visitor safety**.

An annual count of the number of motorhomes, caravans, tents and the like onsite between Boxing Day and New Years day would enhance knowledge of the level of use. This would only be required to be done for a single day during this period as it likely to be indicative of the daily use levels at the site. **A biennial camper survey** would also contribute greatly to understanding camper satisfaction and in monitoring issues such as unsocial behaviour and the illegal riding of trail and quad-bikes.

The formation and ongoing **collaboration of the member agencies on the MFRMC has enhanced management and service delivery** across the catchment. **Participation, by invitation, of Tasmania Police in meetings of the MFRMC would help foster a sense of shared responsibility in managing recreation in the catchment**.

In addition, an opportunity exists to **develop a partnership between users and the MFRMC**. Exactly how this might evolve is unclear and dependent upon the users, though the benefits of shared understandings of issues and management are obvious with respect to garnering support for management.

With respect to the application of the recommendations set out in the Statewide Directions Paper, which includes charging a fee, there are a number of factors that make these impractical to apply. Such factors include:

- the proximity of the nearest caravan park
- the nature of the camping experience
- the short peaks in visitation (principally Christmas – New Year period, the Australia Day long-weekend and Easter)
- the sporadic and unpredictable nature of use at other times of the year
- the practicality of collection; the likelihood of users paying a fee if it were introduced
- whether or not a user pays system would recoup the cost of a) managing the site, and b) managing and administering the collection of fees
- that consultation and on-site interviews has made it clear that a significant proportion of users do not support the collection of fees.

This Plan makes no recommendation either way with respect to the application of the principles of competitive neutrality except to draw attention to need to reconcile the various factors and determine whether or not camping at Kentish Park constitutes a 'significant business activity'.

5.4. Prioritised Action Plan

This Action Plan presents the actions illustrated in the Master Concept Plan and identifies the responsible management agency, sets a priority from low to high and estimates the cost of implementation. The final column in the table headed 'status' provides a place to note progress toward implementation.

The priority/timing is based on the following:

High – should be implemented within the next two years

Moderate – should be implemented within the next five years

Low - should be implemented within the next ten years.

It is expected that the Kentish Council will lead the implementation of the recommended actions with primary responsibility remaining with the relevant agencies as outlined. The Action Plan is a working tool which acknowledges that timing, priorities and implementation may vary over time in response to new opportunities and funding, the level of support and commitment from stakeholders and the relevant policy framework. Therefore, it is recommended that progress toward implementation be monitored by the Kentish Council with an annual review of priorities to reflect situational change.

Figure No. Action no.	Action	Responsibility	Priority	Estimated cost	Status
4.1	Priority erosion control works to protect road. This site comprises two specific works areas that are described in more detail as sites F and G in the <i>Lake Barrington Erosion Priority Risk Assessment and Action Plan</i> (Wild & Koehnken 2014). Site F requires installation of a series of gabions, or engineer-approved approach to be developed; covering approximately 50m laterally on inside bend and 5-8 metres high. Site G requires installation of a series of gabions, or engineer-approved approach to be developed, covering approximately 35m laterally on inside bend and up to 12 metres high (benching is likely to be required to obtain optimum secure angle).	HT & KC partnership	High	Site F \$210,000 Site G \$315,000	
4.2	Revegetate vehicle track on steep slope to inhibit further erosion. Install water bars to redirect and disperse surface water flow from the impacted area and large rocks to prevent further use.	KC	High	Materials \$3,500 Labour \$3,000	
4.3	Fill and harden (bitumen) to extend turning circle by ~1m for users manoeuvring to launch boats.	KC	High	\$5,000	
4.4	Define, using line marking, a keep clear zone for people launching boats.	KC	High	\$1000	
4.5	Extend parking area by ~2m to free up manoeuvring zone by moving barrier.	KC	Moderate	< \$1,000	
4.6	Install site orientation and directional signage noting locations of boat ramps, day-use areas and camping area.	KC	Moderate	\$1,600 sign + \$450 installation	
4.7	Excavate western road batter (~3m) and extend road surface to provide 10m radius turn and level out inside of corner to enable vehicles with trailers to negotiate corner. <i>Use fill removed to complete Action 5.1</i>	KC	High	\$3,500	
4.8	Install directional sign – exit and campground.	KC	Moderate	\$250 sign + \$450 installation	

Figure No. Action no.	Action	Responsibility	Priority	Estimated cost	Status
5.1	Install signs (x4) designating area as car with trailer parking only. <i>Dependent on Action 5.2</i>	KC	High	\$500 signs + \$600 installation	
5.2	Fill road edge for a distance of ~100m to provide a minimum 2.5m road verge for parking. Extension to existing culvert required. <i>Fill to come excavation described in Action 5.4</i>	KC	High	\$15,000	
5.3	Upgrade picnic table.	KC	Moderate	\$1,500 +installation	
5.4	Remove 1 tree, excavate approximately 3m x 50m of road edge, prepare base and bitumen to provide a car/motorcycle parking (45° angle) only zone. <i>Use fill removed to complete Action 6.1</i> <i>Note: Maintaining existing parallel parking comes at no cost</i>	KC	High	\$20,000	
5.5	Launch/retrieval preparation parking only. Define using line marking and install sign.	KC	Moderate	\$1,000	
5.6	Remove trees and rebuild retaining wall and access steps. Replace cracked slab in front of shelter.	KC	Moderate	\$30,000	
5.7	Rationalise signage to core messages to minimise visual pollution and enhance communication.	MFRMC	Moderate	<i>Incorporated in the preparation of a detailed sign plan. See below.</i>	
5.8	Define 'Keep Clear' zone, using line marking, extending 30m beyond concrete ramp apron to minimise congestion and conflict during boat launching and retrieval.	KC, MAST	High	\$1,500	
5.9	Car with trailer parking only. Install signs (x2)	KC	Moderate	\$250 signs + \$300 installation	
5.10	Priority erosion control works to protect road and water supply infrastructure. This site comprises two specific works areas that are described in more detail as sites D and E in the <i>Lake Barrington Erosion Priority Risk Assessment and Action Plan</i> (Wild & Koehnken 2014). Works comprise installation of 45 metres of rip rap to 1.0m high at Site D. Site E requires filling of undercut bank with cement or similar (approximately 16m long by 1.5m deep and ranging from 0.5m to 0.8m high = approx. 12.0-20.0 cubic metres of material). Consider tree removal and use of trunks for other erosion control works.	HT & KC partnership	High	Site D \$13,500 Site E \$10,000	
5.11	Install bollards either side of pump house to protect from damage from passing vehicles.	KC	High	\$1,000	
5.12	Rehabilitate closed vehicle track. Level ground surface, install waterbars, seed (grass) and fence off from pedestrians. Place FBRs at lower entrance off road edge.	KC	High	\$1,000	
5.13	Relocate and upgrade picnic table and bbq from road edge to centre of lawn area (~10m to the east). <i>Cost of removal of hard stand and fireplace incorporated in Action 6.4.</i>	KC	Moderate	\$1,500 +installation	

Figure No. Action no.	Action	Responsibility	Priority	Estimated cost	Status
5.14	Install directional sign (x1) – boat ramp, toilet, picnic/bbq and campground.	KC	Moderate	\$250 sign + \$450 installation	
5.15	Renovate day-use picnic shelter to incorporate the former kiosk area and include seating (2 sets) and two barbeques.	KC	Moderate	\$15,000 design dependent	
5.16	Close and rehabilitate steep track (~80m med. – steep gradient) if a toilet is provided in the campground during peak-use periods. Install water-bars as necessary to redirect surface water-flow. If no toilet is provided, the track should be upgraded to AS 2156.1 Class 3 (~1m wide, benched, stepped as necessary with water bars) standard to increase safety and minimise erosion.	KC	Moderate	\$4,000 \$12,000 - \$18,000 design dependent	
5.17	Upgrade informal walking tracks (~20m + ~30m med. gradient) to AS 2156.1 Class 3 (~1m wide, benched, stepped as necessary with water bars) standard to increase safety and minimise erosion.	KC	High	\$3,750 – \$6,250 design dependent	
6.1	Close and rehabilitate track running up steep embankment to inhibit further erosion. Install water bars and FBRs to prevent further use	KC	High	\$4,000 materials \$3,000 labour	
6.2	Install directional signage (x1) – camping area, toilets, boat ramp and exit/entry.	KC	Moderate	\$250 sign + \$450 installation	
6.3	Harden access with gravel to improve access to mitigate erosion of vehicle track.	KC	Moderate	\$2,000 – \$3,000	
6.4	Maintain corridor for vehicle access.	KC	-	No cost	
6.5	Close and rehabilitate vehicle track. Level ground surface, install waterbars, seed (grass) and fence off from pedestrians. Place FBRs at lower entrance off road edge.	KC	High	\$2,000	
6.6	Formalise and upgrade walking tracks to AS 2156.1 Class 3 standard. (~1m wide, benched, stepped as necessary with water bars)	KC	High	\$1,000 – \$1,500	
6.7	Close and rehabilitate steep track (~80m) if a toilet is provided in the campground during peak-use periods. Install water-bars as necessary to redirect surface water-flow. Same as recommendation 15 in Table 4 and Figure 6.	KC	Moderate	\$2,500	
6.8	Weed control for thistles – <i>Onopordum acanthium</i> / <i>Cirsium vulgare</i> / <i>Cirsium arvense</i>	KC	High, ongoing	Negligible, incorporate with ongoing site maintenance	
6.9	Install directional sign (x1) – campground.	KC	Moderate	\$250 sign + \$450 installation	
6.10	Change to day-use site (no camping) and install 2 picnic tables. Install 'no camping, day-use only' sign (x1). Installation of FBRs may be required if camping persists.	KC	High	\$250 sign + \$450 installation	
6.11	Close and rehabilitate vehicle track. Level ground surface, install waterbars, seed (grass) and fence off from pedestrians. Place FBRs at lower entrance off road edge	KC	High	\$2,000	

Figure No. Action no.	Action	Responsibility	Priority	Estimated cost	Status
6.12	Cut and fill to provide level benched campsites. Slope benches to facilitate drainage, seed with grass and temporarily fence from use.	KC	Low-Moderate	\$1,000/pad	
6.13	Install FBRs to prevent vehicle driving over absorption trenches. Sign as no camping area.	KC	-	\$1,500	
RM	Place a transportable toilet facility in the main camping area during the Christmas – New Year, Australia Day long weekend and Easter periods. Being a transportable facility will allow its removal during low-use periods thereby maximising security (e.g. damage, graffiti and arson) and minimising maintenance. Service should have connection to existing sewage and water infrastructure in the campground area.	KC	High	Hire \$11/day Ex-hire purchase \$17,000 New purchase \$23,000 Plus transportation, septic and connection costs	
RM	Develop a communication strategy to raise awareness of the by-laws and encourage user-based regulation.	KC	High	Agency cost	
RM	Prepare a detailed sign plan that is consistent with the Draft Mersey-Forth Catchment Signage Strategy (Mersey-Forth Recreation Management Committee 2013).	KC	Moderate – High	\$8,000 consultancy (scope dependent)	
RM	Implement an inspection program to monitor the condition of any infrastructure in the 'transition zone' for erosion, deterioration and visitor safety.	HT & KC	High	Negligible, integrate with existing site inspections, agency cost	
RM	Annual count of the number of motorhomes, caravans, tents and the like onsite between Boxing Day and New Years day.	KC	High	Negligible, incorporate with ongoing site maintenance	
RM	Biennial camper survey – measuring satisfaction and incidence and impact of unsociable behaviour, illegal vehicle use, and other matters related to the relevant by-laws (Kentish Council 2012).	KC	High	\$4,000 – \$5,000 consultancy (scope dependent) Survey design, 3 days fieldwork and report	
RM	Participation, by invitation, of Tasmania Police in MFRMC meetings	MFRMC	High	Agency cost	
RM	Develop a partnership between users and the MFRMC	MFRMC	High	Agency cost	

RM – Recommended management. Efficiencies can be gained by concurrent and sequenced programming of works.

6. Lake Barrington Park

6.1. Issues and opportunities

6.1.1. Issues and observations

The issues and opportunities outlined in this section have been identified from stakeholder consultation, site visits and background research. Firstly, the issues and opportunities identified through consultation with stakeholders is summarised, then a strategic assessment that considers potential management responses and constraints is presented.

The key issues identified at the Wilmot Community Meeting, from on-site interviews during site visits and from other consultation with users and stakeholders⁹ were:

Parking and safety in the vicinity of the turning circle and the boat ramp.

The need for improved parking particularly for vehicles with trailers. Parking should be restricted to only one side of the road and no parking should be permitted within the turning circle to ensure drivers launching water-craft have sufficient areas to manoeuvre their vehicles. Participants noted that signage doesn't work - people still park

The need for a pontoon adjoining the boat-ramp to facilitate safe and efficient launching and loading/unloading of boats.

Road widening to enhance parking space and turning into the camping area for vehicles entering from the direction of the boat-ramp.

Space should be cleared in the camping area to increase/improve trailer and car parking.

Walking tracks are overgrown and need to be re-establish/formalised/upgraded.

Toilets were recognised as being dated and as not coping with demand during peak use periods. Blockage of the septic tank was reported and required pumping.

Rundown and dispersed day-use facilities (bbq and shelter).

The user survey (previously mentioned) reinforced the outcomes of the Community Meeting. Respondents to the survey were asked to rate the following items on a 5-point scale from very poor to very good. The results were as follows:

Item	Rating (n=20)
Cleanliness and condition of toilets	Fair – Good
Directional signage	Fair – Good
Condition of walking tracks	Poor – Fair
Condition of boat ramps	Fair – Good
Enforcement of park rules	Fair – Good
Preservation of natural surroundings	Good – Very good
Free electric barbeque – Council provided	Poor
Day-use shelter	Poor – Fair
Campsite drainage	Good – Very good

Ratings were: very poor, poor, fair, good or very good.

Respondents to the survey were also asked what, if any, problems they encountered with other visitors/campers at Lake Barrington Park. Issues identified were (verbatim):

Conflict on private pontoons. Conflict when complaining about vehicles parked down the road. Kids having to told to get out of the water when boats approaching. Large boats causing bow waves. Skiers skiing out if the required areas.

Music all night, loud swearing around children and rude people at boat ramp.

⁹ These issues are consistent with those identified during consultation conducted during the development of the *Lake Barrington Management Framework* (Inspiring Place 2010), the *Mersey-Forth Water Management Review* undertaken by Hydro Tasmania (2012) and the *Mersey-Forth Recreation Development and Management Plan* (Natural Acumen 2013).

When asked how the experience Lake Barrington Park provides could be improved – keeping in mind that the area is currently free to use and that Kentish Council has limited resources to manage the area – respondents provided the following (verbatim) comments:

Bigger septic

Bigger toilets, showers and more parking. Also a booking system for camp sites.

Could form a volunteer group to help look after the park. This would have to be under Council control to stop it becoming a club. Clear land at the reserve for Trailer parking. Better signage. Renovate the toilets. Widen the roundabout. Move the private pontoon around to the bay.

just maintain as is

More parking better turning area

The survey also asked respondents about the ability to find a campsite upon arrival, site preference, bookings and their willingness to pay for the ability to reserve a campsite during busy times. The survey found:

- All campers who responded to the survey were able to find a campsite when they arrived at Lake Barrington Park and almost three quarters of them (71%) preferred to camp in the same place they visited each year.
- More than half (57%) the campers stated they would prefer to be able to reserve/book a campsite during peak use times such as Christmas / New Year and Australia Day long weekend.
- Of those respondents who would prefer to reserve/book a campsite, 50% were not prepared to pay any fee and of those prepared to pay, no one would pay more than \$10 a night per person.

Respondents provided the following (verbatim) comments they had about reserving/booking campsites and fees:

Don't need them

I live in Wilmot and usually camp with my kids and his friends. It is always an off the cuff trip (5 mins). Policing camping fees will be a nightmare and policing non paying campers would be dangerous.

It would ensure families can get the same site each year and can reserve an appropriate amount of space for their party of people. It would also stop arguments and illegal reserving.

Make it affordable for the lowest incomes

No fees first in best dressed

normal campers could not get a site because all the sites would be booked by a minority group

The main issues and areas for improvement identified at Lake Barrington Park are illustrated in Figure 7. Matters that relate to management or those that cannot be easily located on a plan are discussed below under 'constraints'.

Figure 7
 Lake Barrington Park, Lake Barrington
 Issues and observations



6.1.2. Issues and constraints

Like Kentish Park, the key constraints affecting the management of Lake Barrington Park are the:

- limited resources available for Kentish Council to manage, improve and maintain the site
- topography of the site that restricts the level area available for parking and sightseeing. Access to the lakeshore is limited to the boat ramp creating congestion which has resulted in campers installing their own unapproved pontoons at which to moor their boats and use as a base for their on-water activity.
- identification of much of the site as a potential landslip hazard area, particularly the areas of steeper incline such as that which abounds the road to the boat ramp (Natural Values Atlas).
- interlinked management responsibilities of Kentish Council, Hydro Tasmania, MAST and IFS.
- The lack of reticulated sewage services.
- seasonality of recreational use, i.e. use peaks particularly during the Christmas – New Year holidays and the Australia Day long weekend. Visitation is further heightened when these times coincide with warm sunny weather.
- sense of ownership that has developed amongst users as a result of long-term and, in some cases, intergenerational use.
- limited awareness and understanding of the relatively new Kentish Council Reserves, Parks and Gardens By-Law – By-Law No.1 of 2012
- remoteness of site from regulatory influence
- no/poor mobile phone reception that inhibits the ability to contact police in response to dangerous and unruly behaviour.
- need to consider issues of competitive neutrality discussed in the *Statewide Directions Paper – Review of Council Recreational Vehicle Overnight Camping Services* (May 2012).

6.1.3. Potential opportunities

General opportunities:

- Enhancing recreation and visitor experience through the upgrade of basic infrastructure.
- Improved management of environmental impacts associated with recreational use
- Increased visitor safety via improved site layout
- Improved communication with visitors with respect to site orientation, rules and regulations and safety.

Opportunities to enhance the camping experience include:

- decreasing conflict amongst campers through increased awareness of by-laws and increased enforcement, particularly during the Christmas – New Year and Australia Day periods
- increasing visitor safety by formalising and upgrading key walking tracks, particularly between the campsite and the boat ramp
- providing site orientation and directional signage to improve traffic flow and better direct visitors to their desired destination.
- increase the amenity of the camping experience by refurbishing the toilets

Opportunities to enhance the experience of day-users and sightseers include:

- rejuvenation of day-use shelter and colocation of day-use facilities
- upgrading of the walking tracks from the day-use area and the boat ramp
- provision of parking alongside the day-use facilities to ease congestion around the turning circle
- reinstatement of the view to the lake from the day-use area and campsite and enhance native vegetation by removing the weedy sycamore trees (*Acer pseudoplatanus*).

Opportunities to enhance the experience of water-skiers, fishers and other water users include:

- minimising user conflict by creation of 'Keep Clear' zones at the head of the boat ramps
- easing congestion by creating additional and more efficient parking for cars with trailers and those without in the campground
- installation of pontoon at the boat ramp (in progress)

6.2. Lake Barrington Park Master Concept Plan

Figure 8 illustrates the Concept Master Plan for Lake Barrington Park. This figure is followed by a table that outlines the recommended actions and the rationale for the recommendations. The numbered actions in the table correlate with the numbered actions on the Master Concept Plan.

Figure 8
Lake Barrington Park, Lake Barrington
Concept Master Plan



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Table 8 Lake Barrington Park (Figure 8)

No.	Recommended action	Rationale
1.	Excavate batter to provide a 10m radius corner. Extend culvert by ~1m.	Excavation is necessary in order to provide an adequate turning radius for vehicles with trailers consistent with the Australian Standard AS 3962 – 2001.
2.	Clear undergrowth, remove one eucalypt and a cluster of saplings, fill and gravel parking area for 7 vehicles with trailers.	Space for parking vehicles with trailers is highly restricted due to topography and road width. The spaces should be arranged for reverse parking, i.e. nose out, to minimise the amount of fill and hardening required. Minimal clearing is recommended to maintain the aesthetics of the campgrounds natural setting. <i>Note that increasing the width of the road between the turning circle uphill to the entrance to the campsite was considered however as it identifies as a landslip hazard area (Natural Values Atlas) the extent of excavation work/retaining wall and vegetation clearing required would be costly and degrade the amenity of the site.</i>
3.	Remove small concrete slab.	This small slab is unsightly and inhibits the sitting of tents (can't insert tent pegs).
4.	Commission a risk assessment by a suitably qualified arborist of all trees in the proximity of the campground.	Campers have expressed concern about the safety of these large eucalypts. Periodic risk assessments should be undertaken as part of a broader risk management strategy.
5.	Remove small concrete slab.	This small slab is unsightly and inhibits the sitting of tents (surface is raised above the surrounding ground and prevents the insertion of tent pegs).
6.	Relocate and refurbish bbq and associated infrastructure. Refer Action 9.	The current siting of the bbq at the edge of the turning circle is unattractive, inhibits traffic flow and presents a risk to users. Development of an integrated day-use area that combines bbq, seating and shelter would enhance the experience of visitors.
7.	Refurbish toilet facilities.	While parts of the existing toilet block have been refurbished, elements of it remain at or beyond their working life, e.g. the men's urinal. A 'make over' will provide a clean and serviceable facility that is easier to maintain. A refurbished toilet block may also discourage people from toileting in the nearby bush. An assessment of the loading capacity and water supply to this facility is also recommended to ensure the chance of blockages and overflow is minimised and a reliable water supply is maintained.
8.	Formalise area for day-user angle parking (gravel surface).	Separation and allocation of car only parking space for day-users will minimise obstruction of traffic flow around the turning circle and enhance access to the re-developed day-use area.
9.	Renovate shelter and develop an integrated day-use area with 2 picnic tables and a bbq.	Day-use picnic facilities are currently minimal and dispersed. Integrating these elements in a single location will increase visitor safety by minimising pedestrian traffic in the turning circle and will enhance the quality of the visitors experience at the site and complements the reinstatement and upgrade of the walking tracks between the shelter/campground and the lake shore.
10.	Sign and regulate turning circle as a 'Keep Clear' zone to facilitate efficient launching and retrieval of watercraft.	Reports of vehicles with and without trailers being parked in the turning circle and hindering the manoeuvring and launching of boats was a common complaint by users. A 'Keep Clear' zone would reduce conflict and frustration particularly at peak use times.
11.	Formalise walking track between campsite and boat ramp to AS 2156.1 Class 3 standard.	To enhance the utility of the vehicle with trailer parking in the campground and discourage pedestrian traffic along the road between the campground and the boat ramp. An improved walking track will also enhance the accessibility of the toilet facilities in the campground from the boat ramp reducing the incidence of inappropriate toileting in the nearby bush.
12.	Restrict parking to the north-eastern side of the road using appropriate signage at both ends of the parking area.	Restricting parking to the north-eastern side of the road will assist in maintaining free access to the boat ramp for people launching and retrieving water craft.
13.	Install direction sign highlighting	To enhance the utility of the vehicle with trailer parking in the

No.	Recommended action	Rationale
	location of parking and toilet in the campground.	campground and discourage pedestrian traffic along the road between the campground and the boat ramp. Together with an improved walking track directional signage will notify visitors of the availability of toilet facilities in the campground reducing the incidence of inappropriate toileting in the nearby bush.
14.	Remove and control sycamore (<i>Acer pseudoplatanus</i>) to reinstate views to lake and enhance native vegetation.	To reinstate the views to the lake and its eastern shore those was once a feature of the campsite and day-use area and create the opportunity for natural recovery of the native vegetation. Opening up of the understory that is currently congested with the sycamore will also discourage toileting in the bush.
15.	Install pontoon to ease congestion at boat ramp and minimise the need for 'private' pontoons.	As many as three 'private' pontoons were installed by campers during the 2013-14 Christmas – New Year period. These are unapproved by Hydro Tasmania and have the potential to break free and cause damage Hydro Tasmania infrastructure and create a safety risk to water-skiers and motorboats.
16.	Reinstate overgrown walking tracks and upgrade to AS 2156.1 Class 3 standard.	These tracks provide an important interface between the campground and the lake for campers and sightseers where currently the only opportunity to enjoy the view of the lake is from the boat ramp.

Further specific detail with respect to the actions and costing estimates are contained in the Action Plan (Section 6.4).

6.3. Recommended management

The recommended management actions for Lake Barrington Park largely mirror those for Kentish Park (Section 5.3) as the issues are essentially the same, though at a lesser magnitude given the smaller size of the site.

Consultation suggests there is the real potential to **form a 'Friends of Lake Barrington Park' group** to undertake vegetation management, planting, etc. as outlined in outlined in Section 6.4. Working with such a group would build on the existing sense of ownership amongst those who frequent the site and foster social regulation through peer pressure. Such a group would require the provision of planning and in-kind support from Kentish Council.

Despite the introduction of the Parks and Gardens by-laws, 2012 (Section 2.5.2) and the installation of signage advising of the regulations that applies to use of the park, consultation with campers, and personal experience during site visits, indicates unsocial behaviour and reckless and unlicensed driving of vehicles and riding of trail and quad-bikes are common. While recognising that distance from the nearest police station and the often late hour of social disturbance, **increased regulatory influence** is suggested.

Enhanced collaboration is required between Tasmania Police and the Kentish Council to improve enforcement and build an image of Lake Barrington Park as a family friendly environment where unsociable behaviour will not be tolerated.

While the Master Concept Plan has made recommendations for the location and topic/message to be conveyed by proposed signs, such as that for directional signage, the **preparation of a detailed sign plan** that is consistent with the *Draft Mersey-Forth Catchment Signage Strategy* (Mersey-Forth Recreation Management Committee 2013) is recommended to maximise communication opportunities.

An annual count of the number of motorhomes, caravans, tents and the like onsite between Boxing Day and New Years day would enhance knowledge of the level of use. This would only be required to be done for a single day during this period as it likely to be indicative of the daily use levels at the site. **A biennial camper survey** would also contribute greatly to understanding camper satisfaction and in monitoring issues such as unsociable behaviour and the illegal riding of trail and quad-bikes.

The formation and ongoing **collaboration of the member agencies on the MFRMC has enhanced management and service delivery** across the catchment. **Participation, by invitation, of Tasmania Police in meetings of the MFRMC would help foster a sense of shared responsibility in managing recreation in the catchment.**

In addition, an opportunity exists to **develop a partnership between users and the MFRMC**. Exactly how this might evolve is unclear and dependent upon the users, though the benefits of shared understandings of issues and management are obvious with respect to garnering support for management.

Consultation indicated **additional parking for vehicles with trailers** is required. Two options were considered:

1. The creation of space for 7 additional vehicles with trailers to park at the periphery of the campground area (Figure 8, Recommendation 2 & Table 8, Recommendation 2)

2. increasing the width of the road by approximately 2.5m between the turning circle uphill to the entrance to the campsite. The excavation required would be on the south-western side of the road for a distance of approximately 80m from the turning circle to create a road width of 8m.

The current plan recommends the implementation of Option 1 as a first step in alleviating the parking pressure. The second option is not supported at this stage for three reasons:

1. The area encompassed by Option 2 is identified as a landslip hazard area (NVA) thus the extent of excavation work and vegetation clearing would degrade the amenity of the site.
2. The works required are costly – estimated at \$26,000.
3. The extent of demand in terms of the number of spaces and the number of days that peak demand occurs is unknown.

Option 2 should be only considered as an additional option following a detailed demand analysis subsequent to the implementation of the additional parking in the campground area.

With respect to the application of the recommendations set out in the Statewide Directions Paper, which includes charging a fee, there are a number of factors that make these impractical to apply. Such factors include:

- the proximity of the nearest caravan park
- the nature of the camping experience
- the short peaks in visitation (principally Christmas – New Year period, the Australia Day long-weekend and Easter)
- the sporadic and unpredictable nature of use at other times of the year
- the practicality of collection; the likelihood of users paying a fee if it were introduced
- whether or not a user pays system would recoup the cost of a) managing the site, and b) managing and administering the collection of fees
- that consultation and on-site interviews has made it clear that a significant proportion of users do not support the collection of fees.

This Plan makes no recommendation either way with respect to the application of the principles of competitive neutrality except to draw attention to need to reconcile the various factors and determine whether or not camping at Kentish Park constitutes a 'significant business activity'.

6.4. Prioritised Action Plan

This Action Plan presents the actions illustrated in the Master Concept Plan and identifies the responsible management agency, sets a priority from low to high and estimates the cost of implementation. The final column in the table headed 'status' provides a place to note progress toward implementation.

The priority/timing is based on the following:

High – should be implemented within the next two years

Moderate – should be implemented within the next five years

Low - should be implemented within the next ten years.

It is expected that the Kentish Council will lead the implementation of the recommended actions with primary responsibility remaining with the relevant agencies as outlined. The Action Plan is a working tool which acknowledges that timing, priorities and implementation may vary over time in response to new opportunities and funding, the level of support and commitment from stakeholders and the relevant policy framework. Therefore, it is recommended that progress toward implementation be monitored by the Kentish Council with an annual review of priorities to reflect situational change.

Figure No. Action no.	Action	Responsibility	Priority	Estimated cost	Status
8.1	Excavate batter (~2m) to provide a 10m radius corner. Extend culvert by ~1m. <i>Excavated fill can be used for levelling of parking described in Action 8.2</i>	KC	High	\$3,500	
8.2	Clear undergrowth, remove one eucalypt and a cluster of saplings, fill and gravel parking area for 7 vehicles with trailers.	KC	High	\$7,000	
8.3	Remove small concrete slab.	KC	Low	\$500	
8.4	Commission a risk assessment by a suitably qualified arborist of all trees in the proximity of the campground.	KC	High	\$2,400	
8.5	Remove small concrete slab.	KC	Low	\$500	
8.6	Remove bbq and associated infrastructure.	KC	Moderate	\$500	
8.7	Refurbish toilet facilities. Option 1: refurbish existing facility to provide 2 unisex toilets and 1 urinal. Option 2: rebuild facility to provide 1 all access toilet and 3 unisex toilets.	KC	Moderate - High	\$8,500 \$85,000	
8.8	Gravel and compact surface to formalise area for day-user angle parking.	KC	Moderate	\$1,500	
8.9	Renovate shelter (open up section of rear wall) and develop an integrated day-use area with picnic table and an electric bbq.	KC	Moderate	\$12,500 design dependent	
8.10	Sign (x2) and regulate turning circle as a 'Keep Clear' zone to facilitate efficient launching and retrieval of watercraft.	KC	High	\$250 signs + \$450 installation	
8.11	Formalise walking track (~120m light gradient) between campsite and boat ramp to AS 2156.1 Class 3 standard (~1m wide, benched, stepped as necessary with water bars).	KC	Moderate	\$9,000 - \$15,000 Design dependent	

Figure No. Action no.	Action	Responsibility	Priority	Estimated cost	Status
8.12	Restrict parking to the north-eastern side of the road using appropriate signage at both ends of the parking area.	KC	Moderate	\$250 signs + \$450 installation	
8.13	Install direction sign (x1) highlighting location of parking and toilet in the campground. <i>To be undertaken at the completion of Action 8.11</i>	KC	Moderate	\$100 sign + \$450 installation	
8.14	Remove and control sycamore (<i>Acer pseudoplatanus</i>) to reinstate views to lake and enhance native vegetation.	KC	Low – Moderate	\$5,000 plus ongoing maintenance	
8.15	Install pontoon to ease congestion at boat ramp and minimise the need for 'private' pontoons.	MFRMC & MAST	High	Already funded	Engineering works complete
8.16	Reinstate overgrown walking tracks (~200m) and upgrade to AS 2156.1 Class 3 standard (~1m wide, benched, stepped as necessary with water bars).	KC	Low-Moderate	\$15,000 - \$25,000 Design dependent	
RM	Explore the development of a 'Friends of Lake Barrington Park' group	KC, MFRMC	High	Agency cost	
RM	Preparation of a detailed sign plan that is consistent with the Draft Mersey-Forth Catchment Signage Strategy (Mersey-Forth Recreation Management Committee 2013)	KC	Moderate – High	\$2,000 consultancy (scope dependent) if incorporated with Kentish Park sign plan	
RM	Annual count of the number of motorhomes, caravans, tents and the like onsite between Boxing Day and New Years day	KC	High	Negligible, incorporate with ongoing site maintenance	
RM	Biennial camper survey – measuring satisfaction and incidence and impact of unsociable behaviour, illegal vehicle use, and other matters related to the relevant by-laws (Kentish Council 2012).	KC	High	\$3,000-\$4,000 consultancy (scope dependent) Survey design, 3 days fieldwork and report	
RM	Participation, by invitation, of Tasmania Police in MFRMC meetings	MFRMC	High	Agency cost	
RM	Develop a partnership between users and the MFRMC	MFRMC	High	Agency cost	

RM – Recommended management. Efficiencies can be gained by concurrent and sequenced programming of works.

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Appendix A Draft Lake Barrington Erosion Management Guiding Principles

DRAFT **Lake Barrington** **Erosion** **Management Guiding Principles**

Lake Barrington

Lake Barrington is a regional hub for recreation in the Cradle Coast region. The lake boasts one of the world's best rowing courses and provides opportunities for angling and water based activities. Surrounded by Parks and Wildlife Conservation areas and State forest conservation reserves the lake is an environment that draws visitors from intra and interstate. The management of Lake Barrington for recreation is undertaken through a collaborative partnership of the land owners and land managers surrounding the lake. Collectively land managers and owners develop strategies, plans and implementation works.

Erosion Management

Erosion at Lake Barrington is associated with it being a man-made and human used water body. The lake is utilised for power generation, recreation and water supply.

Guiding Principles

- That the management of erosion is a shared responsibility managed through a collaborative partnership between land managers and recreational users,
- That priority sites for the management of erosion is where there is a risk to assets collectively owned by the land managers including public assets and where safe use of those assets is at risk,
- That the impacts of erosion to environmental, bio-diversity or heritage values is managed to protect the social values of Lake Barrington.

Appendix B Priority Erosion Control Area illustrated in Figure 4, Recommendation 1.

The location of this area is illustrated in Figure 2, with specific sites illustrated in Figure 4. The following is an extract from Wild & Koehnken 2014).

Bank adjacent to entrance to Kentish Park (sites F & G)

Site Description & photos

The access road to Kentish Park is constructed along the bank of Lake Barrington just prior to entering the park. The underlying bank has been affected by erosion, and recently a rotational slumping has occurred at site F. At each of the sites, warning markers have been installed at the road's edge, suggesting that bank erosion has previously been recognised in the areas. Similar to most banks along the lake, the toe of the bank is characterised by a low angle toe with the juncture between the toe and high, steep bank characterised by a sharp break in slope.

The bank is not visible from the roadway, or from any prominent vantage point in Kentish Park. It is visible from the lake, and is in an area of relatively high boat traffic, due to its proximity to the boat ramp and pontoons.

Rotational bank slumps tend to occur when the underlying material is eroded, or weakened. This is consistent with the lower bank being eroded through sub-aqueous seepage processes, or sub-aerial physical erosion associated with wave impact. There is also potential that stormwater runoff from the road is accelerating bank erosion behind the rotational slumps.



Rotational slump at site F



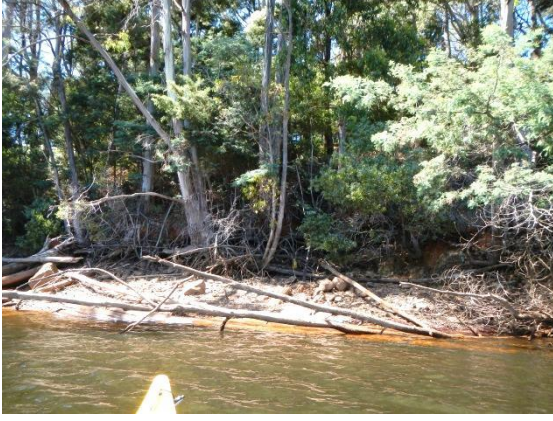
Oblique view of area F showing rotational slump and proximity to main entrance road to Kentish Park



Close proximity (1.4m) of bank collapse to the edge of West Kentish Road at site F



Active, ongoing erosion at slip site at site F



Tree falls and rotational collapse at site G



Tree falls near roadway.

Appendix C Priority Erosion Control Area illustrated in Figure 5, Recommendation 10.

The location of this area is illustrated in Figure 2, with specific sites illustrated in Figure 5. The following is an extract from Wild & Koehnken 2014).

Infrastructure in Kentish Park (sites D & E)

Description and photos

At the southern end of Kentish Park an access road leads to popular lake side camping spots, and the Kentish Ski Club. The road is confined to a narrow flat, area between the lake's edge and an embankment. At location E there is a culvert located under the road, and at location D there is infrastructure associated with the water supply to the park, and older bank stabilisation works which have collapsed. The area located between the water intake structure and the culvert has been stabilised using boulders. The banks are not visually prominent.



View of bank D-E, showing collapsed concrete on far left, water intake in centre left and culvert on far right, and bank stabilisation works between.



Undercutting of culvert at site D



Undercutting of banks where water supply pipe is located, site E



Collapse of bank / road stabilisation works at site E. Tape measure is 1m



Collapse of bank / road stabilisation works at site E



Collapse of bank / road stabilisation works at site E



View from road of water supply intake

Tension cracks in edge of road near water supply intake