

T H E
L A K E K U N U N U R R A
F O R E S H O R E A N D A Q U A T I C
U S E P L A N

P R E P A R E D B Y :

*T H E S H I R E O F W Y N D H A M E A S T
K I M B E R L E Y*

RELEASE DATE

LAKE KUNUNURRA FORESHORE AND AQUATIC USE PLAN

13 SEPTEMBER 2006

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GLOSSARY

Conservation Area	An area retained for flora, fauna and habitat for conservation and preservation purposes. No vegetation removal or slashing is permitted except on road verges and for the purpose of weed removal. Minor clearing for pathways and trails, as well as areas for passive uses such as seating and for vehicular or pedestrian safety requirements is acceptable. No development is permitted, with the exception of interpretative facilities such as boardwalks, signage and bird hides.
Parkland	An area used for parks and recreational uses. Vegetation removal is limited to slashing or mowing, and trees shall not be removed unless specifically recommended. Weeds are to be removed.

ACRONYMS

Shire of Wyndham East Kimberley	SWEK
Country Area Water Supply	CAWS
Department of Environment and Conservation	DEC
Department for Regional Development and Lands	DRDL
Department of Water	DoW
Main Irrigation Supply Channel	M1
Public Drinking Water Protection Zone	PDWPZ
Unallocated Crown Land	UCL
Miriuwung Gajerrong Corporation	MG
Ord Final Agreement	OFA

1 INTRODUCTION

The previous Lake Kununurra Foreshore Plan was written in 2006 and has been implemented for the last five years. A review process began in late 2010 and is being finalised in 2011. Copies of the original Foreshore Plan (2006) including community consultation is available from the Development Services Directorate Division of the Kununurra Shire Offices on 08 9168 4100.

This document is the revised foreshore plan that now incorporates an aquatic use plan plus additional areas for consideration.

1.1 OVERVIEW OF LOCALITY

The main focus of this Lake Kununurra Foreshore and Aquatic Use Plan is to address land use issues affecting foreshore reserves and associated areas on both sides of Lake Kununurra, from the Diversion Dam up to and including the Kununurra Racecourse, as well as Lily Creek Lagoon and the Packsaddle wetlands. The main study area land uses are shown generically (Figure 1). In addition to this main planning area the Foreshore and Aquatic Use Plan touches on three additional areas; the foreshore adjoining the Crossing Falls residential area, the Packsaddle/Jabiru Road agricultural area and the commercial canoe camps and tour boat day use areas.

An Aquatic Use Plan has also been incorporated into the document to show synergies between land and water use and to ensure that these uses complement one another. The Aquatic Use Plan focuses on those activities that occur on the waterway and is discussed in detail later in the document.

These foreshore reserves and associated areas included in the plan are owned or managed by a variety of government agencies including the Shire of Wyndham East Kimberley, the Department of Water, Water Corporation, the Department for Regional Development and Lands, the Miriuwung Gajerrong Corporation and the Department for Environment and Conservation.

Management of Reserve 41812 is vested in the Shire of Wyndham East Kimberley, Reserve 50425 is vested in the Department of Water and King Location 715 is Unallocated Crown Land, which is therefore administered by the Department for Regional Development and Lands. King Location 715 overlies Kununurra's Public Drinking Water Protection Zone and is managed as a Priority One Protection Area. Reserve 30211 contains the drinking water supply bore field and is vested in the Water Corporation.



Foreshore Landuse Plan - updated

Sept 10

Conservation	Tourism	Residential
Recreation	Development	Foreshore & Park

Figure 1: Land use map

A number of private landholdings occur within the study area, including three caravan parks with access leases to the foreshore and the land containing the Pump House Restaurant, which is held in freehold title by the Water Corporation.

Over the years there have been various developments within the main study area. These include caravan parks, a golf course, horse racing and rodeo facilities, recreational and commercial boating facilities and areas for swimming and skiing.

1.2 BACKGROUND

The area considered by this plan is central to the character of Kununurra. Lake Kununurra and its environs are a major recreational resource for both residents and visitors and are highly valued by the community. They also present opportunity for unique tourism development.

The ecological features of the study area are strongly dependent on the Lake. The Lake supports habitat for waterbirds, freshwater fish, frogs, turtles and the freshwater crocodile and is an important dry season refuge. It is these natural values that warranted recognition of the lake as an internationally significant wetland under the 'Ramsar' Convention.

Early in 2005 development proposals for the foreshore sparked considerable public debate. This culminated in an open meeting of the Kununurra Chamber of Commerce and Industry at which a number of issues were identified and discussed. Following this meeting a community-based group was formed and developed the original plan. The plan reflected the community's views and expectations of how the Lake Kununurra foreshore should be developed and managed. It was a decision making framework to guide the development and management of the Lake Kununurra foreshore and its associated lands. The plan sought endorsement by the custodians of the land in question however endorsement from all was not forthcoming.

After five years and with implementation of recommendations and renewed development interest in the Lake Kununurra foreshore and waterway, a decision was made by Council to review the plan. The principal purpose of this revised Lake Kununurra Foreshore and Aquatic Plan remains "to provide an effective and accepted decision making framework for guiding land and aquatic use, development, conservation and recreation". A summary of completed actions from the original plan has been developed and is attached as Appendix A.

1.3 LAKE KUNUNURRA 2006 FORESHORE PLAN REVIEW PROCESS

At the 16 February 2010 meeting (Item 12.3.3) Council resolved that it:

1. *Supports the formation of a technical working group to review the Foreshore Plan, focussing on the following:*
 - *development of a plan for the water that complements the overall land use plan;*
 - *identification of one or more site options for a communal 'service site' for the refuelling and sullage removal of commercial vessels;*
 - *identification of options for stage 2 of a commercial boating facility; and*
 - *management of aquatic weeds within the lagoon.*

2. *Agrees that membership of this group is to consist of representatives from:*

Council, Council administration, Department of Water, Department of Conservation and Land Management, Water Corporation, Miriuwung Gajerrong Corporation, Ord Land and Water, Department of Transport, Department of Regional Development and Lands, and Tourism WA. With letters of invitation to be distributed before a Terms of Reference has been finalised.

CARRIED UNANIMOUSLY: (7/0)

1.3.1 Lake Kununurra Foreshore Plan Technical Working Group

The technical working group that was formed to review the plan comprised representatives from the following agencies:

- Shire of Wyndham East Kimberley (Council and Administration)
- Department of Water
- Water Corporation
- Department of Environment and Conservation
- Miriuwung Gajerrong Corporation
- Ord Land and Water
- Department of Transport
- Department of Regional Development and Lands
- Tourism WA

The Foreshore Technical Working Group met monthly for one year. This group systematically reviewed the plan focussing on technical and operational issues to reach a consensus on actions which met the original plans objectives and goals yet did not conflict required Departmental operations.

1.3.2 Timeline

February 2010	Council decision to review the plan using Technical Working Group.
March 2010	Membership and terms of reference established for Technical Working Group.
April – Oct 2010	Monthly meetings of Technical Working Group.
November – March 2011	Update of figures and plan as a result of Technical Working Group meeting outcomes.
April 2011	Council decision to advertise the plan for community comment.
May 2011	Plan distributed to all agencies and made available for public comment.
July 2011	Comments collated for Working Group to consider and plan further updated.
August 2011	Council considers comments and revised plan.
August 2011	Council endorses revised plan.
August 2011	Plan sent to agencies for their endorsement to use as a reference.

1.4 ELEMENTS OF THIS FORESHORE AND AQUATIC USE PLAN

The main planning area under consideration is separated into six precincts, each with its own character and special qualities. An additional precinct (Precinct 7) has been added to the original plan plus an Aquatic Use Plan has been incorporated to assist in management of the actual waterway and to address the 'interface' between waterway and land uses. The foreshore adjoining the Crossing Falls residential area, the Packsaddle/Jabiru Road agricultural area and the commercial canoe camps and tour boat day use areas have also been added for consideration.

The Aquatic Use Plan is considered independently with an accompanying table to guide the conditions and area of operation for hire and drive vessels, which operate through all precincts.

1.4.1 Main Planning Area

Precinct 1 Southern shore of Lake Kununurra including Packsaddle Lagoon and the land bounded on the south by Packsaddle Road and private property. Following provisions under the Ord Final Agreement, the Miriuwung Gajerrong Corporation and the Department of Environment and Conservation now jointly manage this precinct. This precinct is being considered in State Government discussions as an alternative drinking water source area.

Precinct 2 Western part of the area north of Lake Kununurra immediately adjacent to the Diversion Dam, bounded by the Victoria Highway. Currently contains Swim Beach, Kununurra Water Ski Club, Commercial Boating Facility, yacht club and part of the Lake Kununurra Golf Club. The majority of land is managed by the Shire with areas leased to major sporting groups or commercial boat facility lease holders. This area has been identified for further development (Stage Two) of a Commercial Boating Facility.

Precinct 3 Central part of the area north of Lake Kununurra, bounded by the Victoria Highway and Lakeview Drive. It currently contains an amphitheatre, the Pump House Restaurant, Discovery Caravan Park, the remainder of the golf club, the Water Corporation's well field and part of the Public Drinking Water Protection Zone (PDWPZ). It is a diverse precinct containing recreational leases, freehold land, commercial leases and the PDWPZ. An alternative location for the PDWPZ is currently being investigated by the State.

Precinct 4 Eastern part of the area north of Lake Kununurra, bounded by the Victoria Highway, Lily Lagoon and the Old Darwin Road. Currently contains part of the PDWPZ and Kimberleyland Caravan Park. An alternative location for the PDWPZ is currently being investigated by the State and development within this precinct will largely hinge on the results of this investigation. Although identified for potential development in the future the majority of this precinct is currently taken up by the PDWPZ which must be protected and preserved.

Precinct 5 Northern and eastern shores of Lily Lagoon, bounded on the west by the Old Darwin Road. Currently contains Celebrity Tree Park, a public boat ramp, Rotary Centenary Park, Lakeside Caravan Park and the foreshore of the Lakeside residential subdivision. A busy precinct heavily accessed for recreation with little remnant foreshore vegetation.

Precinct 6 Southern shore of Lily Lagoon including Hamilton Inlet and surrounds. Currently undeveloped, it contains healthy stands of remnant riparian vegetation.

Precinct 7. Eastern foreshore of Lake Kununurra. Currently contains the racecourse grounds, rodeo club and rowing club. It is a precinct with considerable potential for future accommodation of public and sporting events.

1.4.2 Aquatic Plan Area Definition

Waterway Precinct The main area for this plan is the water between the Diversion Dam wall to just south of Elephant Rock including all lagoons, backwaters and inlets. In addition, this plan extends further up to the top dam (Argyle Dam) so that it includes navigational aids and the operating areas for hire and drive vessels.

1.4.3 Additional Planning Areas

Crossing Falls Foreshore Area Adjoining the residential boundary of the Crossing Falls development, this foreshore area is expected to come under greater development pressures with increasing demand for rural residential lots in this area.

Packsaddle Foreshore Area Adjoining the agricultural farming lots located along Packsaddle and Jabiru Roads, this foreshore area is in the process of being subdivided and sold to adjoining property owners. The process is subject to the Packsaddle River Farm Road Payment Deed.

Commercial Canoe Camps and Tour Rest Areas Scattered between Spillway Creek and Carlton Gorge these six areas are used by customers of commercial tourism companies enjoying either overnight canoeing or sightseeing day and half day trips.

2 CONTEXT

2.1 GOVERNMENT DEPARTMENT ROLES AND RESPONSIBILITIES

2.1.1 Department of Regional Development and Lands (DRDL) – Lands Division

The Lands Division provides a specialised service for the disposition, management and use of Crown Land, which is land belonging to the State. Crown Land covers 93% of Western Australia and includes airspace, seabed and subsoil of marine waters and coastal waters.

The State Land Services section of the Lands Division administers the Crown Estate under the *Land Administration Act 1997* and includes functions such as:

- Creation and administration of leases, reserves and roads;
- Transfer of Crown Land to the freehold environment;
- Management of the Crown Estate in association with the Department of Environment and Conservation and the Fire and Emergency Services Authority;
- Acquisition of land for government public works; and
- Negotiations and consultations with Native Title holders and claimants where the Native Title Act 1993 provides rights to those parties in relation to Crown Land.

2.1.2 Department of Water

Department of Water (DoW) is responsible for the sustainable management of the State's water resources through investigation, planning, regulation and management of these resources. Broadly, DoW is the lead agency responsible for waterways, floodplains and estuaries, while the Department of Environment and Conservation is responsible for wetlands.

In the context of the foreshore plan, DoW is responsible for:

- Providing water-related advice and conditions for planning decisions;
- Implementing the *Ord River Water Management Plan WRAP15 (2007)*, which specifies how water will be allocated to meet competing environmental, social and commercial water requirements;
- Protecting Kununurra's drinking water source through the implementation of the *Kununurra Water Source Protection Plan (2003)*. For further information on the protection of Kununurra's drinking water under the *Country Area Water Supply Act 1947* refer to Section 2.3 of this document;

-
- Licensing surface and groundwater use, including water service providers such as the OIC and Water Corporation and self-supply users in accordance with the *Rights in Water and Irrigation Act 1914*. Additional information on the RIWI Act is in Section 2.3 of this document;
 - Measuring and monitoring the location, quality and quantity of groundwater and surface water resources in the Ord River catchment; and
 - Responding to fish kills and algal blooms in waterways.

2.1.3 Department of Environment and Conservation

Department of Environment and Conservation's (DEC) overarching role is to achieve improved environmental outcomes. Key responsibilities include roles in conserving biodiversity and protecting, managing, regulating and assessing many aspects of the use of the State's natural resources. Other responsibilities include the management of contaminated sites and coordination of pollution incident responses.

Key responsibilities in regard to Lake Kununurra and its foreshore are:

- Contributing to the environmental impact assessment process for proposed developments;
- Being the state agency responsible for maintaining the Lake Kununurra Ramsar wetland values under the Commonwealth *Environmental Protection and Biodiversity Conservation Act (1999)*; and
- Protecting native flora and fauna.

Native vegetation clearing across all tenures is managed with the use of clearing permits. Wetlands and fringing vegetation, threatened ecological communities and populations of rare flora have special protection as environmentally sensitive areas.

The Crocodile Control Zone results in removal of Saltwater crocodiles between Argyle Dam and the Diversion Dam. All saltwater crocodile sightings in this area should be reported to DEC.

2.1.4 Water Corporation

The Water Corporation is responsible for the management of water levels in the lake for water supply for irrigation and environmental flows. The Water Corporation maintains the infrastructure associated with the lake such as two dam walls and the M1 irrigation channel intake.

In addition to management of the water supply and infrastructure for irrigation, the Water Corporation manages the Public Drinking Water Protection Zone and the bore fields that supply the town with good quality drinking water.

2.1.5 Shire of Wyndham East Kimberley

The Shire of Wyndham East Kimberley is responsible for the management of Foreshore Reserve 41812, Reserve 29167 (Kununurra Golf Club) and Reserve 30290 (racecourse). Reserve 41812 includes the areas known as Swim Beach and Ski Beach, Celebrity Tree Park (Reserve 42371) and Lakeside Caravan Park. The Shire manages these public parks for recreation and leases other areas to sporting groups such as the ski, race, rodeo and golf clubs.

Although not its direct responsibility, the Shire removes Cumbungi and other nuisance aquatic vegetation in Lily Creek lagoon with an aquatic weed harvester.

2.1.6 Department for Transport

The Marine Safety Business Unit is part of the Transport Services Division of the Department of Transport. The Department's purpose is to provide safe, accessible, sustainable and efficient transport services and systems, which promote economic prosperity and enhance the lifestyles of all. The purpose of Marine Safety is to provide safe navigation and safe use of State waters, protect the marine environment and provide for an effective response to marine emergencies.

Marine Safety fulfils this role through:

- Ensuring compliance by commercial and recreational boat owners with marine regulations and standards;
- Minimising the impact of marine pollution;
- Providing expert marine safety advice and infrastructure to aid safe navigation of State waters; and
- Educating and training the community in safe, sustainable use of State waters.

This includes the gazetting and enforcement of speed restrictions, ski area and other gazettes. The Department also has a responsibility to approve and administer moorings.

2.2 OTHER ORGANISATIONS WITH VESTED INTEREST

2.2.1 Miriuwung Gajerrong Corporation

The Miriuwung Gajerrong Corporation is a key stakeholder in all lands and waters immediately surrounding Kununurra. Representing the traditional owners of the land, they need to be consulted before development and land use planning occurs. This Corporation and its people are important in identifying sites of cultural significance, speaking the history of the area and their involvement required for any land development activities on which native title has not yet been resolved.

2.2.2 Ord Land and Water

Ord Land and Water is responsible for overseeing implementation of the Ord Land and Water Management Plan (2000). This community based organisation also carries out Landcare activities such as weed and feral animal control as opportunities arise and funding is made available.

2.3 LEGISLATION

The Foreshore Study Area covers a wide range of landholdings, managed by several different agencies. Various Acts and Regulations affect the study area. Reserve 41812 is managed by the Shire of Wyndham East Kimberley and Reserve 50425 is managed by the Department of Water. Both reserves are managed for the purpose of foreshore and recreation whilst the Public Drinking Water Protection Zone and Bore Field is managed by the Department of Water and the Water Corporation.

2.3.1 Planning and Development Act 2005

The *Planning and Development Act 2005* provides the legislative framework for planning land use and development within Western Australia. This legislation provides for the preparation of Council's Local Planning Strategy and Town Planning Scheme, the most significant land use planning instruments affecting the foreshore.

2.3.2 Local Planning Strategy

The SWEK Local Planning Strategy [LPS] provides a strategic planning framework for the entire SWEK area. Generally, the LPS affirms current land uses prescribed in the Town Planning Scheme [TPS 7] within the study area. Key recommendations of the LPS affecting the study area that are not included in TPS 7 are:

- Inclusion of part King Location 715 for Residential development;

- Removal of several future recommended tourism nodes as identified in the previous Lake Kununurra Foreshore Management Plan (2006).

The LPS does not contain specific detailed information on matters such as the Commercial Boating Facility, however it does not prevent such development as it is a guidance tool only and is not a static document.

2.3.3 Town Planning Scheme No 7 - Kununurra and Environs

TPS 7 is the principal planning tool for Kununurra and the agricultural area. It is a regulatory Scheme that guides the processes for determining approval of development and land use decisions within the Scheme area.

Land within the Scheme is categorised as either Reserves or Zones. The reservation or zoning defines which land uses are permitted and defines development standards. The Scheme was gazetted in 2001 and is currently under review. The *Planning and Development Act 2005* provides that amendments can be made to Schemes. Reservation under the Scheme should not be confused with a reserve as a form of land tenure.

The main reservations and zones in the foreshore study area are shown in Figure 2 and listed in Table 1 below.

Table 1: Main Reservations and zones

Site	Reservation or zone
Foreshore Reserve 41812	Special Foreshore Reserve
Reserve 50425	Special Foreshore Reserve
Reserve 30211	Public Purposes Reserve – Water Supply
Botanical Gardens	Parks and Recreation Reserve
Lake Kununurra Golf Club Reserve	Parks and Recreation Reserve
M1 Channel	Waterway Reserve
Discovery Park Caravan Park	Tourist Zone
King Location 715	Special Foreshore Reserve
Kimberleyland Caravan Park	Tourist Zone
Celebrity Tree Park	Parks and Recreation Reserve

Site	Reservation or zone
Lakeside Resort	Tourist Zone
Racecourse	Parks and Recreation Reserve
Packsaddle Foreshore	Special Foreshore Reserve
Crossing Falls Foreshore	Special Foreshore Reserve
Reserve 30290	Special Foreshore Reserve
Reserve 50438	Conservation/Environmental Protection Reserve

2.3.4 Land Administration Act 1997

All Crown Land, whether managed (e.g. Reserved) or unmanaged (Unallocated Crown Land) is administered in accordance with the *Land Administration Act 1997*. The Department for Planning and Infrastructure also has responsibility for developing policies for the management of Crown Land consistent with this Act.

2.3.5 Country Area Water Supply Act 1947

A large portion of the study area is contained within the Kununurra Water Reserve proclaimed under the *Country Area Water Supply Act 1947*. The Interim Water Source Protection Plan proposes the rationalisation of the Water Reserve and the classification of the area as a Priority 1, or P1, drinking water supply. A section of Reserve 41812 and King Location 715 will be wholly contained within the P1 area.

In P1 areas the objective is risk avoidance and any additional land use intensification is not typically supported. Accordingly, any development proposals within the Kununurra Water Reserve and along the adjoining foreshore reserve must be assessed for their impact on the quality of Kununurra's drinking water source. The Department of Water's Water Quality Protection Note relating to land use compatibility (available at www.water.wa.gov.au) needs to be considered in this assessment.

2.3.6 Rights in Water and Irrigation Act 1914

The Department of Water is responsible for managing the State's water resources. One of the ways that the Department does this is through issuing licences and permits under the *Rights in Water and Irrigation Act 1914*.

Water licences provide a person or company with the right to take and use a particular volume of water, subject to a set of conditions. Holding a licence does not guarantee water availability or quality but, for the term of the licence, it does protect an entitlement to access water. Licences are required in all proclaimed areas and for all artesian groundwater bores throughout the state.

The area covered by this plan falls within the proclaimed Canning-Kimberley groundwater area and the Ord River and Tributaries surface water area.

There is currently an exemption for domestic use of surface or groundwater, which includes ordinary household use and watering of a small garden under 0.2 ha, fire-fighting and stock watering. However, any commercial use of groundwater or surface water requires a 5C licence. A 26D licence to construct or alter a well may be required to drill a bore. All artesian water use requires a 5C licence and a 26D licence is required to construct any artesian well. Additionally, a permit to interfere with bed and banks may be required for works including installing and maintaining pump infrastructure and boat ramps.

2.3.7 Boating Regulations

Boating is a popular recreational and commercial activity on Lake Kununurra. The use of watercraft and regulation of speed and mooring zones on all state waters including Lake Kununurra is governed by the Department of Transport under the *Western Australian Marine Act 1982* and the *Navigable Waters Regulations 1958*. Speed zones occur in Lily Creek Lagoon and through the area known as the S's. There is a gazetted ski area opposite the Kununurra Water Ski Club and the Kununurra Golf Club. The boat ramp at Celebrity Tree Park is the only gazetted ramp on the reserve for recreational use. There is currently no gazetted mooring zone. These speed zones and gazetted areas are reviewed in the Aquatic Use Plan.

2.3.8 Environment Protection and Biodiversity Conservation Act 1999

Lake Kununurra and Lily Creek Lagoon are listed under the Ramsar convention, an international treaty that provides for the preservation of habitat for international migratory birds. This convention, to which Australia is a signatory, does not exclude the use of wetlands or development on or adjacent to the listed area, however, the protection of habitat is paramount. The convention requires sound management of these areas to ensure habitat is not detrimentally impacted on by use. Any proposed use or development must demonstrate that it “*will not lead to the loss of biodiversity or diminish the many ecological, hydrological, cultural or social values of the wetland (Article 3.1 Ramsar Convention).*”

Any land use or development proposal within a Ramsar boundary must be referred to the Federal Government for assessment under the *Environment Protection and Biodiversity Conservation Act 1999*.

2.3.9 Native Title Act 1992

Native title is largely extinguished over the study area. The Ord Final Agreement [OFA], an agreement between Native title holders, the Miriuwung Gajerrong Corporation and the State of WA, provides for the reservation of Packsaddle Conservation Area and subsequent vesting in the DEC and MG Corporation as a co-managed reserve.

The OFA confirms that native title does not exist on Foreshore Reserve 41812 and King Location 715.

2.3.10 Aboriginal Heritage Act 1972

The *Aboriginal Heritage Act* provides for the protection of sites of Aboriginal Heritage significance identified and listed under the Act. However, the Act also requires protection of any site with aboriginal heritage - identified or otherwise.

2.4 TOURISM

Tourism is an important part of the local economy and a number of existing formal and informal tourism uses are conducted on the lake, foreshore reserves and adjoining land. Tourism is expected to remain one of the region's major growth industries, with increasing visitor numbers coming to Kununurra and more tourism enterprises wishing to utilise the Lake and its foreshore.

2.4.1 Tourist Parks

There are three tourist parks in the plan area. All three are freehold landholdings and all have a lease over the adjacent foreshore reserve. Park residents use the foreshore reserve for lake viewing and other activities and a number of developments associated with the tourist parks are located within the foreshore reserve, including powered caravan sites, chalets and tour vessel operations.

2.4.2 Public Parks

Many visitors to Kununurra use existing parks and foreshore reserves for access, recreating and the viewing of Lake Kununurra and Lily Creek Lagoon. The most popular sites are Swim Beach, the Kununurra Water Ski Club, the Kununurra Golf Club, Celebrity Tree Park, Kununurra Racecourse, the Ord River Sailing Club, Kununurra Dragon Boat Club and the caravan parks. Access is managed at some locations but remains unmanaged at others.

2.4.3 Commercial Operations

There are a number of commercial businesses that utilise the lake and adjoining foreshore. Commercial boating operations make up the majority of these. There are sightseeing trip operators, canoe and paddle boat hire businesses, self-drive hire boats and a single commercial houseboat.

Stage one of a Commercial Boating Facility was developed in 2009 for the major commercial boat operators which include Triple J tours, Alligator Airways, The BBQ Boat and Celliston Nominees. Although this stage caters for those businesses that were present at the time of its development, stage two is now required for both recently established and future potential aquatic based tourist enterprises on Lake Kununurra. This development also needs to provide a common user facility for refuel and sullage disposal.

2.5 RECREATION

The foreshore reserve and lake are used extensively by residents and visitors for passive and active recreation. These include:

- Walking
- Bird watching
- Dog exercising
- Picnicking
- Swimming
- Sightseeing
- Water skiing
- Sailing
- Local events
- Fishing
- Canoeing / Kayaking
- Boating

Organised groups such as the Ord River Sailing Club, Kununurra Water Ski Club, Kununurra Race Club, Kununurra Bushman's Rodeo Association, the Lake Kununurra Golf Club and the Kununurra Dragon Boat Club also use the foreshore. Most of these clubs have formal leases over portions of the foreshore.

2.6 TRANSPORT AND ACCESS

People using the foreshore and lake employ various means to get to their destination, and to move around, including driving, walking, cycling, canoeing and boating. People access the area at the following main locations:

- Lakeside Resort and Caravan Park
- Celebrity Tree Park and boat ramp
- Kimberley Land Resort
- Discovery Caravan Park
- The Lake Kununurra Golf Club
- Pump House Restaurant and Café
- Commercial Boating Facility
- Kununurra Water Ski Club
- Swim Beach
- Kununurra Racecourse
- Kununurra Dragon Boat Club and rowing club

2.7 WALKING AND CYCLING

Walking and cycling are a popular form of exercise to and along the foreshore. People use the existing dual use paths beside the highway that lead to Lily Creek Lagoon and continue out to the Diversion Dam. There is strong demand for a foreshore trail network that follows the foreshore rather than the highway.

2.8 BOATING

Powered and paddle craft are used to access Lily Creek Lagoon, Packsaddle Reserve and Lake Kununurra. Recently the Lily Creek Lagoon boat ramp was extended and a new car park and ablutions were installed to reduce congestion. With increasing numbers of visitors to town there is still a need for an additional boat ramp preferably upstream of the lagoon.

As of 14 February 2011, the number of registered vessels in Kununurra was 616. Of these, 382 were less than 5 m long, 227 ranged between 5 - 9.99 m long and seven were 10 - 19.99 m vessels. 310 of these 616 vessels were open boats (dinghies), 16 ski boats, two jet skis, four houseboats and two

yachts. It is suspected that there are other vessels within Kununurra that are not registered and are used on the Lake for recreation.

A project to introduce Barramundi fingerlings into Lake Kununurra is currently underway. If it succeeds in maintaining a stable fish population then this would result in a large increase in recreational fishing on the lake. Recommendations that new and improved facilities be constructed to cater to the current and future growth of boating on Lake Kununurra have been put forward.

2.9 POWER AND WATER

The water from Lake Kununurra is used for irrigation, as well as providing an environmental flow to the Lower Ord River that in turn supports several commercial boating operations. Water Corporation owns the M1 Channel, the Pump Station, the Diversion Dam and all associated infrastructure located on or near the foreshore. The Water Corporation maintains the right to manipulate water levels as required for irrigation. These levels can fluctuate significantly. The Ord Irrigation Co-operative owns drainage and channel infrastructure associated with the Irrigation Area.

The Water Corporation takes water from the well field to supply Kununurra's drinking water. Accordingly, the Department of Water and the Water Corporation are jointly responsible for protection of the drinking water resource of Lake Kununurra.

Horizon Energy provides power to the foreshore reserve and the Water Corporation supplies potable water. There is no reticulated sewerage within the foreshore reserve and most developments use septic tank treatment systems. Discovery Holiday Park has a pump system to the reticulated sewer network. This plan recommends that new developments in the foreshore be required to connect to the sewer system to minimise contamination risks to the groundwater system.

2.10 EMPLOYMENT AND ECONOMY

The foreshore and waterway directly support a large part of the local tourism industry. Visitors to Kununurra often take advantage of commercial tourism opportunities during their stay. These tourism enterprises, such as caravan parks, tour boat operators and the annual Ord Valley Muster Concert all contribute directly to the local economy and provide local employment.

2.11 PHYSICAL FEATURES

Some of the major landscape and manmade features of the riparian environment around Lily Creek and Lake Kununurra are:

- The main entrance into Lily Lagoon
- Entrances and lagoons near the ski club, Discovery Park Resort and the Packsaddle wetlands
- M1 Channel and Pump Station Restaurant and Café
- Swim Beach
- Kununurra Water Ski Club
- Ord River Sailing Club
- Commercial Boat Facility
- Caravan parks
- Elephant Rock
- Celebrity Tree Park (including boat ramp)
- Kununurra Race Club

2.12 ENVIRONMENT AND CONSERVATION

Lake Kununurra is an internationally significant wetland. It is protected under an international environmental treaty (the 'Ramsar' Convention). This convention requires that any development or activity on the Lake, or within the Lake's catchment demonstrate that it *"will not lead to the loss of biodiversity or diminish the many ecological, hydrological, cultural or social values [of the wetland]."*

A recent survey determined that there are at least 21 species of fish living in the waters of Lake Kununurra and in a 2000-2003 research project, up to 52 bird species were identified at sites between the Diversion Dam and Cooliman Creek. In comparison, only 35 bird species were identified in the adjacent savannah. This indicates that the foreshore and riparian areas serve as valuable bird refuge. In addition, large numbers of freshwater crocodiles and turtles inhabit the lake.

With the damming of the river, the ecologically important native aquatic plant species Ribbon weed and Cumbungi have flourished. They are now considered a problem in specific areas, affecting access and impeding some water based activities. Efforts have been made to control these plants, with the main problem areas now managed through use of an aquatic weed harvester.

Stormwater runoff from roads and residential areas is currently uncontrolled. Litter and debris run directly from streets into Lily Creek Lagoon. Monthly water quality monitoring of the lake was undertaken by the Department of Water for several years at two sites, Mud Springs and Lily Creek Lagoon. Funding for this project ceased in 2009. For further information on this monitoring program please contact the Department of Water. The Shire of Wyndham East Kimberley undertook a 3-year National Action Plan project in 2005 to monitor storm water run-off, which provided base line information and trends. The stormwater program showed elevated levels of nutrients entering the lagoon from residential areas. Further information, including the data analysis and full report, are available from the Shire of Wyndham East Kimberley.

Large concentrations of many different plants and animals are found within the permanent waters of the lake and in the foreshore area. Weeds, ad hoc development, fire and increased and/or unmanaged visitor use and access are increasing the pressure on these ecological assets.

2.13 ABORIGINAL HERITAGE

There are significant Aboriginal Heritage Sites located within the study area. Discussion with the Aboriginal Socio-Economic Impact Assessment Committee identified specific areas to be protected or recognised. Consultation outcomes from the Shire of Wyndham East Kimberley's Local Planning Strategy were also incorporated into the Foreshore Plan and used to identify areas of significance. Notwithstanding the areas identified and protected, all development must comply with Aboriginal Heritage Act (AHA) processes and regulations.

Aboriginal Heritage Sites within the additional planning areas of Crossing Falls, Packsaddle and those areas subject of the Canoe Camps proposal are still to be determined. Further investigation by the Department of Regional Development and Lands (DRDL) is required to ascertain whether the additional planning areas include any registered Aboriginal Heritage sites. Should any registered sites be identified within the subject areas, DRDL will advise the proponent accordingly. It is the responsibility of the landowner/developer to comply with the regulations of the AHA.

3 CONSULTATION

Following the meetings of the Foreshore Technical Working Group, all key government agencies were sent draft documents for comment. Once agency comments had been received, the public consultation process ran for one month with displays held at the local shopping centre and community markets. Copies of the Plan were distributed to key government agencies and community stakeholders and made available to the public at the Shire library and offices. The plan was twice advertised in the Kimberley Echo and covered by ABC Radio. A summary of the public submissions received is provided in Appendix B.

4 GENERAL ISSUES AND RECOMMENDATIONS

With the active participation of the community throughout the initial plan, the original Steering Committee was able to readily determine the predominant desires and objectives for the foreshore, i.e. what the majority of people wanted and where. The review of the plan concluded that the key issues remain the same and that development required further focus. A recurring general theme throughout the consultation process for the original plan and its review was the need for preservation of the foreshore environment, especially the riparian zone and its vegetation with a focus on sustainable eco-development opportunities that did not restrict public access. This was reinforced again in the reviewed plan submissions received from the public.

The key issues addressed as part of the Foreshore and Aquatic Use Plan are as follows:

- Development
- Tourism
- Recreation
- Conservation
- Cultural heritage
- Boating

4.1 DEVELOPMENT

Consultation focussed on achieving development that meets the growing needs of the region yet that is in tune with the natural environment, allows or enhances public access to the foreshore and protects areas of riparian vegetation.

Three key areas have been identified for investigation for future residential development. The first is a portion of land located on the corner of Water Lily Place and Casuarina Drive in Lakeside. The Shire currently owns this portion of land for the purpose of developing residential accommodation. The second is a portion of land located within Precinct 6, next to the racecourse and in an area known as Drovers Rest. This would serve as a further extension to the residential development of Lakeside. The final area is currently located within the Public Drinking Water Protection Zone and could only be pursued if the proposed boundary change was to eventuate or if the bore field was relocated.

Alternative drinking water sources and the location of the Public Drinking Water Protection Zone are under investigation. The future development of the town relies on a secure and safe supply of drinking

water. Although alternative sites are being investigated, there is no guarantee a suitable new area will be found. The current protection area provides safe drinking water and therefore needs to be protected.

Any development and use that occurs upstream of the Public Drinking Water Protection Zone will need to be planned and managed to minimise the risk of contamination to Kununurra's drinking water supply. Any development within the Public Drinking Water Protection Zone has to meet DoW's and Water Corporation's land use compatibility criteria.

A topic that received much attention was the development of Stage Two of a Commercial Boating Facility. It is assumed that Stage Two would be located in the same area as Stage One, which is in Precinct 3. Should the bore field be relocated, it is possible that an area within Precinct 4 could be used. Regardless of location, the Stage Two development must include a common user facility for refuelling and sillage removal. Such a development will require extensive investigation and planning to ensure that the best location and style of development is chosen. It is recommended that the areas investigated should include the natural inlet known as Cumbungi Inlet and the inlet within Precinct 4.

4.1.1 Development guidelines

Development guidelines have been prepared to ensure consistent development along the foreshore that enables public access, preservation of the foreshore and is in tune with the natural assets of the area. These should be included in a Council Planning Policy. It is recommended that this policy be applied to the whole of the Lake Kununurra and Lily Lagoon foreshores. These guidelines have been developed in response to State legislation, policies and guidelines.

Development guidelines for the foreshores of Lake Kununurra and Lily Creek Lagoon, including all other associated inlets are:

- DG1 A minimum buffer area of 10 m from the high water mark (full supply level) to be maintained for pedestrian access and passive recreational purposes with no permanent structures apart from a pathway and associated pedestrian facilities. Greater buffers may be used for specific areas as determined by the lessor (landowner) in consultation with State Government departments.
- DG2 The use of muted colours that are sympathetic to the natural surrounds.
- DG3 Where greater than 50% of the 10 m foreshore buffer is licensed to an adjoining lease holder, the lessee shall be responsible for preparing an action plan for that buffer area that guides their management of the whole of the foreshore buffer and its bank. This action plan must be

-
- submitted for approval by the relevant management authority.
- DG4 All revenue collected from foreshore leases is to be used to maintain the public foreshore area and its associated facilities.
- DG5 All works to the foreshore banks shall use only materials approved by the relevant management authority.
- DG6 Toilets, or other buildings, expelling liquid wastes should be connected to sewage or alternative waste disposal units and be approved by the Shire, Department of Water and Department of Environment and Conservation.
- DG7 Vehicle entry to the foreshore shall be restricted to authorised personnel only, through the use of bollards, chains or other fencing materials as approved.
- DG8 Signs are to be visually unobtrusive and kept to a minimum.
- DG9 Appropriate access routes along and to the foreshore, including pedestrian paths, cycle paths dual use paths and pedestrian access buffers, are to be developed and maintained by the Shire.
- DG10 Foreshore locations capable of sustaining recreational pressures without environmental degradation shall be provided for recreational use.
- DG11 Views and vistas from within the foreshore precinct to the broader landscape and from the river and opposite banks to the foreshore are to be preserved.
- DG12 All existing areas of remnant riparian indigenous vegetation are to be protected and where possible enhanced.
- DG13 Degraded natural areas are to be rehabilitated by regenerating indigenous vegetation communities.
- DG14 Only top end native vegetation as approved by the management authority shall be used within the foreshore zone.
- DG15 Aboriginal and European heritage associations of the foreshore precincts are to be acknowledged, respected and protected.
- DG16 The water quality of the river and the groundwater resource within each precinct shall be preserved through adhering to the principles of water sensitive urban design including on site disposal of all stormwater where possible.
- DG17 Ecological corridors should be established to link natural areas in a continuous manner.
- DG18 Plans for structures within the waterways are to be submitted for approval by the Water Corporation to ensure protection of the dam infrastructure.

Key Development Recommendations

-
- DR1 Pursue detailed investigation and planning for the development of residential areas as identified in the precinct plans.
 - DR2 Pursue detailed investigation and planning for the development of Stage Two of the Commercial Boating Facility.
 - DR3 Ensure a Council Planning Policy is developed that encompasses the Foreshore Development Guidelines above.
 - DR4 Develop a local Structure Plan for Crossing Falls and Packsaddle/Jabiru Road developments.
 - DR5 Ensure any development along the foreshore allows for continued or increased public access and recreation.
 - DR6 Ensure the foreshore is preserved for community enjoyment and that any development is sympathetic with the natural environment.
 - DR 7 Ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

4.2 TOURISM

There is strong support for tourism within the foreshore, however, it was recognised that thorough research, consultation and planning is required prior to any decisions being made to ensure that tourism developments benefit the public as well as complement the foreshore area. Any development also needs to be consistent with the overall strategic direction of the Shire.

A high level of support was observed for some tourism development within Lily Creek. This support focussed on an area of the foreshore adjacent to Messmate Way and, to a lesser degree, Celebrity Tree Park. The majority of support was for a tourism use associated with the waterway such as hire of non-motorised aquatic vessels (canoes and paddleboats). Should any development occur within this area, it is recommended that it is freely accessible to the public and designed and located to be sympathetic to the natural values of the foreshore. No further leases were recommended over this portion of the foreshore with licensing of tourism businesses to be pursued instead.

The area between Swim Beach and the ski club has been identified for development of commercial boating facilities for tourist operations and associated uses whilst also providing for public access for recreation. Stage One of a Commercial Boating Facility has commenced and currently accommodates three main tourist operations. Due to significant growth and interest in the area, further lots are required to accommodate recent and proposed tourism ventures on Lake Kununurra.

Once Stage One of this facility has been fully completed, the Technical Working Group recommends inclusion of a larger Stage Two Commercial Boating Facility with a common user fuel and sullage facility. This facility could potentially support an additional waterfront café or similar.

The racecourse and associated land has also been identified as an area of high potential for tourism activities for other sports and public events and possibly a caravan park. This area is being looked at in detail in the development of a Sports Master Plan and if developed for tourism uses additional planning, consultation and research would be required.

Key Tourism Recommendations

- TR1 Finalise Stage One of the Commercial Boating Facility.
- TR2 Development of Stage Two of the Commercial Boating Facility that includes public/tourist uses such as a café.
- TR3 Support the detailed investigation and planning of the land associated with the racecourse for tourism, increased sports events and caravan parks.
- TR4 License operators of the aquatic hire and drive of non-motorised craft to use the foreshore reserve at the end of Messmate Way for launching non-motorised vessels.
- TR5 Ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

4.3 RECREATION

A number of recreational activities occur along the foreshore. Every consultation period since 2005 has consistently demonstrated that the community has a strong relationship with the foreshore and a desire to interact with it. Four preferred areas have been identified for recreation even though a number of recreational activities occur along most of the foreshore.

King Location 715 and the adjoining Foreshore Reserve 50425 are to be used for passive recreation such as walking trails and bird hides. Any development within this area, including walking trails, would need detailed planning and approval from the Department of Water and the Water Corporation.

Aside from the recommendations for recreational uses within this area, there is currently a lack of active management of the portion of the Water Reserve located in Precinct 4. This results in detrimental

impacts arising as a result of illegal camping, fires and litter. Accordingly, it is recommended that management practices be implemented to ensure minimisation of these impacts.

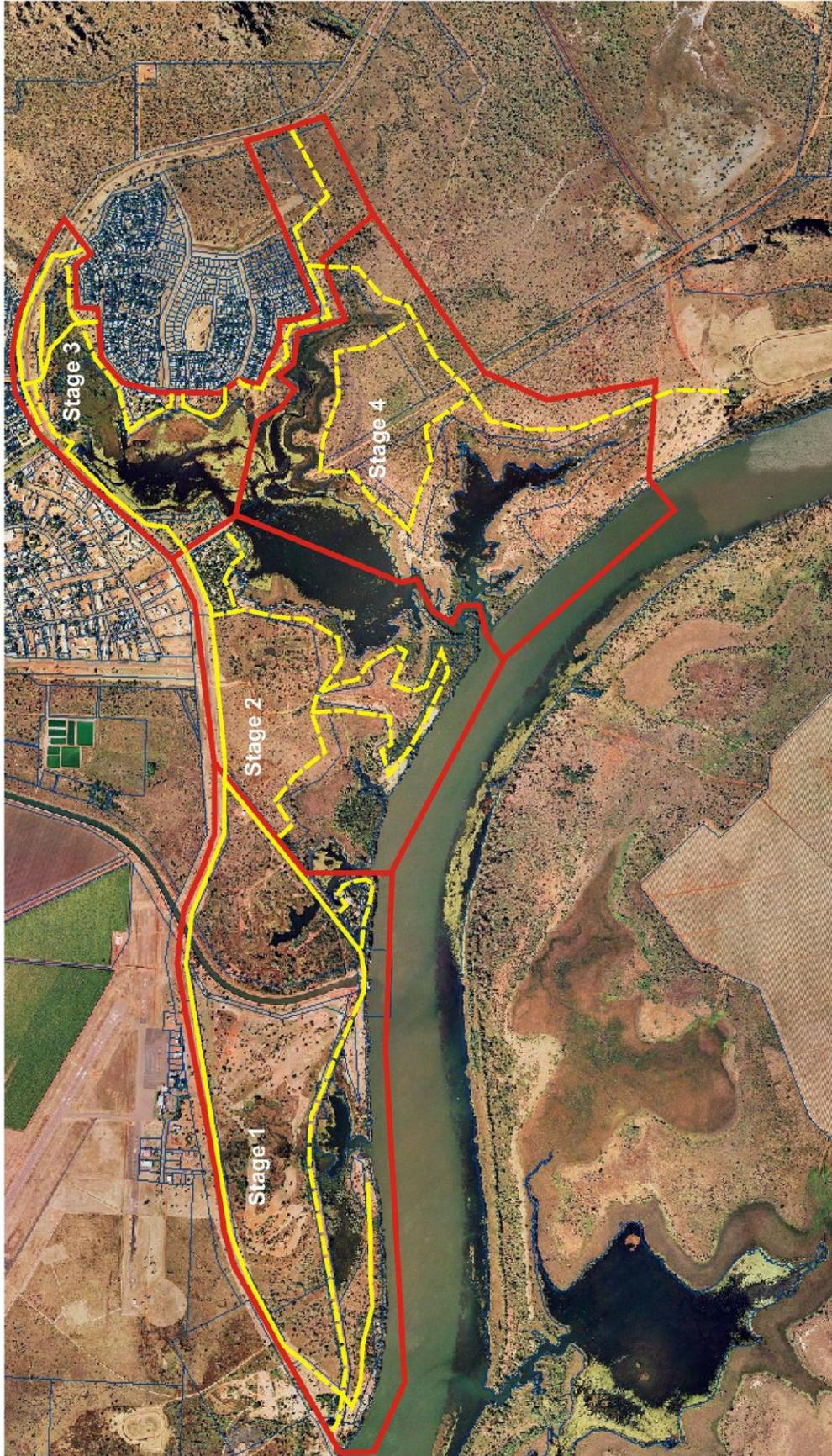
Respondents identified Lakeside as a location that requires enhanced recreational opportunities along the foreshore. Low key passive and active activities such as walking and cycling trails were suggested. The Foreshore and Aquatic Use Plan recommends a park and a series of pathways for this purpose, whilst maintaining appropriate setbacks from the water's edge and retaining habitat and natural vegetation as bushland pockets.

Further recreational development within Celebrity Tree Park was also supported, such as picnic tables and BBQ's. Additional paths, a floating jetty or platform and investigation of a swimming beach on the foreshore are also recommended.

The area of land between Swim Beach and the ski club attracted interest with respect to recreational development. Uses and activities that received the greatest focus included walking trails, parklands, toilets, swimming, passive recreation areas and a floating jetty or platform structure.

As can be seen from the above, a recurring theme in the recreational use of the foreshore and adjacent land was the need for more walking trails. The community's preference was for a series of walking trails that wrapped around the entire Lily Creek foreshore, through the water reserve and caravan parks, on to Swim Beach. These would link with existing trails and create a series of circular tracks from town to the dam along the Victoria Highway then back to town by way of the foreshore. A concept plan depicting this loop system is shown in Figure 3. Development of limited recreational activity within the Public Drinking Water Reserve is subject to land use compatibility requirements and requires approval from the Water Corporation and the Department of Water.

The racecourse and associated land has been identified as having great potential for tourism and recreational activities including sports and events. A detailed review of this area is underway in the form of a Sports Master Plan and if developed for increased uses it would require further detailed planning, consultation and research. The Foreshore and Aquatic Use Plan identifies this area as having the potential for future tourism and recreational uses and recommends that walking trails be developed to enable future access to, and for enjoyment of, this area.



Lake Kununurra Trails Network

February 2010



Figure 3 – Trails map

The community has also been in need of an additional boat ramp close to town and in particular for the expanding residential area of Lakeside. The Foreshore Technical Working Group identified that the land associated with the area known as ‘the rowing club’ would be suitable for development into a recreational boat ramp, jetty and associated facilities. This would cater to not only motorised vessels wishing to directly access the Lake but also non-motorised vessels such as dragon boats and canoes. Further, it would serve the area well if it is developed to cater to more public events and recreational activities or as a possible caravan park.

Key Recreation Recommendations

- RR1 Improve public access to the foreshore for the purpose of recreation.
- RR2 Develop a network of recreational pathways that follow the water’s edge and include the surrounding recreational parks and reserves.
- RR3 Continue to improve infrastructure in Celebrity Tree Park and Swim Beach park areas.
- RR5 Support the detailed investigation and planning of the land associated with the racecourse.
- RR6 Plan and construct a new recreational boating facility at the land associated with the Kununurra Dragon Boat Club and the Kununurra Racecourse known as ‘the rowing club’.
- RR7 Ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

4.4 CONSERVATION

As previously described, conservation and the preservation of vegetation, riparian environments and habitat are recurring themes identified through the community consultation processes.

The plan seeks a balance between conservation and the development of, including improved access to, Lily Creek and Lake Kununurra. Accordingly, a number of key locations and areas have been identified for conservation through the preservation of habitat, flora and fauna.

A large number of respondents indicated that the land containing the Flying fox colony, part of which is located within a portion of Reserve KL715 and a portion of Reserve 50425 should be protected for Conservation Purposes. Currently these areas are within the Public Drinking Water Protection Zone and are therefore unable to be developed. Management of this area should be improved, with emphasis on the removal of weeds, limits to access and improved fire management.

The foreshore land around Hamilton Inlet on the Eastern side of Lily Creek Lagoon was also identified as a conservation area. This area comprises the land north from 'the rowing club' to Hamilton Inlet and includes the land around the Old Darwin Road reserve. Only low key use and development such as trails and bird hides are identified in this plan. It is recommended that the land be reserved and vested in the appropriate agencies as a Regional Park.

The entire southern bank of Lake Kununurra was identified in the original plan as a conservation area. This land is also part of the Ord Final Agreement which has resulted in the tenure being held by the Miriuwung Gajerrong Corporation and the Department of Environment and Conservation. Minimal development of this land is recommended. Fire management and weed removal should be addressed.

The area located upstream of Lily Creek Lagoon to the Victoria Highway contains bandicoots and wallabies as well as many birds and possibly the endangered Water rat. As such, this portion of land has been identified as a place for conservation. Habitat corridors are important to allow animals to move between areas of habitat. Conserving this area will ensure a habitat corridor remains between the dry land ranges of Mirima National Park and the wetland lagoon.

There was concern over the riparian environment of the foreshore with developments removing vegetation and encroaching on the small buffer area. Principles of habitat protection and preservation of the riparian zone should be applied to developments within this area and have been included in the Development Guidelines within this document.

Cumbungi, lilies and ribbon weed are all native flora that have thrived due to the modification of the environment caused by the construction of the dams on the Ord River and the subsequent manipulation of water levels. The original Foreshore Committee recommended establishment of Cumbungi Management Zones, with the focus being Lily Creek Lagoon, Swim Beach and the racecourse. A vegetation management plan was prepared for the area in 2008 and an aquatic weed harvester purchased as recommended in this plan. It is currently used within the lagoon to reclaim open areas of water and control the growth of Cumbungi. The ongoing removal of Cumbungi within these zones serves several purposes; environmental habitat creation, wetland protection, access and aesthetics. Ongoing Cumbungi management is recommended and should be undertaken in accordance with the Lake Kununurra Vegetation Management Plan and the clearing permits obtained from the Department of Environment and Conservation. Monthly water quality monitoring is needed whilst the harvester is in operation.

In keeping with the recommendations for pathways and protection of habitat, it is recommended that bird hides be constructed to provide locations to view conservation areas. These will also enhance tourism operations within the town.

The community and agencies would like to see weeds removed from the foreshore and replaced by native trees. Accordingly, recommendations relating to weed removal are seen as being universal across most recommendations of the plan - indeed, better management of land, including access, is recommended. The only exception to this principle, where broad scale removal of weeds is not supported, is the Flying fox colony. The Plan recommends retention and preservation of the Flying fox colony through progressive weed removal and immediate replacement with suitable native species.

Key Conservation Recommendations

- CR1 Improve management of weeds, fire and access along the foreshore in particular within the Public Drinking Water Protection Zone.
- CR2 Protect the Flying fox colony from access and development and ensure weeds are progressively removed and replaced by local native vegetation.
- CR3 Ensure effective management of weeds by appropriate land managers and include the requirement to remove weeds on all leases.
- CR4 Continue to remove Cumbungi in accordance with the Lake Kununurra Vegetation Management Plan.
- CR5 Allocate the foreshore land between the entrance to Lily Creek and 'the rowing club' as a reserve for conservation.
- CR6 Allocate the land between the lagoon and Victoria Highway for conservation and connect with Mirima National Park.
- CR7 Ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

4.5 CULTURAL / HERITAGE

Feedback during the consultation process identified that the area around Hamilton Inlet includes, or has, Aboriginal cultural heritage. This area is included in a conservation area to ensure protection.

Consultation revealed that in a general sense, aboriginal people consider that river modifications have decreased access to the foreshore and the river. The Foreshore and Aquatic Plan recognises that access is important and attempts to provide access at key locations, balancing access and development with conservation and preservation.

The plan also recognises that the Packsaddle Lagoon area is included in the Ord Final Agreement and that tenure is now with the Miriuwoong Gajerrong Corporation and DEC for conservation purposes.

It is recommended that the Lake Kununurra Foreshore and Aquatic Use Plan be modified, through consultation with aboriginal people, to include aboriginal names for places and features, where culturally appropriate.

Key Cultural/Heritage Recommendations

- CHR1 Ensure that the Lake Kununurra Foreshore Plan uses aboriginal names for locations and features where culturally appropriate.
- CHR2 Ensure that adequate consultation, research and approval for significant sites is carried out prior to development of areas within the Foreshore and Aquatic Use Plan.

4.6 BOATING

In the original foreshore plan, conflict between commercial and recreational users was a key boating issue on Lake Kununurra. This conflict has largely been addressed through Stage One of the Commercial Boating Facility however the development of Stage Two is urgently needed to cater for the increased demand for access to the area.

Precincts Areas 2, 3 and 4 require further detailed investigation to effectively plan for Stage Two of a Commercial Boating Facility.

In order to help address recreational and commercial boating issues, an Aquatic Use Plan has been developed by the Department of Transport under the guidance of the Technical Working Group. The

plan addresses key water-based activities including ski zones, mooring of vessels, non-motorised areas and speed restrictions. Under this plan the ski zone has been extended, a non-motorised area allocated for paddle boats, speed restrictions amended and a mooring area for commercial vessels within Lily Creek Lagoon included.

As mentioned in the section on Recreation, there has been identified a need for another boat ramp. The chosen location is upstream of 'the rowing club' and would include ablutions, trailer parking and a jetty. All weather road access is also required. Detailed site planning and design is needed before construction of such a facility can commence. Once a new boat ramp has been installed consideration should be given to restricting the Swim Beach boat ramp for the launching of non-motorised and duly authorised vessels only.

The Celebrity Tree Park boat ramp has recently been upgraded to include a parking area for boating trailers. Further work on the ramp and jetty infrastructure are required to make this facility more accessible and easier to use for both loading and unloading of boats and for management of passengers.

To cater to the development of paddle boat and canoe hire businesses, an area upstream of Old Darwin Road and at the Swim Beach has been recommended for operation of non motorised craft including licensing of the foreshore, particularly the area at the end of Messmate Way, to interested businesses.

A copy of the Aquatic Use Plan is provided in Section 6 of this document.

Key Boating Recommendations

- BR1 Implement the Aquatic Use Plan.
- BR2 Investigate and develop a plan for the development of Stage Two of the Commercial Boating Facility.
- BR3 Develop an area for the mooring of six to eight commercial vessels within Lily Creek Lagoon.
- BR4 Continue to improve the boat ramp and jetty infrastructure at Celebrity Tree Park.
- BR5 Plan and design a new boat ramp and associated facilities to be located upstream of the rowing club.
- BR6 Restrict a portion of Lily Creek Lagoon upstream of Old Darwin Road and the area surrounding the Swim Beach to non-motorised vessels only.

-
- BR7 Design all jetties or associated boating infrastructure to allow for the rise and fall of the lake and in accordance with the Water Corporation's specifications.
- BR8 Ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

5 AREA SPECIFIC RECOMMENDATIONS

The plan has been divided into seven precincts and an Aquatic Use Plan. Additional areas were highlighted as containing current or potential future issues and have therefore been included. These are the foreshore areas adjoining the Packsaddle and Crossing Falls residential areas and the commercial canoe camps and tour day use areas.

The division of the plan into discrete management areas provides for ease of administration and implementation. Each precinct and area has specific objectives and specific actions to ensure outcomes are achieved. The objectives and actions are based on the analysis of information from the original and more recent consultation process. Objectives and actions should be viewed in conjunction with the specific Precinct Plans within the report.

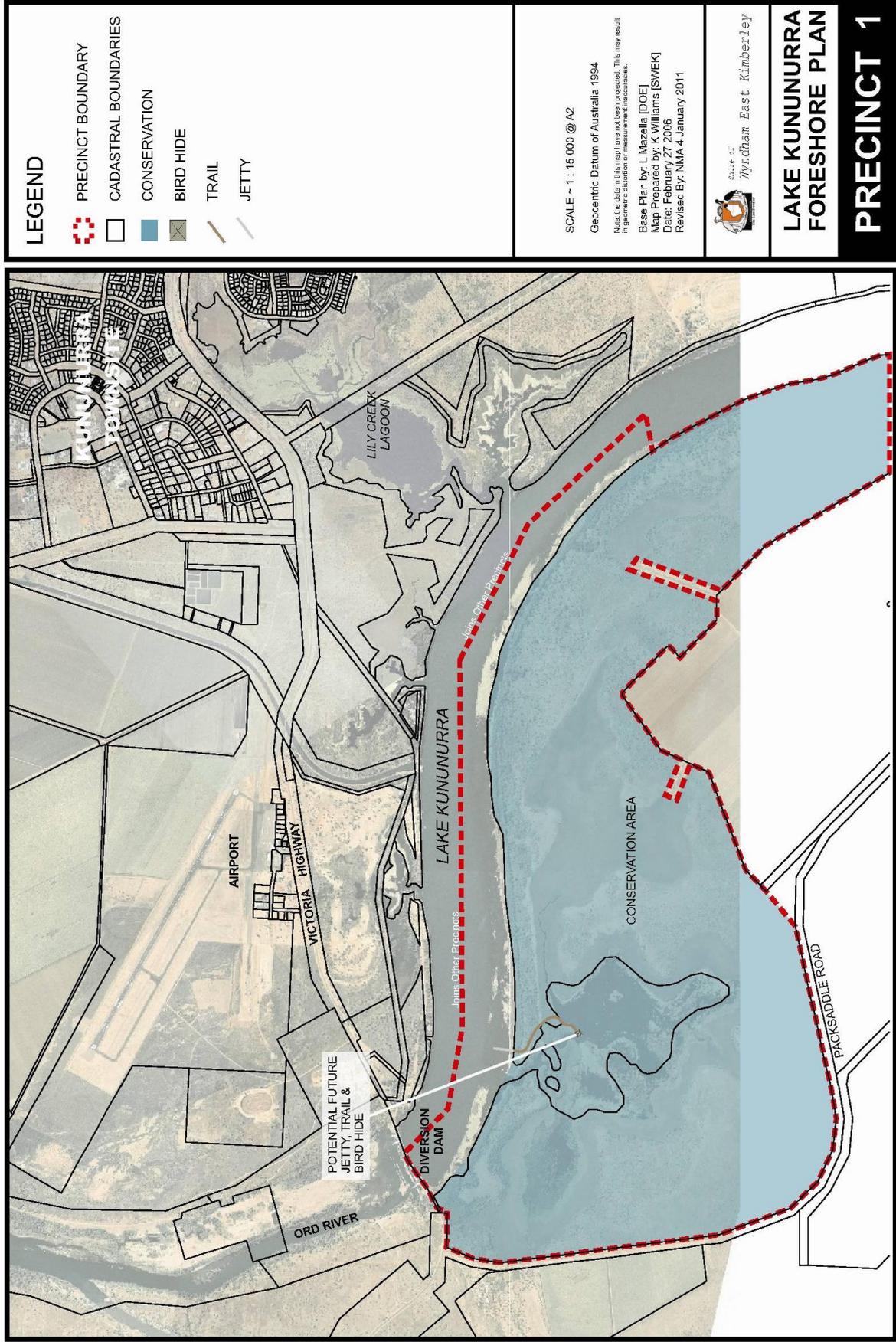
One or more lead agency has generally been identified with bold text in the action tables. Support agencies have also been identified in this section. A glossary of acronyms is provided at the front of this document.

5.1 PRECINCT 1 - PACKSADDLE LAGOON

Objectives

- To provide for conservation of the entire precinct.
- To allow limited low key eco recreational and interpretive activities and facilities such as bird hides, a jetty and trails.
- To ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

	Specific Actions	Responsibility	Timeframe
P1-1	Ensure appropriate ongoing management of reserve by DEC and the MG Corporation for conservation and low key eco recreational activities.	DEC, MG Corporation	Ongoing
P1-2	Investigate and determine suitability of this precinct as an alternative water source area.	DRDL , WC, MG Corporation	Jan 2012



LEGEND

-  PRECINCT BOUNDARY
-  CADASTRAL BOUNDARIES
-  CONSERVATION
-  BIRD HIDE
-  TRAIL
-  JETTY

SCALE - 1 : 15 000 @ A2

Geocentric Datum of Australia 1984

Note: the data in this map may have not been updated. This may result in geometric distortion or measurement inaccuracies.

Base Plan by: L. Mazzella [DOF]

Map Prepared by: K. Williams [SWEK]

Date: February 27 2006

Revised by: NMA 4 January 2011



Shire of
Wyndham East Kimberley

**LAKE KUNUNURRA
FORESHORE PLAN**

PRECINCT 1

Precinct 1 Map

5.2 PRECINCT 2 - SWIM BEACH

Objectives

- To identify and develop appropriate locations for conservation, recreation, commercial and tourism.
- To carry out thorough planning through use of Development Plans for specific key locations.
- To maintain and increase public access to the foreshore and waterway.
- To ensure land tenure correlates with land use.
- To maintain a safe swimming area.
- To provide a Commercial Boating Facility that caters for future growth.
- To maintain the integrity of dam infrastructure.
- To ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

Rec	Specific Actions	Responsibility	Timeframe
P2-1	Ensure minimal clearing of land based native vegetation.	All	Ongoing
P2-2	Require lease holders to removal all weed and pest species, including Neem, Leucaena and Calotropis as a condition of their leases.	Lease holders, SWEK	Ongoing as leases issued or renewed
P2-3	Investigate and implement Stage Two of the Lake Kununurra Commercial Boat Harbour for commercial tourism operations. Development to be sewerred and include a common user facility for sullage removal and refuelling.	SWEK, DRDL, DoW, DEC	July 2012 – July 2013
P2-4	Ensure no commercial leases extend to the water's edge to allow a 10 m buffer for pedestrian access.	SWEK, DRDL, lease holders	Ongoing as leases issued or renewed
P2-5	Gain 100% of market value for all foreshore leases with income generated for use in improved management of the foreshore and waterway.	SWEK	Ongoing as leases issued or renewed
P2-6	Plant regionally native trees as a vegetation screen to all commercial development with the exception of public buildings such as cafes and restaurants.	Lease holders, SWEK	Ongoing as leases issued or renewed

LEGEND

- PRECINCT BOUNDARY
- EXISTING ROAD
- POTENTIAL FUTURE ROAD
- CADASTRAL BOUNDARY
- CONSERVATION
- VEGETATION SCREEN
- MANAGED PARK
- SWIMMING BEACH
- GOLF CLUB
- BOTANIC GARDENS
- TOILETS
- PONTOON
- CAR PARK
- DUAL USE PATH
- FUTURE DUAL USE PATH
- EXISTING NODE (SKI CLUB)
- FUTURE DEVELOPMENT POTENTIAL

0 250m

SCALE - 1 : 4000 @ A1

Geocentric Datum of Australia 1994

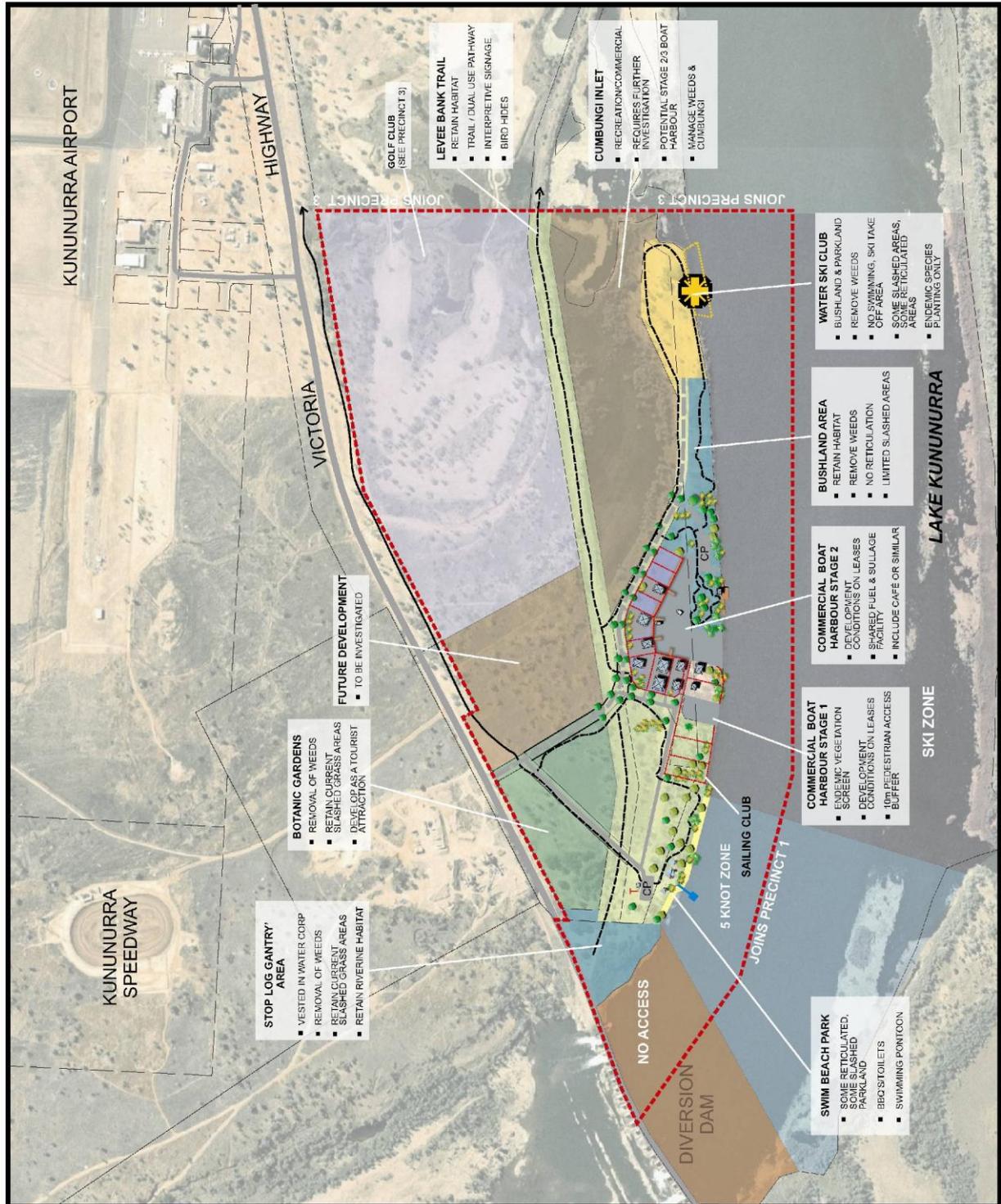
Note: The data in this map have not been inspected. This may result in generalisation or misinterpretation of data.

Base Plan by: L Mazella [DOE]
 Map Prepared by: K Williams [SWEK]
 Date: February 27 2006. Updated June 2011
 Revised By: Kalya Tripp [SWEK] & NMA 2011

State of
 Wyndham East Kimberley

**LAKE KUNUNURRA
 FORESHORE PLAN**

PRECINCT 2



Precinct 2 Map

Rec	Specific Actions	Responsibility	Timeframe
P2-7	Where greater than 50% of the 10 m foreshore buffer is licensed to an adjoining lease holder, the lessee shall be responsible for preparing an action plan for that buffer area that guides their management of the whole of the foreshore buffer and its bank. This plan must be submitted to the relevant management authority for approval.	Lease holders, SWEK.	Ongoing as leases issued or renewed
P2-8	Continue to upgrade the Swim Beach area, in particular the ablutions and installation of a floating pontoon within the swimming area.	SWEK, Dept Transport, WC	Jan 2013
P2-9	Investigate the use of land on the corner of Millington Drive and Victoria Highway for development, preferably tourism.	SWEK	July 2012 - Dec 2013
P2-10	Develop a park for botanical gardens/arboretum using only endemic plant species and including interpretive signage and pathways (see figure 4).	SWEK, Visitors Centre	July 2012 – Dec 2013
P2-11	Require the Kununurra Water Ski Club to develop and implement a vegetation management plan for removal of weeds and planting of regionally native plant species on their lease.	Kununurra Water Ski Club, SWEK.	Allow 1 yr from lease renewal
P2-12	Require the Lake Kununurra Golf Club to: (i) Develop and implement a vegetation management plan for removal of weeds and planting of regionally native plant species. (ii) Improve management of the wetlands. (iii) Investigate viability of waste water reuse for Water Corporations ponds. (iv) Develop a nutrient and irrigation management plan.	Golf Club, SWEK, , WC (i, ii & iii) and DoW (iv)	(i) & (iv) Allow 1 year from lease renewal, (ii) if funds available, (iii) Allow 2 years from lease renewal



Figure 4 Botanic Garden Map

Rec	Specific Actions	Responsibility	Timeframe
P2-13	Develop a dual use pathway network along the foreshore, incorporating a loop system and utilising the levee banks and recreation reserves.	SWEK, WC	Stage 1 July 2011 - June 2012
P2-14	Ensure proponents submit plans for all structures within the waterway for approval by the Water Corporation. This will be a standard condition of leases or development applications.	All Lease holders, WC, SWEK	Ongoing as leases are issued or renewed and/or development occurs.

5.3 PRECINCT 3 - M1 CHANNEL

Objectives

- To provide for the protection of the foreshore, the M1 Channel and the Kununurra Drinking Water Protection Zone.
- To maintain existing and also expand recreational opportunities and increase pedestrian access to the foreshore.
- To ensure land tenure correlates with land use.
- To ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

Rec	Specific Actions	Responsibility	Timeframe
P3-1	Ensure minimal clearing of native vegetation.	All	Ongoing
P3-2	Require lease holders to removal all weed and pest species, including Neem, Leucaena and Calotropis as a condition of their leases.	Reserve Managers & Lease holders	Ongoing as leases are issued or renewed
P3-3	Remove Kimberley Moon Stage and rehabilitate the area for use as a golf course and for public access. Note, a new stage is to be built at Precinct 7.	SWEK, Golf course, Kimberley Moon Committee	Jan 2013

LEGEND

- PRECINCT BOUNDARY
- ROADS
- CADASTRAL BOUNDARY
- CONSERVATION
- MANAGED PARK
- CARAVAN PARK
- CP
- FUTURE DUAL USE PATH
- EXISTING NODE
- GOLF CLUB RESERVE
- M1 CHANNEL
- PUBLIC DRINKING AREA
- WATER SUPPLY AREA BOUNDARY

SCALE ~ 1 : 8000 @ A3

Geocentric Datum of Australia 1994

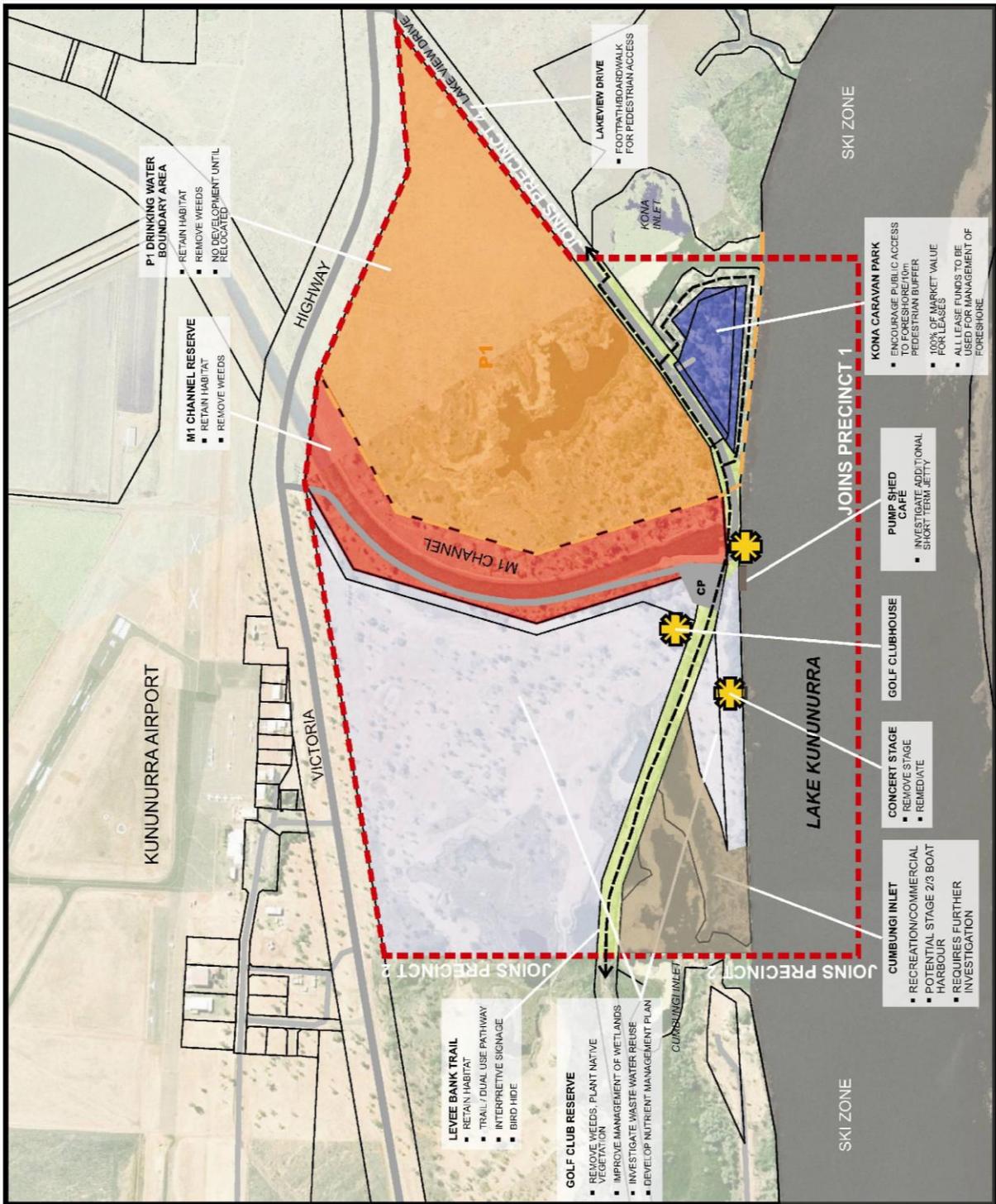
Note: this plan is this map has not been approved. This may result in geographic variations or inaccuracies.

Base Plan by: L Mazella [DOE]
 Map Prepared By: K Williams [SWEK]
 Date: 11 January 2006
 Revised By: Katya Tripp [SWEK] & NMA 2011

Division of
Wyndham East Kimberley

**LAKE KUNUNURRA
 FORESHORE PLAN**

PRECINCT 3



Precinct 3 Map

Rec	Specific Actions	Responsibility	Timeframe
P3-4	Require the Lake Kununurra Golf Club to: (i) Develop and implement a vegetation management plan for removal of weeds and planting of regionally native plant species. (ii) Improve management of the wetlands. (iii) Investigate viability of waste water reuse for Water Corporations ponds. (iv) Develop a nutrient and irrigation management plan.	Golf Club, SWEK, WC (i, ii & iii), DoW (iv).	(i) & (iv) Allow 1 year from lease renewal, (ii) if funds available, (iii) Allow 2 years from lease renewal.
P3-5	Develop a dual use pathway network along the foreshore that creates a loop system and utilises the levee banks and recreation reserves.	SWEK, Water Corporation	Stage 1 Jul 2011 - June 2012
P3-6	Investigate the development of an additional short term stay jetty on the foreshore to service the Pump House Restaurant and Café.	Pump House, SWEK, Golf Course, DoT	July 2012
P3-7	Require the Pump House Restaurant and Lake Kununurra Golf Club to formalise a car park for their patrons.	Pump House Restaurant, Lake Kununurra Golf Club, SWEK	Jul 2012
P3-8	Gain 100% of market value for all foreshore leases with income generated to be used on improved management of the foreshore and waterway.	SWEK, DoW	Ongoing as leases are issued or renewed
P3-9	Ensure all leases have a 10 m foreshore buffer, which is to be used for public access only.	SWEK, DoW, DRDL, lease holders	Ongoing as leases are issued or renewed

Rec	Specific Actions	Responsibility	Timeframe
P3-10	Where greater than 50% of the 10 m foreshore buffer is licensed to an adjoining lease holder, the lessee shall be responsible for preparing an action plan for that buffer area that guides their management of the whole of the foreshore buffer and its bank. This plan must be submitted to the relevant management authority for approval.	Lease holders, SWEK.	Ongoing as leases are issued or renewed
P3-11	Improve management of Public Drinking Water Protection Zone through decreased public access, fire breaks and weed removal.	WC, DoW	Plan developed by July 2012 Implement Jul 2012 – Jul 2015
P3-12	Upgrade Lake View Drive to provide for safe pedestrian access and two way traffic movement.	SWEK	Jul 2012 – Jul 2013
P3-13	Build a new road that runs parallel to the jeep track along the golf course to provide safe and easy access to the golf course and Pump House Restaurant.	SWEK	Jul 2013 – Jul 2014
P3-14	Ensure proponents submit plans for all structures within the waterway for approval by the Water Corporation. This will be a standard condition of leases or development applications.	All lease holders, WC	Ongoing as leases are issued or renewed

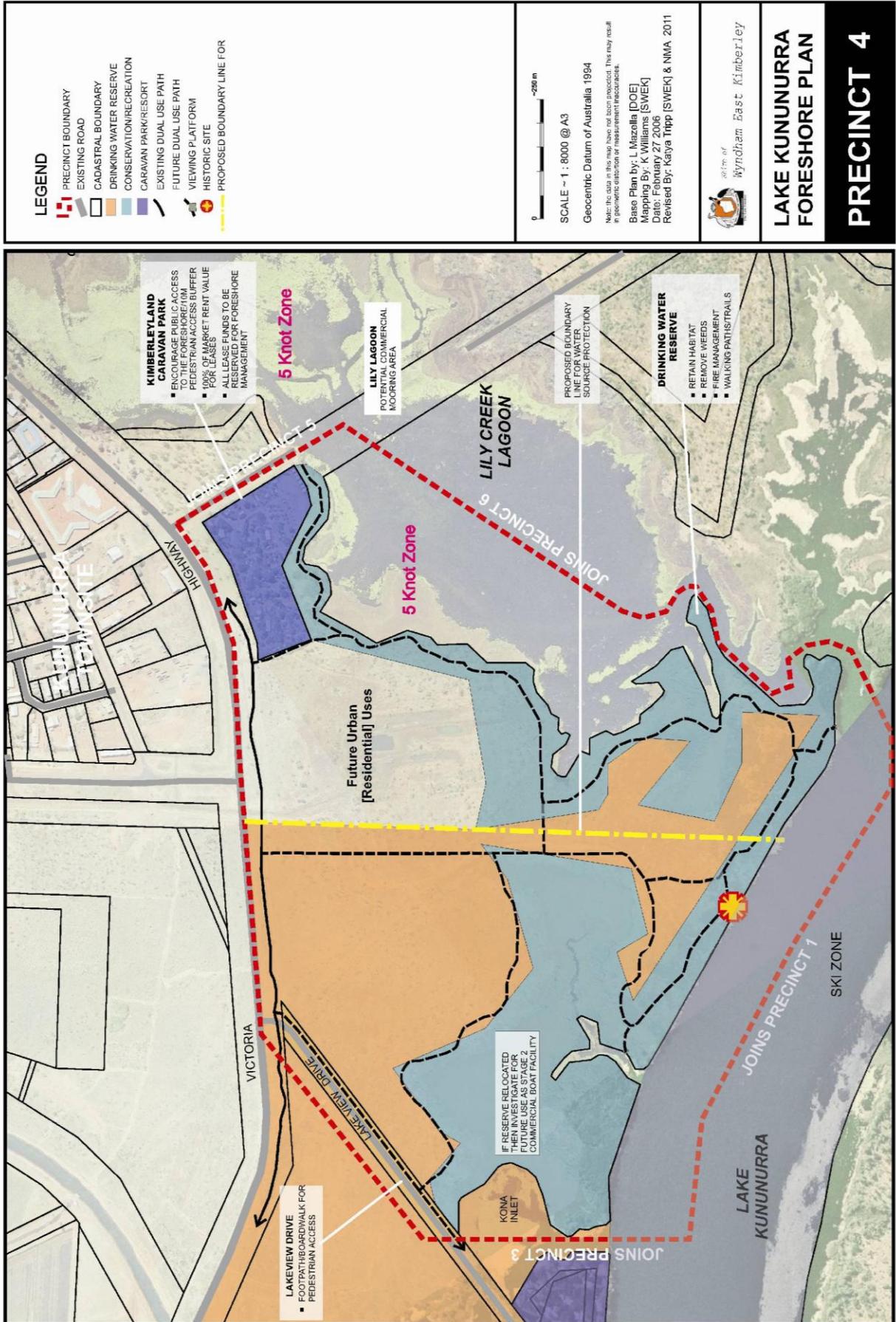
5.4 PRECINCT 4 - DISCOVERY PARK INLET

Objectives

- To provide for the protection of the foreshore and the Kununurra Public Drinking Water Protection Zone.
- To maintain existing, yet also expand, recreational opportunities and increase public access to the foreshore.
- To carry out thorough planning through use of Development Plans for specific key locations.
- To continue to work towards a modification of the Public Drinking Water Protection Zone boundary.

- To investigate use of the inlet in the current drinking water reserve for the future Commercial Boating Facility.
- To ensure all development shall be consistent with the Foreshore Development Guidelines and designed to be sympathetic to the natural values of the foreshore.

Rec	Specific Actions	Responsibility	Timeframe
P4-1	Ensure minimal clearing of native vegetation.	All	Ongoing
P4-2	Require lease holders to removal all weed and pest species, including Neem, Leucaena and Calotropis as a condition of their leases.	DoW , Kimberleyland, WC.	Ongoing as leases are issued or renewed
P4-3	Allow residential development of a portion of King Location 715 if the proposed change to the Kununurra Public Drinking Water Protection Zone boundary eventuates. The foreshore is to remain for the sole purpose of foreshore and recreation.	LandCorp , SWEK , DoW, DEC, WC, DRDL, MG Corporation	Jul 2012 – Jul 2014
P4-4	Conduct a biophysical criteria assessment to establish appropriate setbacks from the water for development.	DoW , DEC	Jul 2011 – Jul 2012
P4-5	Improve management of the Public Drinking Water Protection Zone through decreased public access, fire breaks and weed removal.	DoW , DEC, WC, DRDL	Plan developed by Jul 2012 Implement Jul 2012 – Jul 2015
P4-6	Develop a weed and vegetation management plan for the Flying fox colony.	WC , DEC, DoW	June 2012
P4-7	Develop a dual use pathway network along the foreshore, incorporating a loop system and utilising the levee banks and recreation reserves.	SWEK , WC, DoW	Stage 2 June 2012 - Dec 2012
P4-8	Upgrade Lake View Drive to provide for safe pedestrian access and two way traffic movement.	SWEK	July 2013 – Jul 2014



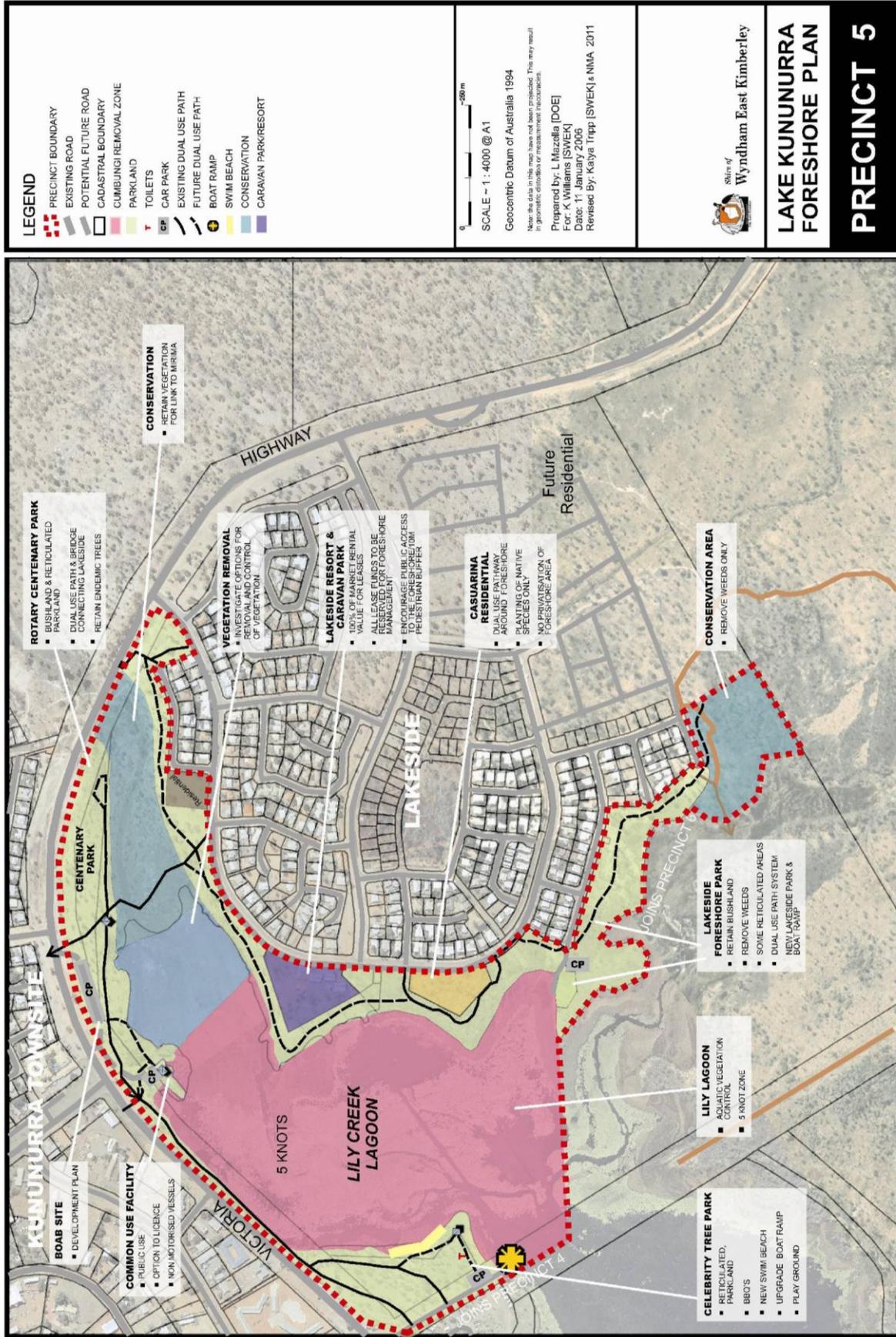
Precinct 4 Map

Rec	Specific Actions	Responsibility	Timeframe
P4-9	Gain 100% of market value for all foreshore leases with income generated to be used on improved management of the foreshore and waterway.	DoW	Ongoing as leases are issued or renewed
P4-10	Ensure all leases have a 10 m foreshore buffer, which is to be used for public access only.	DoW , DRDL, lease holders	Ongoing as leases are issued or renewed
P4-11	Where greater than 50% of the 10 m foreshore buffer is licensed to an adjoining lease holder, the lessee shall be responsible for preparing an action plan for that buffer area that guides their management of the whole of the foreshore buffer and its bank. This plan must be submitted to the relevant management authority for approval.	Lease holders , DoW.	Ongoing as leases are issued or renewed

5.5 PRECINCT 5 - LILY CREEK LAGOON

Objectives

- To ensure land tenure correlates with land use.
- To maintain existing, yet also expand and improve, recreational opportunities and increase public access to the foreshore.
- To carry out thorough planning through use of Development Plans for specific key locations.
- To remove Cumbungi and other aquatic vegetation in areas identified as requiring control.
- To provide for areas of conservation.
- To ensure all development shall be consistent with the Foreshore Development Guidelines and designed to be sympathetic to the natural values of the foreshore.



Precinct 5 Map

Rec	Specific Actions	Responsibility	Timeframe
P5-1	Ensure minimal clearing of native vegetation.	All	Ongoing
P5-2	Require lease holders to removal all weed and pest species, including Neem, Leucaena and Calotropis as a condition of their leases.	Lease holders, SWEK.	Ongoing as leases issued or renewed
P5-3	Continue to improve the development and management of Celebrity Tree Park including <ul style="list-style-type: none"> (i) Installation of low key recreational uses such as pathways, play areas and bbq's (ii) Improvement of the jetty and boat ramp (iii) Investigation of a swimming beach 	SWEK	(i) & (ii) Jul 2011 - Jul 2012 (iii) Jul 2012- Jul 2013
P5-4	Continue the control of Cumbungi and other aquatic vegetation in accordance with the Lake Kununurra Vegetation Management Plan and the relevant native vegetation clearing permit.	SWEK, DEC, CCI, Private landowners	Ongoing
P5-5	Develop Rotary Centenary Park for the purpose of low key recreational uses and provide facilities such as pathways, play areas for older children, bbq's, interpretive signage and setting aside areas for fauna habitat protection.	SWEK, DRDL, DEC	Jul 2013 – Jul 2014
P5-6	Investigate the use of and develop a detailed area plan for the foreshore land and road reserve adjacent to Victoria Highway between Weaber Plains Road and Messmate Way.	SWEK, Main Roads	Jan 2012 – Jul 2012
P5-7	Plan and develop the portion of foreshore at the end of Messmate Way for the purpose of launching and retrieving non-motorised tourist vessels and public water craft with the option to licence (not lease to) commercial enterprise.	SWEK, DRDL, DEC, DoW	Jan 2012 – Jul 2013
P5-8	Develop a complete dual use pathway network along the foreshore including safe pedestrian access between Messmate Way and Celebrity Tree Park.	SWEK, Main Roads, WC	Stage 3 Dec 12 - Apr 13.
P5-9	Retain and enhance remnant and foreshore vegetation.	SWEK	Ongoing

Rec	Specific Actions	Responsibility	Timeframe
P5-10	Gain 100% of market value for all foreshore leases with income generated to be used on improved management of the foreshore and waterway.	SWEK, DRDL	Ongoing as leases are issued or renewed
P5-11	Ensure all leases have a 10 m foreshore buffer, which is to be used for public access only.	SWEK, DRDL, lease holders	Ongoing as leases are issued or renewed
P5-12	Improve water quality entering the lagoon from urban areas through the use of pollutant and sediment traps and water sensitive urban design.	SWEK, Developers, DoW	Ongoing as development occurs
P5-13	Where greater than 50% of the 10 m foreshore buffer is licensed to an adjoining lease holder, the lessee shall be responsible for preparing an action plan for that buffer area that guides their management of the whole of the foreshore buffer and its bank. This plan must be submitted to the relevant management authority for approval.	Lease holders, SWEK.	Ongoing as leases are issued or renewed
P5-14	Investigate option for removal and control of vegetation in the upper north-eastern portion of Lily Creek Lagoon.	SWEK, DRDL	Jan 2012 – Jul 2012
P5-15	Create detailed development and housing plans for the residential area located on the corner of Casuarina Way and Water Lily Place.	SWEK	Jul 2011 – Jul 12
P5-16	Investigate and implement a safe mooring zone for up to 6-8 vessels within Lily Creek Lagoon. The selected area and licences need to meet requirements of the Water Corporation and the Department of Water.	DoT, DoW, SWEK, DRDL, WC	Jul 2011 – Jul 2012
P5-17	Create a development plan for a new Lakeside Park and potential recreational boat facilities at the foreshore area between Casuarina Way and Euginea Street.	SWEK	Dec 2012 – Jul 2013

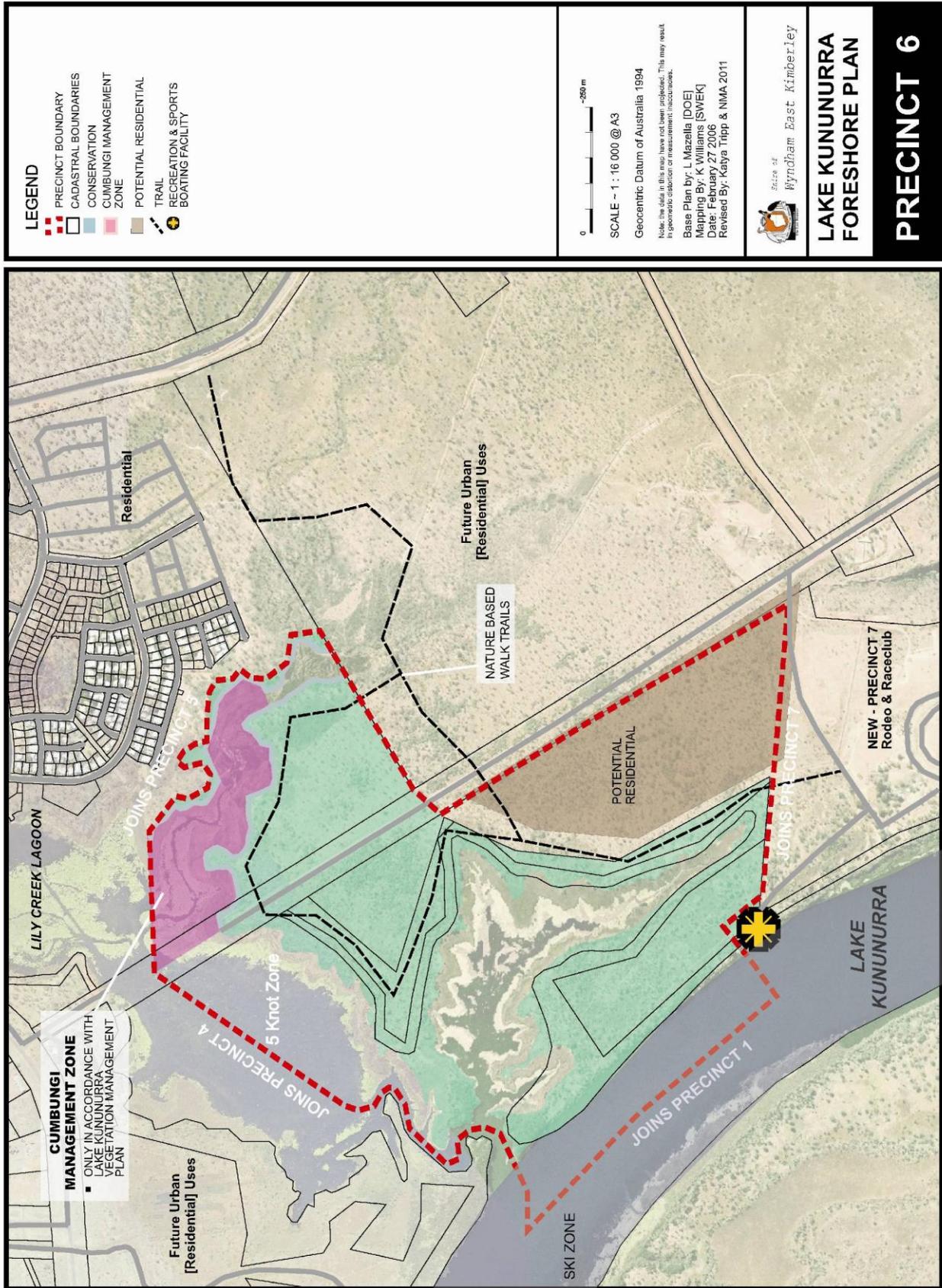
Rec	Specific Actions	Responsibility	Timeframe
P5-18	Create a conservation reserve between the north-eastern end of Lily Creek Lagoon and the Victoria Highway to provide a wildlife corridor into Mirima National Park and therefore enhance the protection of habitat for bandicoots and wallabies.	DEC, SWEK, Main Roads	Jul 2011 – Jul 2012

5.6 PRECINCT 6 - HAMILTON INLET

Objectives

- To protect the Foreshore Reserve and identify low key eco-recreational activities.
- To remove Cumbungi and other aquatic vegetation in areas identified as requiring control.
- To allow residential development where practicable.
- To ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

Rec	Specific Actions	Responsibility	Timeframe
P6-1	Minimise clearing of native vegetation.	All	Ongoing
P6-2	Require lease holders to removal all weed and pest species, including Neem, Leucaena and Calotropis as a condition of their leases.	Lease holders, Reserve managers	Ongoing as leases issued or renewed
P6-3	Continue the control of Cumbungi and other aquatic vegetation in accordance with the Lake Kununurra Vegetation Management Plan and the relevant native vegetation clearing permit.	SWEK, DEC, Lease holders	Ongoing
P6-4	Develop a dual use pathway network along the foreshore, incorporating a loop system and utilising other reserves where required.	SWEK, Main Roads, WC	Stage 4 Dec 2013 - Jan 2015



Precinct 6 Map

Rec	Specific Actions	Responsibility	Timeframe
P6-5	Allow for residential development within the land not specified as foreshore nor threatened with high groundwater levels and flooding.	LandCorp , SWEK	Jan 2013 – Jan 2015
P6-6	Ensure all leases have a 10 m foreshore buffer, which is to be used for public access only.	SWEK , DRDL, Lease holders	Ongoing as leases are issued or renewed
P6-7	Improve water quality entering the lagoon from urban areas through the use of pollutant and sediment traps and water sensitive urban design.	SWEK , Developers, DoW	Ongoing as development occurs

5.7 PRECINCT 7 – RACECOURSE

Objectives

- To develop this precinct as an events and entertainment complex including increased usage for sports and recreation and potentially a tourism park.
- To protect Lake Kununurra from nutrient enrichment due to horses and other stock.
- To ensure all development is consistent with the Foreshore Development Guidelines and is sympathetic to the natural values of the foreshore.

Rec	Specific Actions	Responsibility	Timeframe
P7-1	Minimise clearing of native vegetation.	All	Ongoing
P7-2	Require lease holders to removal all weed and pest species, including Neem, Leucaena and Calotropis as a condition of their leases.	Lease holders, SWEK.	Ongoing as leases are issued or renewed
P7-3	Install a new public boat ramp, jetty and associated infrastructure upstream of the rowing club.	SWEK, DoT	Jul 2012 – Dec 2012
P7-4	Refer to the Sports Master Plan for more detailed investigation into appropriate land uses and update this foreshore and aquatic use plan as more information becomes available.	SWEK	Jul 2011 – Jan 2012
P7-6	Relocate accommodation of horses and other stock to a minimum of 100 m from the foreshore boundary.	Racing and rodeo club, SWEK.	Jul 2013 – Dec 2013
P7-7	Gain 100% of market value for all foreshore leases with income generated to be used on improved management of the foreshore and waterway.	SWEK, DRDL	Ongoing as leases are issued or renewed
P7-8	Ensure all leases have a 10 m foreshore buffer, which is to be used for public access only.	SWEK, DRDL, Lease holders	Ongoing as leases are issued or renewed

LEGEND

PRECINCT BOUNDARY
 ROWING CLUB

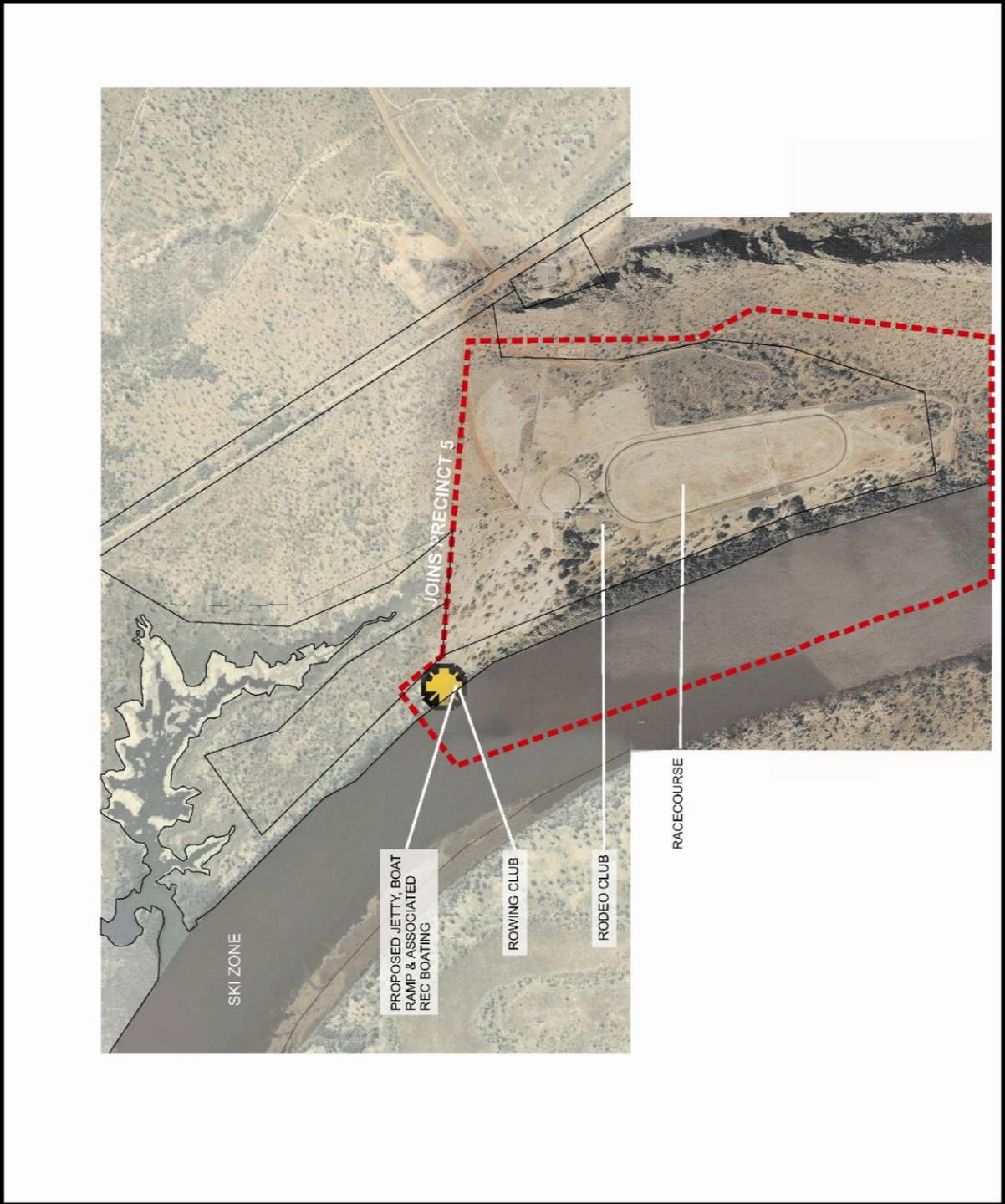
NOTE: THERE SHOULD BE GREATER USE OF SPORTS DETAILS TO BE FINALISED WHEN SPORTS MASTERPLAN IS COMPLETED

SCALE - 1 : 8000 @ A3
 Geocentric Datum of Australia 1994
 Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.
 Date: 4 January 2011
 Drawn By: NMA
 Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

ROUPEL
 Wyndham East Kimberley

**LAKE KUNUNURRA
 FORESHORE PLAN**

PRECINCT 7



Precinct 7 Map

5.8 PACKSADDLE AND CROSSING FALLS FORESHORE AREAS

Objectives

- To ensure the protection of the Lake Kununurra foreshore.
- To ensure protection of water quality from nutrient enrichment or other pollutants.
- To ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

Rec	Specific Actions	Responsibility	Timeframe
PCF1	Carry out biophysical surveys to establish suitable buffer distances.	DoW, DEC	Jul 2011 – Jul 2012
PCF2	Rezone excised portions of the foreshore reserve.	SWEK	Jan 2012 – Dec 2012
PCF3	Develop a local structure plan for the development of foreshore areas.	SWEK	As development occurs

5.9 COMMERCIAL CANOE CAMPS AND TOUR BOAT DAY USE FACILITIES

Objectives

- To negotiate the arrangements for land use between land managers and tour operators.
- To ensure the protection of the Lake Kununurra foreshore.
- To ensure protection of water quality from nutrient enrichment or other pollutants.
- To better utilise and manage existing sites before approving the development of new sites.
- To ensure all development is consistent with the Foreshore Development Guidelines and is designed to be sympathetic to the natural values of the foreshore.

Rec	Specific Actions	Responsibility	Timeframe
COM1	Negotiate Indigenous Land Use Agreement (ILUAs) for the six commercial areas	DRDL, MG Corporation, DoW	Dec 2011
COM2	Improve management of existing sites particularly targeting erosion management, weed control and maintenance of toilet facilities.	Commercial operators	Once ILUAs negotiated

Figure 5 Packsaddle Road

**COMMERCIAL
TOURISM CAMPS
AND DAY USE AREA**

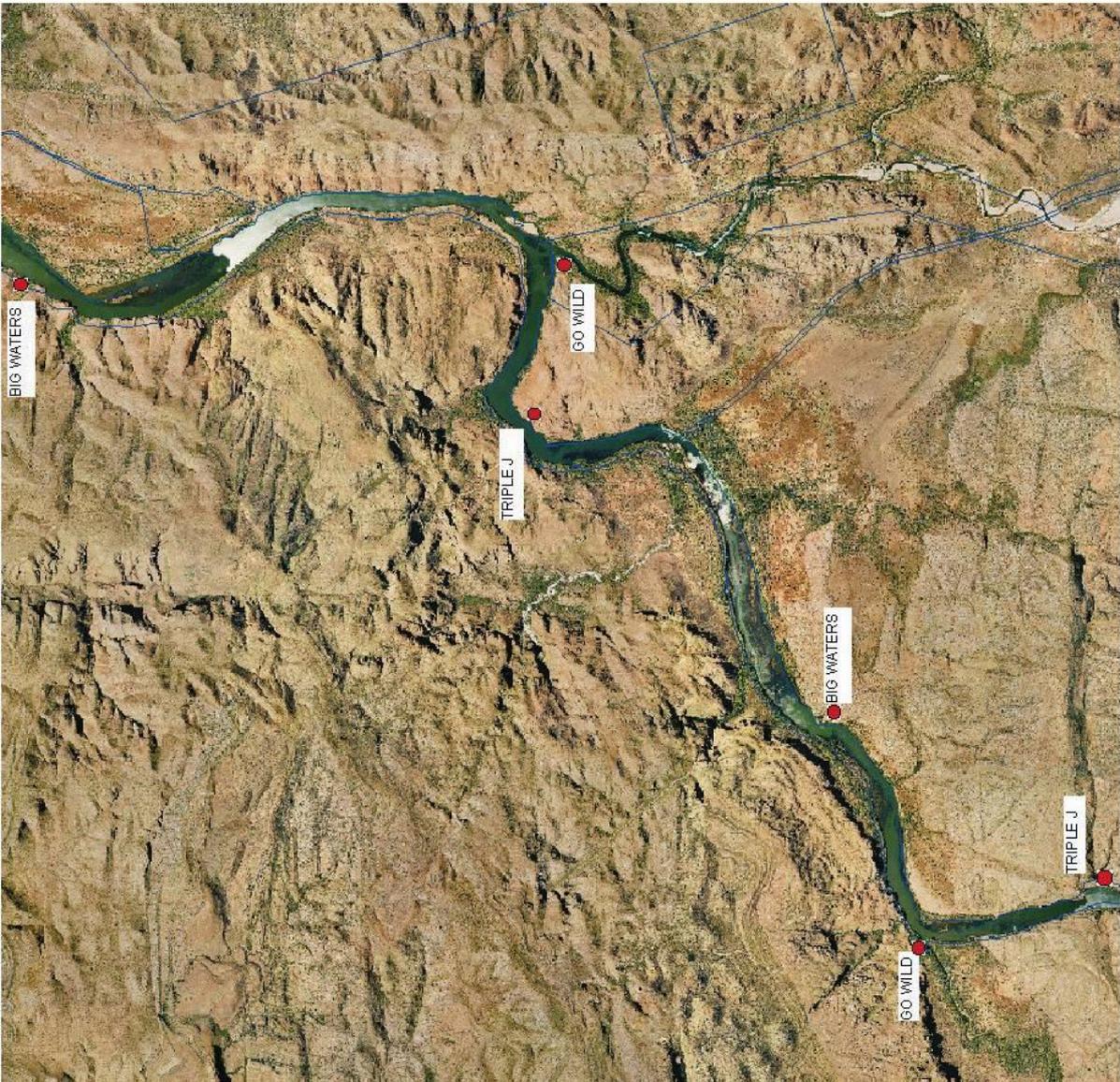


Image courtesy of Landgate
Created by Katya Tripp [SWEK] 2011

Figure 6 Commercial Tourism

6 THE LAKE KUNUNURRA AQUATIC USE PLAN

Objectives

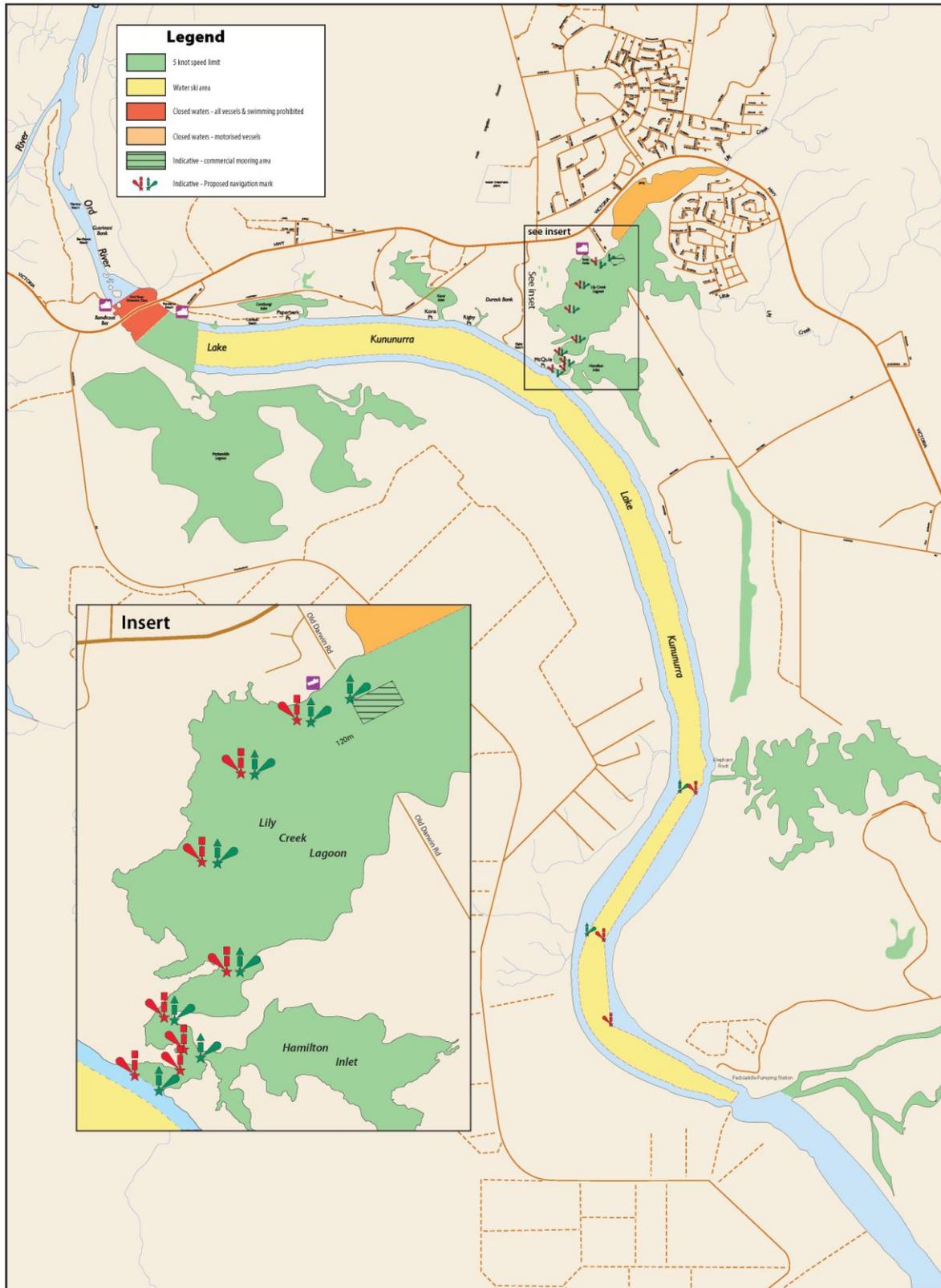
- To avoid conflicting uses on the waterway.
- To provide clear areas for aquatic use activities that complement the land use activities.
- To provide a plan that can then be used to help enforcement.
- To describe the use of aquatic areas such as mooring zones, speed restrictions, ski zones and designated non-motorised vessel areas.

The Department of Transport developed an Aquatic Use Plan (Figure 7) as guided by community consultation and the Technical Working Group. The plan outlines zones for speed, skiing, hire and drive vessels, non-motorised areas and mooring areas. The boundaries and conditions for operation of the different hire and drive vessels are provided below.

The finalisation and implementation of the plan is the responsibility of the Department of Transport with assistance from the Shire and relevant State Government agencies. The agreed timeframe with the Department of Transport Marine Safety Branch is that implementation of this plan will occur between July 2011 to July 2012.

Rec	Specific Actions
AUP1	Formalise the ski area to the Southern end of Elephant Rock.
AUP2	Establish a designated ski take off area.
AUP3	Install speed restriction of 5 knots within 50 m of the entrance to the Commercial Boating Facility.
AUP4	Establish a mooring zone for six commercial vessels within Lily Creek Lagoon. Licenced moorings to contain conditions as directed by DoT, DoW and Water Corporation.
AUP5	Designate a 5 knot zone around the Swim Beach area.
AUP6	Designate "No swimming or unauthorised vessels" between Swim Beach and the Diversion Dam wall.
AUP7	Designate 5 knot zones for Lily Creek Lagoon and all other inlets.
AUP8	Install navigation aids for the channel into Lily Creek Lagoon.
AUP9	Designate an area for non motorised vessels upstream of the Old Darwin Road.
AUP10	Continue to allow jet skis to freestyle within the ski area unless this becomes an issue.

Rec	Specific Actions
AUP11	Install signage showing the Aquatic Use Plan at all recreational boating facilities.
AUP12	Designate areas for hire drive vessels including Paddle craft, canoes/kayaks, dinghies/party pontoons and houseboats (Figure 7).



Government of Western Australia
Department of Transport

Lake Kununurra Proposed Aquatic Usage Plan

Figure 7 Aquatic Use Plan

Table of Boundaries and Conditions for Hire and Drive Vessels

**LAKE KUNUNURRA
PROPOSED HIRE & DRIVE
AREAS OF OPERATION AND CONDITIONS**

VESSEL CLASS	AREA OF OPERATION	CONDITIONS
Houseboat	All waters of Lake Kununurra, including Lily Creek Lagoon, from the upstream boundary of the Pandanus Swim Beach 5 Knot Area to the entrance of Cooliman Creek (to be marked by buoy).	<ul style="list-style-type: none"> • A suitable support craft is available at all times to enable the Licensee or their nominated representative to tend to the houseboat if required. • May only operate under hire between the upstream boundary of the Pandanus Swim Beach 5 Knot Area and Kona Inlet when transiting directly to or from the Commercial Boat Facility. • May only refuel and provision at a site approved by the Shire of Wyndham – East Kimberley and Department of Water. • Must be moored or anchored between Sunset and Sunrise and must display an anchor light during those times. • Must be moored or anchored in the event that the wind speed exceeds 20 knots and must have an accurate anemometer fitted. • May only be secured on a mooring that is licensed by the Department of Transport. • May only be secured on a jetty licensed by the Department of Transport. • May only anchor outside any navigational channel. • May not be left unattended under hire. • Hirers must be over the age of 17. • Hirers are to be instructed on how to safely transit the water ski area.
Pontoons	All waters of Lake Kununurra, including Lily Creek Lagoon and other tributaries, from the downstream boundary of the Pandanus Swim Beach 5 knot area to the upstream limit of Carlton Gorge (to be marked by buoy).	<ul style="list-style-type: none"> • May only operate between Sunrise and Sunset. • May only be secured on a mooring that is licensed by the Department of Transport. • May only be secured on a jetty licensed by the Department of Transport. • May only anchor outside any navigational channel. • Hirers must be over the age of 17. • Hirers are to be instructed on how to safely transit the water ski area.

Power Dinghies	All waters of Lake Kununurra, including Lily Creek Lagoon and other tributaries, from the downstream boundary of the Pandanus Swim Beach 5 Knot Area to the upstream limit of Carlton Gorge (to be marked by buoy).	<ul style="list-style-type: none"> • May only operate between Sunrise and Sunset. • May only anchor outside any navigational channel. • Hirers must have a valid Recreational Skippers Ticket. • Hirers must be over the age of 17. • Hirers are to be instructed on how to safely transit the water ski area.
Canoes / Kayaks	All waters of Lake Kununurra, including Lily Creek Lagoon and other tributaries, from the boundary of the Pandanus Swim Beach 5 Knot Area and the downstream boundary of the Lake Argyle Dam Closed Waters – All Vessels Area.	<ul style="list-style-type: none"> • A suitable support craft is available at all times to enable the Licensee or their nominated representative to tend to the canoes/kayaks if required. • May only operate between Sunrise and Sunset. • Hirers are to be instructed on how to safely transit the water ski area.
Aqua Bikes / Pedal Boats	All waters of Lily Creek Lagoon as defined in diagram attached at annex A. <i>And</i> All waters of Lake Kununurra contained within the Pandanus Swim Beach 5 Knot Area.	<ul style="list-style-type: none"> • A suitable motorised support craft is available at all times to enable the Licensee or their nominated representative, to tend to the aqua bikes or pedal boats if required. • The craft can only be hired from a site approved by the Shire of Wyndham – East Kimberley. • The craft can only be stored on the foreshore at a site approved by the Shire of Wyndham – East Kimberley. • The Licensee or their nominated representative must maintain visual contact on the aqua bikes or pedal boats at all times while under hire. • May only operate between Sunrise and Sunset.

7 IMPLEMENTATION

The review of the Lake Kununurra Foreshore Plan and the addition of the Aquatic Use Plan was carried out by a Technical Working Group that then sought community input through a consultation process. Some actions in the plan will be implemented on an 'if and when' basis, that is, as and when proposals are put forward or leases renewed, they will be assessed for compliance with the Plan. In order to make these actions a priority an Action Implementation Table has been developed which also allocates all other actions with specific timeframes for achievement. This will allow management authorities and responsible landholders to plan and budget for actions to occur.

Many of the agencies currently involved in the management and administration of the foreshore and waterways contribute significant resources to these activities. However, there will be a requirement for the contribution of additional resources to implement many of the recommendations included in this Plan. It is up to the various landholders and management authorities to plan and budget accordingly.

One or more lead agency has generally been identified with bold text in the action tables above, along with appropriate support agencies. While there is not always a statutory obligation to undertake specific actions, the community has an expectation that, over a period of time, the actions and recommendations will be implemented. Further as development pressures arise, the relevant actions will be implemented in accordance with the provisions or conditions of the recommendations contained within this document.

Failure to undertake actions in accordance with the recommendations will create a lack of trust between the community and State and Local government agencies.

There is also a requirement for non-government agencies, such as sporting and recreational clubs, to undertake sound management, administration and development of their lease areas in accordance with the recommendations of this plan.

8 MONITORING AND REVIEW

The plan should be monitored on a regular basis. The Shire, community and agencies are encouraged to undertake such monitoring. Furthermore, to ensure the plan is being implemented and that development, management and administration occur in accordance with the plan, the Foreshore group should remain and continue to meet regularly including stakeholders when required. In recognition of the growth currently being experienced in the region, it is recommended that the plan be reviewed again in five years.

APPENDIX A – ACTIONS ACHIEVED FROM 2006 PLAN

1. Support for development of M1 Pump Shed for tourism use. Pump House Restaurant now established.
2. Creation of a reserve for the commercial boat facility vested in the Shire of Wyndham East Kimberley (SWEK) and completion of Stage 1 of the Commercial Boat Facility.
3. Extension of the Swim Beach to allow a separate dog beach, picnic facilities and BBQs.
4. Improvement of infrastructure in Celebrity Tree Park to include ablutions and boat trailer parking.
5. Removal of Cumbungi in accordance with the Lake Kununurra Vegetation Management Plan.
6. The vesting of Packsaddle Lagoon to the Miriuwung Gajerrong Corporation and Department of Environment and Conservation to be managed as a Conservation Reserve.
7. Improvement of navigation aids at the entrance to Lily Creek Lagoon.
8. Excision of portion of Reserve 41812 near the Diversion Dam and vesting in Water Corporation.
9. Relocation and a new lease provided to the Ord River Sailing Club.
10. Creation of Rotary Centenary Park vested in the SWEK.
11. Creation of a path that links Lakeside to Town.
12. Stop log gantry area vested in Water Corporation.

APPENDIX B - COMMUNITY SUBMISSIONS RECEIVED

Contributor	Comments
Discovery Holiday Park	<ul style="list-style-type: none"> • Upgrade of Lakeview drive should be a priority. • Discovery does not wish to pay lease fees for the 10m pedestrian buffer or for the cost of maintaining any public facilities. • Plan does not specify facilities and amenities to be provided by SWEK in 10m buffer. • Building a caravan park in the Race Course precinct is not practical as too far from town.
Department of Water	<ul style="list-style-type: none"> • Provided text on Department of Water's role and governing legislation.
Ord River Sailing Club	<ul style="list-style-type: none"> • Ord River sailing club may need to occasionally operate its rescue boat in the non motorised area. • Sailing club location requested to be shown on all future maps.
Rex Boland	<ul style="list-style-type: none"> • Concern over gaining pump easement across Crown land to draw water. • Concern over rezoning of new free hold land. Requests the right to preserve this land for farming. • Concern over proposed freehold land if it contains Aboriginal heritage. • There is a need to legalise pump sites, jetties, ecotourism and recreational use of the river. • Prefers a corridor of native bush to screen development. • Requests noise limits on river and no ultra light aircraft over farms.
Kununurra Water Ski Club	<ul style="list-style-type: none"> • Direction of travel in the ski zone for safety of skier take of and drop off was of concern. • Ski exclusion zones rather than inclusion zones would be preferred.
Tricia Handasyde	<ul style="list-style-type: none"> • Not everyone realises the importance of corridors and conservation of natural areas. This point needs to be clear within the plan. • Figure 12, Riparian buffer missing along lake's edge. • There should be minimal clearing of native vegetation when developing area of the foreshore. • Proximity of common user area for paddle boats at end of Messmate is dangerous due to intersection. • Commercial Boat facility was built as Department of Water said no vessels could be moored within Lily Creek Lagoon. Has this now changed? • What does the rezoning of Packsaddle and Crossing Falls foreshore refer to? Would like to see riparian buffers and controls established before development occurs. • What are pontoons?
Contributor	Comments
Kenton Day	<ul style="list-style-type: none"> • Notes that the plan is missing one of his canoe camps.

MG Corporation	<ul style="list-style-type: none"> • Requests until July 30th for submission
Graham Green	<ul style="list-style-type: none"> • Plan must have strong conservation focus. • Concern that the general public was not included in the Technical Working Group. • Network of paths, public access and inclusion of Precinct 7 supported. • Introducing barramundi into Lake will have impacts that need to be managed. • Habitat destruction threatens wildlife. Parks remove habitat, more focus needs to be given to maintaining natural environment. • 10m buffer too close, recommend 30m setback. • Stage one of commercial boat facility has not occurred as was shown in the original plan. This land use should be limited to this area therefore request to remove the option to investigate the inlet in the drinking water reserve. Café should be located back from water with screening. • Support for licensed non motorised area at end of Messmate Way. • Area of land between swim and ski beach needs to be retained as bushland as in original plan. • Need for improved weed management • No caravan park out at precinct 7, should use the area zoned tourism along Vic Hwy. • No car parks on foreshore • Generally avoid leases on foreshore