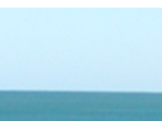




# **DRAFT**



**The Department of Parks and Wildlife**

## **Wilbinga Conservation Park and Adjacent Areas**

### **Recreation Master Plan**



**Regional & Fire Management Services**

**Swan Region**

**June 2017**





Department of  
**Parks and Wildlife**



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## Version Control

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Date	Version	Issued to	Purpose
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27/01/2016	1.00	Nathan Greenhill Ewen MacGregor	First draft review
08/07/2016	2.00	Ewen MacGregor	Second draft review
22/07/2016	3.00	Ewen MacGregor	Third draft review
31/07/2016	4.00	Brett Fitzgerald Craig Olejnik	Forth draft review
26/06/2017	5.00	David Charles	

## EXECUTIVE SUMMARY

The Wilbinga Conservation Park Recreation Master Plan (the Plan) reviews the existing use of Wilbinga Conservation Park (Wilbinga) and the area of the Gnangara Moore River State Forest between Indian Ocean Drive and Wilbinga Conservation Park, including the recreation opportunities and constraints within the lands managed by the Department of Parks and Wildlife.

It will also provide recommendations for the management of future compatible recreation within the reserve, enhancing visitor experiences whilst retaining Wilbinga's conservation and visual landscape values. The Plan will provide a strategy for the long-term sustainable development of the area and provide direction for the injection of valuable resources for the future management of the fragile coastal environment and in particular, the continued protection of the *Synemon gratiosa* (graceful sun moth) (GSM) which was listed as endangered under the Environment Protection and Biodiversity Conservation (EPBC) Act in 2009.

This area is located within the Shire of Gingin, 69km north of Perth and 9km north of the Two Rocks townsite. The area is bordered by the Indian Ocean to the west, private property to the north and south and Gnangara Moore River State Forest to the east. The area forms the northern-western section of the larger area of conservation land described as Gnangara Park.

### Opportunities:

- Developing a strong community based management arrangement – 'friends of' group and volunteer trail ambassadors.
- Provide maintained access throughout Wilbinga to facilitate existing and future use. Access alignments to be maintained, signed and located to reduce further impacts to the landscape.
- Provide a range of managed camping opportunities within the precinct – expand existing and develop new campgrounds and visitor facilities as per Parks and wildlife 'Parks for People Caravan and Camping' Implementation Plan (2014).
- Develop directional, management and risk signage; acknowledge and provide interpretation of cultural, heritage and geological values within the precinct.
- Utilise Department of Planning WA (DoP) coastal planning policies (which indicate anticipated sea level rise due to climate change) and a Coastal Planning and Management Manual.

### Constraints:

- Limited Department resources for management, development of opportunities and maintenance of facilities.
- Anti-social behaviour and lack of consideration for landscape values or other users. Impacts include unmanaged vehicle access and illegal rubbish dumping. Difficulty in changing the behaviour of recreational activities established over many decades of use.
- Limited vehicle access/access constraints to the site from north and south.
- Unexploded ordinances (UXO) may occur in the area - Parks and Wildlife (Standard Operating Procedures (SOP) 86 has actions for addressing this issue.
- High nature conservation values may prevent site development.

### Desired Values:

Wilbinga will remain an accessible area North of Perth for recreational off-road vehicle access to the coast for fishing, camping, swimming and surfing. These activities will occur alongside the management of environmental values important to the area.

## INTRODUCTION

The Wilbinga Conservation Park Recreation Master Plan (the Plan) reviews the existing use of Wilbinga Conservation Park (Wilbinga) and the recreation opportunities and constraints within the lands managed by the Department of Parks and Wildlife. It will also provide recommendations for the management of future compatible recreation within the reserve, enhancing visitor experiences whilst retaining Wilbinga's conservation and visual landscape values.

The Plan seeks to:

- Assess the existing recreation uses and issues within Wilbinga.
- Identify opportunities and constraints for the provision of recreation including identifying new recreation opportunities, in conjunction with Parks and Wildlife 'Parks for People Caravan and Camping' Implementation Plan (2014) (Department of Parks and Wildlife, 2014).
- Identify the management direction, objectives and strategies for the provision and management of appropriate recreation opportunities.
- Ensure environmental values are managed, maintained and enhanced into the future.
- Engage with existing user groups and build relationships for custodians of Wilbinga.
- Strategically guide future development stages and priorities.

The Plan is guided by the need to protect key natural and recreation values of the park. The economic and social interests of the local community are also considered in the context of broader national and global conservation, recreation and tourism interests.

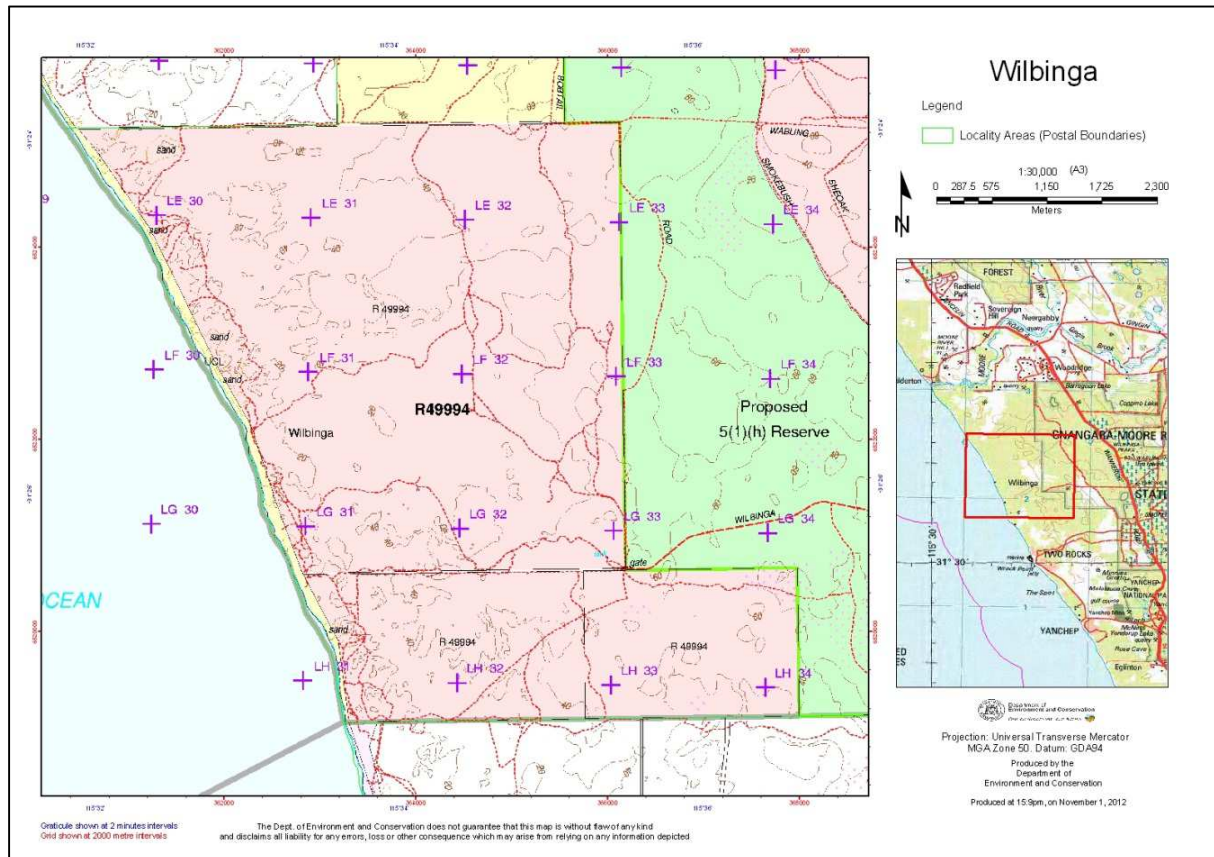
The recent extension of Indian Ocean Drive, coupled with Perth's 'urban sprawl', has placed increasing pressure on Wilbinga to continue to accommodate recreational activities. The forecasted increase in visitor numbers with Wilbinga being the first area for four-wheel-drive beach access North of Perth will place additional pressure on the area and further the need to manage existing recreation activities within the reserve and identify new recreation opportunities.

The Plan will provide a strategy for the long-term sustainable development of the area and provide direction for the injection of valuable resources for the future management of the fragile coastal environment and in particular, the continued protection of the *Synemon gratiosa* (graceful sun moth) (GSM) which was listed as endangered under the Environment Protection and Biodiversity Conservation (EPBC) Act in 2009.

GSM was delisted from the threatened category under the Western Australian *Wildlife Conservation Act 1950* on 6 November 2012. It is now included in a non-legislative category of P4 (near threatened) on the Western Australian Priority Fauna List (*Refer to Appendix A: Graceful Sun Moth Area Distribution Map*).

## Study Area

Wilbinga is located within the northern extent of the North West Corridor of the Perth metropolitan region 70km north of Perth CBD. The site is a coastal conservation park characterised by its narrow, eroding beaches with steep profiles and coastal heath plains, dune hummocks and swales. The 2,773.14 ha (R49994) Park is popular for its direct access to the coast and associated fishing, camping and Off-road Vehicle (ORV) opportunities.



**Figure 1: Wilbinga Conservation Park Locality Map**

## Context

The Yanchep-Two Rocks area embodies the largest, continuous allotment of urban land assigned for development in Australia. The tract of land is one of the few remaining urban land parcels in Perth's Northern Corridor which at full build capacity will accommodate in excess of 155,000 residents by 2060. The area will serve as a secondary metropolitan region to Perth generating a forecasted 55,000 new jobs (Roberts Day, 2010).

Continual development within Perth's North West Corridor emulates the rapid growth of Perth's CBD and the demand for coastal living, offering land more conducive to development economics (value investment) in comparison to that offered east and south of the CBD.



Wilbinga is bound by the City of Wanneroo to the south, Caraban State Forest to the east, private property and Unallocated Crown Land (UCL) to the north and the Indian Ocean to the west. The majority of Wilbinga is contained within State Forest No. 65 (south). Caraban State Forest is proposed as a conservation reserve and the UCL land North and West (coastal strip) is proposed conservation park in the Forest Management Plan 2014-2023 (FMP) which was prepared by the Conservation Commission of Western Australia.

Defence records confirm that Wilbinga was used for military training but do not confirm the site was used for live firing. Unexploded Ordnance (UXO) or explosive ordnance fragments/components have not been recovered from the site and has been defined as UXO zones 1-4: Assessed.

The draft *Perth and Peel Green Growth Plan for 3.5 million* which was released for public comment in May 2015 delivers a comprehensive conservation program to ensure the long-term protection of the regions' unique environment. The Conservation Program is set out in the *draft Strategic Conservation Plan* and *draft Action Plan H* and includes 170,000 hectares of new and expanded conservation reserves in the Perth and Peel regions and surrounds (*Refer to Appendix B: Map of the Perth and Peel Regions*).

The 170,000 hectares will be implemented in two phases: In phase 1 an initial package of 80,000 hectares will be added to the conservation reserve system immediately following endorsement of the Strategic Conservation Plan by the Commonwealth Minister for the Environment.

Relative to this plan the initial package will include:

- Establishment of Melaleuca Nature Reserve, and new conservation reserves at Ningana Bushland (Bush Forever site 289) and the Wilbinga to Yanchep National Park link (Bush Forever sites 284 and 396).
- Expansion of Yanchep National Park, Neerabup National Park, Yeal Nature Reserve, Maralla Nature Reserve, and Wilbinga Conservation Park.

Wilbinga receives minimal promotion by the tourism industry with most publicity generated by small commercial operators, fisherman, four wheel drive clubs and trailbike enthusiasts. The extension of Indian Ocean Drive in September 2010 provided a direct transit link to the area with increased visitation perpetuating the need to manage existing recreation activities within the park and identify new opportunities.

## **Park Management**

The area was formally UCL with Parks and Wildlife taking over management as a Conservation Park in November 2008 under a no-formal management process.

Recreation planning for Wilbinga was undertaken in 1999 as part of the Gnangara Park Concept Plan developed as a multi-agency document to guide development and use of the whole Gnangara area. Key recommendations have been considered in this Plan.

Wilbinga and the coast from the northern to southern boundaries have been identified by the South West Aboriginal Land and Sea Council (SWALSC) as an area of interest. Future cultural values and management of the Wilbinga may need to be reviewed with the finalisation of the 'South West Native Title Settlement' and the Yued People (ILUA) (*see Appendix C: Indigenous Land Use Agreement - Yued (ILUA)*).

## Community

The Department understands that effective management of Wilbinga depends on the support, cooperation and participation of the community and therefore seeks to ensure that there is opportunity for the community to be consulted in both in the preparation of the recreation master plan and the ongoing management of the Park. This plan seeks to provide for the continued wise use of the Park whilst ensuring that future generations also have opportunities to appreciate the values of this area.

Parks and Wildlife is guided by the need to ensure that the key natural and recreation values of the park are protected. Similarly, the economic and social interests of the local community must also be considered in the context of broader national and global conservation, recreation and tourism interests. This plan seeks to fulfil the demand for recreation by the public that is also consistent with the conservation and restoration of the natural environment, cultural values, protection of native flora and fauna and the preservation of features of historic or scientific interest.

Consultation with the Aboriginal Community (Yued People) is a priority now that there are some preliminary proposals to present to the community. It's evident that there are many people who care for the Wilbinga area and it is recommended that the custodianship displayed by community members is fostered and encouraged so that they can support and sustain the park into the future.

## SITE ANALYSIS

### Landscape Values

Wilbinga's landform is typical of a Quindalup dune site. Geomorphically, the dunes represent the Holocene Safety Bay sand portion of the Quindalup and Spearwood Dune System.<sup>1</sup> These dunes are predominant features along the Perth coastal plain and consist of white, fine to medium grained, sub-rounded sand composed of small marine organism skeletal fragments with small amounts of quartz and feldspar. The Safety Bay Sand is generally unconsolidated but may be weakly cemented in places. The sand is stabilised temporarily by vegetation but where disturbance has occurred and this vegetation cover is lost the sand becomes highly mobile.

Wilbinga vegetation is primarily dense coastal heath with scattered clumps of *Eucalyptus argutifolia* which is endemic to the area. Extensive plant life exists throughout such as banksias, cycads, kangaroo paws and grass trees. Wilbinga is also host to a large population of the Graceful Sun Moth (*Synemon gratiosa*) which resides in host plant *Lomandra maritima* and *Lomandra hermaphrodita* on which they gestate and feed.

An diverse array of fauna existing throughout including 51 reptile species; 102 bird species; 22 species of mammals and 5 species amphibian (Bamford, 2005) such as kangaroos, western brush wallaby, barking gecko, carpet python, dugite, bobtail, gould's goanna and seagull. Pest species such as foxes, pigs and rabbits also plague the area competing for natural resources and degrading flora.

Wilbinga experiences warm summers with moderate winters, consistent with Perth metropolitan meteorology. In summer temperatures peak between January and February when the mean monthly temperature is about 26C, in winter the temperature are the coolest in July and August when the daily temperature averages 23C. Rainfall occurs over all months of the year with the annual average rainfall being.

Strong coastal conditions including winds and tides are experienced causing erosion of the coastal edge creating significant visitor risks. Exposed and weathered soils through the Park are prone to erosion and slippage which occurs at various sites within the Park and has implications for the maintenance and management of the access trails.

### Access

<sup>1</sup> Water Corporation, "Awa Tcmp Section 2 Existing Environment," ed. Water Corporation, Alkimos Watter Alliance. Terrestrial Construction Management Plan - Rev 5 (2006).

Wilbinga is accessed from the east by a Wilbinga Road (4WD sand track) from the Indian Ocean Drive. Further access is possible via numerous sand tracks entering the Park from both northern and southern boundaries and along the beach.

There are no sealed or maintained roads and new tracks are often created as diversions to unmaintained and difficult tracks or as “challenge” tracks. Duplication of tracks contributes to environmental degradation.

The underlying issue with the tracks is that the existing levels and certain patterns of usage are not sustainable along the coast and in the Quindalup dune system. From field observation and the study of historical air photos it is evident that there are patterns of use in coastal areas that over a few years result in expanses of mobile sand. Visitor access to high points such as hill tops and ridge lines and to the beach through the fore dunes evolves through a number of distinct stages, to the end result of an area of mobile sand. Should the hilltop or ridge line be adjacent to a beach access point, the erosion can combine so the ‘blowing out’ happens even more quickly.

Parks and Wildlife requires vehicle access for:

- Fire management;
- Management and monitoring of biodiversity values;
- Maintenance of infrastructure, such as recreation facilities, and
- Management and enforcement.

In general track standards are contained in the Parks and Wildlife Road Classification System where these tracks are Category E. Tracks required for Parks and Wildlife fire management purposes will need to be maintained in accord with firebreak and fire management prescriptions, which have specific clearing widths and clearances.

During 2010 the department formed a partnership with Track Care WA (TCWA), the Four Wheel Drive Association of WA (WA4WDA). The Track Adoption program enables four wheel drive groups to adopt tracks, and or rangeland areas and to work with departmental staff to maintain them.

The Motorised Recreation Adoption Agreement is a formal partnership between the Wilbinga 4x4 Shacks Crew and the department in cooperation with WA4WDA and TCWA. The agreement was developed in accordance with, and under the Memorandum of Understanding (MOU) between WA4WDA and TCWA. In accordance with this agreement the department has provided funding to the Wilbinga 4x4 Shacks Crew to undertake urgent access track works and coordinated joint activities with TCWA and 4WD enthusiasts such as large scale rubbish removal days.

Recent directional and information signage has also given users some guidance to assist in their navigation. However, tracks, access points and exit locations are not signed (*Refer to Appendix D: Site Analysis Map – Beach Access, all Values and Erosion Areas*)

## Heritage and Cultural Values

The precinct holds little heritage values with the existing shacks representing historical living quarters erected by sheep farmers and then rebuilt by local residents. The occupants of these shacks, the 'Wilbinga 4x4 Shacks Crew', have now occupied the area for about 50 years and are involved with its preservation.

In 1979 Wilbinga was identified as the first site for a nuclear reactor by the State Government under leadership of Charles Court; however, the project never eventuated due to anti-nuclear public demonstrations (Martin, 1982).

With the finalisation of the 'South West Native Title Settlement' future cultural values and management of the Wilbinga may need to be reviewed.

## Existing Facilities

There are no formal recreation facilities throughout Wilbinga. All sites have been created through historical informal use over many years include the main access tracks, beach access and shack sites. Directional and information signs were installed in 2015 at key access points to assist visitor orientation and appropriate use of the area.

Currently, two apiary leases are in operation with bee hives sited at various locations (*Refer to Appendix E: Site Analysis Map - Vehicle Access, Sites/Feature Conditions*). It is intended that these apiary leases will continue to operate in Wilbinga and should be afforded space and protection within this plan.

Informal infrastructure exists in the way of four crudely constructed 'beach shacks' originally built by sheep farmers and then rebuilt by local residence. Three shacks are constructed on the area of UCL between Wilbinga CP and the coast. One shack is located inside the gazetted Wilbinga CP area. The management of these shacks shall comply with the State Government Squatter Policy (July 1989 and January 1999). There may be some value in retaining the shacks given the limited management presence at Wilbinga and there may be opportunity for caretaker/honorary ranger or trail ambassador arrangements with some of the shack owners.

## Environmental Impact

Erosion caused by unmanaged vehicle, quad and trailbike activity is the most prevalent impact in Wilbinga resulting in an array of duplicated tracks, dune blow-outs and large areas of reduced vegetation cover.

Additional impacts throughout Wilbinga include:

- Weeds infestation,
- Dumping of rubbish,
- Impacts on neighbours,

- Camping impacts, and
- Creation of unplanned tracks.

## Visitor Analysis

Visitation to Wilbinga Conservation Park has increased dramatically over the past decade. Personal accounts from commercial 4WD operators', including Registered Tour Operators (RTOs) have noted the diverse nature of increased visitation consisting 4WD, dune buggies, motor cycles and quad bikes.

The unmanaged vehicle movement throughout the Park is proving problematic as it facilitates access to 'no drive' zones in operation along the beach to Moore River and the Guilderton Township. The Shire of Gingin has identified illegal camping and vehicle access to contributing to the "environmental degradation of native flora along the dunal system (Department of Parks and Wildlife, 2015).

The majority of visitors use Wilbinga to four-wheel-drive and to access the coast to fish. Other activities include general exploring, swimming and camping. Currently there is no formal monitoring of visitation to this area.

## OPPORTUNITIES AND CONSTRAINTS

A vehicle access analysis report was undertaken in June 2016 on Wilbinga Conservation Park and adjacent areas. A range of informal unstructured recreation opportunities were identified in the study. However the nature of the unstructured activities is leading to degradation of the landscape character, erosion and other undesirable environmental outcomes.

### Opportunities

Key opportunities for the provision of recreation activities within the Park are:

- Developing a strong community based management arrangement – ‘friends of’ group and volunteer trail ambassadors.
- Provide maintained access throughout Wilbinga to facilitate existing and future use. Access alignments to be maintained, signed and located to reduce further impacts to the landscape.
- ‘Hardening’ or stabilising of tracks will increase their capacity, and reduce environmental impact and erosion.
- Access to include a range of tracks to suit driving styles and provide desired challenges for users, particularly four-wheel drives.
- Nominate and demarcate areas for beach access, parking, fishing, swimming and sight-seeing.
- Provide a range of managed camping opportunities within the precinct – expand existing and develop new campgrounds and visitor facilities as per Parks and wildlife ‘Parks for People Caravan and Camping’ Implementation Plan (2014).
- Manage visitor risks through appropriate planning, design and signage, including possibility of one way directional tracks.
- Develop directional, management and risk signage; acknowledge and provide interpretation of cultural, heritage and geological values within the precinct.
- The draft Parks and Wildlife Motorised Recreation Management Guidelines are available for classification of tracks.
- The draft Parks and Wildlife Rooding Policy have already have assessed some tracks in Wilbinga.
- Utilise Department of Planning WA (DoP) coastal planning policies (which indicate anticipated sea level rise due to climate change) and a Coastal Planning and Management Manual.

### Constraints

- Limited Department resources for management, development of opportunities and maintenance of facilities.
- Anti-social behaviour and lack of consideration for landscape values or other users. Impacts include unmanaged vehicle access and illegal rubbish dumping. Difficulty in changing the behaviour of recreational activities established over many decades of use.
- Limited vehicle access/access constraints to the site from north and south.
- Unexploded ordinances (UXO) may occur in the area - Parks and Wildlife (Standard Operating

Procedures (SOP) 86 has actions for addressing this issue.

- High nature conservation values may prevent site development.



## DIRECTION

### Vision

***Wilbinga will remain an accessible area North of Perth for recreational off-road vehicle access to the coast for fishing, camping, swimming and surfing. These activities will occur alongside the management of environmental values important to the area.***

#### ***Desired Values:***

- ***A place that showcases coastal processes,***
- ***Somewhere quiet,***
- ***To escape from the city life,***
- ***Access and vehicles controlled, and***
- ***Sensitive buildings and facilities provided.***

This Plan acknowledges the important opportunities that Wilbinga offers to the community. If managed appropriately and respected by all users these opportunities can be maintained into the future.

The recreation opportunities and facilities provided will enable continued access to key features within Wilbinga Conservation Park development of the precinct focusing firstly, on the management of vehicle access; secondly, new recreation opportunities are proposed to be developed to distribute the increase in visitation throughout the precinct and restrict access to the northwest corner of the precinct.

The recreation succession proposed for the precinct will aim to retain the existing visitor settings, including the opportunity to experience the remote and expansive nature of the landscape.

### Development Objectives

The following development objectives will guide the planning and management of Wilbinga:

- Implement road traffic counters on primary entry/exit tracks to determine visitation to the area.
- Plan and design recreation nodes and facilities to provide for existing and future recreation use.
- Develop nodes appropriate to their use, function and their visitor management setting.
- Address visitor safety and awareness of all values through on-ground risk management, interpretation and signage.
- Identify specific management and maintenance issues within individual sites and plan works accordingly.
- Manage access tracks to appropriately acknowledge the recreation use whilst maintaining suitable and sustainable off-road use.

- Consider the requirements of commercial operators and special interest groups who utilise specific sites (e.g.: four wheel-drive instructors, CTO's and apiarists).

## Visitor Management Settings


The proposed visitor management settings cover a broader spectrum of recreation experiences ranging from natural settings with minimal modification and minor level recreation opportunities to developed/highly modified settings with a high level of modification and facilities.




## Access

Unformed tracks will remain the primary mode of access to the park from the existing Wilbinga Road entry point off Indian Ocean Drive west, and unofficial sand tracks to the north and south. Planning for access throughout the Park will require:

- Development of main access alignment, preferably in a loop arrangement.
- Maintain and improved Wilbinga Road.
- Rationalise duplicated tracks and alignments through the landscape.
- Retain tracks that provide a challenge for users.
- Restrict access to and rehabilitate redundant tracks.
- Monitor and maintain beach driving access from Two Rocks.
- Monitor and review beach driving to Guilderton (Moore River).
- Address visitor safety via interpretative signage and education programs.
- Increase staff presence to reduce vandalism, rubbish dumping and antisocial behaviour.

**Table 1: Track Stabilisation Techniques**

<i><b>Material</b></i>	<i><b>Comments</b></i>	<i><b>Image Example</b></i>
<b>Road Base or Similar Natural Material</b>	Desirable due to long wearing; fire resistance and complements natural landscape. Delivery and laying may be an issue, due to limited access for trucks.  Screened limestone would complement the coastal landscape. Less limestone would be required if geofabric is utilised underneath, with attention to drainage required and securing of under base fabric. Photo – Cracker dust, note drainage.	
<b>Rubber Belting with Water Bars</b>	Rubber conveyor belt material (ex-mine site) is a sturdy option for 4WD tracks. Cost effective, but may be difficult to source; requires pinning or securing to prevent slippage and movement; may require additional drainage measures and requires removal	

	<p>and disposal when worn.</p> <p>Photo: conveyor belt used to 'pave' intersections on Long Point Track near Walpole. Note purpose made 'pins' to secure belt material.</p>	
<b>Flexible Geogrids or Mesh Products</b>	<p>There are a number of reasonably priced, plastic, flexible, mesh products that assist with reinforcing the ground. Tensar geogrid was trialled and turning tyres dislodged it in parking situations but when placed on a straight section of track and the sand cover retained, it appears to assist with stabilisation.</p> <p>Forming of the base is important and using these meshes in conjunction with geofabrics or similar is more effective.</p> <p>Products that are not covered by sand, such as those that aim to reinforce turf, are also moved by turning vehicles and they are susceptible to fire and therefore not recommended.</p>	
<b>Rigid cellular products</b>	<p>Expensive but effective when installed correctly. This photo of West Cape Howe shows product (Trackpad) that has been in a number of years. The same product was installed in a Mid-West location for approx. 9 years' service before it rose to the surface<sup>2</sup>, however, the material could be re-used rather than replaced. The use of a geofabric or similar may be beneficial, a level base is important, recently developed 'mini' ramps may help vehicles to drive on it without moving it and securing effectively is also important.</p> <p>These geopads or similar may have application for boat access locations.</p> <p>Those working in the mining industry may be aware of similar new products.</p>	

<sup>2</sup> Pers. Com. Chris McMonagle, Parks and Wildlife, Shark Bay



## Day Use Areas

Identify the location and purpose of specific defined day use sites that provide users with a range of recreation opportunities.

- Identify sites in relation to the track rationalisation process.
- Undertake detailed site assessments to determine the most sustainable and suitable sites for appropriate recreation use.
- Close and rehabilitate all unwanted sites.
- Develop site protection plans for day use sites in the first instance to manage sites and reduce further site impacts.
- Develop site development plans for more developed sites to guide site works.
- Determine the level of infrastructure required at day use sites including toilets and interpretation.





## Camping

Informal camping occurs in Wilbinga, typically associated with beach fishing; however, it is common that camping occurs with partying and antisocial behaviour. Camping, if it is to remain, should be maintained and developed to ensure the least impact on the coastal environment and managed to be suitable for all users.

- Manage and maintain existing suitable and sustainable camp-sites in Wilbinga.
- Develop site protection plans at existing camping areas to manage impacts to the landscape and formally guide appropriate camping practices.
- Close unsustainable camp-sites as required.
- Provide information to all users on appropriate camping techniques.
- Identify location/s for appropriate campgrounds suitable for future development. Consider the type of camping and experience offered at these sites.

**Table 2: Revegetation and Stabilisation Techniques**

<i><b>Material</b></i>	<i><b>Comments</b></i>	<i><b>Image Example</b></i>
<b>Wind Breaks/Sand Traps</b>	Wind breaks are primarily used to provide sheltered areas for plants to regenerate and sand traps to recreate dune profiles and trap sand. Biodegradable materials should be used to reduce long term impact on the environment and to prevent stakes, wire etc. becoming hazards should the fence be exposed at a later date. Consider untreated timber, jute and coir mesh, matting and rope and brush.  Suggested use – blow out areas and mobile sand	






	areas.	
<b>Brushing</b>	Brushing is a cheap and effective way of rehabilitating areas as the brush can trap sand and seeds, provide mulch and create a shaded, sheltered microclimate. Brush can also be used to complement fencing or matting. Brush from the local area (e.g. from track pruning) should be laid butt to the wind to give a tiled effect.	
<b>Jute and Coir Mesh</b>	<p>Available in different thicknesses with different life span. A longer lasting product is recommended as the expense is usually in laying the product rather than material costs.</p> <p>Mesh is recommended for seeds to germinate through the product. Seed collected locally may be spread by hand or colonise naturally. Mesh permits plants to sprout through the mesh when roots remain after batter reshaping etc. Any pegs used for securing should consider reducing staking hazard - try flat topped plastic.</p>	
<b>Jute and Coir Mat</b>	<p>Utilised to prevent further erosion and suppress weeds. Holes may be cut to establish plants. Pegs utilised to secure matting should be chosen to reduce staking hazard (as above).</p> <p>Jute and coir matting and mesh may also be utilised to stabilise drainage (short term) until natural vegetation is re-established.</p>	




## Signs, Furniture and Small Structures

Materials, facility design and architecture style play an important role in park presentation and recreation site design. A clear and consistent approach to site developments and upgrades improves the visitor experience meeting both functional and aesthetic requirements.

The only existing structural elements within Wilbinga are the shacks which were originally constructed by sheep farmers and then rebuilt by local residents. Proposed structures within Wilbinga will, where possible, reference the existing palette of materials with a precedence of structures in neighbouring Parks and Wildlife managed lands. This will offer a consistent material palette between other recreation sites within the District and Region.

**Table 3: Signs, Furniture and Small Structures**

<i><b>Material</b></i>	<i><b>Comments</b></i>	<i><b>Colour</b></i>	<i><b>Image Example</b></i>
<b>Aluminium park boundary signs</b>	Park identification sign.	Swan Coastal Plain – leaf green, grey with a ‘splash’ of new growth.	
<b>Aluminium directional signs</b>	Beach and exit double sided ‘Street Blade’ signs.	Colour Parks and Wildlife logo sticker and Blue text.	
<b>Limestone rocks</b>	Local Tamala limestone. Use for track demarcation and decommissioning of irrational tracks.	Cream, off-white.	
<b>Limestone blocks</b>	Local Tamala limestone. Use for lookout seating/walls.	Cream, off-white.	
<b>Corrugated steel</b>	Custom Orb roof sheeting or wall cladding in either 'standard' or 'ultra' is a proven successful material.	Situational. Potential colours include 'dune', 'windspray' and 'wilderness'.	

<b>Concrete</b>	Suggest limited use. Flexible material, slip resistant finishes. Use for paths, walls, structures landings.	Subdued recessive colours complementing park sand and limestone.	
<b>Stainless steel</b>	Primarily for longevity in aggressive marine environments. Use structurally for buildings, stairs, seating.	Raw, unfinished.	
<b>Organic mulches</b>	Locally sourced, disease free mulched vegetation.	Light to dark browns and grey.	



## Proposed Development Stages

The following work should be commenced in the stages shown. These will be the priority works for site management, visitor management, planning and design and construction.

ACTIONS	STAGE 1 (Years 2017/18)	STAGE 2 (Years 2018/19)	STAGE 3 (Years 2019/20)
<b>Planning</b>			
• Prepare site protection plan for coastal zone		X	
• Implement site protection plan for coastal zone		X	
• Prepare site development plans for coastal camp-sites and inland main campground	X		
• Implement site development plans for coastal camp-sites		X	
• Implement site development plans for a main campground			X
• Access Royalties for Regions funding via the Wheatbelt Blueprint	X	X	X
<b>Site protection (management)</b>			
• Install traffic counters to monitor usage at strategic entry points.	X	X	X
• Install rubbish/skip bins at main entry points of Park	X		
• Undertake park environmental desktop checks (flora, fauna and dieback)	X	X	
• Confirm future tenure and management conditions of coastline access	X		
• Develop communication framework with stakeholders		X	X
• Encourage volunteer groups to be park ambassadors		X	X
• Develop strategy to encourage off-peak use for reducing summer visitation		X	X
• Develop code of conduct/track etiquette/driving guidelines		X	X
• Investigate opportunities for alternative challenge		X	X

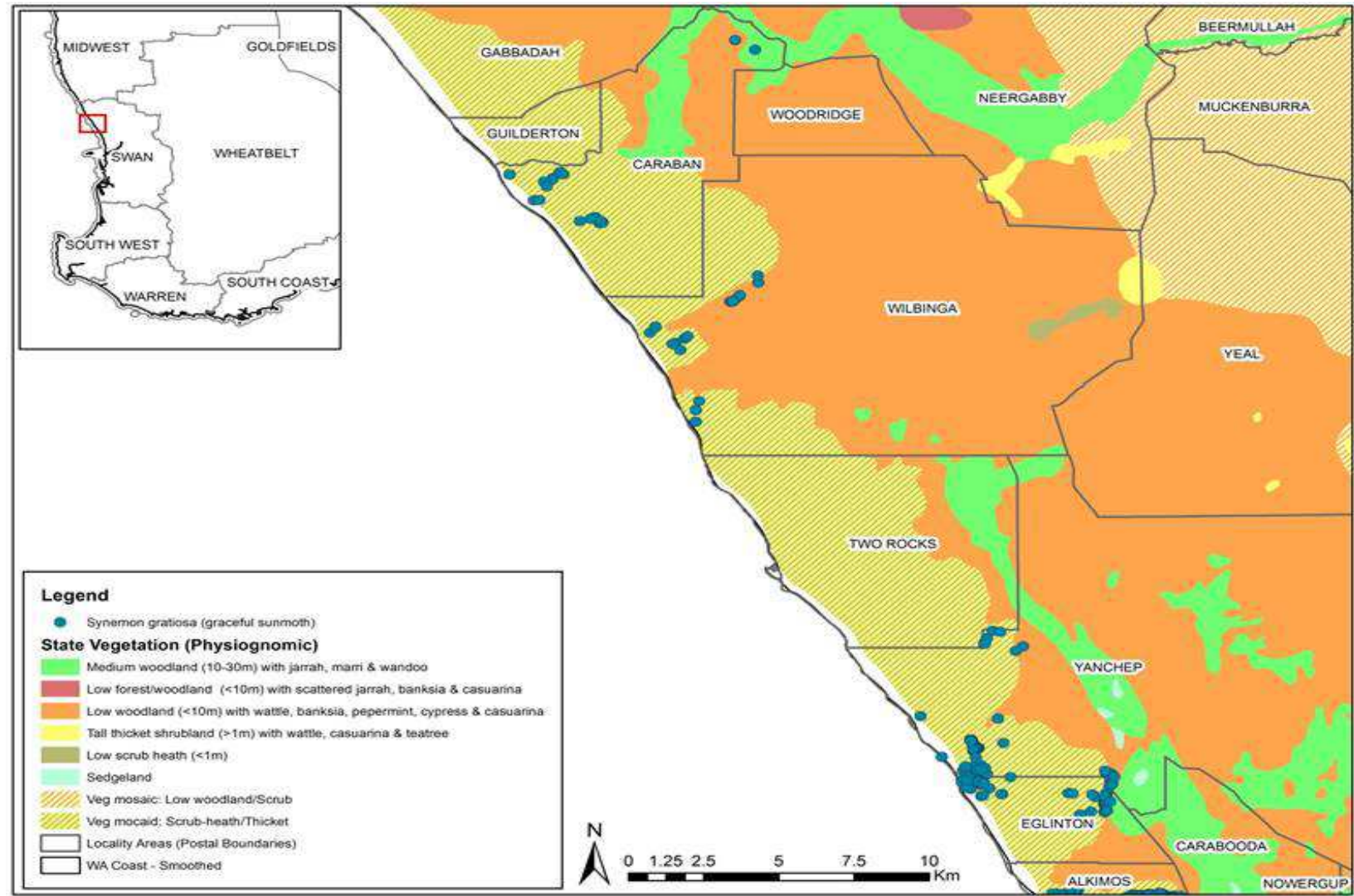
4WD areas			
<ul style="list-style-type: none"> <li>Consider future of Wilbinga Shacks in-line with State Government Squatter Policy (July 1989 and January 1999)</li> </ul>			X
<ul style="list-style-type: none"> <li>Review surveys for user preferences for Camping activity areas. Update Swan Region Caravan and Camping strategy, seek funding opportunities</li> </ul>		X	X
<ul style="list-style-type: none"> <li>Increase staff presence to reduce vandalism, rubbish dumping and antisocial behaviour</li> </ul>	X	X	X
<b>Track rationalisation and upgrade</b>			
<ul style="list-style-type: none"> <li>Investigate and evaluate existing tracks, coastal access and vehicle user data. Fire management tracks need assessment by specialist fire managers</li> </ul>	X	X	
<ul style="list-style-type: none"> <li>Develop access master plan using 'Track Classification System'</li> </ul>	X		
<ul style="list-style-type: none"> <li>Plan and commence 'Track Classification System' implementation</li> </ul>	X	X	X
<ul style="list-style-type: none"> <li>Harden trail surfaces of retained tracks as prescribed within the access master plan</li> </ul>	X	X	X
<ul style="list-style-type: none"> <li>Consider maintaining Wilbinga Road east/Southern Access Road (limestone road)</li> </ul>	X	X	
<ul style="list-style-type: none"> <li>Liaise with Main Roads WA regarding Military Road intersection with Wanneroo Road</li> </ul>	X	X	
<b>Signage and Interpretation</b>			
<ul style="list-style-type: none"> <li>Provide directional signage at key intersections particularly on boundary with private property</li> </ul>	X		
<ul style="list-style-type: none"> <li>Provide 'Park Boundary' signs at key entry/exit access points</li> </ul>	X		
<ul style="list-style-type: none"> <li>Prepare and implement interpretation plan in consultation with stakeholders</li> </ul>		X	X

## REFERENCES

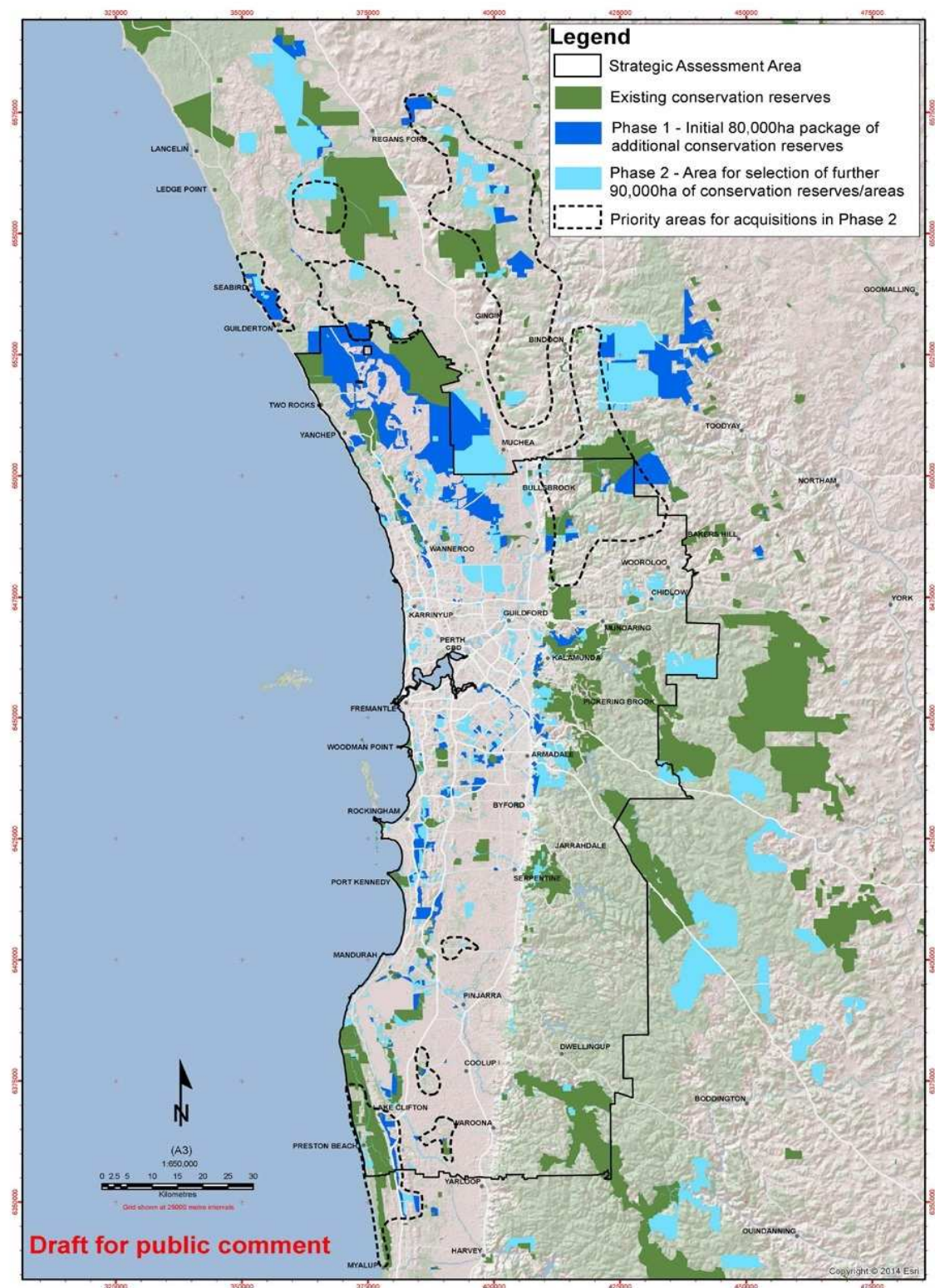
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## APPENDICIES

### Appendix A: Distribution of Graceful Sun Moth

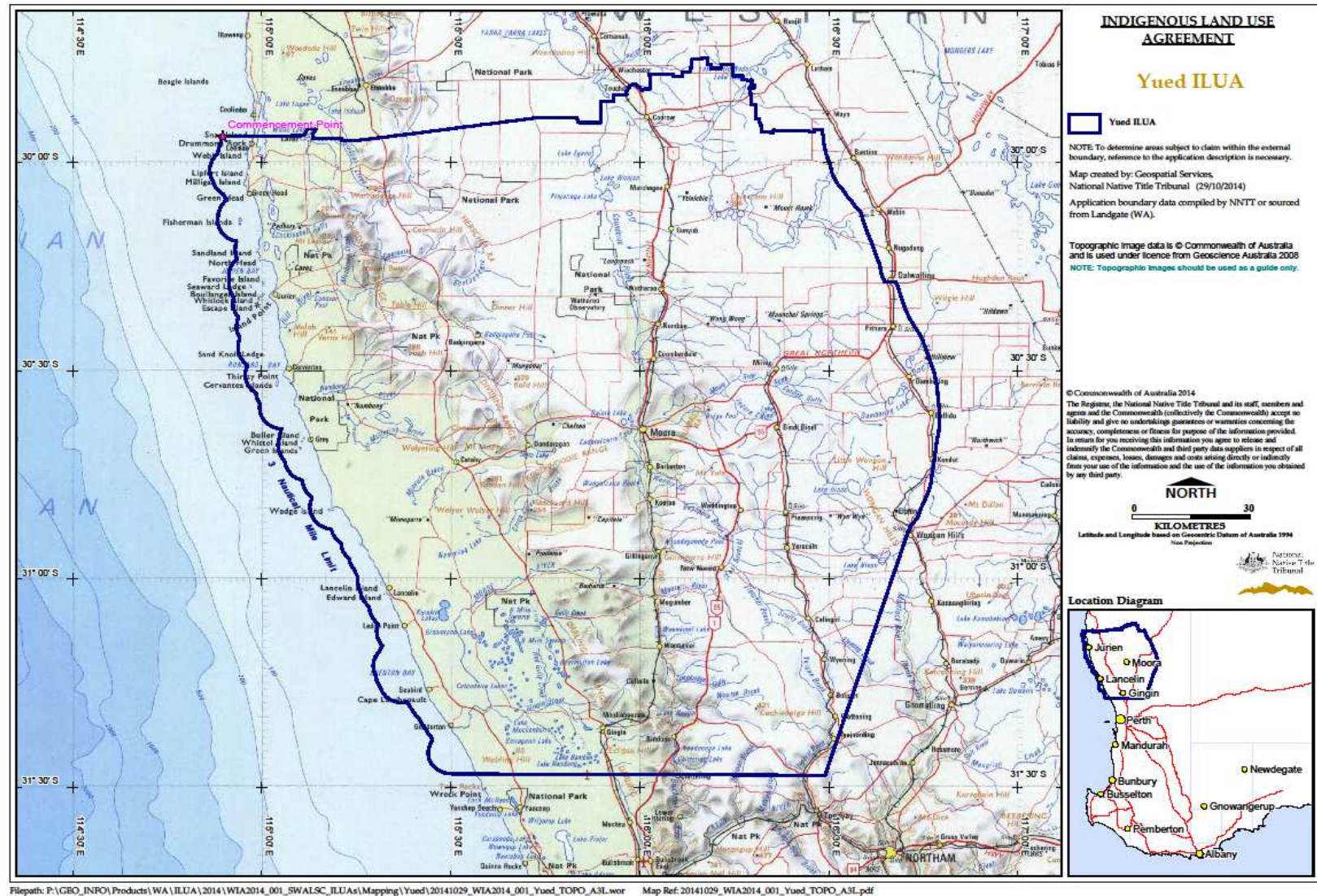


## Appendix B: Perth and Peel Regions



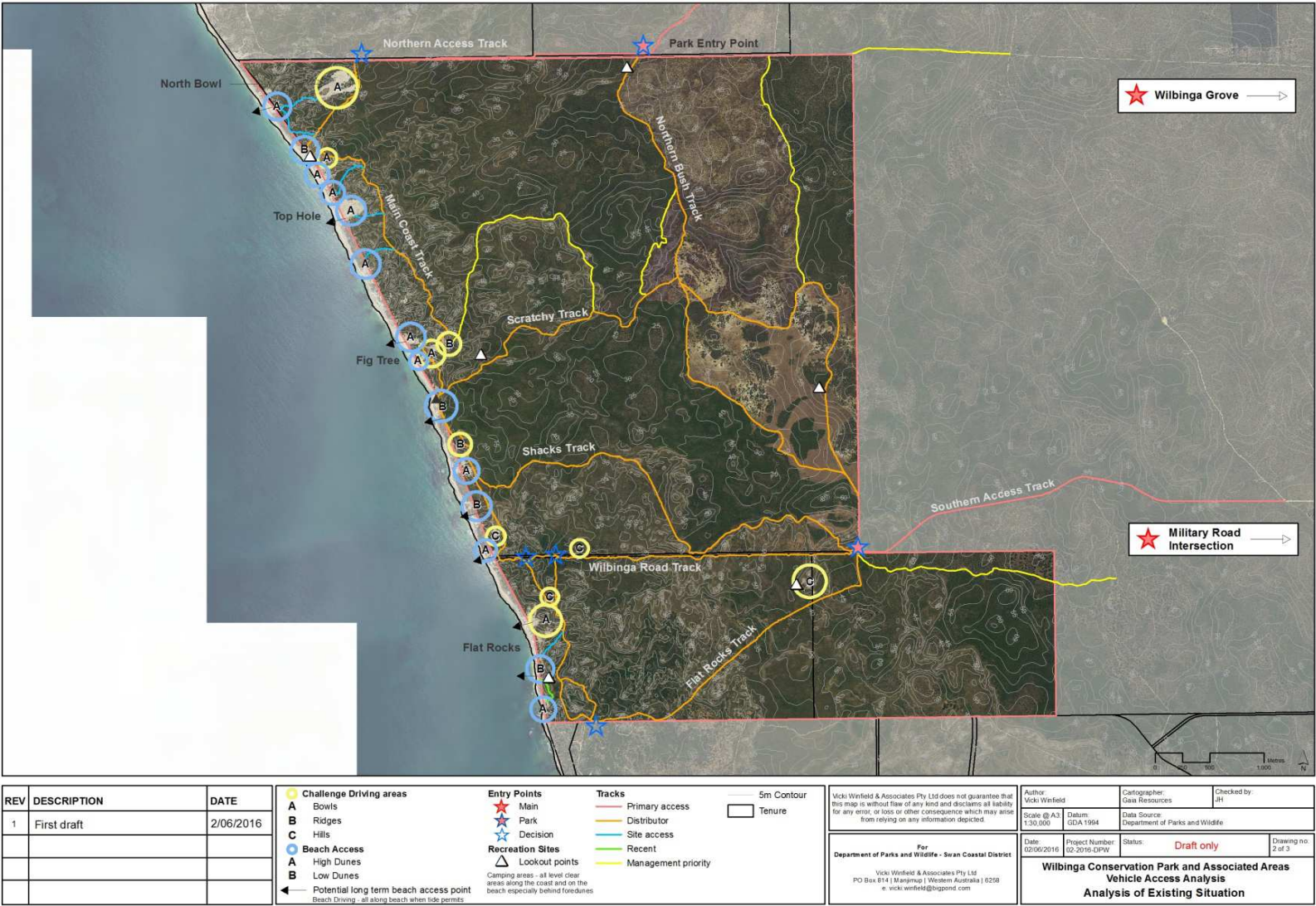


## Appendix C: Indigenous Land Use Agreement - Yued (ILUA)





Appendix D: Site Analysis Map – Beach Access, all Values and Erosion Areas



**Appendix E: Site Analysis Map - Vehicle Access, Sites/Feature Conditions**



