



Department of  
Transport

# Great Southern Region

## Recreational Boating Facilities Study July 2021



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# Introduction

The Great Southern Region Recreational Boating Facilities Study (this Study) is being undertaken by Department of Transport Maritime to identify the need for new and improved recreational boating facilities. For the purposes of this Study the Region is defined by the Local Government Areas (LGAs) of Albany, Broomehill-Tambellup, Cranbrook, Denmark, Gnowangerup, Jerramungup, Katanning, Kent, Kojonup, Plantagenet and Woodanilling; and navigable waterways located adjacent to or within their boundaries.

## Study Parameters

The term “recreational boating” refers to registered recreational vessels that navigate the waterways of the Region and require formal boating facilities. The definition excludes all commercial vessels including some sail-only vessels.

Registered recreational vessels in the Region range in size from small dinghies to large luxury craft. For planning purposes these vessels are categorised by length - vessels up to 7.5 metres are typically stored on trailers and vessels greater than 7.5 metres are typically stored in mooring installations.

For the purpose of this Study the term “boating facilities” refers to facilities which are available for recreational vessels. These include, public boat ramps and mooring installations such as boat pens, swing moorings, private jetties and boat stackers/storage.

The Study examines the growth in the local fleet of registered vessels to the end of 2020 and forecasts future growth based on average boat ownership growth rates and population projections for each of the LGAs.

The planning horizon for this Study is 2036 and has been selected as it approaches the reliable forecasting limit of the referenced data sets. The timeframe also recognises the lead times associated with planning and providing maritime infrastructure.

For determining boat ramp requirements, boating facilities with a classification rating of less than Level 3 have not been used in this calculation. However, it is recognised that these smaller/informal facilities still provide access for some vessels in suitable conditions. For determining mooring installations an additional five per cent has been allowed for transient/visitor requirements.

## Boating Facility Classification

The standard to which the facilities are developed varies considerably from location to location, ranging from informal open coast launching sites to formal serviced boat harbours. To assist with comparison, DoT has established levels of boating facility development - the higher the level, the higher the standard of facility. The table below summarises the classification levels and type of boat launching facility.

Level	Classification
<b>Level 1 (Informal)</b>	Open/beach launching with sea search and rescue organisation.
<b>Level 2 (Minimal)</b>	A restricted length of waterside (usually a beach) over which launching can take place as determined by environmental conditions; four-wheel drive vehicle access and limited unsealed car-trailer parking.
<b>Level 3 (Local)</b>	A single or two-lane ramp with a holding jetty for launching and retrieval of shallow draft craft by a two-wheel drive vehicle. Limited sealed car-trailer parking with unsealed overflow area.
<b>Level 4 (District)</b>	A two-lane ramp with a holding jetty for launching and retrieval of shallow draft craft by a two wheel-drive vehicle. Limited sealed car-trailer parking with unsealed overflow area. Navigation aids and public toilets.
<b>Level 5 (Regional)</b>	A multiple number of lanes for launching and retrieval by a two-wheel drive vehicle. Boat holding jetties to assist launching and retrieval for each lane. Navigation aids and public toilets. Formal sealed car-trailer parking with unsealed overflow area.
<b>Level 6 (Major Boat Harbour)</b>	Boat pens and yacht/sailing club facilities. Multiple ramp lanes for launching and retrieval by two-wheel drive vehicle. Boat holding jetties to assist in launching and retrieval and boat wash down facilities. Formal sealed car-trailer parking and car parking. Service jetty and boat refuelling and sullage pump out facilities. Boat repair facilities including one boat lifter (or similar) and associated commercial development. Navigation aids, lighting and public toilets and showers.

Front cover: Emu Point Boat Harbour

# Current Situation

To determine the current situation existing facilities have been considered satisfactory in condition and suitable for operational requirements. The Great Southern Region has 22 boating facilities however only eight are considered class Level 3 and above. See map 1

The number of recreational vessels registered in a particular area may also be expressed as the number of vessels per thousand residents, also referred to as the 'boating density' or 'rate of boat ownership'.

The table below provides a snapshot of the registered recreational vessels for each LGA and the corresponding population in 2020.

Local Government Area	Population 2020 (Estimated)	Recreational Boating Registrations 2020		Vessels / 1,000
		0 – 7.5m	> 7.5m	
Albany	38,442	2,562	141	70
Broomehill - Tambellup	1,098	72	4	69
Cranbrook	1,046	60	0	57
Denmark	6,260	490	14	81
Gnowangerup	1,188	76	1	65
Jerramungup	1,111	172	7	161
Katanning	3,972	173	2	44
Kent	550	45	5	91
Kojonup	1,918	164	1	86
Plantagenet	5,273	266	8	52
Woodanilling	422	25	2	64
<b>TOTAL</b>	<b>61,280</b>	<b>4,105</b>	<b>185</b>	<b>70</b>

The estimate for peak boat ramp usage on a good boating day is determined by the number of local boat users plus the number of visitor boat users.

Local boat users have been calculated as a percentage of the boats that are registered within the Region. It has been noted on a good boating day in a region where the visitor percentages are high, the percentage of local boat users are low. This percentage reduction of the local boat user is in accordance with the table below.

Percentage visitor numbers have been calculated using Department of Fisheries data collected over two peak boating seasons. For the Great Southern Region this equates to 40 per cent.

Visitors	Local registered vessels
0 - 20%	5%
21 - 40%	4%
41 - 60%	3%
61 - 100%	2%

## Boat Ramp

- 4% of local boat registrations ≤ 7.5 metres = 164
- Visitors = 109
- Total boat users = 273

To determine boat ramp requirements, 20 boat users per ramp lane has been used in accordance with AS3962-2020 Marina design.

## Mooring Installations

- Local boat registrations > 7.5 metres = 185
- Transient visitors (5% of 185) = 10
- Total = 195

To allow for a mooring installation assessment, the current moorings include an estimate of recreational swing moorings. This estimate has been determined from limited information available at the time of this report.

An assessment of boating facilities indicates there is a shortfall of 1 boat ramp lane and a surplus of 50 mooring installations.



# Forecast Demand - 2036

DoT's Recreational Boat Licencing Register was used to extract data required for calculating demand for each LGA in the Study area. The number of registered vessels, their location and length were used for modelling the forecast demand. A time series analysis of historical data dating back to 1990 was used to predict future patterns of ownership out to 2036. Population estimates for the study area is based on population figures derived from the *WA Tomorrow Population Report* series released by the Department of Planning, Lands and Heritage (DPLH)

A linear trendline growth rate was applied to the vessel and population forecast. This methodology was suited to the available data on population and boat ownership for the regional area. The methodology is statistically sound and suitable for estimating growth in the number of recreational vessels and future needs.

The table below provides a 2036 forecast number of registered recreational vessels for each LGA and their corresponding forecast number of vessels per thousand head of population.

Local Government Area	Recreational Boating Registrations (forecast) 2036				Vessels / 1,000
	0 – 7.5m	Growth rate	> 7.5m	Growth rate	
Albany	3,536	974	190	49	81
Broomehill - Tambellup	96	24	5	1	102
Cranbrook	77	17	0	0	80
Denmark	630	140	19	5	85
Gnowangerup	90	14	2	1	109
Jerramungup	211	39	11	4	254
Katanning	207	34	3	1	63
Kent	58	13	5	0	169
Kojonup	205	41	3	2	132
Plantagenet	374	108	18	10	70
Woodanilling	34	9	1	-1	95
<b>TOTAL</b>	<b>5,518</b>	<b>1,413</b>	<b>257</b>	<b>72</b>	<b>84</b>

The number of registered recreational vessels in the Region is predicted to increase from 4,290 to 5,775 by the end of 2036. This represents an increase of 35% over the period 2020 to 2036. The number of registered recreational vessels for each individual LGA is also predicted to increase. When analysing predicted trends, it can be noted that the rate of recreational boat ownership rises 20 per cent from 70 vessels per 1,000 head of population in 2020 to 84 per 1,000 head of population in 2036.

## Forecast boating facilities requirements in 2036:

### Boat Ramps

- 5% of local boat registrations ≤ 7.5 metres = 221
- Visitors = 147
- Total boat users = 368

### Mooring Installations

- Local boat registrations > 7.5 metres = 257
- Transient visitors (5% of 257) = 13
- Total mooring installations required = 270

A comparison of the forecast demand for boating requirements against the current capacity/supply levels of the existing facilities indicate there is a requirement for an additional 5 boat ramp lanes and 25 mooring installations to meet future demand.

# Recommendations

This Study has predicted growth in the boating fleet and subsequent demand for recreational boating facilities across the Region. Where considered achievable, development/expansion options have been proposed at existing boating facilities to meet the demand. However, it is recognised that in some locations there is also a need to plan and provide for facilities at new sites.

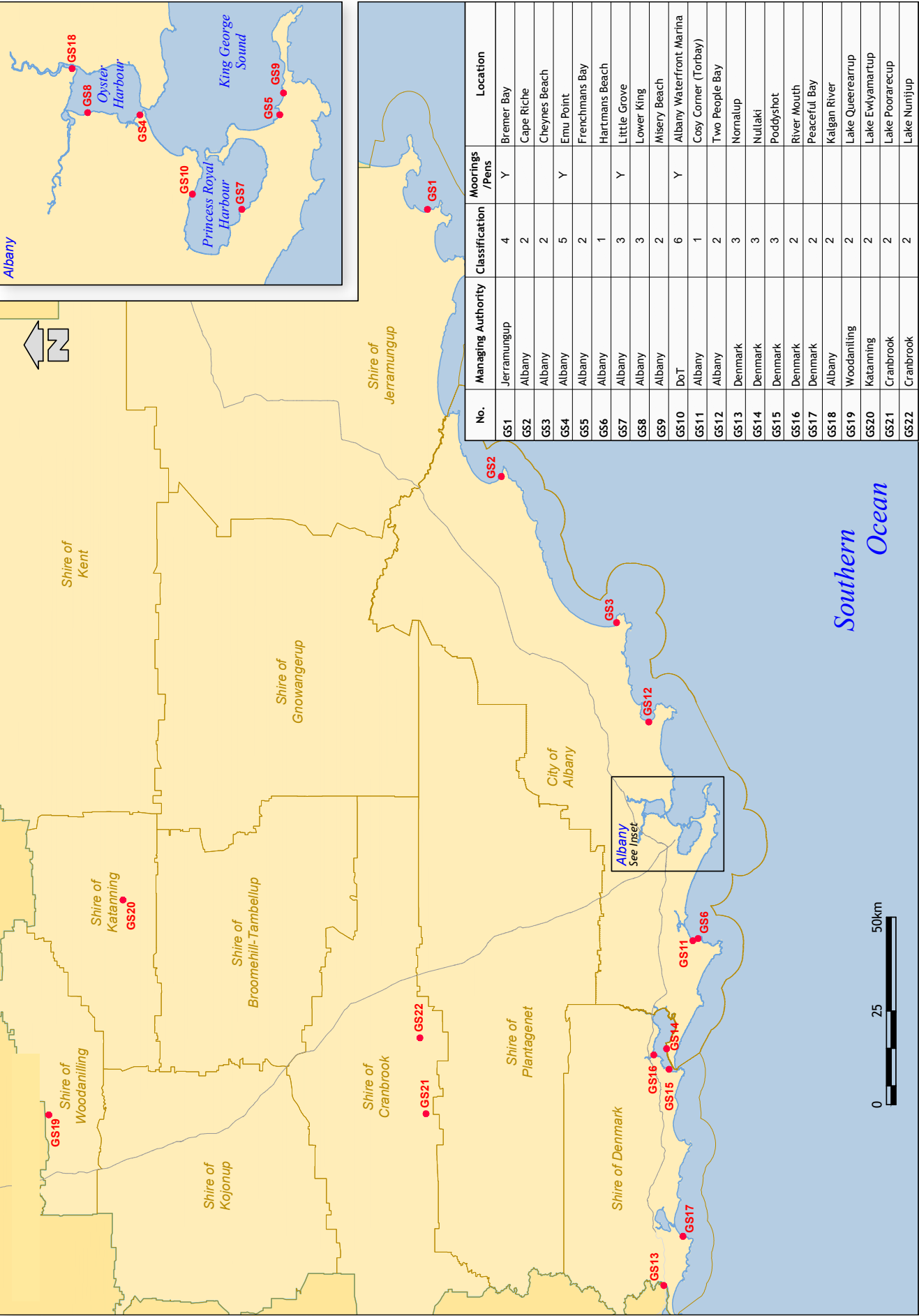
The following table provides a summary of options for recreational boating facility development to meet the demand to 2036. See map 2

Managing Authority	Facility	Development Options
Albany	Lower King	<ul style="list-style-type: none"><li>• 2 additional lanes</li></ul>
	Kalgan River	<ul style="list-style-type: none"><li>• Upgrade boat ramp to level 3 - 2 lanes</li></ul>
	Little Grove	<ul style="list-style-type: none"><li>• 1 additional lane</li></ul>
	Cheynes Beach	<ul style="list-style-type: none"><li>• Upgrade boat ramp to level 3 - 2 lanes</li></ul>
DoT	Albany Waterfront Marina	<ul style="list-style-type: none"><li>• 60 additional pens</li></ul>
Denmark	Peaceful Bay	<ul style="list-style-type: none"><li>• New boat launching facility - 2 lanes</li></ul>
Jerramungup	* Bremer Bay	<ul style="list-style-type: none"><li>• 40 pens</li><li>• 1 additional lane</li></ul>

\* The Strategic upgrade of Bremer Bay Boat Harbour has been justified by the future needs of recreational boating in conjunction with new commercial operational needs.

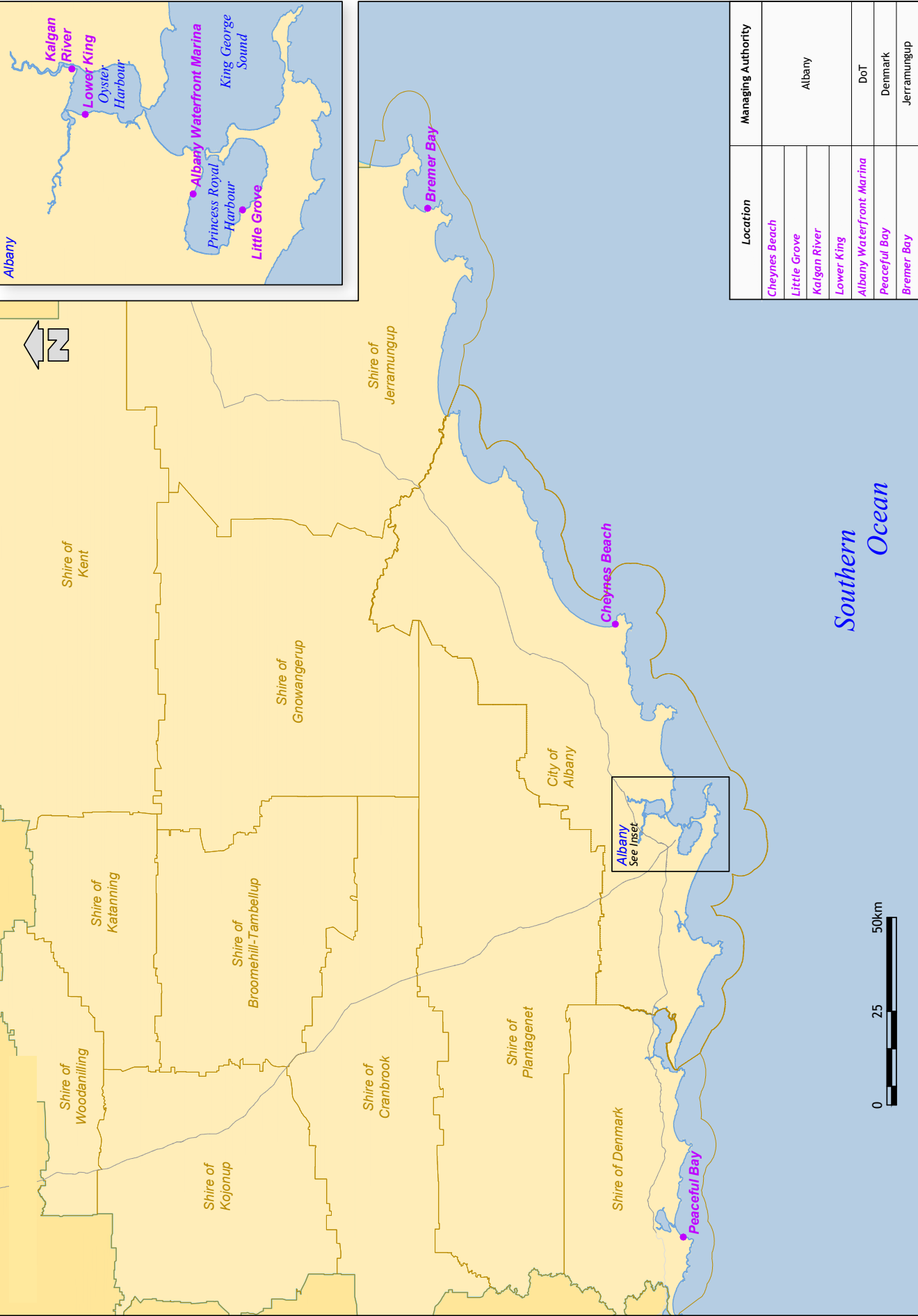


# Map 1. Existing Facilities





# Map 2. Recommendations Map



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