



Department of
Transport

Perth

Recreational Boating Facilities Study Review 2019



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Front cover photo: Blackwall Reach
Inside cover photo: Woodmans Point

Introduction

The Perth Recreational Boating Facilities Study 2008 (the Study) by the Department of Transport was published in February 2009. As it is now more than a decade since the Study was released it is considered timely a Review is undertaken. This Review compares the Study predictions to actual changes in the number of the recreational vessels and the boating facility recommendations, re-forecasts the recreational boating facility requirements to 2036 and provides updated recommendations to meet the re-forecast demand.

For the purposes of this Review, the Perth metropolitan area is defined as being:

“...navigable waters and shores including the near-shore waters of the Indian Ocean from Two Rocks in the north to Singleton in the south, together with the Swan River up to the Whiteman Bridge plus the Canning River up to the Kent Street weir”.

The Review adopts a two-sector strategy (Northern and Southern). The Northern sector consists of the Local Governments areas that are generally north of the Swan River while the Southern sector consists of Local Governments areas that are generally south of the Swan River.

The Northern sector is defined by the Local Government Areas (LGAs) of Bassendean, Bayswater, Cambridge, Claremont, Cottesloe, Joondalup, Mosman Park, Mundaring, Nedlands, Peppermint Grove, Perth, Stirling, Subiaco, Swan, Vincent and Wanneroo.

The Southern sector is defined by the LGA's of Armadale, Belmont, Canning, Cockburn, East Fremantle, Fremantle, Gosnells, Kalamunda, Kwinana, Melville, Rockingham, Serpentine-Jarrahdale, South Perth and Victoria Park.

Study Parameters

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

Registered recreational vessels 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 2018 and forecasts future growth based on average boat ownership growth rates and projections for each of the LGAs.

The planning horizon for this Review 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.

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 the facility. The table below summarises the classification levels and type of boat launching facility.

Level	Classification
Level 1 (Informal)	Open/beach launching with sea search and rescue organisation.
Level 2 (Minimal)	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.
Level 3 (Local)	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.
Level 4 (District)	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.
Level 5 (Regional)	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 an unsealed overflow area.
Level 6 (Major Boat Harbour)	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 sillage pump out facilities. Boat repair facilities including one boat lifter (or similar) and associated commercial development. Navigation aids, lighting and public toilets and showers.

Study Forecast vs Actual Data

A comparison of the actual vessel numbers in 2018 vs the forecast predicted numbers in the Study shows the Study over-estimated the number of vessels $\leq 7.5\text{m}$ by 13,627, and vessels $>7.5\text{m}$ by 1,417. In total, the difference between actual and forecast recreational vessel registrations was an over-estimate of about 28 per cent (approx. 15,000) total vessels over the period 2008 to 2018. The actual number of registered recreational vessels at 2018 was 52,715 which was less than the 67,759 vessels forecast in the Study for 2018.

The Study predicted demand for recreational boating facilities to greatly exceed the supply of infrastructure by the year 2025. The Review has determined that the level of public recreational boating facilities provided up to 2018, while much less than proposed in the Study, was fitting due to the number of registered recreational boats being much less than predicted.

A total of 20 boat ramp lanes was forecast as being required by the Study between 2008 and 2018 but only 6 boat ramp lanes were provided. Similarly, 2748 moorings (boat pens, swing moorings and boat stacker bays) were forecast as being required but only 995 were provided. This is a considerable disparity and would have likely caused significant congestion and dissatisfaction at the under-supply of new boating facilities had the number of registered vessels reached the levels predicted in the Study.



Photo: Fremantle Fishing Boat Harbour

Current Situation

The Perth Metro area is currently served by 31 boating facilities however only 20 are considered class level 3 and above.

The table below provides a '2018 snapshot' of the registered recreational vessels for each LGA and their corresponding percentage of total boat numbers (for the Perth Metro area).

Local Government Area	Recreational Boating Registrations 2020		Total	(% of Perth
	≤ 7.5m	> 7.5m		
Armadale	1,523	104	1,627	3.1%
Bassendean	477	22	499	1.0%
Bayswater	1,001	103	1,104	2.1%
Belmont	688	70	758	1.4%
Cambridge	814	210	1,024	1.9%
Canning	1,736	179	1,915	3.6%
Claremont	322	120	442	0.8%
Cockburn	3,604	430	4,034	7.7%
Cottesloe	275	148	423	0.8%
East Fremantle	348	115	463	0.9%
Fremantle	1,099	352	1,451	2.8%
Gosnells	2,003	138	2,141	4.1%
Joondalup	5,355	647	6,002	11.4%
Kalamunda	1,558	118	1,676	3.2%
Kwinana	964	53	1,017	1.9%
Melville	2,943	696	3,639	6.9%
Mosman Park	388	165	553	1.0%
Mundaring	1,206	84	1,290	2.5%
Nedlands	829	313	1,142	2.2%
Peppermint Grove	182	98	280	0.5%
Perth	269	84	353	0.7%
Rockingham	5,101	328	5,429	10.3%
Serpentine-Jarrahdale	1,048	76	1,124	2.1%
South Perth	896	189	1,085	2.1%
Stirling	3,886	549	4,435	8.4%
Subiaco	344	96	440	0.8%
Swan	2,916	164	3,080	5.8%
Victoria Park	388	52	440	0.8%
Vincent	341	59	400	0.8%
Wanneroo	4,135	314	4,449	8.4%
TOTAL	46,639	6,076	52,715	100%

From the data, Joondalup and Rockingham have the highest recreational vessel ownership (%) while Perth and Peppermint Grove record the lowest percentage of registered vessels in the Perth Metropolitan Area.

An assessment of boating facilities indicates the number of boat ramp lanes meets the current demand and there is a surplus of 150 mooring installations.



Photo: Woodmans Point Boat Ramp

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.

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 Sector.

Sector	Recreational Boating Registrations (forecast) 2036				Vessels
	0 – 7.5m	Growth	> 7.5m	Growth	
Northern	31,028	8,288	4,368	1,191	35,396
Southern	33,612	9,716	4,032	1,132	37,644
TOTAL	64,640	18,004	8,400	2,323	73,040

This Review determines that the Perth recreational fleet will increase from 52,715 boats in 2018 to 73,040 vessels in 2036. (64,640 vessels \leq 7.5m, and 8,400 vessels $>$ 7.5m). The Northern sector increase to 35,396 vessels and the Southern sector will increase to 37,644 vessels.

The areas of Perth where growth in vessel ownership is considered most likely to occur are in the outer areas, and in particular in the north and south of Perth where population is predicted to grow considerably. By contrast the central suburbs of Perth appear to have reached a near saturation point especially for vessels stored on trailers. It is considered unlikely that new public recreational boating infrastructure can be planned with confidence along the inland navigable waterways (Swan and Canning Rivers) of central Perth.

For vessels \leq 7.5 metres, the number of registered vessels is forecast to increase generally in line with population growth, from 23.54 vessels per thousand population in 2018 to 25.51 vessels per thousand population by 2036.

For vessels $>$ 7.5 metres, the number of registered vessels is forecast to increase generally in line with population growth, from 3.06 vessels per thousand population in 2018 to 3.30 vessels per thousand population by 2036.

Forecast additional boating facilities requirements in 2036:

Boat Ramp lanes

- Northern sector boat registrations \leq 7.5 metres = 8
- Southern sector boat registrations \leq 7.5 metres = 10

Mooring Installations

- Northern Sector boat registrations $>$ 7.5 metres = 1,200
- Southern Sector boat registrations $>$ 7.5 metres = 1,150

Total

- Boat Ramp Lanes = 18
- Mooring installations = 2,350

Recommendations

This Study has predicted growth in the boating fleet and subsequent demand for recreational boating facilities across the Perth Metro area. 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.

Planning for new public facilities to serve recreational boating is focussed on sites along the ocean shores of Metropolitan Perth being redeveloped or expanded. However, some recommendations recognise that there is a need to also provide facilities at new sites. The availability of suitable sites along the coast remains a challenge for facility providers and regulators when planning for growth. New developments along the shores of the Swan and Canning Rivers, while welcome, have not been relied upon.

The following table provides a list of development options for recreational boating facilities in the Perth Metro area.

Managing Authority	Location	Development Options
DoT	Two Rocks Boat Harbour	<ul style="list-style-type: none">• 350 additional boat pens• 2 additional boat ramp lanes.• 200 bay boat-stacker
TBD	Eglinton Marina	<ul style="list-style-type: none">• 2 boat ramp lanes• 150 boat pens
State Government	Ocean Reef Marina	<ul style="list-style-type: none">• 500 boat pens• 4 additional boat ramp lanes• 200 bay boat-stacker
DoT	Fremantle Fishing Boat Harbour	<ul style="list-style-type: none">• 100 additional boat pens
City of Cockburn	Port Coogee	<ul style="list-style-type: none">• 150 additional boat pens
DoT	Woodman Point Recreational Boating Precinct	<ul style="list-style-type: none">• 300 bay boat-stacker• 300 boat pens
Private	Port Rockingham	<ul style="list-style-type: none">• New marina with 500 boat pens
TBD	Southern Sector Boat Launching Facilities	<ul style="list-style-type: none">• 8 boat ramp lanes

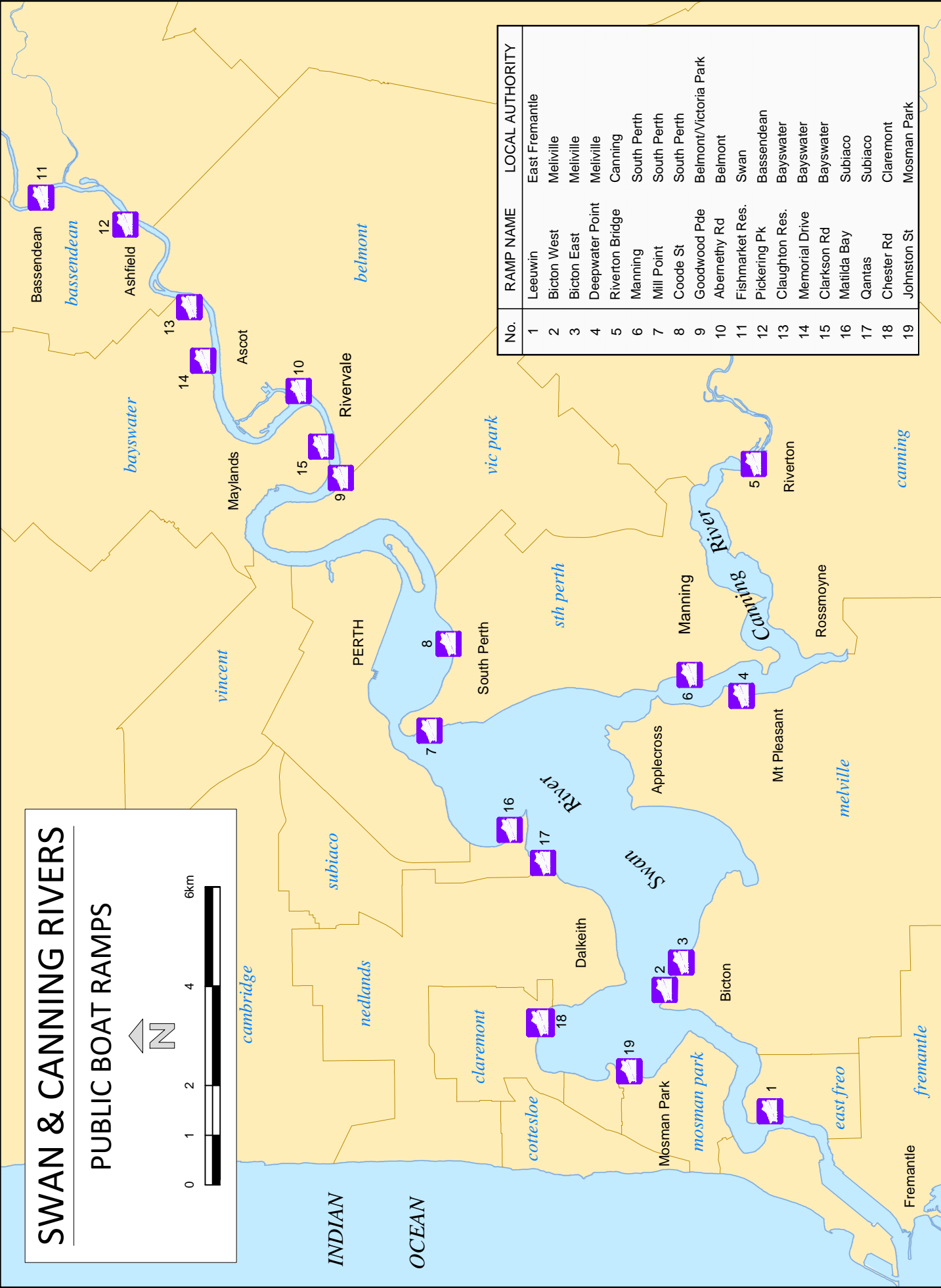
North Coast Existing Facilities



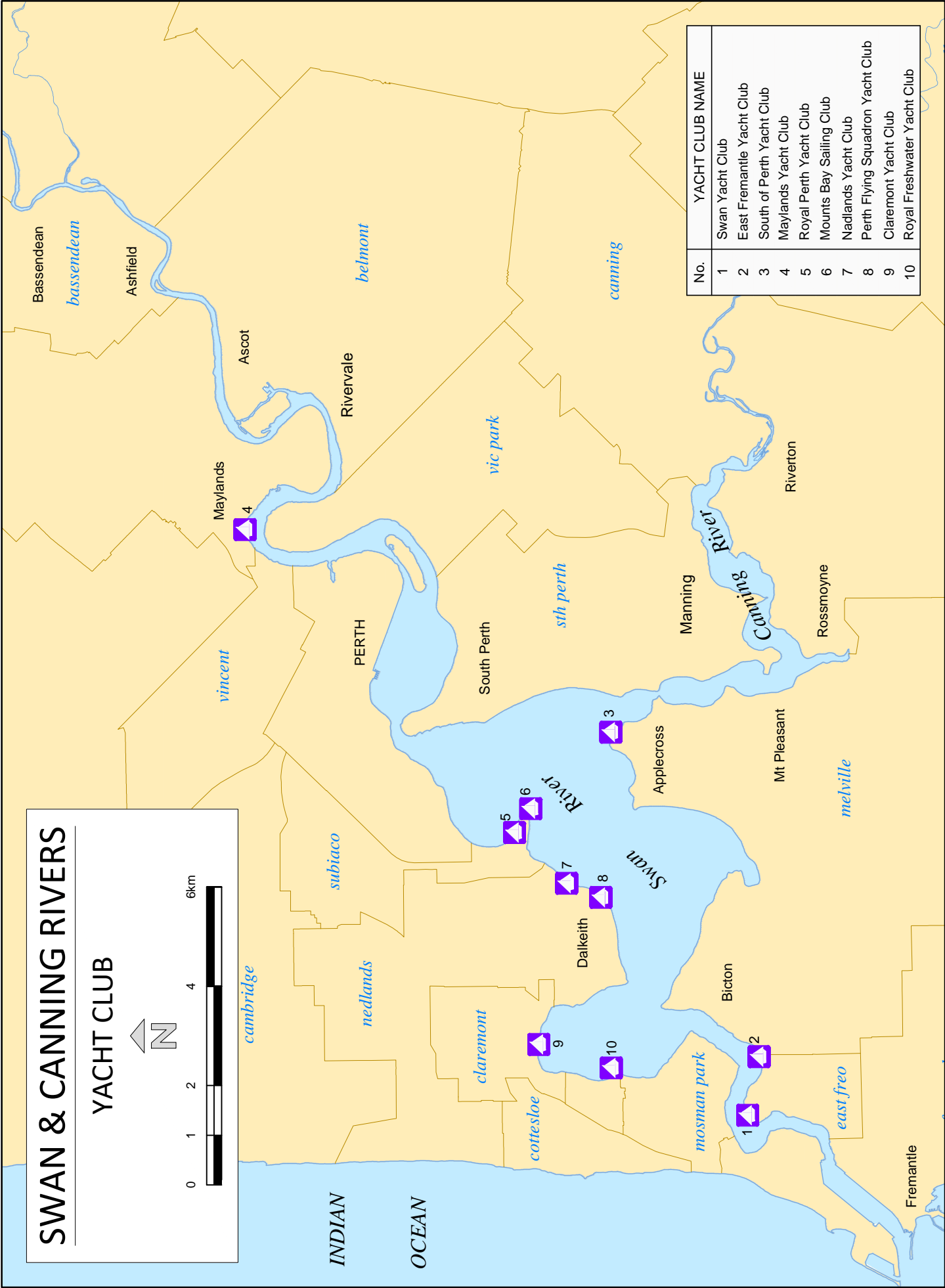
South Coast Existing Facilities



Public Boat Ramps



Yacht Clubs



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