



Department of  
Transport

# Peel Region Recreational Boating Facilities Study Review 2020



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*Front cover photo: Mandurah Estuary  
Inside cover photo: Mandurah Ocean Marina*

# Introduction

This document is a Review of the Peel Recreational Boating Facilities Study 2010 published by Department of Transport Maritime in 2010. The Review is being undertaken to update the 2010 Study and inform forward planning for recreational boating facilities and identify the need for new and improved recreational boating facilities in the Peel Region.

For the purposes of this Review the Peel Region is defined by the Local Government Areas (LGAs) of Mandurah, Murray and Waroona. The Peel region is one of the most popular recreational boating environments in Western Australia and comprises of the waterways of the Peel Inlet, Harvey Estuary, Murray and Serpentine Rivers, Dawesville Channel, extensive canal estates and adjacent coastal waters.

## 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 Review 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 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.

The Review examines the growth in the local fleet of registered vessels to the end of 2019 and forecasts future growth based on average boat ownership growth rates and population projections for each of the LGAs.

For determining boat ramp requirements, boating facilities with a classification rating of less than three 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 and will assist with satisfying future demand for boat ramp lanes. 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 the 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 an 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 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.

# Current Situation

To determine the current situation existing facilities have been considered satisfactory in condition and suitable for operational requirements.

The Peel Region has 24 boating facilities however only 18 are considered class level 3 and above.

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 '2019 snapshot' of the registered recreational vessels for each LGA and the corresponding population.

Local Government Area	Population 2019(Es- timated)	Recreational Boating Registrations 2019		Vessels / 1,000
		0 – 7.5m	> 7.5m	
Mandurah	86,474	6,832	646	86
Murray	17,911	2,134	157	128
Waroona	4,212	335	9	82
<b>TOTAL</b>	<b>108,597</b>	<b>9,301</b>	<b>812</b>	<b>93</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.

The 2010 Study used an analysis of where trailer boats were coming from and revealed that under peak boating conditions only approximately 5 per cent of local vessels were likely to be in use and approximately 50 per cent of the boats being launched were non-local. This represents a total of 10 per cent of boats in use on a good boating day, 5 per cent locals and 5 per cent non-locals.

## Boat Ramp

- 5% of local boat registrations  $\leq$  7.5 metres = 465
- Visitors = 465
- Total boat users = 930

To determine boat ramp requirements, 35 boat users per ramp lane has been used in accordance with AS3962-2020 Marina design (30 to 40 trailer parking bays is the recommended number required for each boat ramp lane at an urban facility with a boat holding structure).

## Mooring Installations

- Local boat registrations  $>$  7.5 metres = 812
- Transient visitors (5% of 812) = 41
- Total = 853

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 the number of boat ramp lanes and mooring installations meets the current demand.



# 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 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	> 7.5m	Growth	
Mandurah	9,686	2,854	1,097	451	84
Murray	3,033	899	243	86	140
Waroona	428	93	19	10	91
<b>TOTAL</b>	<b>13,147</b>	<b>3,846</b>	<b>1,359</b>	<b>547</b>	<b>92</b>

The number of registered recreational boats in the Region is predicted to increase to 14,506 (13,147 + 1,359) by the end of 2036. This represents an increase of 43% over the period 2019 to 2036.

Forecast boating facilities requirements in 2036:

## Boat Ramp

- 5% of local boat registrations ≤ 7.5 metres = 657
- Visitors = 657
- Total boat users = 1,315

## Mooring Installations

- Local boat registrations > 7.5 metres = 1,359
- Transient visitors (5% of 1,359) = 68
- Total mooring installations required = 1,427

A comparison of the forecast demand for boating requirements against the current capacity of the existing facilities indicate there is a requirement for an additional 10 boat ramp lanes and 547 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.

Managing Authority	Development Options
<b>Mandurah</b>	Support the City of Mandurah's Foreshore Focus 2020 Vision marina development proposals, subject to appropriate environmental and engineering studies being completed.
	Support the development of short stay boating facilities in Mandjar Bay subject to community support and resolution of design constraints including adequate water depth.
	Investigate opportunities for the development of an additional boat launching facility adjacent to the Harvey Estuary on the south east side of the Dawesville Channel.
	Support the City of Mandurah to undertake a review of the Peel Harvey Estuary Foreshore to understand where future opportunities may arise to locate new boat ramp channels
<b>Murray</b>	Establish and promote additional short stay moorings and berths at key destination points.
	Investigate opportunities to utilise the site adjacent to the South Yunderup bund wall dredge spoil area and opposite Wellya Crescent for the development of a new regional boat launching facility.
	Support the Shire of Murray's investigation into an alternative site for the North Yunderup (Culeenup Road) boat ramp.
	Investigate berthing arrangements at Wharf Cove, Murray Lakes.
	Evaluate options to upgrade the Birchmont and Herron Point boat launching facilities.
<b>Waroona</b>	Establish short stay and overnight mooring facilities in the Murray River for use by recreational boats and houseboats, at appropriate locations. Install extra mooring facilities in the Murray River.
	Support the Shire of Waroona to undertake a strategic site evaluation and audit investigation into boat launching facilities.
<b>DoT</b>	Encourage the upgrade of existing boat launching facilities via the installation of related ancillary amenities and services such as universal access pontoons, improved parking and other facilities generally supported by the DoT's Recreational Boating Facilities Scheme.
	Encourage existing facilities in the Peel region to be developed to their full potential before new facility proposals are pursued at nearby locations.
<b>All</b>	Include beach landing and launching areas when appropriate, adjacent to existing formal boat launching facilities for use by non-powered craft.
	Create a publication/s identifying short stay facilities and destination points within the Peel region to promote tourism and recreational opportunities. Such facilities would provide further boating alternatives to activities such as fishing and crabbing.



*Photo: Mandurah Bridge*



# Map. Location of boat ramps



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