Two Rocks Marina Reference Group

Workshop ‘A & B’ Summary of Proceedings
Table

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<th>Version No.</th>
<th>Date</th>
<th>Prepared by</th>
<th>Revision or issue description</th>
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<td>0</td>
<td>15/12/2018</td>
<td>A Kelderman</td>
<td>For Web Publishing</td>
<td>C. Verwey</td>
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Introduction

The Department of Transport (DoT) took on the direct management of the Two Rocks Marina facility in 2014 following the expiry of a lease with a private operator. Over the following 2 years a number of studies and investigations were complete to better understand the status of the facility, and a ramp upgrade and new pontoon was complete in 2016 in consultation with the local community and City of Wanneroo.

In September 2017 the Minister for Transport announced that Two Rocks Marina will receive a $6 million revamp to improve ageing infrastructure and prepare the facility for future needs. Improvements are designed to address ageing infrastructure, improve safety and provide a foundation for future redevelopment opportunities. Some of these works are already complete.

In addition to the immediate upgrade works, the Minister announced that stakeholder and community engagement would commence to consider the long-term vision for the facility, with a view to creating sustained local jobs.

A Stakeholder Reference Group was formed and held its first meeting on 4 April 2018.

After initial meetings to present background information and seek feedback, stakeholders were invited to participate in two workshops to develop concepts for the long-term vision. The workshops were held on September 26, 2018 and November 14, 2018.

Purpose of this Report

This document provides a Summary of Proceedings of both workshops (Workshop ‘A’ & “B’) held at the Phil Renkin Recreation Centre on September 26, 2018 and November 14, 2018 in Two Rocks.

Agenda

The Two Rocks Marina Workshop ‘A’ comprised the following agenda items:

1. Welcome, Acknowledgment of Country and Introductions
2. Presentation – marina design requirements
3. Presentation – stakeholders priorities
4. Design Activity 1 – conceptual layouts
5. Design Activity 1 presentations
6. Design Activity 2 – review, refine, redesign
7. Design Activity 2 presentations
8. Design Feedback
9. Visioning
10. Instructions for the Masterplanner
11. Next steps, evaluation and close
The Two Rocks Marina Workshop ‘B’ comprised the following agenda items:

1. Welcome, Acknowledgment of Country and Introductions
2. Overview of next steps for consultation with the broader community
3. Long Term Planning - follow up to Workshop A
4. Long Term Planning Wrap Up
5. Design Activity – Redevelopment of the Existing Marina - conceptual layouts
6. Design Activity presentations
7. Feedback/discussion on engagement
8. Quick wins and short-term priorities
9. Other Elements
10. Next steps and close

**Attendees**

The participants of the workshop are members of the Two Rocks Marina Reference Group. Other personnel were in attendance to provide technical support, as noted. Attendees are listed in Table 1 and Table 2 for Workshop A and Workshop B respectively.
Table 1 Workshop Attendees Workshop A – September 26 2018

<table>
<thead>
<tr>
<th>Participants</th>
<th>Support</th>
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<tbody>
<tr>
<td>Mayor Tracey Roberts (City of Wanneroo)</td>
<td>Corey Verwey Director Maritime Planning (Department of Transport)</td>
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<tr>
<td>Councillor Natalie Sangalli (City of Wanneroo)</td>
<td>Anna Kelderman, Urban Planner (Department of Transport - Contractor)</td>
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<tr>
<td>Donna West (Department of Transport)</td>
<td>Stephen Smith, Marine Planner (Department of Transport - Contractor)</td>
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<tr>
<td>Fangjun Li (Department of Transport)</td>
<td>Justin Todd, Project Manager (Department of Transport - Contractor)</td>
</tr>
<tr>
<td>Mat Selby (Department of Planning, Lands and Heritage)</td>
<td>Claire Paddison (Elton Consulting)</td>
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<tr>
<td>Roy Winslow (City of Wanneroo)</td>
<td>Scott Davies (Hassell Limited)</td>
</tr>
<tr>
<td>Mick Bowra (Business Representative)</td>
<td>Anthony Brookfield (Hassell Limited)</td>
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<tr>
<td>Commodore Dana Quiesser (Sun City Yacht Club)</td>
<td>Tenaha Wilson (City of Wanneroo)</td>
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<tr>
<td>Brad Lynton (Community Representative)</td>
<td>Trent Hunt (MP Rogers)</td>
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<td>Elydia Regan (Two Rocks Beach Action Group)</td>
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<td>John Young (Business Representative)</td>
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<td>Nick Perrignon (Business Representative)</td>
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<td>Jenny Butler (Community Representative)</td>
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<tr>
<td>Michael Bower (Business Representative)</td>
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<tr>
<td>Bill White (Two Rocks Volunteer Marine Sea Rescue)</td>
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Apologies were received from Mark Weir (Business Representative).
Table 2 Workshop Attendees Workshop B – November 14 2018

<table>
<thead>
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<tr>
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<td>Mark Weir (Business Representative)</td>
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Summary of Proceedings – Workshop ‘A’

Inputs

Priorities

Since the date of the announced upgrade works in 2017, DoT has been monitoring feedback regarding the short and long-term expectations of the community for the marina. Feedback has been provided in both formal (i.e. through the Reference Group) and informal (i.e. from the Information Session and from social media) channels. DoT continues to monitor and review feedback received from these channels.

To prepare for the Workshop, DoT summarised all of the feedback received via formal and informal channels into a series of ‘priorities’ for the redevelopment of the marina. These priorities help DoT to identify the absolute non-negotiable, the highly desirable and the nice-to-have elements of the marina in the future development, and will enable the prioritisation of funding into the future.

The list of priorities is attached to this Report at Appendix A.

Position Papers

To verify the priorities identified in the previous section, DoT requested that each workshop participant complete a Position Paper that would confirm and clarify their position. These position papers were compared with the Priorities document and amendments made where necessary.

The Position Papers received are compiled and attached to this Report at Appendix B.

Land Use Reference Document

To support workshop participant’s understanding of relevant land area requirements, DoT prepared a document which provides several comparison land use areas at different boat harbours. This reference document includes approximate comparison areas for restaurants/bars, yacht clubs, boat stackers, industrial areas, public amenities and aquaculture facilities. The reference document provides the number of pens provided at comparison facilities, and describes relevant car parking standards for a variety of uses.

The reference document is attached to this Report at Appendix C.

Marine Reference Document

To support the workshop participant’s understanding of relevant marine and marine land area requirements, DoT prepared a document which describes key design and engineering requirements in marinas. The document describes requirements for navigation and water depths, boat pens, service wharf/jetty and fuel facilities, boat lifter and yard areas, boat launching ramps, buildings, services and other requirements such as vehicle access, conflicts of use and contamination management.

The reference document is attached to this Report at Appendix D.
Welcome and Introductions

At the commencement of the workshop, participants were welcomed and an acknowledgement of country was made. New attendees were introduced to the group with a brief description of their role and various technical expertise.

It was noted that the master planning consultants, Hassell Limited, were in attendance predominantly to observe and listen, with the exception of a brief presentation of their first impressions of the site.

Purpose

Claire Paddision further invited discussion on the purpose of the Workshop, which was stated as:

Workshop A – To develop the long-term vision for the Two Rocks Marina to provide for the future growth/needs of the population… Think Future

After a brief discussion all attendees agreed with the purpose of the workshop as written.

Attendees were also invited to consider key numbers relevant to the master planning exercise including:

Two Rocks in 20 Years
- Has grown from 4,500 people to 21,000, with more than 7,000 dwellings
- Alkimos and Yanchep to the south will be well developed
- New train stations will be developed to Yanchep and Alkimos, with better bus services

Two Rocks in 50 Years
- Has grown from 4,500 people to 142,000, with more than 45,000 dwellings
- Wanneroo will be over 500,000 people (increase of 370,000)
- Light rail, buses etc will extend north of Yanchep
- Approximately 6,400 people will walk, ride or access the coast between Yanchep and Two Rocks per day
- Approximately 40,000 tertiary and TAFE students will be educated in the area

Presentation – marina design requirements

Technical leads provided a brief description of key design requirements that participants should consider when looking at design concepts. Plans were provided in A0 scale in order to discuss the requirements in a relatively informal setting. The plans are attached to this Report at Appendix E and reproduced in this section where relevant.

The following is a brief summary of the information provided:

Coastal Considerations

A brief description of coastal design consideration was provided by Trent Hunt. Of focus was the seagrass wrack to the south and the erosion to the north, in addition to the general design considerations of the marina entrance.

Ideal management of the seagrass wrack was described as a realigned southern breakwater towards the southern most rock. This would provide improved weed bypassing in the area. It is likely that this would result in the northern most rock being located within the marina, either in the water or as part of a dry land feature.
Through questions and answers (Q&A) alternatives were discussed including the bubble curtain being trialled at Jurien Bay Boat Harbour entrance as well as direct management by removal of the weed. It was noted that the bubble curtain would be unlikely to work in the environment due to the strong waves and lack of protection from strong south and south-westely wind patterns. Removal of weed was discussed as an option with ongoing costs associated. Over time that may result in greater costs than a new breakwater.

Ideal management of the erosion issue was suggested as a northern expansion to the marina, which will have a beneficial impact on the properties on Sovereign Drive, essentially protecting those properties in the long term. Q&A identified that management of the erosion to the north would need to be cognisant of impacts along the coast beyond Sovereign Drive of any new breakwater. It was noted that erosion to the north of the marina is already significant. It was noted that an expansion of the main breakwater further to the north was likely to include and expanded harbour area in front of Sovereign Drive to capitalise on the breakwater investment.

Finally, Trent noted that the entrance mouth of the existing marina is a good configuration in the immediate location in terms of keeping the seagrass wrack out. It was suggested than any expansion to the north replicate that configuration as much as possible, and take advantage of good water depths in that location.

**Marine and Marine Landside Considerations**

A brief summary of marine and marine landside design was provided by Stephen Smith. The content of the summary was the subject of the reference document attached at Appendix D. Key observations included the expense associated with bedrock removal, the historical contamination within the marina and where suitable water depths exist for boating in the marina and surrounding water to the north.

Stephen noted that a service wharf/jetty within the naturally deeper water in the existing marina would allow access for yachts and power vessels, whilst the existing commercial precinct may restrict yacht access given presence of bedrock. Yachts also require access to a wharf/jetty for sullage pump out.

Within the expanded new marina, the existing north breakwater needs to be shortened to improve flushing (to result in good water quality). Shallow water areas were also identified as suitable places for reclamation and/or development, whilst deeper waters were identified as good locations for larger boats. Stephen noted that a significant area within the existing marina was very shallow and would not be considered suitable for boating, whilst typically the water body at the entrance of the marina would provide adequate boat turning area for large vessels (charter and ferry etc).

Stephen explained that depths of -3.0 or greater are highly desirable for boating, whilst depths of -1.5 to -3.0 are restricted to smaller powered boats and very limited yachts, and any area shallower than -1.5 are unsuitable for boating. These depths are reflected in Figure 1 by the green/blue colours (-3.0 or greater), yellow/orange colours (-1.5 to -3.0) and red colour (-1.5). Figure 1 shows the water contour depths (below sea level).
It was noted that expansion to the north could be staged (different cells) over time, and that it is most desirable to have the marine industrial areas removed from commercial/tourist activity. Some allowance may be required for construction access which could occur north of the marina so that trucks undertaking development don’t have to haul bulk materials through the existing marina or through established residential areas. This could be converted in the long term to an emergency access point, bicycle/pedestrian access, and/or ongoing coastal maintenance works access area after construction.

Road access to the south in accordance with the Town Centre Structure Plan is not considered overly suitable due to right angle turns required into the marina; future access along the existing Marcon/Jordan Street entrance will wide curve for boat trailers and large vehicles would be preferable.

Facilities Considerations

A brief summary of facility considerations was provided by Anna Kelderman on behalf of DoT Facilities Management. The main focus was on the separation of uses. Two examples were provided, being Fremantle and Hillarys boat harbours, which both provide good separation between land uses. Fremantle includes two land use zones which are ‘visitor/tourist waterfront activities’ and ‘marine industry’. Hillarys provides three: Southern (entertainment, food and beverage); eastern (recreation) and northern (marine industry).
The clear delineation of these zones allows for reduced conflicts in land use and is highly desirable.

Anna noted that marine industry development was often bounded by fencing which may be less attractive to tourism operations, and that careful separation of uses to avoid unsightly fences is desirable. Anna also provided a brief commentary on the ability to share car parking between uses within harbours. If design of car parking spaces can be such that different uses can take advantage on one car parking area, there may be a possibility of reducing overall parking for the marina (i.e. reciprocal uses).

During Q&A it was suggested that good placement of buildings could form the separation between public and industrial development rather than fences.

**Opportunities and Constraints – First Impressions**

Scott Davies of Hassell Limited provided a brief overview of their impressions of the site and the opportunities and constraints noted so far by the Masterplanning team.

Figure 2 replicates the plan shown by Hassell to describe the identified opportunities and constraints. This plan is also attached to this Report at Appendix E.

Scott noted the constraints of the weed wrack in the south and the erosion to the north of the existing marina, as well as some navigation constraints within the existing marina, notably in the area of pens A-E and at the end of the existing wharf area. A number of locations were noted as 'junction' points, where decision making was confusing for both pedestrian and vehicle movement, and where clashes between various users is already an issue. Entry signage was noted as non-existent or very poor, with limited connectivity to the marina apparent from the surrounding road network.

Large areas of ill-configured hard stand within the marina was also noted, with a recognition that future planning should seek to rationalise and improve hardstand areas.

Scott noted the walkability of the catchment, in particular the poor pedestrian connections, lack of shade and shelter, and the length of the walk to the new beach access stairs in the north. It was noted that the existing marina sits well within a 5-minute walk of the town centre and that there exists a potential strong connection along the future town centre main street to the marina edge, linking back to Charnwood Park and the Phil Renkin Recreation Centre.

Three key nodes were also identified as opportunities, with nodes identified at the southern end of the marina adjacent the main arrival point, as well as at the end of the new town centre main street and adjacent to the existing main steps down to the marina.

Level changes were also noted as an opportunity. To the north of the marina there is an approximate height difference of 10-13m between the properties fronting Sovereign Drive and the water level. It was suggested that this provides an opportunity for development at the lower level with limited impact on Sovereign Drive; specifically, that taller buildings or less visually attractive development could be shielded from views. Level changes from the existing town centre also afford an opportunity for maintaining views from atop the wall over any marina development.

Figure 3 illustrates the land contour (above sea level) showing how level changes could be utilised in masterplanning.
Presentation – priorities

Technical presentations were followed by a brief explanation of the priorities. Anna provided an overview of the three levels:

1. High/non-negotiable – these priorities are recognised by all parties as being critical to deliver in the final redevelopment of the marina. Some may be longer term requirements than others. A number are essential infrastructure requirements which would underpin large scale Government investment.

2. Highly desirable/common theme – these priorities are recognised by most parties as being very important to the long-term redevelopment of the marina and the economic vitality of Two Rocks. Most stakeholders have identified these in written submissions.

3. Nice-to-have/suggested – these priorities were suggested at least once by stakeholders. They represent ideas that could be supported in the marina if space permits and if funding was available.

Anna noted that the priorities should help guide concept design work.
Design Activity 1 – conceptual layouts

Claire Paddison provided instruction on Design Activity 1. Information available for the workshop activity included land and water contour plans, opportunities and constraints plans, the priorities and various handouts as well as templates for boat pens, car parking, boat storage and boat ramp areas.

Participants were coordinated in three groups, which each had a balance of representatives from the community, business, marina user groups and landowner interests. The City of Wanneroo and Department of Transport representatives were also dispersed between tables. Each group was invited to prepare a conceptual layout plan for the long-term development of the marina in light of the purpose of the Workshop (Workshop A – To develop the long-term vision for the Two Rocks Marina to provide for the future growth/needs of the population… Think Future).

The following summarises the concept designs and key discussion points from Design Activity 1, including the ensuing commentary and discussion with the technical experts, per group:

Table 1

Figure 4 is a duplication of the initial concept design from Table 1.

Table 1 described this concept as five key zones from north to south:

1. Beach/Recreation ('outside' the marina)
2. Recreation, water sports and internal beaches
3. Marina Town Centre
4. Fishing Industry and Servicing
5. Recreational boating (including stackers and the boat ramp)
Other key points:

- Breakwaters – the plan shows the southern breakwater extended northwards to establish a larger marina area. The breakwater includes a node at the end with suggested public art feature (King Neptune repetition). There is no new northern breakwater shown (although this was suggested verbally). Table 1 propose that the area south of the existing marina where seaweed collects be managed by the development of a combination of breakwater and jetty boardwalk with some kind of barrier underwater engineered to avoid seaweed build up, but allow natural water flow.

- Two Rocks – both rocks are shown as visible features of the plan.

- Beach – a beach is indicated in the area where these is currently a small spending beach near the existing ramps. This water area is noted as being used for recreation activities. A separate beach outside this breakwater is also shown within the boundary of the breakwater/boardwalk area.

- Boat Ramp – the boat ramp is shown at the northern most extents of the new marina layout with 6-8 ramps indicated.

- Commercial activity – the plan indicates a relationship between the town centre area and the fishing industry. This group described a local provenance opportunity with local sales of fresh fish off the boats, a fish market and café, links to fresh produce from Wanneroo's hinterlands to the east and cafes and restaurants. This group also described using the buildings of the fishing industry as the separation between uses rather than using fencing, with incorporated viewing windows into the industry area. In addition, this group suggested education and residential uses within the marina, providing a possible financial return to the Government if sold as green titled land. Tourism uses were highlighted by the group as a must have to bring greater employment and economic vibrancy to the area.

Technical discussion and Q&A:

- Scott noted that the design made good use of the change in levels to the north and provided a good link between the commercial activity in the town centre and the future marina; establishing a consolidated town centre. Scott also indicated that the southern recreation area would be highly desirable and made good sense to group lower intensity uses adjacent to the urban/residential zones expanding in the south.

- Trent suggested that the design details for the breakwater/boardwalk combination in the south would have to be carefully considered. Management of the coastal environment in this location bearing the brunt of the most significant weather, in addition to the weight of the seaweed, would need to be carefully managed.

- Fangjun Li noted that the location of the beach in the southern most area of the marina may have water quality issues due to the length of the expanded marina.

- Stephen noted that the breakwater alignment was well located to provide a larger water area for pens and other boating infrastructure and also that the plan showed good awareness of shallow water north of the existing marina as the basis for reclamation.
Table 2

Figure 5 is a duplication of the initial concept design from Table 2.

Table 2 initial concept design

Table 2 described this concept as five key zones from north to south:

1. Fun node (including public open space, a beach and boardwalk)
2. A small commercial area
3. Recreational boating including ramps
4. Working maritime industry area
5. Recreation (including an ocean pool north of a new breakwater)

Other key points:

- Breakwaters – the plan shows the southern breakwater extended south to support weed bypassing and northwards to establish a larger water body within the marina.
- Two Rocks – both rocks are expected to be features of the plan.
- Beach – a beach is indicated in the area slightly west of the existing spending beach along the breakwater adjacent a new boardwalk along the realigned breakwater. This area overlooks a large new pen system.
- Open Space – open space is shown in both the southern and northern area, recognising a need to provide rest and relation and connection for the community to the coastal environment and views. The location of the large public open space area in the south was proposed to provide a low intensity focal point for new high density residential development in the town centre and adjacent residential areas.
- Boat Ramp – the boat ramp is shown north of the existing breakwaters between the commercial area and servicing yards. Space for approximately 6 ramps is shown.
• Commercial activity – the plan as presented suggests a small commercial area in the existing marine services yard location.

Technical discussion and Q&A:

• Scott noted that the design made good use of the change in levels to the north. Scott also indicated that the southern recreation area would be highly desirable and made good sense to group lower intensity uses adjacent to the urban/residential zones expanding in the south.

• Fangjun Li noted that the location of the beach in the southern most area of the marina may have water quality issues due to the length of the expanded marina.

• Stephen noted that the breakwater alignment may need to push slightly further west to achieve a larger water area to provide for pens and other boating, and also noted that the design made good use of shallow water north of the existing marina for reclamation.

• Trent indicated that the ocean pool was a good idea, which might require quite a lot of protection. Detailed investigation would need to be undertaken.
Table 3

Figure 6 is a duplication of the initial concept design from Table 3.

Figure 6 Table 3 initial concept design

Table 3 described this concept as four key zones from north to south:

1. Fun/Recreational
2. Retail/Entertainment
3. Service Areas (including the boat ramp)
4. Commercial and charters/Rottnest Ferry

Other key points:

- Breakwaters – the plan shows the southern breakwater extended south to support weed bypassing and northwards to establish a larger water body within the marina.
- Two Rocks – both rocks are shown as visible features of the plan.
- Links – links to the town centre land along the new main street are shown.
- Beach – a beach is shown in the area where there is currently a small spending beach near the existing ramps. This water area is noted as being used for recreation activities.
- Boat Ramp – the boat ramp is shown immediately north of the existing northern breakwater.
- Commercial activity – the plan indicates reclamation north of the existing industry area to the northern breakwater, although this is not fully described.

Technical discussion and Q&A:

- Anthony noted that the
• Fangjun Li noted that the location of the beach in the southern most area of the marina may have water quality issues due to the length of the expanded marina. This would be exacerbated by the retention of the existing breakwaters as shown in the plan.
• Stephen noted that the breakwater alignment may need to push further west to achieve a larger water area to provide for pens and other boating.
Design Activity 2 – review, refine, redesign

The groups reviewed and refined their designs in response to the feedback provided and considering the designs of other groups. Groups were asked to formulate written key principles in their redesign, highlighting the values and priorities represented therein.

The following summarises the concept designs and written principles from Design Activity 2, including the ensuing commentary and discussion with the technical experts, per group:

Table 1

Figure 7 is a duplication of the refined concept design from Table 1.

Table 1 reiterated early design thinking with a few minor adjustments and refinements. Table 1 refined the southern end with a jetty boardwalk and natural ocean pool near a dry park including the large rock as a central feature. A beach was reiterated at the southern end of the existing marina, near pens and a boardwalk and park along the waters edge.

The existing marine industry area is illustrated as having a legible street network supporting superlot development of mixed use land (restaurants, cafes, accommodation) which is green titled to assist funding. Adjacent to the mixed use precinct is the fishing industry, integrating the marine and the industry with a receival market. Along the waterfront, Table 1 described a very strong linear edge with long views possible in most areas.

Beyond this location Table 1 identified boat stackers, lifters and ramps with adequate parking for 8 ramps. A Yacht Club and Sea Rescue building locate at the far north inside the new
breakwater, whilst the ocean pool concept is picked up and included north of the extended marina.

Table 1 provided the following written key principles:

- “Two Rocks Rock” - Keep as feature, potentially inside expanded harbour.
- Expand recreational area in southern portion to link with new city centre and housing.
- Commercial needs to expand - create space for more in northern sector.
- Fill/reclaim shallow portion of harbour and create large tourism/retail precinct - sale of available produce to include seafood and fresh produce.
- Create the “long walk through and around harbour and on seawall.”
- Create access to be legible and target arrival areas.
- Create a tourism industry from fishing industry.
- Seawall - walkway and fishing platforms.

Table 2

Figure 8 is a duplication of the refined concept design from Table 2.
Table 2 refined their concept by reiterating key design principles from Activity 1 and further expanding on the simple parkland and beach concept to the south, within a new breakwater and confirming a desire to include some small development near to the proposed beach to support a relaxed beachfront experience. Table 2 generally reiterated the need for adequate areas of ‘rest and relaxation’ parkland across the development, and in particular in the south and adjacent to the existing Pope Street entrance to the marina, overlooking the marina from elevation.

Table 2 also identified a marina town centre on the existing marine industry area, reclamation and inclusion of shops, kiosks, markets and short term accommodation. A fishing area provided an interface between the mixed use and industry areas, with spray shed, stacker and maintenance yard immediately to the north of the fishing industry location. Boat trailer parking and ramps (6) were identified north of the industry area with yacht club and sea rescue identified at the northern most location of an expanded marina. Table 2 retained the earlier ocean pool concept and added to it with adjacent kiosk and toilets.

Table 2 identified pathways through the entire site as important, and illustrated both an elevated path connection along Sovereign Drive and a lower pathway along the edge of the dune system.

Table 2 provided the following written key principles:

- Breakwater must be [to the] north.
- Shallow water allows for economic [cost] land fill.
- Boat pens need to be expanded where land can be created.
- Consolidate residential and parklands.
- Existing lifting yard to be a transition from residential to commercial- link to town centre.
- Fishing boats, working ship yard, recreational boat, working ship yard, recreational boats -> maintenance.
- Car/ and trailer parking.
- Seaweed wrack control.
- Boat ramps/ trailer at far north, combined with yacht club and sea rescue.
- Ocean pool.
- Design to protect residents from noise, odours etc.
- Something at the southern end with open space, backs to the wind.
- Bins along the breakwater- collected by the City of Wanneroo.
Table 3

Figure 9 is a duplication of the refined concept design from Table 3.

Table 3 reiterated early design thinking whilst providing clear variation and clarification. Table 3 also described a family friendly southern beach area within a modified breakwater and including a beach. The large rock is shown within water in the marina. The Yacht Club is shown as remaining in its current location.

Table 3 described the link with the town centre main street through an elevated lookout directly across the roadway. A mixed-use area is also shown in the existing industry area with tourist uses, short stay and commercial activity, although less reclamation is suggested; the southern edge of the existing breakwater is shown as being suitable for charters boats, whilst the end of the breakwater shows a bridge options going over the water body and connecting with the new western breakwater. The western breakwater shows several points where lookouts can be provided for recreation, viewing or fishing.

Conceptually Table 3 promotes the idea of a number of small coves with significant variation in the waters edge shown.

The northern expansion of the marina is shown as including a fishing industry interface, aquaculture facility and a commercial boating area, whilst the northern most area is shown as including the boat ramps and parking. Sea rescue is shown in the far north of the expanded harbour and public amenities, and ocean pool and pedestrian access from Sovereign Drive is shown on the outside of the marina.
Table 3 provided the following written key principles:

- Recreational boating pushed north to reduce conflict/ noise.
- Fish industry area sited near deep water and to allow for new facilities and infrastructure.
- Marina town centre, harmonisation of marina centre and fish industry to allow for tourism/ fish market.
- Watersports area, reduce conflict and allow new yacht club facilities.
- Recreation area, nice beach with resolution of seawrack.
- Town landmarks nearby maintain natural environment.
- Residential/ apartments/ short stay accommodation near marina centre to help fund marina developments.
- Walkability in all recreation and marina town centre.

Visioning

The participants were asked to provide a list of unique characteristics of Two Rocks that should be considered when preparing a vision for the future. Specifically, participants provided the following answers to the question, “What is unique about Two Rocks/the Marina?”

The following ideas were provided (also reflected in Figure 10)

- Think beyond standard engineering for seaweed issue
- Views of ocean
- History – Atlantis Marine Park
- Residential in Marina Town centre
- Blend Tourism and Fishing Industrial.
- Two Rocks was Peaceful
- Fishing industry
- History – Yacht Club
- Location Location Location!!!
- Tourist Activities – Dolphins, Zip Lines, Fishing Charters
- Fresh Produce and Fish Markets
- Blend Fishing Industry with Tourism
- Peaceful
- King Neptune, Statue at end of boardwalk
- Good surfing spots north and South
- Fishing platforms
- Elevated view
- Centre for Cray fishing
- Good spot for an overnight stay if heading north
- Features on main groyne
- Promenade
- Sculptures
- The Smell!!
- Community Values
- History- Americas cup, Alan bond, sculptures, wall, Neptune, Atlantis, Birdman Rally.
- The Smell!!
- Close to fresh produce growers and fishing could become focus points.
Options for a Vision for the marina will be drafted and shared with the Reference Group. Key words that reflect both the history of Two Rocks and the potential future include:

- Oceanside/ocean.
- Tourism.
- History.
- Marine/fishing/crayfishing.
- Fresh/local/natural.

**Instructions for the Masterplanner**

Participants were invited to provide any further direction they considered necessary for the masterplanner. The instructions given by the participants to the masterplanner are recorded verbatim and separated into themes.

**Recreation**

- Better kids area near the ramp at the marina.
- Accommodating the growth of children to the area for enjoying the ocean for all types of water sports.
• The future of yacht club for the greater benefit to the community.
• Creating a family friendly area to the south to include a beach area and a relaxing gardens & lawns- at the same time resolving the seaweed issue.
• Ocean pool sounds great.
• Definitely include ocean pool.

Development
• Respect historical sites (& views of). Integrate sites with future developments.
• Minimise impact on existing residents with noise, traffic etc.
• Create interface with existing local business.
• Get it done- the principles are well documented- translate it into long term vision and medium term solution.
• Be scaleable- design with the view of allowing a staged approach.
• Extending the marina wall to provide a concise boundary for the proposed development and at the same time addressing the erosion problem to the north.
• Extend groyne ASAP.
• Maintain public access.
• Extension to north- as far as possible.

Land Uses
• Creation of job & tourism opportunity.
• Education + training within marina & hospitality industries.
• Growth & establishment of aquaculture.
• Balanced integration of recreational, commercial & retail.
• Interface between fishing & tourism opportunities critical, inc short-stay.
• Economy- this has the opportunity to establish both a recreational hub and a fresh sustainable economy.
• Create a distinct tourism & entertainment food & beverage hub for the enjoyment of tourists and local residents alike.
• Separation of different zones.
• Make different zones work with other zones as necessary.
• Ensure balance & harmony for: tourism, residential (freehold sales), fishing industry.
• Make certain the energy spaces for unique tourism are 100% maximised- markets (fish & produce)- public art- photographic positions.
• Create linkage between zones.
• Public space to exist with commercial .
• Vessel storage on land & water.

Environmental Management
• Stop the seawrack.
• Sea wrack resolution important.
• Solve the seaweed issue.
• Prioritise seaweed removal problem & parkland replacement.
• Highest priority- reclamation of south to fix seagrass.

Other Comments
• No limitations.
• Two Rocks must be a destination that can compete against other marinas.
• Must engage communities imagination.
• A great balance of ideas and plans for the future.
• Green title funding for project.
• Ties to local producers important.
• To generate some funds to offset is a good plan e.g. selling freehold etc.
• Maintain contact with stakeholders.

Issues to Resolve

During the day participants were provided the opportunity to identify any other issues for resolution or for further queries. The following items were included for further resolution/analysis:

• Impact on surfing
• Flushing of harbour – beach
• Future of the dog beach
Summary of Proceedings – Workshop ‘B’

Inputs

The majority of inputs required for participants to attend Workshop ‘B’ were provided in advance of Workshop ‘A’. Participants were provided with the Summary of Proceedings of Workshop ‘A’ in advance of Workshop ‘B’ including those inputs.

In addition, Hassell Limited prepared three masterplan schemes for consideration in the Workshop. This was provided to participants and can be found in Figure 11-13.
Welcome and Introductions

At the commencement of the workshop, participants were welcomed and an acknowledgement of country was made. New attendees were introduced to the group with a brief description of their role and various technical expertise.

It was noted that the master planning consultants, Hassell Limited, were in attendance predominantly to observe and listen, with the exception of a brief presentation of preliminary schemes prepared.

Purpose

Claire Paddision, facilitator, invited discussion on the purpose of the Workshop, which was stated as:

Workshop B – To focus on the planning and design within the existing marina for the medium term (5-20 years) (to help guide short term development and business cases for funding).

Attendees agreed with the purpose of the workshop as written.

Overview of next steps

Anna Kelderman provided a brief overview of next steps, with a particular focus on the community engagement task proposed in early 2019. The steps presented include:

1. Refine long term masterplan schemes (refine to two concepts)
2. Prepare medium term development options (immediate to 20 years)
3. Upload the minutes of Reference Group Meeting No. 4 and the summary of workshop ‘A’ to the Department of Transport website for sharing with the broader public
4. Undertake engagement with the broader community in early 2019. Two concepts will be presented which show different approaches to the long term marina vision, so that the community can provide feedback on a number of different elements that can be interchangeable.
5. Refine plans and produce final masterplan concept.

Supporting Community Engagement

With regard to the proposed community engagement to be undertaken in early 2019, participants were invited to provide feedback on the most suitable approach to engaging with the broader community, as well as how they might be willing to be involved. The following inputs were provided.

- Make sure the engagement addresses the local and wider community, e.g. Two Rocks, Yanchep and the broader area, as this marina is a regional facility
- Face-to-face is good, supported by online engagement
- Make sure the key messages are clear and that the Reference Group can also carry these messages forward
- Important to demonstrate the planning and design process – show the timeline and progress made so far and what efforts were taken to get to the advertised concepts
- Suggest a roadshow, piggy-backing on existing events.

The City of Wanneroo identified recent projects which allowed for easy communication of ideas and visions and which have worked well. The City indicated that support would be provided to communicate events and also to provide venues if available.
Other participants offered space in their business (windows etc) and suggested locations where the community often goes to obtain information for displaying information (the tavern, the bottle shop, the real estate agents/land sales offices). It was suggested that existing social media should also be utilised.

Participants suggested that the following information should be provided on the plans for clarity:

- 400m walking zone shown on the plan as it illustrates the scale;
- No of boat pens in each concept should be relatively accurate;
- Timing of development (potential) should be shown to best link community expectation with existing funding; and
- Information about current funding options/advocacy opportunities.

Figure 14 illustrates the written outcomes of this activity.

Figure 14 Supporting the engagement activities
Long Term Planning

Presentation of Schemes

Scott Davies of Hassell Limited provided a brief overview of the masterplan schemes prepared as an outcome of Workshop ‘A’. As a general rule, Scott noted that the central core precinct had a very consistent treatment and that variables were more focused on design outcomes in this location rather than activities/land uses.

Several questions were asked of the overall response to the masterplan as follows:

Pens – in general do the schemes have similar pen yields?

It was noted that due to layout the number of pens was varied and somewhere between 350 and 550. Detailed design of these areas will improve the efficiency of this but some layouts do result in a loss of useable water space.

Seagrass wrack – all schemes show a similar alignment of the southern breakwater. Does the new alignment result in some wrack trapping as well?

Advice was provided that a significant amount of research had gone in to the optimal alignment of the southern breakwater and that the shown location of the breakwater was the best possible for bypassing wrack. Some ongoing accretion of sand will also improve this over time.

It was clarified that the Western Australian coast was prone to seagrass movement which changes throughout the year and in different weather conditions. The new alignment will significantly reduce seagrass wrack because it allows for better natural bypassing, but no solution will completely remove the seagrass wrack that is naturally occurring. Some seagrass build-up will always occur.

Beaches – is the beach in the south likely to flush properly, and is the beach in the centre of the masterplan a suitable location?

Fangjun Li indicated that the southern most beach area would still require some investigation but that early modelling suggested flushing could be adequate in the summer period (thereby resulting in suitable water quality for swimming). Autumn (April and May) flushing may be less suitable. The location of the rock in the water may have a negative impact on flushing and water quality, and would need to be investigated.

With regard to the central beach, it was noted that this located showed adequate flushing in both winter and summer periods, depending on the design. Flushing in this location would be improved by angling the beach more toward the mouth of the new marina allowing for water running up onto the beach. This will also improve the maintenance of the beach shape in this location over time.

The least suitable location for flushing was identified just inside the mouth of the long term expansion, where the northern breakwater limits the movement of water.

Southern breakwater/boardwalk hybrid

Trent Hunt provided a brief summary of the work being completed by MP Rogers to consider the boardwalk hybrid option which was suggested at Workshop ‘A’. In summary, it was suggested that the proposal is risky from a number of perspectives, including cost and maintenance, which are untested and unknown.

Preliminary analysis suggested that the alternative structure would be significantly more expensive to construct than a rubble-mount breakwater, requiring pedestrian safety.
management and high cost of maintenance. The suitability of the structure, and the resulting water quality and/or amenity was likely to be negative compared to the known impacts of a breakwater.

Activity – Participants’ feedback on Schemes

Participants were coordinated in three groups and each group was assigned a scheme each to consider and rate/provide feedback on the scheme using sticky dots and post it notes. Approximately 10 minutes was allowed per scheme, before moving onto the next scheme and reviewing feedback. Groups were invited to identify any differences in rating or feedback. The City of Wanneroo and Department of Transport representatives were also dispersed between groups.

The following was used to differentiate feedback:

- Red dot / post it – the design element strongly opposed;
- Orange dot / post it - some concerns with design element;
- Green dot / blue post it – design element strongly supported.

Post-its were used to provide clarity of the concern/opportunity so that consideration could be given to redesign if the general element was supported.

Scheme 1

In summarising their feedback, group 1 provided the following notes (acknowledging that not all groups fully agreed with this position):

- Prefer the boat ramp and the maritime industry area flipped
- The yacht club area is too small
- Preferred rock in water which could allows for recreation like sailing races and swimming races around rock
- Really like the central area – the central beach as a community hub is strongly supported
- Short stay with mixed use below is supported

The broader group noted that the maritime industry and boat ramp zone was supported (in the north), but many different positions were held as to which of these uses should be the northernmost facility. Participants could see merit in both options, although all participants felt that the ramps being to the north regardless of location would provide better reciprocity of overflow parking areas. The maritime industry close to the commercial hub could support the focus on the active fishing industry.

Pathways were reiterated as being very important and roads were highlighted as having to include pedestrian and cyclist access.

Participants also acknowledged that the previous desire to including the crayfish receivals in the midst of the commercial and retail area may not be practical. Notwithstanding, the central area in Scheme 1 was supported as the parking area appears to be better wrapped by buildings which will improve the visual amenity.

It was noted that if the yacht club is in the south, a beach would be desirable in order to continue dinghy sailing.

Figure 15 illustrates the feedback provided by the whole group on Scheme 1. This figure is recreated in Appendix G for greater clarity.
In summarising their feedback, group 2 provided the following notes (acknowledging that not all groups fully agreed with this position):

- Prefer Sea Rescue in the north near the boat ramps
- Like the boat ramp/parking in the north but move the actual ramps farthest north to allow for reciprocal parking.
- Cray receivals should be moved to the northern side of the beach; try to integrate the public viewing of the crayfishing activity, without it being smelly within the commercial area.
- Prefer the yacht club in the south near the beach.
- Really like the beach style, if it includes the boardwalk from Scheme 1 and face it more northwards to improve flushing etc.
- The pool is a little bit unnecessary if the beach is right next door – takes a lot of space which could be used for other things, but would be a really good attractor if combined with other activities.

Again, all participants supported the maritime industry and boat ramp zone in the north, with differing view on which one furthest north. Long-long-term expansion (beyond 50-60 years) would provide either the ramps of the maritime industry area with room to grow.

All participants reiterated the support for the central hub with beach, mixed use, retail and short stay/accommodation. Participants supported the orientation of buildings toward the water in Scheme 2.

An ocean pool continues to be desired in the north of the marina, with parking included, although the need for an ocean pool in the north, a beach in the centre, a beach in the south and a pool in the south was recognized as being excessive.

The bridge across the marina was identified as being a challenge, with the height for clearance and the practicalities of the construction perhaps resulting in an expensive and difficult construction. Nevertheless, the idea of walkable circuits was supported.

Dinghy sailing was identified as desirable in the existing marina waters.

Figure 16 illustrates the feedback provided by the whole group on Scheme 2. This figure is recreated in Appendix H for greater clarity.
Figure 16 Scheme 2 Feedback
Scheme 3

In summarising their feedback, group 3 provided the following notes (acknowledging that not all groups fully agreed with this position)

- Love the ocean pool and more parking and amenities
- Plan has good circulation
- Prefer to see the sea rescue at the boat ramp location
- Preference for the rock in water as there are risks with bird nesting and the rock being impacted by feral animals. Also, safety issues and environmental issues associated with people climbing on the rock.
- Prefer the yacht club in the south
- The bridge over the water in centre is not viable
- Include some fishing platforms along the water and bins etc

It was noted that the ocean pool in the north was noted as both highly supported and highly opposed. The concept of the ocean pool was questioned for its viability. However, all participants noted that it would be a very good feature in the long term.

The maritime industry/boat ramp ‘flip’ was highlighted again, as was the rock-in/rock-out of water element. Participants noted that with the rock in the water there is less land to the south for other uses, whilst the rock out of the water could create a feature park that would highlight the name of Two Rocks.
The absence of the beach in the centre was noted, and participants generally agreed that a well designed beach in the centre of the masterplan was supported.
The commercial area was supported in this plan with the parking well wrapped.

Figure 17 illustrates the feedback provided by the whole group on Scheme 3. This figure is recreated in Appendix I for greater clarity.
Figure 17 Scheme 3 Feedback
Additional feedback

Prior to the meeting, Reference Group members Brad Lynton, Jenny Butler and John Young collaborated to provide their feedback after a shared discussion. Basing the feedback on Scheme 2, the following summarises their feedback:

- Include the ocean pool in the north
- Support a fair-weather yacht zone outside of the marina to the north and relocate the yacht club to the northern expansion of the marina
- Use the length of the large breakwater to support fishing stations, bins etc
- Boat ramps and parking to the north, with ramps abutting the norther breakwater
- Commercial fishing, boat pens and crayfish receivals north of the beach, with a consolidated receivals, market, office space and restaurant building
- Include a boardwalk along the western edge of the central beach
- Additional parking throughout
- Yachting zone adjacent to the beach for poor weather
- Include the pedestrian bridge
- Utilise all available water frontage in the commercial area to take advantage of views
- Community playground in the south

The plan provided by this group is recreated in Appendix J for greater clarity.

Summary

Whilst there were certainly elements that were contested (the boat ramp/maritime industry configuration and the rock-in/rock-out of water discussion), there was broad agreement on several key elements, including:

- The northern extension should include the boat ramps and maritime industry area
- The central hub including commercial, retail, mixed use and short stay area, similar the southern side of Hillarys Boat Harbour, is supported
- A central beach is well supported subject to including a boardwalk element
- A southern breakwater expansion will have a positive impact on the seagrass wrack and is supported
- Improved waterfront access, paths, seating, shelter, toilets, fish cleaning, bins and places to recreate are highly desirable, including cyclist facilities and viewing areas

Hassel and the project team will use the feedback on the schemes to develop two concepts that can be used for engaging with the broader community. These concepts will be presented to the Reference Group in December.
Design Activity 3 – Redevelopment of the Existing Marina - conceptual layouts

Claire Paddison provided instruction on the Design Activity for the Redevelopment of the Existing Marina. Information available for the workshop activity included land and water contour plans, opportunities and constraints plans, the priorities and various handouts.

Participants were coordinated in three groups, which each had a balance of representatives from the community, business, marina user groups and landowner interests. The City of Wanneroo and Department of Transport representatives were also dispersed between tables. Each group was invited to prepare a conceptual layout plan for the short to medium-term development of the marina in light of the purpose of the Workshop (Workshop B – To focus on the planning and design within the existing marina for the medium term (5-20 years) (to help guide short term development and business cases for funding).

Some discussion ensued about the timeframe of this plan, with several participants proposing that to consider redevelopment of the existing marina as a 20-year plan was not optimistic i.e. that the masterplan vision being prepared should be a 20 year plan and therefore the redevelopment of the existing marina is a 5 year plan.

Participants were advised to consider the exercise as a stage in delivering the long term vision, and to consider what reasonable steps should be taken in the near term.

The following summarises the concept designs and key discussion points from the Design Activity, including the ensuing commentary and discussion per group:

Group 1

Group 1 provided the following recommendations for the short to medium term:

- Extend breakwater- would like to do asap but expensive
- Improve beach in the south
- Café and ablutions in the south somewhere – could be with Recreational Boating Facilities Scheme (RBFS) funding
- Kids learn to sail area remain
- Boat ramp remains until longer term vision
- Water use conflicts to be considered
- Boat pen expansion
- Intersecting public pathways
- Penholder ablutions
- Lifter- will relocate but in long-term
- Possible relocation of VSR
- Demolish buildings A and B
- Depot
- Reclaim area to include additional tourism retail (to be urban designed)
- Tourism as per long term plan
- Boat pen parking in/adjacent to the reclaimed area
- Boat lifter area changes size but not overall area - gains Building A footprint - loses corner area
- Red hashed items are immediate and green hashed items are 5 years (subject to funding)

Figure 18 illustrates the feedback provided by Group 1.
Figure 18 Group 1 concept design
Group 2

Group 2 provided the following recommendations for the short to medium term:

- **Priority elements:**
  - Demolition of Building A and B
  - New building for receivals and for some tourist activity – just one building. Don’t spend money on the existing space – improve efficiency of business
  - Road and entry landscape
  - Support market stalls or similar
  - If there is funding available; study the southern breakwater

- **Secondary elements:**
  - Whole masterplan costed
  - EPA study
  - Marine study
  - Harbour reserve boundary review to support long term masterplan
  - Space for café in the south including parking, parklands, improved road layout

Group 2 also considered the financial viability of the project without any form of income and identified that some freehold land may off-set the cost of the marina expansion and better support the business case for redevelopment. Group 2 highlighted land to the east of the southern expansion and some land to the east in the north expansion as suitable for residential or mixed use development to provide income in return for improvements to the marina.

Figure 19 illustrates the feedback provided by Group 2.

*Figure 19  Group 2 concept design*
Group 3

Group 3 provided the following recommendations for the short to medium term:

- Keep the marine industry operating
  - Ensure it’s the best functioning marine precinct for industry
  - Upgrade buildings to make safe
  - Investigate fencing to give public access
- Landscaped/ shade/ lookout zone – along entry way near Sovereign Drive
- Working zone (first priority for refurb) – in the existing boat storage overflow area
- Food van locations – above the existing boat overflow area
- Ablution/ shower building – in the southern area
- Boat wash down and fish cleaning – in the southern area
- Additional pens in the existing water body – with a retained yacht zone for as long as possible
- Shade, bins, public domain improvements

Group 3 suggested that the hashed area should be reclaimed for commercial zone, relocating existing marine industry and boat storage area to the reclaimed location and allowing for other commercial activities to be undertaken in the existing boat storage overflow area. The area could be utilised for short term activities.

Figure 20 illustrates the feedback provided by Group 3.
Feedback/discussion on engagement

A further discussion was held regarding the engagement to be undertaken in 2019. Some participants suggested advertising one plan rather than two concepts, to avoid the risk of community concern over the rock being shown on dry land. It was suggested that this would be highly contentious. However, as the Terms of Reference did not identify the reference Group as a decision-making body, it was considered that this would unnecessarily limit the input of the broader community. It was agreed that two concepts would be advertised.

Notwithstanding, further input into information that should accompany the advertising phase as Frequently Asked Questions (FAQs) was suggested, as follows:

- Length of beach in the option (and comparison to others, e.g.Hillarys)
- Breakwater extension rationale including mitigation of erosion in northern beach for Sovereign Drive residents and mitigation of seagrass accumulation in the south
- Acknowledge that mitigation of erosion for Sovereign Drive by extending the breakwater will likely result in a similar erosion effect to the north
- Acknowledge that the seagrass won’t completely disappear
- Acknowledge that water quality for swimming would need to be investigated
- Identify the potential height of proposed buildings
- Identify proposed options for long term dinghy sailing
- Discuss the potential impact on surfing
- Acknowledge the future of the dog beach/impacts
- Acknowledging that an MRS amendment will be required to resolve issues of Bush Forever land
- Clarity around the importance and growth potential of the commercial fishing industry, including information about the boat stacking and lifting yards

Quick wins and short-term priorities

Claire Paddision invited discussion on short term ideas that could be quick wins for the community. The following feedback was provided:

- WIFI
- Eco-friendly seating, bins
- Terraces
- Ablutions/public toilets
- Public art
- Some way of telling the history of marina
- Fish cleaning stations
- Landscape entry statement and improvements in front of wall
- Shade zone
- Actual footpaths
- Support public transport
- Café – temporary is also ok
- Demolish buildings and build new building- shed style
- Footpaths into marina

One group also offered a compromise on the rock, suggesting the rock could be on land but incorporated into a recycled water splash zone around the base of the rock.
It was also suggested that developing business cases for elements within the short, medium and long term plan should be a priority, underpinned by environmental impact assessment and approvals and planning and land tenure approvals.

**Other elements**

As a result of the short to medium term planning exercise, Claire Paddision invited discussion on any elements that the participants felt needed to be reconsidered in the long-term masterplan. The following were identified:

- Residential development to the south (and north) should be shown. Participants felt that this idea has merit and could be included in the masterplan, and would provide a necessary financial support for some expensive coastal infrastructure – potentially delivering on the masterplan sooner rather than later.
- Coastal adaptation to the north. A need to acknowledge that based on the State Coastal Planning Policy SPP2.6 the City has adopted a planned-retreat strategy for erosion management in this area. As show in the CHRMAP part 1 document (Page 172, by 2050 Sovereign Drive will be vulnerable to coastal erosion. [http://www.wanneroo.wa.gov.au/downloads/file/2138/coastal_hazard_risk_management_adaptation_plan_-_part_1_large_file](http://www.wanneroo.wa.gov.au/downloads/file/2138/coastal_hazard_risk_management_adaptation_plan_-_part_1_large_file))
- There is a need to undertake a more technical design of the waterways which may include T-shaped jetty for wharf structures etc, boat stacking land area, lifter yard areas, pen layout etc
- There is a need to further engage with the yacht club and clarify the long-term planning with them
Summary

Next steps

Anna provided a summary of next steps during Workshop B, as follows:

1. Refine long term masterplan schemes (refine to two concepts)
2. Prepare medium term development options (immediate to 20 years)
3. Upload the minutes of Reference Group Meeting No. 4 and the summary of workshop ‘B’ to the Department of Transport website for sharing with the broader public
4. Undertake engagement with the broader community in early 2019. Two concepts will be presented which show different approaches to the long term marina vision, so that the community can provide feedback on a number of different elements that can be interchangeable.
5. Refine plans and produce final masterplan concept.

It is anticipated that community consultation will occur in early 2019.

Evaluation and close

To conclude Workshop ‘A’ (for improvement of Workshop ‘B’) participants were invited to provide any further feedback and to complete evaluation of the event. A number of comments made referred to the Stakeholder Priorities document and changes which were requested have been made (see Appendix B).

A full summary of the evaluation is included in Appendix F.
Appendix A – Stakeholder Priorities
## Two Rocks Marina Reference group Workshop ‘A’

### Design Priorities

**September 26, 2018**

<table>
<thead>
<tr>
<th>General Zone – Maritime Industry</th>
<th>High/Non-negotiable</th>
<th>Highly desirable/common theme</th>
<th>Nice-to-have/suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adequate car parking</td>
<td>Ability for public to see industry</td>
<td>Re-use buildings <em>if feasible</em></td>
</tr>
<tr>
<td></td>
<td>Improved access/entry</td>
<td>New commercial spaces/opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>Aquaculture facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boat stacking facility: approximately 60 boats* or 200 boats#</td>
<td>Deeper water and/or dredging – depth - 3.0m (preferred -3.5m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boat lifter yard: approximately 1-1.2ha* or 2ha#</td>
<td>Charter berths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spray shed area</td>
<td>Ferry terminal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Separation of public, charter and commercial fishing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crayfish receivals depots</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fuel Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Service wharf/jetty</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remove old buildings/hazardous materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retain fishing industry – find opportunities for interaction with visitors and fresh local sales</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Redevelopment within the existing marina

# As part of an expanded marina
<table>
<thead>
<tr>
<th>General Zone – Rec Boating</th>
<th>High/Non-negotiable</th>
<th>Highly desirable/common theme</th>
<th>Nice-to-have/suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ 250 pens* or ~600 pens# with pen holder amenities (public access toilets)</td>
<td>Fish cleaning areas</td>
<td>Seating</td>
<td></td>
</tr>
<tr>
<td>Adequate car parking</td>
<td>Rubbish bins</td>
<td>Ferry berth (for Rottnest)</td>
<td></td>
</tr>
<tr>
<td>Yacht Club space, defined water area</td>
<td>Enlarged water area</td>
<td>Yacht Club pens</td>
<td></td>
</tr>
<tr>
<td>Volunteer Marine Sea Rescue</td>
<td>Wash down area</td>
<td>Yacht Club - covered storage</td>
<td></td>
</tr>
<tr>
<td>4 launching ramps, 160 car trailer parking bays* or 8 launching ramps 320 car trailer parking bays#</td>
<td>Universal access berth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacement of old jetties (A-E) and East-Link</td>
<td>Toilet blocks</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Berths for short stay visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yacht Club adjacent to launching area</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dolphin tours/charters</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Zone – F&amp;B Ent</th>
<th>High/Non-negotiable</th>
<th>Highly desirable/common theme</th>
<th>Nice-to-have/suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full integration between the Centre and marina</td>
<td>Viewing fish/crayfish process</td>
<td>Interactive classrooms</td>
<td></td>
</tr>
<tr>
<td>Cafes/Restaurants/Micro brewery</td>
<td>Accommodation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market stalls/food trucks (local provenance)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism activities/infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Redevelopment within the existing marina  
# As part of an expanded marina
### General Zone – Public Space

<table>
<thead>
<tr>
<th>High/Non-negotiable</th>
<th>Highly desirable/common theme</th>
<th>Nice-to-have/suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public open space, landscaped, shaded areas</td>
<td>Toilet blocks</td>
<td>Bus parking</td>
</tr>
<tr>
<td>Maximise safe public access along majority of waterfront</td>
<td>Swimming beach, toilets and changerooms</td>
<td>Relaxation and enjoyment (not too big/busy)</td>
</tr>
<tr>
<td>All-age appropriate</td>
<td>Ocean Pool</td>
<td>Playgrounds</td>
</tr>
<tr>
<td>Footpaths and cycle paths throughout</td>
<td></td>
<td>Water Sports</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other design req’s</th>
<th>High/Non-negotiable</th>
<th>Highly desirable/common theme</th>
<th>Nice-to-have/suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand transport managed</td>
<td>Harbour water/land ratio 50:50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weed bypassing managed</td>
<td>Minimal bedrock removal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion managed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services to jetties/general upgrade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakwater repair* and extend/expand#</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well designed harbour entrance at about -4.5m and breakwater alignment along -4.0m to -5.0m range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navigation aids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste oil and recycling management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase marina boundaries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job creation/economic improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Redevelopment within the existing marina
# As part of an expanded marina
Appendix B – Stakeholder Position Papers
What is your overriding objective for the Marina (what would be your ‘Vision’ Statement?)

My vision for the Two Rocks Marina would be to create a combined recreational and commercial marina. One that focuses on the balanced integration of these elements to provide a financially viable Marina that would benefit the community of Western Australia.

What do you consider the essential principles and infrastructure elements of the existing marina?

As listed on DOT’s position paper.

Thinking about the immediate opportunity (0-3 years), what are the vital (non-negotiable) elements to be delivered within the scope of the $3.3 million balance funds?

1. Consolidation of a Master Plan to work to.
2. New Commercial Building/s to facilitate efficient commercial operations.
3. Safe removal of asbestos from contaminated premises.
4. Consideration for renovation/recreational repurposing of existing buildings rather than demolition. (If cost effective and can generate income for DoT)
5. Introduction of Recreational/Tourism infrastructure to encourage business investment, jobs, and tourism.
7. Render all poor maintenance and failing infrastructure issues rectified.

Thinking about the immediate opportunity (0-3 years), what would it be nice-to-have delivered within scope of the $3.3 million balance funds?

1. Redefine Marina Boundaries to increase useable land area.
2. Management of wrack accumulation to the South.
3. Management of beach Erosion to the North.
4. Public Ablutions/Changerooms for recreational boat users and members of the public.
5. Progress towards completion of Masterplan.

Thinking about the medium term (3-20 years), what are the vital elements to be delivered in the redevelopment of the existing marina?

1. Redefine Marina boundaries to increase useable land area.
2. Introduction of Recreational/Tourism infrastructure to encourage business investment, jobs, and tourism as per Masterplan
3. Resolution of wrack accumulation to the South as per Masterplan.
4. Resolution of beach Erosion to the North as per Masterplan.
5. All accesses to the Marina upgraded as per Masterplan.
6. Public Ablutions/Changerooms for recreational boat users and members of the public as per Masterplan.
7. Increase in boat pens to increase revenue as per Masterplan.
8. Investment into infrastructure as per Masterplan
9. Encouragement of Tourism Business IE Rotto Ferry/Whale Watching/Dive Charters.)
10. Significant traction in the progress to the completion of the Masterplan.

Thinking about medium term (3-20 years), what would be nice-to-have delivered in the development of the existing marina?

1. Full completion of the Masterplan.

Thinking about the term vision (20-50 years), what do you expect to be provided in the redevelopment and/or expansion of the existing marina?

1. I believe 20-50 years is an unreasonable timeframe.
2. In the event 20 years was not enough time.........Full completion of the Masterplan.
TWO ROCKS MARINA MASTERPLAN WORKSHOP
Position Paper

These papers will be compiled and shared amongst the Reference Group Members in addition to all the previously received and summarised feedback.

Representative: Elysia Regan

What is your overriding objective for the Marina (what would be your 'Vision' Statement?)
A working Marina with access for locals + tourists.
Active + passive recreation areas: Swimming, Fishing, boating, locking, shopping, eating & learning.

What do you consider the essential principles and infrastructure elements of the harbour?
Confining essential buildings + infrastructure,
Leaving space to do above,
Leaving as much Harbour Water as possible
No water Reclamation. This is a small Harbour!

Thinking about the immediate opportunity (0-3 years), what are the vital (non-negotiable) elements to be delivered within the scope of the $3.3 million balance funds?
See member plans for sea weed removal, wave break re-arrangement of boats + rays, fish areas. Not coastal erosion north of Marina. Vital + non-negotiable as part of part extension of Marina. See maps, ASHP

Thinking about the immediate opportunity (0-3 years), what would it be nice-to-have delivered within the scope of the $3.3 million balance funds?
Only essential Marine development; sea weed removal for sorting, re-arrangement of north Marina, entry + pens. (no reclamation). Some extension of North Groyne area + main Groyne, 250m to alleviate erosion of Northern Beach.
Nice to have: - Ocean pool in new protected beach area.
Thinking about the medium term (3-20 years), what are the vital (non-negotiable) elements to be delivered in the redevelopment of the existing marina?

Definitely, non-negotiable is erosion protection north of Marina, but -

No commercial for Marine Workshops (trucks) on
A class reserve in front of Sovereign Drive.

Beach; Ocean Pool; hang gliding (as at present)
Passive recreation with access from groyne,
Vulnerable dunes protected and sand re-nourishment

Thinking about the medium term (3-20 years), what would it be nice-to-have delivered in the redevelopment of the existing marina?

Existing car park (north); walkways, BBQs, shade swings
On slope from Sovereign Drive to carpark; (passive) views
Charter fishing; access to North Beach (ocean pool)
Cray boat + Cray fishing tours and Crayboat rides;
Fish & Chips and/or other outlets

Don't make marina too busy or too commercial, more relaxing with groyne walks and fishing.
We do not need another Hills. Boat Harbour.
We can be smaller and more restful.

Thinking about the term vision (20-50 years), what do you expect to be provided in the redevelopment and/or expansion of the existing marina?

Development to take Marina 100 metres further will
Protect dunes, beach and make it safe.
Ocean Pool will attract tourists (see video of Blouberg SA)
Some commercial cafes, restaurants, souvenirs, tours, etc.
Initial erosion protection will allow further development.
A bike path from the North groyne to existing stairs
will facilitate the 800m beach walk, return by
path. Shopping centre could increase to cater for
more people, plus accommodation etc.
Two Rocks Marina Reference Group Meeting 1

Date       April 4 2018
Time       6:30pm
Location   The Pickled Herring, Two Rocks Shopping Centre
Members
Chair: Mayor Tracey Roberts (City of Wanneroo)
Councillor Natalie Sangalli (City of Wanneroo)
Donna West (Department of Transport)
Ellena Bromwell (Department of Transport)
Mat Selby (Department of Planning, Lands and Heritage)
Emille Van Heyningen (City of Wanneroo administration)
Mick Bowra (Business Representative)
Commodore Wayne Hartas (Sun City Yacht Club)
Brad Lynton (Community Representative)
Mark Weir (Business Representative)
Elysia Regan (Two Rocks Beach Action Group)
John Young (Business Representative)
Nick Perignon (Business Representative)
Jenny Butler (Community Representative)

Observers/ Presenters
Stephen Smith (Department of Transport)
Rory Ellyard (City of Wanneroo)
Anna Kelderman (Department of Transport)

Apologies
Bill White (Two Rocks Volunteer Marine Sea Rescue)
## Minutes

<table>
<thead>
<tr>
<th>Discussion</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Welcome/Introductions</strong></td>
<td>NA</td>
</tr>
<tr>
<td>Each member provided a brief introduction of themselves, including any group they are attending on behalf of</td>
<td></td>
</tr>
<tr>
<td><strong>Terms of Reference</strong></td>
<td></td>
</tr>
<tr>
<td>The Draft Terms of Reference were endorsed with one minor amendment to a position title. The final Terms of Reference are attached to these minutes.</td>
<td></td>
</tr>
<tr>
<td><strong>Two Rocks Marina History</strong></td>
<td></td>
</tr>
<tr>
<td>A brief discussion about the history of the marina took place with many members adding to historical details based on local knowledge.</td>
<td></td>
</tr>
<tr>
<td><strong>Public Information Session Overview</strong></td>
<td></td>
</tr>
<tr>
<td>Donna West provided a brief summary of the Public Information Session, including a summary of key areas of interest/key themes that were discussed on the evening.</td>
<td>Add investigation of plaque to action list.</td>
</tr>
<tr>
<td>A further discussion ensued based on the history of the area and its relationship with the America's Cup. Anecdotal advice was provided indicating that a plaque or similar is located somewhere within one of the existing buildings which identifies historical details. It was agreed that whilst the buildings themselves did not carry any great historical value, the retention of such a plaque would be important. DoT committed to seeking out the plaque if its exists.</td>
<td></td>
</tr>
<tr>
<td><strong>Status $6 Million Upgrade</strong></td>
<td>DoT to provide greater detail on the purpose and need for the reclamation area at Reference Group Meeting 2</td>
</tr>
<tr>
<td>Stephen Smith presented an update on the status of the current $6 million upgrade.</td>
<td>DoT to undertake additional design review for proposed reclamation areas</td>
</tr>
<tr>
<td>A discussion ensued regarding the need for the reclamation area within the proposed $6 million upgrade. Members sought clarification that the reclamation area was the best use of current funds, that it would not negatively impact on future development of the harbour, and sought better explanation regarding the need for that area.</td>
<td>DoT to provide a presentation of planning process to date, including studies and</td>
</tr>
<tr>
<td>A request was made for DoT to provide an undertaking not to proceed with any reclamation contracts until a masterplanning exercise has been undertaken.</td>
<td></td>
</tr>
<tr>
<td>A request was made for DoT to provide a detailed breakdown of the</td>
<td></td>
</tr>
</tbody>
</table>
cost items in the 6M budget. A request was made for DoT to table all plans prepared to date at the next meeting.

<table>
<thead>
<tr>
<th>Modern Boat Harbours Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donna West and Stephen Smith presented an overview of types of harbours, facilities that are necessary within harbours, and facilities that are desirable or 'nice to have'. A discussion ensued about the ration of land and water in a good harbour area and what the needs of business as well as the need of the community may be.</td>
</tr>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Redevelopment - Constraints, Opportunities, Issues, Desirables – Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Chair led an open brainstorm of the opportunities, constraints, issues and desirable outcomes for the Two Rocks Marina. Feedback received includes (as written by members):</td>
</tr>
<tr>
<td><strong>Issues/Constraints:</strong></td>
</tr>
<tr>
<td>- Key concern: Create a masterplan [no existing masterplan ✅ means this work could be undermining future plans]</td>
</tr>
<tr>
<td>- Seaweed management – the seaweed smell is not good for ✅ visitors, tourists or local residents and won’t be good for any further development of the old Atlantis Village area.</td>
</tr>
<tr>
<td>- Removal of seaweed! ✔</td>
</tr>
<tr>
<td>- Erosion issues more urgent than some marina improvement ✔ ✔</td>
</tr>
<tr>
<td>- Future funding ✔</td>
</tr>
<tr>
<td>- Boating demands ✔</td>
</tr>
<tr>
<td>- Marina Depths ✔</td>
</tr>
<tr>
<td>- Phasing/timing of demolition &gt; use funds to build new buildings ✔</td>
</tr>
<tr>
<td>- Backfilling water area ✗</td>
</tr>
<tr>
<td>o Loss of jetty space ✗</td>
</tr>
<tr>
<td>o Cost and timing versus other priorities? ✓do not take away</td>
</tr>
<tr>
<td>- No land [not enough existing land in harbour] ✗</td>
</tr>
<tr>
<td>- Public access ✔</td>
</tr>
<tr>
<td>- Environmental issues ✔</td>
</tr>
<tr>
<td>- Competition with Hillarys and Ocean Reef</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities/Desirables</th>
</tr>
</thead>
<tbody>
<tr>
<td>(NB: these are grouped in areas of high consensus)</td>
</tr>
<tr>
<td>A working marina (strongly supported by members during discussion)</td>
</tr>
<tr>
<td>- Maintain crayfishing industry/boat maintenance ✔</td>
</tr>
<tr>
<td>- Boat stacker ✗</td>
</tr>
<tr>
<td>- Fuelling ✔</td>
</tr>
<tr>
<td>- Marine Commercial ✔</td>
</tr>
<tr>
<td>- Processing catch, active fishing, boat catch processing ✔</td>
</tr>
<tr>
<td>- Working marina ✔</td>
</tr>
</tbody>
</table>
• Interesting working marina/tourists
• Job creation and employment
• Boat launching facilities
• Commercial opportunities to purchase produce/equipment
• Job Creation

Target tourism opportunities (strongly supported by members during discussion also)

• Tourism ✓
• Tourism > iconic ✓
• Tourism (local business/employment opportunities) ✓
• Marina – go to place for local community and visitors to area (working/recreational) ✓
• Dolphin and Marine tours facility ? ✓
• Tourism businesses ✓
• Focus on tourism
  o Restaurants ✓
  o Bars ✓
  o Micro-brewery ?
  o Shopping ✓
• Café/toilets etc – fish and chips (tourists) ✓
• Water sports ?
• Ocean activities
  o Charters ✓
  o Beach sports ✓
• Ferry services to Rotto ?
• Redevelop current area where buildings are located
  o Accommodation ?
  o Shops ✓
  o Restaurants ✓
  o Move boat pens nearby ✓

Swimming beach (mentioned repeatedly by members during discussion also)

• Safe swimming beach ✓
• Create swimming areas where boat launching is now ?
• Safe swimming area within marina ?
• Swimming beach ✓
• Local swimming area ✓
• Ocean pool incorporated in erosion plan for north of marina ✓

This will obsolete mannus swim beach (safe)

Public access for all (strongly supported by members during discussion also)

• Access for all to (sic) as much as possible ✓
• Public access ✓
• Close public access to water (get public right up there) ✓
• Easy access to/passive surveillance/interaction ✓
• Public space ✓
• Parkland with BBQ areas ✓
• Recreational, fishing and passive ✓
• Road access/safe pedestrian access ✓
General/Community benefits

- Extend the marina wall northwards
  - Helps with correcting erosion
  - Move commercial activities further north
- Minimal conflict between users
- Residential needs:
  - Boat stackers
  - Fish cleaning station
  - Public toilets
  - Beach
  - Shade
  - Access to views and activities
- Playgrounds
- Interactive classrooms
- Get rid of all unsightly buildings
- Do not reclaim land for parking – use parking area to the north
- Remove all unsightly fences
- Develop a masterplan

Other comments that were not explicitly written down by members, but were discussed during the meeting included making the harbour suitable for all ages and accessibility levels, generally increasing the size of the marina and identifying that there is no need for residential as the adjacent market is already saturated and in close proximity with the old Atlantis (FJM Property) land adjacent.

Agenda setting Meeting 2

Members were invited to fill in an evaluation form to make recommendations for Reference Group Meeting 2 (RG2). Through the course of the meeting other suggestions were also raised and are agreed to be presented in the following meeting, as follows:

- Information regarding all existing approved structure plans for the surrounding area (City of Wanneroo)
- Plans and existing information including potential methods for improving current erosion and seaweed wrack issues (Department of Transport)
- Demographic Analysis of Wanneroo and immediate locality (City of Wanneroo)

DoT to liaise with CoW regarding inputs to RG2
DoT to prepare information regarding studies and investigations as they relate to design issues/challenges to RG2

Close

Action Register

<table>
<thead>
<tr>
<th>Item</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Plaque on wall in building A or B referencing Australia's Cup history</td>
<td>DoT to search and see if plaque can be found. Plaque to be kept as written history of area – potentially used as feature in future development</td>
</tr>
</tbody>
</table>
These paper’s will be compiled and shared amongst the Reference Group Members in addition to all the previously received and summarised feedback.

**Representative:** FINI GROUP (Michael Bower)

### What is your overriding objective for the Marina (what would be your ‘Vision’ Statement?)

Two Rocks Marina is designed with careful consideration to the existing Town Centre Structure Plan to deliver a working marina that integrates retail, recreation and commercial outcomes.

### What do you consider the essential principles and infrastructure elements of the harbour?

As per DoT summary

### Thinking about the immediate opportunity (0-3 years), what are the vital (non-negotiable) elements to be delivered within the scope of the $3.3 million balance funds?

- Completion of a staged master plan
- Repairs and maintenance as required
- Services investigation and upgrades
- Wrack management
- Redevelopment of facilities to allow continuation of commercial activates

### Thinking about the immediate opportunity (0-3 years), what would it be nice-to-have delivered within the scope of the $3.3 million balance funds?

As above

### Thinking about the medium term (3-20 years), what are the vital (non-negotiable) elements to be delivered in the redevelopment of the existing marina?

- Resolution of wrack accumulation
- Integration of the public access to the commercial fishermen operational areas, provide safe public viewing areas so the activities of the commercial fishing industry at the service wharf or service jetty can be seen by the public.
- Development of expandable retail space integrated with the commercial fishermen operational areas.
- Separation of public and commercial fishermen from the boat lifter yard
- Boat lifter yard of sufficient size to accommodate 30 – 35 vessels provided as a ground lease
- Expansion of boat launching facilities and recreational boat pens in line with public demand

Thinking about the medium term (3-20 years), what would it be nice-to-have delivered in the **redevelopment of the existing marina?**

As above

Thinking about the term vision (20-50 years), what do you expect to be provided in the **redevelopment and/or expansion of the existing marina?**

- Completion of a working marina that integrates, recreation, entertainment, retail and commercial activities into a vibrant precinct.
- Expansion of commercial and recreational boat pens and facilities as appropriate.
What is your overriding objective for the Marina
A marina that supports the community as a tourist attraction and provides employment and recreational activities whilst also highlighting and supporting the WA commercial fishing industry and associated service businesses eg boat maintenance, seafood processing

What do you consider the essential principles and infrastructure elements of the existing marina
As per DoT position paper

What are the vital elements to be delivered within the scope of the $3.3 million balance of funds
Demolition of Building B – I thought Group Meeting 4 had already approved this
Replacement of Building B – only if Master Plan already in place
Services investigation – already agreed to by Group Meeting 4
Essential services upgrade – dependent upon Services Investigation report
Master planning – Hassell
Instigate short term wrack management

What would be nice to have delivered within the scope of the $3.3 million balance of funds (0-3yrs)
Building A demolition and replacement
Negotiate with CoW for additional land to south and north of existing marina for increased marina land area
Provision of public toilets for visitors/boat launch users, benches, coffee/ice cream truck
Marina dredging
No reclamation within marina

What are the vital elements to be delivered in the redevelopment of the existing marina (3-20yrs)
Building A demolition and replacement or with buildings which fit into Master Plan
Management of wrack accumulation to south – dependent upon Master Plan
Management of beach erosion to north – dependent upon Master Plan
Upgrade of marina access roads to Sovereign Drive and Two Rocks Road
Western breakwater improvements – dependent upon Master Plan
Any jetty removal/replacement would depend upon Master Plan
Marina dredging and bedrock removal would depend upon Master Plan

What would be nice to have in the development of the existing marina (3-20yrs)
Increased overall size of the marina area
Lengthening of western breakwater
New northern breakwater further north to increase overall marina size
Commercial fishing operational area separate from public but visible
Boat lifter yard to accommodate up to 35 vessels separate from public
Public boat launching ramps (at least 4) to be situated away from area used by public visitors
Car parking for trailers for people using boat launching ramps
Toilet facilities each end of marina
Grass/play/park area for public visitors with bbqs
Café, small restaurant, gift shop
Safe public pathways around whole marina and breakwaters
Safe swimming beach
New yacht club rooms close to boat ramps
What do you expect to be provided in the redevelopment and/or expansion of the existing marina?

That the expanded marina can provide:

the amenities and services that are required by the commercial fishing fleet, boat lifting/maintenance business and pen holders for them to run their businesses in a professional and competent manner now and in the future;

the facilities that users of the boat launching ramps require; and

the amenities and services that visitors to Two Rocks Marina want and need are provided to make Two Rocks an enjoyable and interesting place to visit.
Government of Western Australia
Department of Transport

Coastal Infrastructure Business Unit

TWO ROCKS MARINA MASTERPLAN
WORKSHOP
Position Paper

These paper's will be compiled and shared amongst the Reference Group Members in addition to all the previously received and summarised feedback.

Representative: John Young

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What is your overriding objective for the Marina (what would be your 'Vision' Statement?)

A HIGH QUALITY FACILITY WHICH WILL ATTRACT TOURISTS THEREBY
CREATING COMMERCIAL OPPORTUNITIES AND MUCH NEEDED LOCAL
EMPLOYMENT.

What do you consider the essential principles and infrastructure elements of the harbour?

VERY MUCH IN LINE WITH THE D.O.T'S POSITION BUT WITH
EMPHASIS ON ADDRESSING THE EROSION PROBLEM TO THE NORTH
AND SEAWARD TO THE SOUTH.

Thinking about the immediate opportunity (0-3 years), what are the vital (non-negotiable) elements to be delivered within the scope of the $3.3 million balance funds?

FINALISING A MASTER PLAN, FORMULATION A PERMANENT
SOLUTION TO THE EROSION TO THE NORTH, CLEANING UP
THE SEAWARD, REMOVING ASBESTOS AND OLD BUILDINGS

Thinking about the immediate opportunity (0-3 years), what would it be nice-to-have delivered within the scope of the $3.3 million balance funds?

AS ABOVE
Thinking about the medium term (3-20 years), what are the vital (non-negotiable) elements to be delivered in the redevelopment of the existing marina?

**Establishing Two Distinct Precincts - Commercial Fishing Operations Moved to North Side of the North Crossing and A Tourism/Accommodation Business Within the Existing Marina Boundaries, Full Implementation of the Master Plan**

Thinking about the medium term (3-20 years), what would it be nice-to-have delivered in the redevelopment of the existing marina?

**Full Implementation of Master Plan**
**Complete Resolution of the Erosion Issues to the North**
**Completion of a Marina with Accommodation and Tourism Infrastructure**

Thinking about the term vision (20-50 years), what do you expect to be provided in the redevelopment and/or expansion of the existing marina?
These paper’s will be compiled and shared amongst the Reference Group Members in addition to all the previously received and summarised feedback.

Representative: __Nick Perrignon______________________________

<table>
<thead>
<tr>
<th>What is your overriding objective for the Marina (what would be your ‘Vision’ Statement?)</th>
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</thead>
<tbody>
<tr>
<td>To ensure we complete master planning and achieve both tourism growth and commercial fishing facilities of a high standard. To see Two Rocks marina become a jobs focussed operation that provides for new jobs in the tourism industry and servicing the fishing industry for the young people of Two Rocks. Make Two Rocks marina famous for being able to purchase fresh seafood straight from the boats, as well as a day trip focus for all marine tourism activities.</td>
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<tr>
<th>What do you consider the essential principles and infrastructure elements of the harbour?</th>
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<tbody>
<tr>
<td>To protect the internal water area for fishing boats and recreational boats, to respect the adjoining town centre plans and ensure that industrial fishing operations and tourism operations can exist in harmony with the town centre facilities. The groynes protecting the marina internal waters also have significant affect on sea weed accumulation to the south and erosion to the north, the management responsibility of the external affects must become part of the standard management responsibility of the marina operators. Essential infrastructure must include fuelling operations and boat sewer pump out facilities. Also essential are tourism booking offices, food and beverage facilities and enhancing the ability to sell fresh catch straight off the deck of fishing boats within the harbour.</td>
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<table>
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<tr>
<th>Thinking about the immediate opportunity (0-3 years), what are the vital (non-negotiable) elements to be delivered within the scope of the $3.3 million balance funds?</th>
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<tbody>
<tr>
<td>Write a strategic plan for the marina expansion and growth, to be coupled with the master planning document. Establish a business plan by State Government that maximises use of</td>
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</table>
the current facility and brings capital from private enterprise into the operation and expansion plans.

Fix sea weed accumulation problem and smell issue

Remove asbestos from buildings

Improve external arrival appearance, road access and streetscape/landscape

Establish at least one new multi-purpose building which accommodates space for the fishing industry, sea rescue and Harbour Master in mezzanine.

Thinking about the immediate opportunity (0-3 years), what would it be nice-to-have delivered within the scope of the $3.3 million balance funds?

New food and beverage facility within the marina area, and new fresh catch markets facility.

Thinking about the medium term (3-20 years), what are the vital (non-negotiable) elements to be delivered in the redevelopment of the existing marina?

Expand the ground area of the Government controlled land over adjoining Crown reserves.

Establish a private enterprise lease and development plan that facilitates growth of the marina facilities to be funded by private enterprise, allowing an experienced marina operator to establish new facilities, make a commercial return, carefully ensuring all marina maintenance is rigorously carried out, allowing a commercial operator to build and lease facilities including accommodation and boat stacking and marina pens, for a 50 year lease, upon conclusion all assets returned to the State of WA.

Extend the marina facility to the north, to allow for new facilities including multi lane boat ramps and boat stacking facilities, also short stay tourism accommodation on the north side of the new area. The short stay facility to be created on land established in the new marina area and allowed to be converted to green title to allow commercial development return to fund the marina expansion.

Establish a food and beverage precinct, alongside markets with fresh sea catch being sold direct to public. Establish a micro-brewery within the F&B precinct.

Build new sailing club facilities in the southern end and a new internal beach for sailing and public recreation, establish full parkland facilities with wind protection and sun shelters as well as BBQ facilities nearby the internal beach.

Thinking about the medium term (3-20 years), what would it be nice-to-have delivered in the redevelopment of the existing marina?

No point in “nice to have” over 20 years, get the strategic planning and master planning fundamentally established and make it all happen with private capital.
Thinking about the term vision (20-50 years), what do you expect to be provided in the redevelopment and/or expansion of the existing marina?

Follow the master planning documents and continuously adapt the business plan to maximise commercial success of the marina operation.
These paper's will be compiled and shared amongst the Reference Group Members in addition to all the previously received and summarised feedback.

**Representative:** Dana Queisser (Commodore – Sun City Yacht Club)

<table>
<thead>
<tr>
<th>What is your overriding objective for the Marina (what would be your 'Vision' Statement?)</th>
<th>Provide an integrated coastal hub for business and recreation; linking the community and visitors with the ocean via a safe harbour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What do you consider the essential principles and infrastructure elements of the harbour?</strong></td>
<td>The essential principal is that the Two Rocks marina is one of the very few engineered links north of Fremantle that provides refuge and access to the ocean for small boats</td>
</tr>
<tr>
<td>Essential Infrastructure elements are the seawall, boat pens, boat ramps, appropriate facilities for the yacht club and for marine rescue and provision of fuel, water and electricity and boat lifting together with hardstand area for repair, servicing and storage of boats</td>
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<tr>
<td><strong>Thinking about the immediate opportunity (0-3 years), what are the vital (non-negotiable) elements to be delivered within the scope of the $3.3 million balance funds?</strong></td>
<td>Functional and safe facilities eg, safe delivery of fuel, water and electricity to pens and docks. Safe pens in terms of getting on and off boats and structural integrity of the buildings, jetties and pens.</td>
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<tr>
<td>Removal or sealing-off of any hazardous materials, eg asbestos</td>
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<tr>
<td>Public toilets and changing rooms</td>
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<tr>
<td><strong>Thinking about the immediate opportunity (0-3 years), what would it be nice-to-have delivered within the scope of the $3.3 million balance funds?</strong></td>
<td>With only $3.3M – upgrading the current facilities to a reasonable standard, including old buildings, is probably optimistic. Nevertheless, improving the aesthetic would be a worthwhile aim with some landscaping which could include integration with public access toilets and changing rooms</td>
</tr>
</tbody>
</table>
Thinking about the medium term (3-20 years), what are the vital (non-negotiable) elements to be delivered in the redevelopment of the existing marina?

From the yacht club’s perspective, it’s essential in that time frame that the long term location of the club facilities are defined with regards to access to the water and safety of the users of those facilities and that a protected area of water is designated for dinghy sailing.

Also in that time frame, it’s essential that club facilities are redeveloped to accommodate much larger numbers than the current 50 person limit, for use by the club and other community groups, for functions and sporting activities.

Thinking about the medium term (3-20 years), what would it be nice-to-have delivered in the redevelopment of the existing marina?

Again largely from the yacht club’s perspective (see attached):

- Relocation of the club facilities to a position adjacent to the current club dinghy launching beach (removing the hazards associated with junior members in particular crossing a busy traffic thoroughfare).

- A large covered storage area for club and member boats

- Several club pens for a small keelboat for sailboat training and for a powerboat that can be used as a race start boat (and potentially double for use by a club fishing section)

- Docking and/or mooring for short term, eg, overnight stays, to encourage other groups that largely avoid Two Rocks at present, to call in, eg, offshore sailboat racing, coastal cruising boats

- All of the features described above, together with integration of the marina with adjacent businesses so that visitors, residents and commercial users move easily between local businesses (restaurants, cafés, taverns, retail outlets and so on), the marina (with restrictions on working areas), the yacht club and adjacent beaches. This should include features that encourage tourist ventures, sporting events and other recreational activities, (eg, publicly accessible docks and jetties, public spaces) while continuing to support the cray fishing industry and similar commercial activities (eg, crayfish tanks, workshops, a chandlery)

Thinking about the term vision (20-50 years), what do you expect to be provided in the redevelopment and/or expansion of the existing marina?

Expansion of the current marina to accommodate more boats and more activities and engineering to provide some protection for dinghy sailing, canoeing, small boats, etc, outside the marina
Sun City Yacht Club
Two Rocks, Western Australia

Club History

The Sun City Yacht Club was established in 1974 by a group of people dedicated to bringing the Americas Cup to Western Australia. Sea trials were held off Two Rocks for the yachts used to contest the cup - in 1977 the Sun City Yacht Club won the Americas Cup challenger series, the Thomas Lipton Cup and went on to race for the Americas Cup off Rhode Island, New York. The American defender, Courageous defeated the club's entry, Australia in a four race series.

The club is a family-oriented organisation that links the community with sailing and other water sports and activities; one of several kindred local organisations, including Two Rocks Marine Rescue and Yanchep Surf Life Saving Club.

Current Activities

Dinghy sail training and racing - The club is an accredited Discover Sailing Centre, offering Australian Sailing, Start Sailing 1 and 2 courses.
Keelboat sailing - sailing in company and twilight sails.
Scuba Diving – shore dives and dives from member boats.
Social Activities – the clubrooms are open on Friday evenings. There are monthly to bi-monthly social events as well as special events including wedding receptions, community fundraisers, etc.
Community Facilities - the clubrooms are currently used by a local yoga class and by a coffee club.

Future Expansion

The club will expand current programs and would like to add other programs, for example: Offer keelboat sail training courses, establish a fishing section and establish a canoeing section. There is the potential to support other coastal water sports such as kite surfing, wind surfing and paddle boarding. SCYC would also like to see the marina become a popular stop-off point for offshore sail racing and for cruising sailors.

Club Requirements for Current and Future Activities

An area to launch sailing dinghies and a ramp to launch the support power boats.
A safe sailing area that is administered by the club.
Pens for club owned boats, eg, for a small keelboat used for keelboat training and for a larger powerboat (eg, ex-cray) for club fishing.
Pens either owned and managed by SCYC for club members or leased to club members at a reduced rate.
Jetty space for short term (overnight) stays by boats affiliated with similar organisations.

Critical Issues

The Sun City Yacht Club is operating under a short term lease that ends on December 31\textsuperscript{st} 2019. For the club to expand or to justify maintenance or upgrades to current facilities, it needs to have a lease that continues at a reasonable rate but for a much longer period.
The current club location, separated from the water by parking and substantial traffic flow represents a hazard, particularly to junior members.
Functions in the current clubrooms are limited to 50 people and are often oversubscribed.
Club-owned dinghies are jammed into the current dinghy – storage area and there is no room to increase the number of club boats in storage or to provide storage for member’s dinghies.

Suggested Solutions

Provide a clear and concise plan that the club can work toward with DoT, developers and other groups.
Provide SCYC with a long term lease (at least 25 years and ideally 50 or more years) at a reasonable rate.
Relocate the club to a position adjacent to the water – a suggested location is shown in the following plans.
These paper’s will be compiled and shared amongst the Reference Group Members in addition to all the previously received and summarised feedback.

**Representative:** Department of Transport

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<tr>
<td>• Two Rocks Marina performs an important economic function to the Metropolitan Region as a key commercial fishing destination</td>
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<tr>
<td>• Two Rocks Marina is connected with the town centre as a vibrant and active coastal recreation and entertainment node</td>
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<td>• Breakwaters and revetments</td>
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<td>• Commercial building/s for existing tenants and uses (lobster receivals, workshop, pen holder amenities, offices, chandlery, store)</td>
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<td>• Commercial and recreational boat pens from 8m to 20m in size</td>
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<td>• Land backed service wharfs</td>
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<td>• Boat lifter, boat lifter jetties and boat maintenance yard</td>
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<td>• Fuel facility including truck access, tank, fuel line and a vessel fuel dispenser cabinet</td>
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<td>• Two lane boat launching facility including floating jetty and approximately 80 sealed and line marked car and trailer parking bays</td>
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<td>• Car parks, roads and paths</td>
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<td>• Sea search rescue facility</td>
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<td>• Yacht club</td>
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<td>• Navigation aids</td>
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<td>• Demolition of Building B</td>
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<td>• Services investigation and essential services upgrades</td>
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<tr>
<td>• Urgent repairs and maintenance (to existing jetties, utility services, buildings, hardstand area etc) as future issues may arise to allow marina operations to continue properly</td>
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Thinking about the immediate opportunity (0-3 years), what would it be **nice-to-have** delivered within the **scope of the $3.3 million balance funds**?

- Increased land area (reclamation) and associated services within the marina
- Building A demolition and replacement/new building to accommodate existing tenants from Buildings A and B and new pen holder amenities including public toilets.
- Develop short term wrack management options.

Thinking about the medium term (3-20 years), what are the **vital** elements to be delivered in the **redevelopment of the existing marina**?

- Increase Land Within Harbour Reserve
- Building A Demolition and Replacement
- Demolition of existing P Jetty and the associated construction of new polyethylene floating pens.
- Major headworks (capital upgrades) for the utility services that may be required.
- Management of wrack accumulation to the South
- Management of beach erosion to the North
- Upgrade of the marina access road and Pope Street to Sovereign Drive
- Public toilets and pen holder amenities
- Marina dredging and bedrock removal (initial stage)
- Western Breakwater Improvements
- East-Link Jetty replacement or removal
- Replacement of A-E Jetties

Thinking about the medium term (3-20 years), what would it be **nice-to-have** delivered in the **redevelopment of the existing marina**?

- Separation of public and commercial fishermen from the boat lifter yard (security and safety reasons)
- Boat lifter yard of sufficient size to accommodate approx 30 to 35 vessels of a range 12m to 20m, a spray shed, workshops and an office
- Separation of the public access to the commercial fishermen operational areas but provide safe public viewing areas so the activities of the commercial fishing industry at the service wharf or service jetty can be seen by the public.
- Four ramp boat launching facility with a minimum of 160 car and trailer parking bays, boat holding jetties, universal access berth
- Approximately 200-250 commercial and recreational boat pens with a pen holder amenity building. The commercial and recreational boat pens shall be separated.
- New service wharf or service jetty with a minimum berth length of 75m
- Upgraded and/or new relocated fuel facility (diesel)
- Upgraded entry road with landscaped islands and swales
- Adequate road network and car parking to satisfy the Master Plan uses. Consideration may be given to sharing the car trailer parking area. Suitable car parking considerations for boat pen users also needed.
- Incorporation of short and long-term activation and recreation opportunities
- A foot path network that maximises engagement with the water’s edge, provides full connectivity from north to south and connectivity to the Town Centre
- Upgraded services (potable and fire water, power, sewerage, CCTV, communications)
- Harbour deepening by dredging and minor bed rock removal (further stages)
• Managed northern beach erosion through an expanded harbour reserve and adequate sand bypassing to mimic natural coastal process at the Two Rocks coast
• Significantly reduced sea wrack accumulation in summer months both in term of wrack staying duration and volume through the breakwater reconfiguration.

Thinking about the term vision (20-50 years), what do you expect to be provided in the redevelopment and/or expansion of the existing marina??

Recognising that the way we design and construct marinas may change significantly between now and when a fully redeveloped or expanded marina occurs, the Department consider the following generally appropriate in the future;

• The nice-to-have’s from the medium term vision including:
  o Separation of public and commercial fishermen from the boat lifter yard
  o Boat lifter yard of sufficient size to accommodate approx 30 to 35 vessels
  o Separation of the public access to the commercial fishermen operational areas
  o Safe public viewing areas
  o A large number (500-800) of commercial and recreational boat pens with pen holder amenities
  o New service wharf or service jetty
  o Fuel facilities
  o Safe and efficient road access to suit the masterplan
  o Incorporation of activation and recreation opportunities
  o A safe and connected path network that maximises engagement with the water’s edge
  o Adequate services
  o Harbour deepening by dredging and minor bed rock removal, to an approximate minimum depth of -3.0 to Chart Datum with a preferred minimum depth of -3.5m.
• A harbour entrance with a good wave climate in the general geometry of the existing marina entrance and with a water depth of approximately -4.5m Chart Datum
• A breakwater alignment that is ideally located in water depths around approximately -4.0m to -5.0m Chart Datum range
• A layout and management solution that adequately manages foreshore erosion and wrack accumulation as a result of breakwater reconfiguration.
• Eight ramp boat launching facility with approximately 400 car and trailer parking bays
• Swimming beach
• Harbour water and land for development at an approximate 50/50 ratio
• Minimising bedrock removal
INTRODUCTION

The Department of Transport
The purpose of the Department of Transport’s Coastal Infrastructure Business Unit is to collaboratively plan, drive and deliver best practice in coastal and maritime development and management for the economic and social prosperity of Western Australia. As part of this role, the Department undertakes strategic planning and analysis to understand the need for new maritime facilities and enhancement to existing facilities.

The Department has a direct insight into the behaviours of maritime commerce, interfacing both at a strategic planning level and at an immediate, day-to-day operational level with management responsibility of some 40 maritime facilities throughout WA.

The provision of maritime facilities supports a substantial amount of economic output and employment in WA, and the financial return through leasing of maritime commercial areas and pens in our marinas allows for the ongoing development of new and improvement of existing recreational fishing and boating facilities across the State.

Two Rocks Marina Future
On the 14 September 2017, the Hon. Minister for Transport; Planning; Lands; Hon Rita Saffioti announced that a $6 Million Upgrade was planned for Two Rocks Marina. The statement to the media included the following:

"The proposed work is critical to deliver safety and access improvements to the facility as the marina is progressively returned to the standard expected by the community. Population growth here has been significant, and growth will continue over the next 20 years.

Two Rocks Marina is well positioned to accommodate future demand and provide the local community with safe maritime facilities, access to the ocean and to generate economic opportunities and jobs in construction, retail and tourism.

It's envisaged Two Rocks Marina will eventually provide visitors with an experience similar to that at Hillary’s Boat Harbour which generates employment and millions of dollars for the economy each year."

Into the future it is estimated that there will be in the vicinity of 30 registered recreational boats per 1000 people in Perth. Given the expected population growth of the northern corridor, additional boating facilities are needed and must be planned for.

Western Rock Lobster Industry
The commercial fishing industry is worth more than $800 million per annum in WA with the western rock lobster industry alone contributing close to $500 million of that. It is estimated that more than 60% of that is managed within the Two Rocks area including Metropolitan Perth, Two Rocks specifically, Lancelin and Ledge Point. The metropolitan fishery employs over 1,300 people and the recent reports suggest that for each direct job the industry creates
another 1.77 indirect full time equivalent jobs. A majority of the total catch is exported live to China.

In 1963 there were 836 boats fishing for rock lobster which has since reduced to 236 boats in 2016. This reduction is attributed to the introduction of the annual commercial catch quota system in 2011, which appears to have plateaued. The current operations and servicing requirements for the rock lobster industry are seen to be a reasonable base for forecasting future planning needs. There is an increasing trend in the industry towards larger boats, reflecting a push to achieve greater efficiencies in the harvesting of western rock lobsters by increasing carrying capacity.

TWO ROCKS MARINA

Two Rocks Marina – Existing Overview

Two Rocks Marina is a working harbour with the following infrastructure and facilities:

- Breakwaters and revetments
- Two commercial buildings accommodating lobster receivals, workshops, pen holder amenities, offices, chandlery and store
- ~110 operational boat pens from 8m to 20m in size
- Land backed service wharfs
- Boat lifter and jetties and boat maintenance yard
- Fuel facility including truck access, tank, fuel line and a fuel dispenser cabinet for vessels
- Two lane boat launching facility including floating jetty and ~80 sealed and line marked car and trailer parking bays
- Car parks, roads and paths
- Sea search rescue facility
- Yacht club
- Navigation aids
- Boat landing pontoon
- Small beach
- Services
- Waste oil collection and recycling container

The Western Rock Lobster fishing industry and boat servicing industry are the key anchor tenants and have underpinned the development of Two Rocks as a coastal node since the 1970s. The industry strengthened with the formalisation of receivals areas in the buildings on site that were vacated by the America’s Cup boats. The rock lobster receivals perform an important employment function as well as grounding the community in its historical origins and will be key stakeholders in the existing marina redevelopment.

The Two Rocks Marina is well positioned to accommodate future demand and provide the local community with safe maritime facilities, access to the ocean and to generate economic opportunities and jobs in construction, retail and tourism. From a commercial and recreational fishing perspective, the Two Rocks area is considered highly desirable for offloading commercial catch and for small craft use.

DoT assumed management responsibility of the run-down facility in November 2014. Since assuming responsibility DoT has undertaken a significant amount of work in assessing

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1 Economic Contribution of the Western Rock Lobster Industry 2017 (Acil Allen Consulting)
condition of the assets, attending to the assets that were deemed to require urgent maintenance and replacing some assets that were critical to the safe operation of the facility. Such works undertaken and minor improvements to the facility include:

- Upgrade of the public boat launching facility (to include an additional lane and supporting boat landing pontoon)
- Improvement of the carpark adjacent to the boat launching facility
- Removal many of the abandoned vessels at the facility
- Replacement of the old problematic vessel fuel cabinet and fuel line, with a new fuel cabinet and fuel line.
- Installation of pollutant traps in the marina hardstand area
- Replacement of the unsuitable waste oil shed that was adjacent to the marina waters with a purpose built, self-contained waste oil sea container.
- Urgent maintenance works to the jetties, utility services, buildings and marina hardstand area.

Notwithstanding the minor works the Two Rocks Marina requires a major redevelopment to meet the presentation, safety, regulatory and operational standards expected by marina users, community and visitors. Also, most of the marine structures and the commercial buildings are nearing the end of their service life and require replacement in the near-term. Preparing a Master Plan to guide the redevelopment and future expansion is an important first step in achieving this goal.

**Opportunities and Constraints**

In addition to those identified on the *Two Rocks Marina – Redevelopment of the Existing Marina - Opportunities and Constraints* figure the following are noted by DoT:

- It is expected that additional land will be required to redevelop the existing marina consistent with the Reference Group preferred option of a Public Harbour.
- The marine planning layout for boat pens, berths and fairways should seek to utilise the naturally deeper water body within the marina and conform to *AS3962-2001 Guidelines for design of marinas*. Shallow water depths that are considered unsuitable for boat pens, berths and fairways could be prioritised for reclamation, if reclamation is necessary.
- The following tourism opportunities could be investigated during the Master Planning process:
  - Charters for fishing, diving and eco tours and the necessary supporting infrastructure
  - Short stay boat pens (yacht and power) for recreational boaters (visitors and itinerant mariners)
  - Day visitor boat pens or pontoons
  - An equivalent to the Cervantes Lobster Shack (guided multi-lingual tours of an interpretive centre and receiveal holding tank, small cinema, restaurant, merchandise store, lobster pot pulling, deep sea fishing charters)
- Relocation of the sea search rescue building
- Developing a Master Plan that identifies the extent of a future marina expansion will enable planning for an expanded harbour reserve and associated land assembly to
commence. An expanded harbour reserve will place the required foreshore areas for both the existing and expanded harbour under the management responsibility of DoT thereby enabling the appropriate foreshore management strategies for erosion and wrack accumulation to be implemented.

$6 Million Planned Upgrade 2017-19 (Immediate Requirements 0-3 years)

Committed Works ~$3m (presented to Reference Group)
- Demolish ageing maritime structures (fuel jetty, select boat pens) and install new relocated boat pens (limited).
- Urgent maintenance and priority repairs (to existing P Jetty, buildings, hardstand area etc) that have already been undertaken.
- West-link jetty refurbishment
- Remove abandoned vessels
- Undertake priority breakwater repairs

Uncommitted Works ~$3m
The following works are essential items and will be funded from the uncommitted funds:
- Demolition of Building B - $350,000 (preliminary cost opinion)
- Replacement of Building B - Options and cost opinions being prepared. Absolute minimum requirements will be a new basic shed structure to accommodate Building B tenants
- Services investigation and essential services upgrades - Scope and cost to be prepared
- Urgent repairs and maintenance (to existing jetties, utility services, buildings, hardstand area etc) as future issues may arise to allow marina operations to continue properly* - Scope and cost to be dependent on timeframe by which these dated assets can be replaced and/or demolished.
- Develop short term wrack management options.

* In order to meet this fundamental requirement of ensuring that the marina operations to continue safely and effectively, there is a significant safety, environmental, economic and facility reputational risk associated with ‘doing nothing’. This is why ‘doing nothing’ is not an option and thus why any such required urgent repairs and maintenance must be undertaken by DoT immediately.

Whilst not being considered essential for delivery from the Uncommitted Works ~$3m DoT believes that demolition and replacement of Building A, or provision of reclamation and services to support future landside development and marina activation, are the two priorities from the DoT Future Priority Works listed below that could be delivered in part, or in full, from the $6 Million Planned Upgrade 2017-2019.
Coastal Infrastructure Business Unit

DoT Future Priority Works - Actions (3-20 years)
Two Rocks Marina was constructed in 1973. As many of these original assets are still in use, these assets have, or will soon reach the end of their service life. For the marina to continue to operate safely, efficiently and to a suitable standard for a public facility they will require replacement and/or demolition. Failure to address this requirement will likely result in such assets no longer being able to function as per the original design intent or there will be a significant financial burden associated with maintaining these assets, so they can function as per their original design intent.

DoT has undertaken a significant amount of work in assessing the condition of the assets and planning for their replacement. This has included commissioning asset condition assessment reports, developing asset management plans, undertaking on-site investigations and studies. With due consideration of this information, current operational requirements and the longer-term redevelopment planning occurring, DoT expects the following works (in no particular order) to be of priority and should occur as part of Redevelopment of Existing Marina (3-20 years).

In addition, there is a need to develop a strategy for management of seagrass wrack and erosion beyond short term investigations and studies. It is expected that in the medium term timeframe DoT will need to establish and progress these strategies, in conjunction with the existing land managers of affected lands.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Reason / Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase Land Within Harbour Reserve (reclamation)</td>
<td>Based on DoT’s assessment against comparable “Public Harbours” there is currently an imbalance between the water to land ratio. As such the land area needs to be increased to ensure current operational issues can be adequately managed, the marina has capacity for future growth and importantly the marina can be redeveloped to a current “Public Harbour” standard with the levels of presentation and range of facilities expected by the community and harbour users. Importantly areas of reclamation may provide opportunities for marina activation.</td>
</tr>
<tr>
<td>2</td>
<td>Building A Demolition and Replacement</td>
<td>There are areas within Building A that are not tenanted because such areas are not suitable to be leased. The costs to facilitate leasing are prohibitively expensive. Costs required to properly maintain Building A beyond ~2022 are very high (primarily due to the asbestos roofing) which would make demolition prior to this time advantageous. Building A replacement options and cost opinions that accommodate the Building A tenants are being prepared as part of the requirements for the replacement of Building B. The minimum requirements for replacement of Building A will be a new basic shed structure similar to Building B Provision of new pen holder amenities (toilets, showers, laundry) will be also required following demolition of Building A.</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Reason / Justification</td>
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<tr>
<td>3</td>
<td>Demolition of existing P Jetty and the associated construction of new polyethylene floating pens.</td>
<td>P Jetty is approaching the end of its service life with structural engineers anticipating significant and expensive repair works could be required by ~2021. In addition there have been electrical (power) problems on P Jetty in in recent times and the large abandoned vessel (Tasman Explorer) at in the pen at end of the jetty has caused significant damage to the ‘T’ head. New polyethylene floating pens would need to be constructed to allow the P Jetty pen holders to relocate during the demolition phase. A new polyethylene floating P Jetty would then be constructed. Such additional pens would help satisfy established boat pen demand and would provide a small allowance for short-term growth.</td>
</tr>
<tr>
<td>4</td>
<td>Major headworks (capital upgrades) for the utility services that may be required.</td>
<td>It is still to be determined as part of the utility services investigation works if major utility service upgrades are needed. Whilst undertaking some modifications to the utility services to ensure they comply with the appropriate codes and standards is considered essential works, major headworks (capital upgrades) are expected to be required at some point in due course to support the continued redevelopment of existing marina.</td>
</tr>
<tr>
<td>5</td>
<td>Management of wrack accumulation to the South</td>
<td>Wrack accumulation on the beach to the south of the marina (outside of the harbour reserve) causes foul odour, restricts access and generally adversely impacts on the public enjoyment of the beach. Ownership needs to be resolved, appropriate management solutions need to be developed and appropriate funding made available. Formalising ownership may require an amendment to the existing harbour reserve and adjoining foreshore reserves. The coastal engineering investigations undertaken to date have concluded that breakwater reconfiguration is likely to be the most effective and environmentally sustainable solution.</td>
</tr>
<tr>
<td>6</td>
<td>Management of beach erosion to the North</td>
<td>Beach erosion to the north of the marina (outside of the harbour reserve) has been progressing since construction of the marina. Currently a planned-retreat option has been adopted by the local manager for the 25 years’ timeframe. Appropriate management solutions need to be developed for a timeframe beyond 25 years and ownership formally resolved. Formalising ownership may require amendment to the existing harbour reserve and adjoining foreshore reserves. A geophysical survey has confirmed the existence of competent rock under the sand dunes in front of Sovereign Drive. However, the spur groyne abutment requires refurbishment and a safe pedestrian access point needs to be provided.</td>
</tr>
<tr>
<td>7</td>
<td>Upgrade of the</td>
<td>Subject to the outcome of the Masterplan it is anticipated that</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Reason / Justification</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------------------------</td>
</tr>
<tr>
<td></td>
<td>marina access road and Pope Street to Sovereign Drive</td>
<td>The intersection of Pope Street and Sovereign Drive will require upgrading. It is also expected that the Pope Street / marina access road will need staged reconstruction to provide the appropriate design vehicle grades and access points to the various marina precincts. These upgrades will also provide an opportunity to beautify the marina entrance through landscaped medians and hardscaping and improve pedestrian access.</td>
</tr>
<tr>
<td>8</td>
<td>Public toilets and pen holder amenities</td>
<td>Demolition of Building A, including the existing pen holder amenities, will necessitate provision of new pen holder amenities elsewhere in the marina. There are no public toilets presently within the marina and provision of these facilities will be a necessity in the marina redevelopment. Early demolition of Building A may provide an opportunity to incorporate the pen holder amenities and public toilets into a single development.</td>
</tr>
<tr>
<td>9</td>
<td>Marina dredging and bedrock removal</td>
<td>An existing constraint to redevelopment of wharves, jetties and expansion of boat pens within the marina waterways are the shallow areas of sand and bedrock. The silted marina entrance and bedrock adjacent to the service wharf pose existing constraints to the design vessel that uses the marina. A precursor to marine infrastructure construction will be the availability of suitable water depths. Marina dredging and bedrock removal will be required however this maybe staged over time.</td>
</tr>
<tr>
<td>10</td>
<td>Western Breakwater Improvements</td>
<td>The recent repairs to the Western Breakwater was undertaken on a minimalistic basis to repair the severe core crest scour issue and the safety hazards associated with the undermining of the seaside armour. Repairs to and reworking of the seaside armour on the Western Breakwater are more costly but are required to reduce the overtopping currently being experienced and thus improve the existing functionality of this structure.</td>
</tr>
<tr>
<td>11</td>
<td>East-Link Jetty</td>
<td>This is currently condemned and has been fenced off due to its poor condition. Pending the outcomes of the Master Planning consideration should be given to reinstating the functionality of East-Link Jetty (so that it can function operationally similar to the new West-Link Jetty) or it shall be demolished.</td>
</tr>
<tr>
<td>12</td>
<td>Replacement of A-E Jetties</td>
<td>These jetties are also approaching the end of their service life. Pending the outcomes of the Master Planning consideration should be given to relocating these pen holders into new floating polyethylene pens (See Priority Item No. 3) and demolishing these jetties.</td>
</tr>
</tbody>
</table>

*DoT Requirements for Master Plan (20-50 years Long-Term Vision)*
Recognising that the way we design and construct marinas may change significantly between now and when a fully redeveloped or expanded marina occurs, the Department consider the following generally appropriate in the future;

**Redevelopment of Existing Marina**

- Separation of public and commercial fishermen from the boat lifter yard
- Boat lifter yard of sufficient size to accommodate approx. 30 to 35 vessels
- Separation of the public access to the commercial fishermen operational areas
- Safe public viewing areas
- A large number (300-400) of commercial and recreational boat pens with pen holder amenities
- New service wharf or service jetty
- Fuel facilities
- Safe and efficient road access to suit the masterplan
- Incorporation of activation and recreation opportunities
- A safe and connected path network that maximises engagement with the water’s edge
- Adequate services
- Harbour deepening by dredging and minor bed rock removal, to an approximate minimum depth of -3.0 to Chart Datum with a preferred minimum depth of -3.5m.

**Future Expansion**

- A harbour entrance with a good wave climate in the general geometry of the existing marina entrance and with a water depth of approximately -4.5m Chart Datum
- A breakwater alignment that is ideally located in water depths around approximately -4.0m to -5.0m Chart Datum range
- 500-800 commercial and recreational boat pens with pen holder amenities
- A layout and management solution that adequately manages foreshore erosion and wrack accumulation as a result of breakwater reconfiguration.
- Eight ramp boat launching facility with approximately 400 car and trailer parking bays
- Swimming beach
- Harbour water and land for development at an approximate 50/50 ratio
- Minimising bedrock removal
Appendix C – Land Use Reference Document
### Two Rocks Reference Information – Space Requirements

Future Planning space requirements (ideas, innovations, comparisons)

*NB – these numbers are approximate and rounded*

<table>
<thead>
<tr>
<th>Type of Building/Facility</th>
<th>Example</th>
<th>Area (m²) (approximate)</th>
<th>Parking</th>
<th>Required Parking in CoW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant/ Bar</td>
<td>Little Creatures</td>
<td>6,100m² (building space)</td>
<td>Paid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bathers Beach building (inc. Hans, Sweetlips, Charter etc.)</td>
<td>2,100m² (building space)</td>
<td>Paid</td>
<td>1 bay per 5m² restaurant space or 1 bay per 3m² bar space</td>
</tr>
<tr>
<td></td>
<td>Breakwater Tavern Extension</td>
<td>2,300m² (building space)</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hillarys Yacht Club</td>
<td>2,000m² (building space)</td>
<td>Fenced - Free</td>
<td>(Private Club) 1 bay per 4 people accommodated</td>
</tr>
<tr>
<td></td>
<td>South Perth Yacht Club</td>
<td>2,900m² (building space)</td>
<td>Fenced - Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Existing Sun City Yacht Club (TR)</td>
<td>140m² (building space)</td>
<td>1,000m² (shared)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Boathouse Fremantle</td>
<td>4,300m² (building space)</td>
<td>Fenced - Free</td>
<td>Between 0.3 and 0.6 per boat storage space</td>
</tr>
<tr>
<td></td>
<td>Aquarama</td>
<td>1,100m² (building space)</td>
<td>Fenced - Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cockburn Pleasure Boat Storage</td>
<td>9100m² (building space)</td>
<td>Fenced - Free</td>
<td></td>
</tr>
<tr>
<td>Type of Building/Facility</td>
<td>Example</td>
<td>Area (m²) (approximate)</td>
<td>Parking</td>
<td>Required Parking in CoW</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------</td>
<td>-------------------------</td>
<td>---------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Industrial Area at harbours</td>
<td>Hillarys</td>
<td>12000m²</td>
<td>Free</td>
<td>(applies across industrial uses) 1 bay per 50m² Gross Floor Area (GFA)*</td>
</tr>
<tr>
<td></td>
<td>Exmouth</td>
<td>7400m²</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jurien</td>
<td>25,800m²</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>Public Toilets at harbours</td>
<td>Ocean Reef</td>
<td>45 m² building space</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Hillarys</td>
<td>90 m² building space</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mandurah</td>
<td>45 m² building space</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Aquaculture/ Hatchery</td>
<td>Fremantle Acquired Aquaculture Facility</td>
<td>2,000m² building space</td>
<td>Paid</td>
<td>1 per staff member but not less than 5</td>
</tr>
<tr>
<td></td>
<td>Batavia Coast Marine Institute</td>
<td>570m² (building space)</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>Pens</td>
<td>Hillarys</td>
<td>805 pens</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mandurah</td>
<td>598 pens</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mindarie</td>
<td>246 pens</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two Rocks</td>
<td>118 pens</td>
<td>Free</td>
<td></td>
</tr>
</tbody>
</table>
Two Rocks Reference Information - Carparking

The following table contains the parking requirements of any conceivable land use that would be undertaken in the area.

NB – New Management Plan recently endorsed by WAPC at Hillarys only provides three ratios:
- 1bay/15m² GLA for entertainment and recreation uses;
- 1 bay/30m² GLA for maritime industrial uses; and
- Australian Standards for pens and boat storage at 0.3 - 0.6 per boat storage space and 40-50 bays for each boat ramp

<table>
<thead>
<tr>
<th>Use Class</th>
<th>No. On-Site Car Parking Spaces Required</th>
<th>Use Class</th>
<th>On-Site Car Parking Spaces Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Gallery</td>
<td>1 per 50m² NLA</td>
<td>Market (retail)</td>
<td>Shopping Centre</td>
</tr>
<tr>
<td>Auction Room</td>
<td>1 per 4 people accommodated</td>
<td>Medical Centre</td>
<td>5 per practitioner plus 7 per 100m² of pharmacy</td>
</tr>
<tr>
<td>Bakery</td>
<td>See Shopping Centre</td>
<td>Motel</td>
<td>1 per unit plus 1 per 5m² dining area</td>
</tr>
<tr>
<td>Bank</td>
<td>1 per 30 m² NLA</td>
<td>Motor Vehicle Repairs</td>
<td>5 per service bay</td>
</tr>
<tr>
<td>Beauty Parlour</td>
<td>See Shopping Centre</td>
<td>Multiple Dwelling- Less than 110m² and/or 1 or 2 bedrooms</td>
<td>R-Codes- 1.25</td>
</tr>
<tr>
<td>Bed and Breakfast</td>
<td>2 plus 1 per 2 guests</td>
<td>Multiple Dwelling- 110m² or greater and/or 3 or more bedrooms</td>
<td>R-Codes- 1.5</td>
</tr>
<tr>
<td>Car Wash</td>
<td>Nil if incidental to other development on same site otherwise 1</td>
<td>Multiple Dwelling- Visitors car parking spaces (per dwelling)</td>
<td>R-Codes- 0.25</td>
</tr>
<tr>
<td>Caretaker’s Dwelling</td>
<td>2</td>
<td>Night Club</td>
<td>1 per 3 people accommodated</td>
</tr>
<tr>
<td>Childcare Centre</td>
<td>Per local planning policy but not less than 5</td>
<td>Nursing Home</td>
<td>1 per 5 residents plus 1 staff member</td>
</tr>
<tr>
<td>Cinema</td>
<td>1 per 4 people accommodated</td>
<td>Office</td>
<td>1 per 30 m² NLA</td>
</tr>
<tr>
<td>Use Class</td>
<td>No. On-Site Car Parking Spaces Required</td>
<td>Use Class</td>
<td>On-Site Car Parking Spaces Required</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------</td>
<td>-------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Cinema Complex</td>
<td>1 per 4 people accommodated</td>
<td>Pharmacy</td>
<td>Shopping Centre</td>
</tr>
<tr>
<td>Civic Building</td>
<td>1 per 30 m2 NLA</td>
<td>Place of Assembly</td>
<td>1 per 4 people accommodated</td>
</tr>
<tr>
<td>Club</td>
<td>1 per 4 people accommodated</td>
<td>Place of Worship</td>
<td>1 per 4 people accommodated</td>
</tr>
<tr>
<td>Consulting Room</td>
<td>5</td>
<td>Public Exhibition Facility</td>
<td>1 per 50m2 NLA</td>
</tr>
<tr>
<td>Convenience Store</td>
<td>7 per 100m2 NLA. Up to 50% of bays may be located in refuelling positions</td>
<td>Reception Centre</td>
<td>1 per 4 people accommodated or 1 per 5m2 seating area</td>
</tr>
<tr>
<td>Corner Store</td>
<td>2 per dwelling plus 4 per 100m2 GFA</td>
<td>Recreation Centre</td>
<td>1 per 4 people accommodated</td>
</tr>
<tr>
<td>Costume Hire</td>
<td>1 per 30m2 NLA</td>
<td>Residential Building</td>
<td>1 per 2 people accommodated</td>
</tr>
<tr>
<td>Department Store</td>
<td>See Shopping Centre</td>
<td>Restaurant</td>
<td>1 per 4 people accommodated or 1 per 5m2 seating area</td>
</tr>
<tr>
<td>Drive-Through Food Outlet</td>
<td>1 per 4 guests in indoor and outdoor seated areas plus 7 per 100m2 NLA for non seated areas. Up to 50% of non seated area parking may be located in drive through queue</td>
<td>Road House</td>
<td>3 bays per service bay plus 1 per 5m2 of seating area plus 7 per 100m2 NLA of non seated area. Up to 50% of non service and non seated bays may be located in refuelling positions</td>
</tr>
<tr>
<td>Dry Cleaning Premises</td>
<td>See Shopping Centre</td>
<td>Service Station</td>
<td>5 bays per service bay plus 7 per 100m2 non service bay NLA. Up to 50% of non service bays may be located in refuelling positions</td>
</tr>
<tr>
<td>Factory Unit</td>
<td>1 per 50m2 GFA</td>
<td>Shopping Centres under 10 000m2</td>
<td>7 per 100m2 NLA</td>
</tr>
<tr>
<td>Fuel Depot</td>
<td>1 per staff member but not less than 5</td>
<td>Shopping Centres from 10 000m2 to 30 000m2 NLA</td>
<td>700 for the first 10 000m2 NLA plus 6.25 per 100m2 NLA thereafter</td>
</tr>
<tr>
<td>Use Class</td>
<td>No. On-Site Car Parking Spaces Required</td>
<td>Use Class</td>
<td>On-Site Car Parking Spaces Required</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------------</td>
<td>------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Grouped Dwelling</td>
<td>R-Codes- 1 per bedroom</td>
<td>Shopping Centres from 30 000m2 to 50 000m2 NLA</td>
<td>1950 for the first 30 000m2 NLA plus 5.25 per 100m2 NLA thereafter</td>
</tr>
<tr>
<td>Hairdresser</td>
<td>See Shopping Centre</td>
<td>Shopping Centres greater than 50 000m2</td>
<td>3000 for the first 50 000m2 NLA plus 4.8 per 1000m2 thereafter</td>
</tr>
<tr>
<td>Hall</td>
<td>1 per 4 people accommodated</td>
<td>Showroom</td>
<td>1 per 30 m2 GFA</td>
</tr>
<tr>
<td>Hardware Store</td>
<td>1 per 30 m2 NLA</td>
<td>Smash Repair Station</td>
<td>1 per 50m2 GFA</td>
</tr>
<tr>
<td>Hire Service</td>
<td>1 per 50m2 GFA</td>
<td>Special Place of Assembly</td>
<td>1 per 10 people accommodated</td>
</tr>
<tr>
<td>Hotel</td>
<td>1 per bedroom plus 1 per 3 m2 drinking area plus 1 per 5m2 of seating area</td>
<td>Supermarket</td>
<td>Shopping Centre</td>
</tr>
<tr>
<td>Industry-General</td>
<td>1 per 50m2 GFA</td>
<td>Take-Away Food Outlet</td>
<td>1 per 4 guests in indoor and outdoor seated areas plus 7 per 100m2 NLA for non seated areas.</td>
</tr>
<tr>
<td>Industry-Light</td>
<td>1 per 50m2 GFA</td>
<td>Tavern</td>
<td>1 per 3m2 of bar area plus 1 per 5m2 of dining area</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>Provision of a drive-in pickup/set down facility plus eight (8) bays.</td>
<td>Theatre</td>
<td>1 per 4 people accommodated</td>
</tr>
<tr>
<td>Landscape Supplies</td>
<td>1 per staff member but not less than 5</td>
<td>Vehicle Sales/Hire Premises</td>
<td>1 per 200m2 vehicle display area plus 1 per 30m2 NLA</td>
</tr>
<tr>
<td>Laundromat</td>
<td>See Shopping Centre</td>
<td>Veterinary Consulting Rooms</td>
<td>5 per practitioner</td>
</tr>
<tr>
<td>Laundry</td>
<td>1 per 50 m2 GFA</td>
<td>Veterinary Hospital</td>
<td>5 per practitioner</td>
</tr>
<tr>
<td>Liquor Store</td>
<td>Shopping Centre</td>
<td>Video Hire</td>
<td>See Shopping Centres</td>
</tr>
<tr>
<td>Lunch Bar</td>
<td>7 per 100m2</td>
<td>Warehouse</td>
<td>1 per 50m2 GFA</td>
</tr>
</tbody>
</table>
Appendix D – Marina Reference Document
Navigation & Water Depths
- Australian Standard AS3962 Design guidelines for marinas sets out the requirements for entrance channel & boat pen depths, fairway and entrance channel widths (regulatory requirement)
- Objective should be to target naturally occurring deeper water bodies for boat pens and service wharf, prefer to plan around existing shallow bedrock however small areas could be targeted for removal
- Commercial vessels (cray boats) are normally power with a maximum size ~25m = -2.35m CD
- Recreational monohull yachts 15m = -3.0m CD & 25m = -3.5m CD
- Smaller trailerable vessels = -1.5m CD

Boat Pens
- Plan for staged implementation of recreational boat pens
- AS 3962 - Boat pens require car parking between 0.3 to 0.6 car bays per pen (wet berth)
- Alignment of boat pens shall preferably be bow or stern into the predominant wind direction. Refer wind rose.

Service Wharf/Jetty & Fuel Facility
- Allowance for 3 x 20m vessels at one time required as a minimum = ~75m berth length for existing harbour redevelopment
- Fuel tanks can be located remote from the wharf, but preferably within a ~100m distance
- Preferably the wharf should be at a location that provides suitable water depth to service all vessels in the harbour, refer navigation and water depths above (minimum of -3.0m if we assume marina design vessels are 15m yacht and 25m power). Be mindful of sullage pump out for yachts – cannot occur in boat pens.
- Cray fish receivals buildings shall be within 50m of the wharf/jetty (statutory requirement)
- Minor buildings such as toilets, waste oil collection & recycling, fire pump shed maybe required

Boat Lifter & Yard
- Hardstand area for 30 to ~35 vessels 12m to 25m in length for existing harbour redevelopment
- Spray and sandblasting shed
- Boat lifter jetties
- Office
- Workshops
- Boat stacker
- Area ~1.0 ha to ~1.2 ha minimum for existing harbour redevelopment (~1.5 to ~2.0ha for expanded harbour)
Boat Launching Ramps
- 4 lanes and 160 min car trailer bays for existing harbour redevelopment
- 8 lanes and 320 min car trailer bays for expanded harbour
- Universal access pontoon / berths
- Allow sufficient boat queuing at floating jetties for peak return of vessels (sea breeze, cray pot pulling)
- Consider other opportunities for use of these bays outside of peak boating times

Buildings
- Cray fish receivals with water intakes (good water quality & reduced draw length required) – 4 off
- Sea Rescue Group – preferred location to be advised by SRG. Anticipated that a location within proximity to and overlooking the boat launching facility is preferred.
- Public toilets
- Pen holder amenities building - includes showers, pen holder toilets, laundry, seating area, storage and services (CCTV) rooms & waste receival point.
- Other buildings may include harbour manger office, ticketing office and chandlery.

Services
- Fire fighting facility – may require water storage tanks, pumps and booster points. Booster points would require fire appliance vehicle access. Water tanks maybe installed underground. Pump building could be included within another building, i.e. pen holder amenities.

Other
- Vehicle access - Semi-trailer access should be provided to service the fuel tanks and the service wharf, consider allowance for tourist coach access, road upgrades into the marina will likely be required for service vehicles
- Conflicts of use - Provide separation between recreational, commercial (fishing), charters and beach to manage conflicts
- Prefer to avoid disturbing / removal of historical contaminants in marine sediments. Capping or reclaiming over these areas is an appropriate environmental treatment.

Expansion
- Water depths for marine structures – a minimum of -3.0m CD preferred
- Breakwater alignment – aim for something around -4.5m CD. Breakwaters most expensive item of a boat harbour and reducing quantities will provide real cost savings.
- Staging the expansion in cells maybe feasible.

For Reference only

<table>
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<th>Overall Boat Length (in length)</th>
<th>Vessel Draught</th>
<th>50% of Significant Wave (in depth)</th>
<th>Keel Clearance (m height)</th>
<th>L.A.T. (R.L. n)</th>
<th>Power Boats</th>
<th>Yachts</th>
<th>Multihulls</th>
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MINIMUM HARBOUR BED LEVELS
Appendix F – Evaluation

- Did Workshop A meet your overall expectations?
  1. Yes
  2. Yes
  3. It certainly did
  4. Yes – better than meeting/good outcomes, good ideas
  5. Yes
  6. Exceeded my expectations
  7. Yes

- Was the information and support materials provided by the project team today relevant and appropriate in helping you to participate in the Design Activities?
  1. Yes
  2. Yes
  3. Definitely
  4. Yes, relevant. The DoT reports are still too focused on fishing industry and need to widen to jobs growth and tourism
  5. Yes
  6. Completely
  7. Very much so

- Do you feel like you were provided with enough opportunities to provide input into today’s workshop?
  1. Yes
  2. Yes
  3. Yes
  4. Yes
  5. Yes
  6. Yes
  7. Yes
• Did the process and pace keep you engaged in the workshop?
  1. Yes
  2. Yes
  3. Yes
  4. Yes – Claire managed it well and concisely facilitated
  5. Yes
  6. Yes
  7. Yes

• Were you happy with the venue? As it is currently booked for Workshop B?
  1. Yes
  2. Yes
  3. Yes
  4. It is just ok – better to be overlooking marina
  5. Yes
  6. Yes
  7. Yes

• Do you have any comments about the catering? Was it adequate and was there enough food?
  1. Very good – more than enough
  2. More than enough
  3. More than enough
  4. –
  5. Yummy!
  6. Less food
  7. Too much
• What outcomes do you expect from Workshop B in November?
  1. Progressing towards finalising a masterplan
  2. To delve into the furniture and improvements of marina and stepped increases over time
  3. The same
  4. More concise timing of commercial outcomes – targets for 3/5/10 + 20 years
  5. More great plans
  6. Progress
  7. 1) Steps to be taken to finalise masterplan, 2) Next steps to be taken to complete 0-3 yr necessities

• Is there any further information you would like the project team to provide you with, in advance of Workshop B?
  1. Not at this stage
  2. No
  3. –
  4. Copies of draft plans and explanatory notes, draft of public release paper and plan
  5. No
  6. Draft masterplan would be nice
  7. No

• Do you have any final comments for the facilitator or project team?
  1. Very happy with today
  2. No
  3. Not really
  4. Well done, thanks
  5. No
  6. Cheers big ears
  7. Very well organised and run, well facilitated
Appendix G – Scheme 1 Feedback
Appendix H – Scheme 2 Feedback
Appendix I – Scheme 3 Feedback