

# Shoalwater Islands Marine Park Management Plan 2007-2017

## Periodic Assessment Report

July 2014



**MPRA**  
MARINE PARKS &  
RESERVES AUTHORITY

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## Acknowledgement

The Marine Parks and Reserves Authority (MPRA) would like to thank the Department of Parks and Wildlife (Swan Coastal District and Planning Branch) and the Department of Fisheries (DoF) for all the assistance provided in this assessment process.

The MPRA would also like to acknowledge the many stakeholders (listed in Appendix 1) who contributed to the periodic assessment and gave their time to provide information and feedback, attend workshops, conference calls and/or meet with the MPRA in person.

## Summary

This report presents the findings of the Marine Parks and Reserves Authority (MPRA) periodic (5 year) assessment of the implementation of the management plan for the Shoalwater Islands Marine Park Management Plan 2007-2017 (SIMP). The assessment was undertaken in accordance with the MPRA Audit Policy (2008) and Audit Guidance Statement (2012) and is consistent with the MPRA functions under the *Conservation and Land Management Act 1984* (CALM Act).

The assessment specifically aimed to address the periodic assessment questions in the MPRA assessment process (Appendix 2), including;

- Reviewing all key ecological and social values (KPI's) identified in the management plan;
- Considering progress in achieving strategic objectives in the management plan; and
- Identifying management plan implementation issues.

It is acknowledged that pressures on the values of the Shoalwater Islands Marine Park lie both within and outside the control of DPaW. In addressing the assessment questions, the MPRA considered pressures that occur within the marine park.

The assessment highlighted that the management system is operating effectively and that the Department of Parks and Wildlife (DPaW) are progressively meeting management objectives through the implementation of strategies in the Shoalwater Islands Marine Park Management Plan 2007-2017.

Key findings included:

- A large proportion (95%) of management strategies have been implemented (either completed or partially completed) since the management plan's inception in 2007.
- Despite the urban setting of the marine park and subsequent pressures acting upon it, the Park is generally in good condition. The majority of KPIs (both ecological and social) are reported as 'good' or 'satisfactory' condition, with the exception of Little Penguins and Targeted Finfish which were both reported as 'unsatisfactory'. DPaW will need to focus management on these two KPIs and DoF will need to focus on Targeted Finfish over the next five years.
- The amount of quantitative data available to make assessments has improved greatly with the work of the DPaW Marine Science Program (MSP) in collaboration with District staff.
- A number of key management issues need to be addressed in the near future in order for DPaW to continue to manage the marine park in an efficient and effective manner, including: addressing the increasing pressure from population and development, increase in water sports and climate change. These pressures all have potential to impact on Little Penguins and Australian Sea Lions.
- There is limited community stewardship for the marine park due mainly to low awareness of the marine park. However, the relationship between DPaW and the majority of key stakeholders is positive.
- Management by DPaW appears to be efficient and effective within the limits of the allocated resources, however further funding is required to extend the existing

programs in the reserve. Budget constraints and limited resources have restricted the completion of a number of strategies.

- No targeted government funding is allocated to the DoF to undertake marine park specific management activities. Given the metropolitan location of the SIMP and proximity to DoF's Rockingham District Office, patrol and enforcement activity is undertaken within the SIMP on an opportunistic basis in conjunction with a range of routine 'at sea' compliance work. The majority of these activities focus on the recreational and commercial abalone, rock lobster and finfish fisheries.

As a result of the assessment review process the MPRA have made a number of recommendations below.

## Recommendations

The Marine Parks and Reserves Authority provide the following recommendations that:

Recommendation	
1	More signage is provided at additional access points to the marine park and that the signage is combined for DPaW, DoF and DoT.
2	Research relevant to management by volunteer organisations, educational institutions and government agencies continues to be encouraged and supported.
3	Priority be given to implementing relevant management strategies that have not been completed yet.
4	Priority be given to establishing a MAC or equivalent so that stakeholders have an opportunity to be involved in marine park management discussions.
5	As part of the next review of the management plan (post 2017) give priority to achieving re-zoning strategies, in particular to include Port Kennedy exclusion area, Point Peron Sanctuary Zone and waters surrounding Carnac Island in the marine park.
6	Management strategies that are no longer relevant be disregarded in subsequent annual performance assessments.
7	With regard to Australian Sea Lions: a) until a new management plan for Shoalwater Islands Marine Park is prepared, Australian Sea Lions should be addressed as a key performance indicator; and b) Australian Sea Lions should be included as a key performance indicator when the management plan is reviewed post 2017.
8	DPaW participate in the recommended coastal capacity survey to assist with managing kite surfing and other new aquatic sports within the marine park.
9	DPaW continue to manage pressure on the park, particularly increased visitation to ensure that key ecological values remain stable and do not decline further.
10	DPaW to consider limiting public access, including fencing, to Penguin Island during the Little Penguin moulting season if population declines further
11	Educational material includes information about the impacts of human activities on Little Penguins and appropriate behaviours to prevent these impacts.
12	DPaW considers and implements strategies to assist in mitigating the impacts of climate change on penguins.
13	The speed limit through the marine park is reviewed with Department of Transport (DoT) to protect Little Penguins from boat strike.
14	DPaW determine methods for measuring seascape value and undertake a quantitative assessment of the condition of this KPI for the marine park.
15	Opportunities to raise awareness about the marine park and to educate visitors on impacts they can have on the marine park through an informative video, should be investigated (e.g. on the ferry, at the Visitor Centre).
16	DPaW work to improve education and engagement within the Metropolitan Marine Parks.

# 1. Introduction

## 1.1 Management Plan history

The Shoalwater Islands Marine Park was originally gazetted in May 1990 without a management plan. The Shoalwater Island Marine Park Management Plan 2007-2017 was formally approved by the Minister for the Environment in August 2007.

## 1.2 Legislative context and MPRA role

The statutory function of the MPRA is established under section 54 of the CALM Act which requires the MPRA to be responsible, in relation to all land which is vested in it whether solely or jointly with an associated body, for (a) the preparation of proposed management plans; and (b) the assessment of expiring plans and preparation for further management plans. Expiring plans do not lapse until they are formally revoked by the Minister and replaced with a new plan.

The assessment function of the Marine Parks and Reserves Authority (MPRA) is specified under section 26B (f) of the Conservation and Land Management Act 1984 (CALM Act) which states that in relation to management plans for lands and waters vested in it, that the MPRA is:

- i. to develop guidelines for monitoring;
- ii. to set performance criteria for evaluating;
- iii. to conduct periodic assessments of the implementation of management plans.

The MPRA has established an Audit Policy (2008) and endorsed a performance assessment framework to give effect to the assessment function. The assessment process was reviewed in 2012 and a set of assessment and review guidelines were produced. These documents are part of an integrated system of DPaW management that also includes outcome based management plans, annual marine work plans, a comprehensive marine monitoring and reporting system and annual performance assessment reports, as well as the periodic and ten-year assessments.

## 1.3 DPaW Performance Assessment Framework

The performance assessment framework encompasses several assessment components, including: input measures such as staff and financial resources; activity/output assessment against the annual 'marine work plans'; and outcomes in relation to the strategic objectives of marine reserves specified in the relevant management plan.

Input and activity/output components are dealt with through assessment against annual marine work plans that are prepared for each reserve. The annual marine work plans reflect the annual set of planned actions to progressively implement the prioritised strategies contained in the management plan. The actions that are identified as High-Key Management Strategies (H-KMS) in the management plan are particularly important for MPRA assessment as completion of these strategies should; contribute greatly to implementing best-practice management systems and processes; help to alleviate identified major pressures on ecological and social values; and result in delivery of outputs that contribute to achieving the desired strategic outcomes over the life of the management plan.

The management plans also list key performance indicators (KPIs) that relate specifically to the management targets for key ecological and social values and reflect the highest conservation (from biodiversity and ecosystem integrity perspectives) and social priority



desired outcomes. The condition of KPI's is summarised in this document under Section 5, Question c.

## **2. Objectives**

The objective of the periodic assessment is to conduct a mid-term (approximately 5 year) review and report on the implementation of the management plan for the Shoalwater Islands Marine Park 2007-2017.

Specifically the aim is to address the 'periodic assessment questions' in the MPRA assessment process (Appendix 2), including:

- reviewing all key ecological and social values (KPIs) identified in the management plan;
- considering progress in achieving strategic objectives in the management plan; and
- identifying management plan implementation issues.

This document provides recommendations and priorities for the remaining period the management plan is in effect. It is intended to meet the obligations under the CALM Act, and be consistent with the MPRA Audit Policy (MPRA 2008, 2012).

## **3. Periodic Assessment Process – Shoalwater Islands Marine Park**

The periodic assessment was undertaken by the MPRA Audit Subcommittee, under delegation from the full authority. The MPRA Audit Subcommittee members who conducted the assessment were Emeritus Professor Diana Walker (Audit Subcommittee chair), Dr Kellie Pendoley, Jeff Cooper and Ida Holt.

The key stages of the assessment included:

### **3.1 Scoping and pre-assessment**

- The MPRA liaised with DPaW (Planning Branch, Swan Coastal District & Marine Science Program) as well as DoF to initially scope out the likely key issues and approach to the assessment.
- DPaW engaged a consultant to assist with the assessment process. The consultant collated existing information, facilitated the assessment workshop and assisted with synthesising all information collected to write the assessment report.

### **3.2 Consultation**

As part of the assessment the MPRA consulted with DPaW staff, stakeholders and the local community. Letters were sent to relevant stakeholders, including other government agencies notifying them of the assessment and of a stakeholder consultation session that was planned as an opportunity to meet with the MPRA. Stakeholders were invited to comment on the implementation of strategies within the management plan and they were also given the opportunity to comment on the MPRA 'periodic assessment questions'. A full list of stakeholders is provided in Appendix 1 and a summary of the key consultation undertaken are provided below:

- The MPRA consulted with DPaW the lead government agency responsible for the implementation of the management plan through meetings and interviews with key staff;
- The MPRA wrote to other State and Commonwealth government departments directly mentioned in the management plan and feedback was received from Department of Fisheries, Department of Transport, Department of Water, Department of Environmental Regulation, Department of Mines and Petroleum, Landgate, Western Australian Planning Commission, Tourism WA, Environment Protection Authority and the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
- The MPRA contacted all other key stakeholders including the oil and gas industry, indigenous groups, conservation groups, commercial and recreational fishing, local government authorities, commercial operators and research facilities. Feedback was received from Cockburn Sound Management Council, City of Rockingham, Chevron, BHP Billiton, WWF, WAFIC, Safety Bay Windsurfing Club and Murdoch University.

### 3.3 Site visit, assessment workshop and stakeholder consultation session

- The MPRA Audit Subcommittee travelled to Shoalwater Islands Marine Park on 24 March 2014 to undertake an onsite inspection for verification of the park's management issues and achievements. The MPRA Audit Subcommittee members visited Penguin Island, Seal and Shag Islands, 'The Pond', Port Kennedy boat ramp and exclusion area and viewed the boundaries of the Marine Park.
- An assessment workshop was also conducted on the same day at the Naragebup Regional Environmental Centre in Rockingham, with presentations given by DPaW and DoF on the implementation of relevant strategies within the management plan. This was also an opportunity to showcase achievements within the park and highlight challenges and management issues.
- The workshop was also an opportunity for the MPRA Audit Subcommittee to discuss written submissions received and synthesise the key issues arising from stakeholder feedback.
- In the evening an open stakeholder consultation session was held, where stakeholders had the opportunity to speak with the MPRA informally. Only one stakeholder attended the session.

### 3.4 Reporting

- The MPRA Audit Subcommittee reviewed the presentations by DPaW and DoF together with the accompanying written material. Feedback that was provided by stakeholders, either in writing or in person was also summarised.
- An assessment report was produced (this report) which includes;
  - major achievements
  - a response to assessment questions
  - a summary of key management issues
  - stakeholder contributions; and
  - future recommendations.

## 4. Achievements

The periodic assessment, as well as the recurrent annual performance assessment of the management plan, has highlighted a number of achievements since the inception of the management plan. These include:

- Eradication of rats from Penguin Island. With extensive monitoring, only a single rat has been observed on Penguin Island for six months, with follow up baiting undertaken around this location. Eradication of rats reduces predation on Little Penguin eggs and chicks
- Gazettal of all zones in the SIMP within the first five years of the management plan.
- The gazettal of a 'motorised boating prohibited' area around Becher Point and extending to 200m offshore, to protect high value penguin foraging areas, shallow areas where penguins find it harder to avoid boat strike and to ensure public safety.
- Installation of temporary fences and signage to protect moulting penguins throughout SIMP.
- Fencing of areas at Tern Island, providing better protection for birds and bird habitats, installation of signage, providing education and awareness of the marine park and species living within the marine park.
- Installation of a new camera and software system to remotely monitor penguin populations and nest boxes on Penguin Island.
- A measured increase in weight of Little Penguins early this season (from 1200g a few seasons ago to 1600g this season). This is a good indication the Little Penguins are currently finding more food.
- Successful completion of patrols within the marine park, handing out more than 4,000 brochures and information booklets regarding the SIMP and surrounding reserves. Educating the public on the location and boundaries of the marine park and of the permitted activities has been a high focus.
- Greater use of the park by the public. SIMP provides aesthetic value and intrinsic worth to the public.
- A new trailer to assist with education programs at boat ramps, boat shows and schools. The trailer also provides transport for equipment if incident response is required.
- An increase in the amount of quantitative data available for adaptive management, particularly through the work of DPaW Marine Science Program and the WA Marine Monitoring Program (WAMMP).
- A high percentage of strategies have been implemented. More than 95% of strategies have been partially, substantially or fully implemented since the inception of the management plan.
- Improved collaboration between the responsible government agencies (DPaW and DoF) has been demonstrated through the implementation of annual Collaborative Operational Plan (CoP).
- The successful delivery of marine education programs which have resulted in a positive shift in community stewardship towards the marine park. Increased data available for adaptive management

The performance assessment reporting has been implemented since 2003 and initial reports were populated mainly with anecdotal information. Since the Marine Science Program and DPaW Regions began establishing a systematic process for Monitoring, Evaluation and



Reporting (MER) through the development and implementation of the Western Australian Marine Monitoring Program (WAMMP), more data has been used in assessments. Since late 2008 when the WAMMP was established, more robust quantitative data on the condition, pressure and management response (CPR) related to assets, has been used in reserve management planning, delivery and internal and third party reporting. The WAMMP program has worked hard to define the CPR indicators that are required for long term monitoring, and to obtain and deliver quantitative information relevant to the assets and strategies listed within marine park and reserve management plans. In this regard there has been considerable progress in the last three years, in providing evidence to facilitate and guide effective and efficient management of DPaW marine conservation estate (MPRA 2012).

In 2012-2013, there were new condition, pressure and/or response data available for each of the KPIs for the Shoalwater Islands Marine Park, and it is reassuring to know that current information is being used to inform management.

#### 4.1 DPaW/DoF Collaboration

It is recognised that both DPaW and DoF have significant responsibilities committed to the protection and management of the State's marine reserves and it is essential that both departments work together in a collaborative way to ensure cost effective outcomes. The collaborative management arrangements between DPaW and DoF are outlined in an agreed MOU and collaborative management of marine parks has continued to improve state-wide through the work of the Interdepartmental Committee (IDC) and the development of Collaborative Operational Plans (COPs) for each marine park and reserve.

In 2014 in accordance with the revised '*Guidelines for Collaborative Management of Marine Reserves*', DPaW and DoF are to prepare a joint report against the Collaborative Operational Plan for marine parks in WA for the Director Generals of both agencies. This report will be prepared annually each year going forward and will include a report against the effectiveness of the collaborative strategies developed and implemented during the year under each of the four key operational areas:

- 1) Education, Interpretation and Public Participation;
- 2) Patrol and Enforcement;
- 3) Research; and
- 4) Monitoring.

This report will also be provided to the Marine Parks and Reserves Authority (MPRA) to assist in meeting their assessment requirements for the purposes of reviewing the implementation of marine reserve management plans.

## 4.2 Education and Community stewardship

The assessment identified that all the generic education and interpretation objectives, strategies and targets are being implemented and the result has been a positive shift in public perception and community stewardship of the marine park in recent years. There is still a relatively low awareness of users about the marine park and additional educational campaigns would be beneficial. Interpretive signs at entry points to the marine park (for example Penguin Island Ferry Jetty and Port Kennedy boat ramp) allows the public to learn about the area, identify its boundaries and activities permitted within the park and reserves.

***Recommendation 1: More signage is provided at additional access points to the marine park and that signage is combined for DPaW, DoF and DoT***

***Recommendation 2: Research relevant to management by volunteer organisations, educational institutions and government agencies continues to be encouraged and supported***

## 5. Findings - Response to Periodic Assessment Questions

DPaW is the lead agency responsible for the implementation of the management strategies listed in the management plan. The Department of Fisheries (DoF) also has a key role in the implementation of 28 strategies in the management plan relating to the management of fishing in the marine park. Both DPaW and DoF provided a response to the periodic assessment questions, which are summarised below.

### 5.1 What strategies or actions of the management plan (ecological, social, and cultural) have not been implemented or are not being addressed? Are there any concerns in relation to delivering the plan strategies within ten years?

A very high percentage of strategies have been implemented (> 95%) in various degrees (underway, partially completed or completed). Only 5% of strategies have *not* been implemented to date. These are summarised in the table below.

Table 1 Summary of management plan strategies not yet implemented

Strategy number	Strategy	Status
7.1.3	Initiate the planning process to further consider a large sanctuary zone adjacent to Cape Peron with a focus on the level of subtidal and intertidal reef habitat. This process should also pursue including the Port Kennedy exclusion area within the marine park. Any resultant amendments to the management plan and/or zoning scheme to be completed within the first year following gazettal of this management plan	Not commenced, re-zoning required
7.1.4	MPRA and Conservation Commission to develop an appropriate vesting basis for the intertidal areas of the marine park	Not commenced as requires the boundary to be amended to include intertidal area

Strategy number	Strategy	Status
7.1.8	Initiate the statutory process, in consultation with relevant stakeholders, to extend the marine park boundary, considering the recommendations of <i>A Representative Marine Reserve System for Western Australia</i> (CALM, 1994) and submissions to this management plan	Not commenced, budget and staffing resources are not available at this stage
7.3.1	Establish a MAC and maintain the MAC	Not commenced, although other community groups encouraged.
9.1.2.3	Develop a pollutant inputs database for the marine park and maintain the pollutant inputs database	Review relevance of strategy.
9.1.2.6	Facilitate the development of methods to reduce contamination of groundwater	Not commenced. Outside the scope of the management plan. DPaW have an advisory role rather than a lead role in maintaining healthy groundwater, although this is essential for maintenance of a healthy marine environment.
9.1.10.5	Amend the marine park boundary to include the Port Kennedy area in the marine park	Not commenced. To be included in the revision of Cape Peron and SIMP extension to Carnac Island
9.2.9.2	Identify and determine the key characteristics and spatial extent of the major seascapes of the marine park	Not commenced, need to determine method for measuring seascapes

Concerns in relation to achieving these strategies are in relation to re-zoning of areas including Port Kennedy exclusion area, a large sanctuary area at Point Peron and extending the boundaries of the marine park to the eastern side of Garden Island and up to Carnac Island.

Establishment of a MAC or mechanism for community input into marine park issues is important.

#### 5.1.1 Advice from DoF

DoF (in collaboration with DPaW) has implemented management strategies relating to patrol and enforcement and education and interpretation activities. DoF recognise that there is limited educational material on the DoF website regarding SIMP fishing rules. DoF is currently updating its website to provide information on fishing and fishing rules in all CALM Act marine reserves.

At present DoF has no specific funding to implement strategies that involve monitoring and reporting on commercial and recreational fishing catch/effort or to assess the level and effort of fishing at the marine park scale. DoF is currently considering options for reporting on commercial fishing catch and effort and estimates of key species caught by recreational fishers at a scale that would be more relevant to the marine park.

**Recommendation 3: Priority be given to implementing relevant management strategies that have not been completed yet**

**Recommendation 4: Priority be given to establishing a MAC or equivalent so that stakeholders have an opportunity to be involved in marine park management discussions.**

**Recommendation 5: As part of the next review of the management plan (post 2017) give priority to achieving re-zoning strategies, in particular to include Port Kennedy exclusion area, Point Peron Sanctuary Zone and waters surrounding Carnac Island in the marine park**

## 5.2 If the prioritisation identified in the management plan is not being adhered to, why?

Some strategies in the plan were recognised as needing to be a high priority:

- 9.2.7.10: *Determine the nature, spatial patterns, compatibility and potential environmental impacts of all existing recreational water sports in the marine park and maintain a database of these.*

Recreational water sports such as kite boarding, wind surfing and jet skiing are increasing within the park and may have an increasing environmental impact on the marine park. Through the assessment process it was determined that this should be a high priority strategy rather than a medium priority strategy. It is recommended that a coastal capacity survey is undertaken to assist with managing kite surfing within the marine park.

Some strategies were identified as not being well implemented to date:

- *Strategy 9.2.1.1 Ensure that there is appropriate Aboriginal representation on the MAC*
- *Strategy 9.2.1.2 Develop mechanisms, in collaboration with local Aboriginal groups and relevant authorities, which ensure Aboriginal people have meaningful involvement in the management of the marine park*
- *Strategy 9.2.1.3 Develop education and interpretive opportunities, in collaboration with the local Aboriginal community, to promote a greater understanding of the significance of the area to Aboriginal people and implement these education programs and interpretive opportunities*

It is important that more focus goes into achieving these strategies in the next four years of the management plan.

- *Strategy 9.2.2.1 Develop education programs and interpretive opportunities to enhance the awareness of the maritime heritage of the marine park and implement these education programs and interpretive opportunities*

This strategy is not being implemented very well and has been implemented better in the past. The level of engagement in the district is not as good as it could be. Boat shows are being targeted and marine educational activities are being developed in the district and this will help towards implementing this strategy.

Australian Sea Lions are a very important asset of the park. While several strategies exist in the management plan relating to Australia Sea Lions (9.1.7) they are not listed as a KPI. They are currently being managed and monitored within the marine park as DPaW recognises the importance of them. It is recommended that Australian Sea Lions are treated as a KPI.

The condition of Seascapes (9.2.9) has not been assessed due to insufficient quantitative information from specific studies on seascapes in the park. Monitoring of seascapes has not been defined, so this KPI can't be assessed. The development of criteria for assessing condition/pressure/response of seascapes will assist with the assessment of this KPI in future reporting. This is discussed further in Question g.

**Recommendation 6: Management strategies that are no longer relevant to be disregarded in subsequent annual performance assessments**

**Recommendation 7: With regard to Australian Sea Lions:**

- a) until a new management plan for Shoalwater Islands Marine Park is prepared, Australian Sea Lions should be addressed as a key performance indicator; and***
- b) Australian Sea Lions should be included as a key performance indicator when the management plan is reviewed post 2017.***

**Recommendation 8: That DPaW participate in the recommended coastal capacity survey to assist with managing kite surfing and other new aquatic sports within the marine park**

### 5.3 What is the current status of the ecological and social values in the management plan?

Both DPaW and DoF presented to the MPRA on the implementation of strategies and the condition of KPIs for which they are responsible. These presentations, as well as the DPaW Performance Assessment Reports, and DoF 2012/13 State of the Fisheries Annual Report were used to determine the condition of KPIs.

The KPIs for the Shoalwater Islands Marine Park are:

- Water Quality
- Sediment Quality
- Seagrass Communities
- Little Penguins
- Targeted Finfish
- Seascapes (not assessed)

Other important ecological and social values (Non KPI's) for SIMP include:

- Geomorphology
- Macroalgal (Subtidal reef communities)
- Subtidal-bottom communities/soft sediment communities (not assessed)
- Intertidal reef communities
- Australian Sealions
- Cetaceans



- Seabirds and Shorebirds
- Invertebrates

The condition of the majority of key values (including KPIs and Non-KPIs) in the marine park were all assessed as being in 'Good' or 'Satisfactory' condition, except for Little Penguins and Targeted Finfish which were assessed as "unsatisfactory".

In the 2012/13 MPRA Assessment report a condition rating of "good" was assigned to one KPI value; water quality. A condition rating of "satisfactory" was assigned to two KPI values; sediment quality and seagrass communities. Although the condition of these values remains relatively stable, the pressures on them remain high or in some cases are increasing. These pressures include increased human visitation and climate change.

A condition rating of "unsatisfactory" was assigned to two KPI values; Little Penguins and Targeted Finfish. This is of concern, particularly the decrease in management effectiveness of Little Penguins, the condition which changed from medium to low from 2011/12 to 2012/13.

DPaW will need to continue to manage pressures on Little Penguins such as vessel strike and introduced species and pests. Management of increased visitation to key breeding sites such as Penguin Island, in particular during moulting, is also required to ensure this key ecological value remains stable into the future.

No condition rating was assigned for seascapes or sub-tidal bottom communities as these values were not assessed.

The status and condition for all ecological and social values (KPIs and Non-KPIs) for Shoalwater Islands Marine Park was provided in the DPaW Annual Performance Assessment Report 2012/13 submitted to the MPRA in November 2013. A summary of the report card for 2012/13 is at Appendix 3.

### **5.3.1 Advice from DoF**

The advice from DoF on the status of KPIs and key ecological and social values they have responsibility for (i.e. Finfish, Invertebrates, Recreational Fishing and Commercial Fishing) was provided based on a broad bioregional scale, consistent with DoF's Ecosystem Based Fisheries Management (EBFM) framework.

#### **5.3.1.1 Finfish**

The nearshore finfish suite was assessed as high risk in the latest State of the Fisheries Report 2012/13. Recent independently reviewed stock assessments of three nearshore species show the status of tailor and whiting to be acceptable, but have indicated concerns for Australian herring stocks across the bioregion.

The inshore demersal finfish suite was assessed as moderate risk in the latest State of the Fisheries Report 2012/13. These stocks (including species such as dhufish, pink snapper and baldchin groper) are currently in a recovery phase. Following the introduction of significant management changes in recent years to address stock sustainability concerns, commercial and recreational fishing effort is considered to be at acceptable levels across the bioregion.

### **5.3.1.2 Invertebrates**

Nearshore crustaceans were assessed as moderate risk in the latest State of the Fisheries Report 2012/13. Although the Cockburn Sound blue swimmer crab stock has been in adequate condition since 2010, recent research has shown a significant decline in the number of crabs in Cockburn Sound which is due to a combination of mainly environmental and biological factors. As a result DoF introduced an early closure to the current season for the Cockburn Sound crab fishery on April 16 2014 and a recreational fishing closure on May 14 2014 to protect blue swimmer crab breeding stocks.

Shelf crustaceans were assessed as moderate risk in the latest State of the Fisheries Report 2012/13. The stock level of western rock lobster is currently at an appropriate level. The strong management that was applied to the rock lobster fishery in recent years has ensured that the lobster spawning stock is currently at record high levels.

Nearshore molluscs were assessed as moderate risk in the latest State of the Fisheries Report 2012/13. The stocks of abalone are conservatively managed with strong management controls on both commercial and recreational fishers.

### **5.3.1.3 Recreational Fishing**

DoF examines the effects and evaluates the sustainability of recreational fishing activities. Management arrangements are reviewed and implemented as appropriate. A Recreational Fishing from Boat Licence (RFBL) was introduced in March 2010, and new simpler fishing rules were introduced in February 2013.

Given the outcome of the recent assessment of the Australian herring stock, it is likely that management arrangements will be strengthened to further restrict the recreational take of this species across the West Coast Bioregion.

### **5.3.1.4 Commercial Fishing**

Of the nine commercial fisheries that overlap with the boundaries of the SIMP, eight of these fisheries have been assessed by DoF as having adequate stock levels and acceptable fishing levels. The stock level and fishing level of Australian herring taken from the Cockburn Sound Fish Net Managed Fishery is currently assessed as unacceptable.

It continues to be a challenge for DPaW and MPRA to make assessments of targeted finfish and invertebrates at a park level based on assessments conducted at a bioregional scale. For example, even though the stock level for baitfish (whitebait) is assessed by DoF as “adequate” there is an apparent localised depletion of baitfish, a major food source of Little Penguins in the Shoalwater Islands Marine Park due primarily to environmental conditions and poor juvenile recruitment in the surrounding areas. DoF are currently working with DPaW to resolve this issue for marine park scale reporting into the future.

***Recommendation 9: DPaW continue to manage pressures on the park, particularly increased visitation to ensure that key ecological values remain stable and don't decline further***

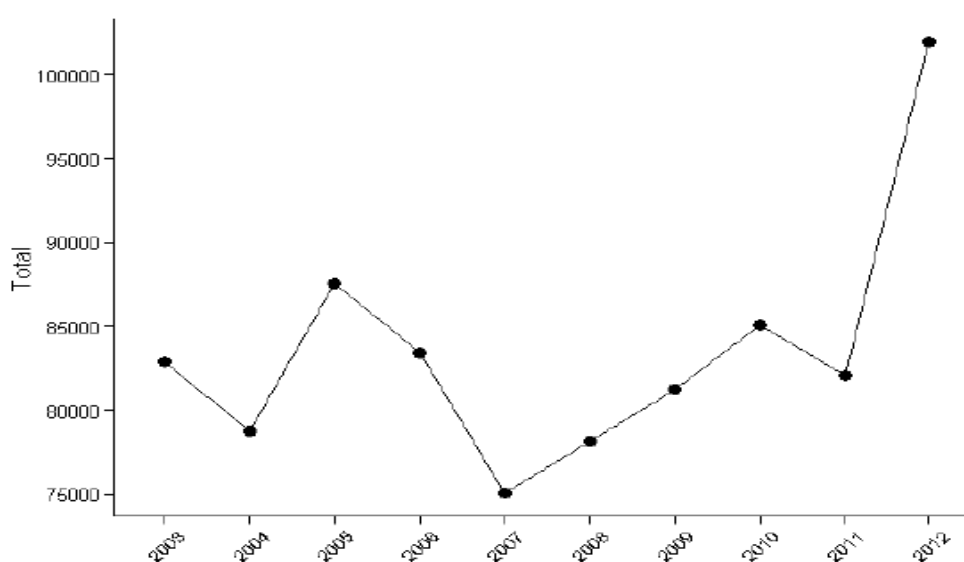
## 5.4 Are there any concerning trends in any of the ecological assets (condition-pressure-response)

*Increasing population = increased pressure*

Population growth increases within the Perth metropolitan have contributed to an increase in the number of people wishing to access the SIMP for a variety of leisure, recreational and commercial opportunities. Collectively, human activities and vessels are increasing the pressure on values like Little Penguins, Targeted Finfish and Australian Sea Lions by increasing fishing pressure and disturbing species and their habitats.

In particular, an increase in visitor numbers to Penguin Island has been noted. The graph below shows visitor numbers to Penguin Island have increased from 83,000 in 2003 to 120,000 in 2012. New data in 2012/13 reflects an increase in numbers coupled with the increase in boating use across the park.

If the continued increase in visitors to Penguin Island and Shoalwater Islands Marine Park isn't managed effectively it has potential to impact on social and ecological values of the marine park.



VISTAT data. Total number of visitors to Penguin Island Shoalwater Islands Marine Park

Figure 1 Penguin Island visitor number 2003 to 2012

### 5.4.1 Advice from DoF

A major challenge for DoF is the continued increase in recreational fishing pressure. Recreational catch and effort levels have increased in recent years as a result of increased population, significant increase in boat ownership in the Perth Metro area and increases/gains in fishing efficiency through technology. The development of the Port Kennedy Boat Ramp in 2010 has also increased access to the SIMP, in turn increasing fishing pressure.

The key compliance issues within the SIMP include the unlawful take of abalone, sea urchins and shells from Point Peron and Penguin Island areas. These issues are being

addressed through DoF's compliance and education program. Non-compliance is largely due to lack of educational material, however DPaW has recently erected signage at key access points to the marine park to educate the public. Further cross-authorisation training of staff is required to improve capacity for the marine park's patrol and enforcement program.

#### 5.4.2 Little Penguins

Of greatest concern for Shoalwater is the decrease in the condition, pressure and management effectiveness of Little Penguins (KPI). Condition is unsatisfactory, pressure high and management effectiveness decreased from medium to low from 2011/12 to 2012/13. Increasing pressure of visitor numbers to Penguin Island is affecting Little Penguins during moulting and an increase in the number of boat owners and vessel activity in the park may be increasing boat strike of Little Penguins.

The latest data show that the Little Penguin colony on Penguin Island is undergoing a significant population decline. This decline is most likely due to a decrease in the penguin's local food supply, an increase in habitat disturbance and disturbance to penguin's during moulting.

Over 100,000 people visit Penguin Island by the ferry alone, resulting in increased noise and disturbance to penguins. In addition, peak tourism season coincides with moulting where the Little Penguins remove themselves from the water and stop feeding for two weeks to grow new feathers. Visitors to Penguin Island can prevent many penguins reaching cool spots, potentially forcing them to moult in less optimal locations. Moulting occurs in summer, when temperatures are at their highest and a bird is heavier than its normal weight, extremely stressful conditions often resulting in hyperthermia and fatality.

Temporary fencing of areas where penguins moult during the moulting season is vital. Fencing when temperatures are above 30-32°C will allow penguins access to the water without interference from people.

Education of the public on the effect of human activities near and around Little Penguins is crucial and must be continued.

***Recommendation 10: DPaW to consider limiting public access, including fencing, to Penguin Island during the Little Penguin moulting season if population declines further***

***Recommendation 11: Educational material includes information about the impacts of human activities on Little Penguins and appropriate behaviours to prevent these impacts.***

#### 5.5 Are there any assets for which the management targets are not being met – especially those that are key performance indicators (KPIs)?

Two KPI's depart from management plan expectations (scored as either 'medium' or 'low' effectiveness);

- Targeted Finfish (medium effectiveness)
- Little Penguins (low effectiveness)

The MPRA have made recommendations regarding these KPIs above.

There are four other ecological assets (non-KPI's) that are also not conforming to management plan expectations which were scored 'medium' effectiveness that are also flagged for consideration:

- Intertidal reef platform communities
- Seabirds/Migratory birds
- Targeted invertebrates
- Australian sea lions

## 5.6 Are management responses appropriate to the concerns in (d or e), is adaptive management occurring? Is DPaW management of these assets effective and efficient?

Pressures on the marine park values remain high or in some cases increasing. These include human visitation, kite surfers, climate change and fishing. DPaW have demonstrated good management responses through management activities such as fencing and signage. Human visitation, kite surfers and fishing have been discussed above (Questions c & d). Further details on the pressure of climate change on the marine park are provided below.

### 5.6.1 Impacts from climate change

Impacts from climate change, such as an increase in water temperature are evident in the Shoalwater Islands Marine Park. An increase in ocean temperature has potential to impact the condition of seagrass and bait fish (penguin food availability). Increasing air temperatures also have the potential to further impact penguins during moulting and strategies to mitigate these impacts- such as providing shade- should be considered. Managing for climate change is an ongoing challenge for DPaW.

***Recommendation 12: DPaW consider and implement strategies to assist in mitigating the impacts of climate change on penguins***

## 5.7 Are there any significant concerns in regards to achieving social and cultural outcomes identified in the management plan?

There are a number of social and cultural strategies identified in the management plan that have not been completed, including those relating to recreational water based sports, seascapes (KPI), recreational and commercial fishing, marine nature based tourism, indigenous heritage, scientific research and education.

### 5.7.1 Increase in Recreational water sports

The social value of 'water sports' has a number of management strategies associated with it. Recreational water sports are increasing within the park including new sports like kite surfing, paddle boarding and jet boarding. These activities as well as jet skiing and wind surfing can disturb the species the marine park was set up to protect.

The zoning scheme aims to minimise conflicts between surface water sports and other activities. In 2011 the designated water ski area was reduced and the southern end of the water ski area in Warnbro Sound was also removed. The 'No Motorised Vessel' area was modified to extend around the point to the boundary of the marine park however non-compliance with this continues to be an issue – particularly with jet skis. An additional 'motorised boating prohibited' area has been gazetted around Becher Point, extending to



200m offshore, to protect high value penguin foraging areas, shallow areas where penguins find it harder to avoid boat strike and to ensure public safety.

It is important that kite surfers and jet skis are educated on impacts they are having, in particular on Little Penguins and Australian Sea Lions. Impacts include physical disturbance through noise, vessel activity and boat strikes. Currently the speed limit in Shoalwater Bay is 12 knots. The effectiveness of this speed limit requires review.

***Recommendation 13: The speed limit through the marine park is reviewed with Department of Transport (DoT) to protect Little Penguins from boat strike***

### 5.7.2 Seascapes

The definition of this value is in itself a challenge. 'Seascapes' is a KPI that has associated management strategies that have not been implemented or completed.

The main issues relevant to this are that a) there is currently no mechanism to measure seascapes b) this leads to a lack of quantitative data to assess this KPI value and c) the pressure is continuing to increase (see Section 5 on increasing human pressure). MSP are currently working on developing a method to measure and report on seascapes.

***Recommendation 14: DPaW determine methods for measuring seascape value and undertake a quantitative assessment of the condition of this value for the marine park***

### 5.7.3 Education

While it is recognised that education about the marine park is effective, increased education was identified during the assessment process as a management issue. Further work is required to educate the public on the boundaries of the marine park as well as activities permitted within these areas.

It was suggested that a short video could be played on the ferry on the way to Penguin Island which would educate the public on numerous issues including: the marine park values; the importance of staying on the paths to prevent disturbance of the penguins (particularly during the moulting season); and other things visitors could do to minimise their impacts. There is also potential for rangers to further educate visitors on the island, in particular around the Little Penguin nest boxes and the remote monitoring of the nest boxes that is currently undertaken.

It is also important that the research information on the marine park is made available to the community to increase their understanding of the ecological values and processes in the marine park and what impact their behaviour and use may have on these important values

It was also suggested that moving the Penguin Island Visitor Centre to the mainland, rather than having it on the island would also allow visitors to be educated on potential impacts they may have on Little Penguins before arriving on the island.

***Recommendation 15: Opportunities to raise awareness about the marine park and to educate visitors on impacts they can have on the marine park through an informative video, should be investigated (e.g. on the ferry, at the Visitor Centre).***

***Recommendation 16: DPaW work to improve education and engagement within the Metropolitan Marine Parks***

## 5.8 Are there any major issues that are not being adequately addressed?

The major issues that the MPRA consider are not being adequately addressed are:

- 1) the increased pressure on the park from water sports such as kite surfing and jet skis;
- 2) the increasing population of people, vessel and pollution – which puts more pressures on the park

The MPRA have made recommendations earlier in this report in regards to these issues.

An additional issue that has been raised is that of potential leaching of nutrients from septic tanks, which may impact water quality in the marine park. Water quality is considered to be good throughout the park with only moderate pressures on this value. While many residences in the City of Rockingham have septic tanks, this is being addressed through the State Government's Sewer Infill Program. As such, it is unlikely that any impacts on water quality, if any at the present time, would increase.

## 5.9 Are there any changes in management focus/effort required to deliver the expectations of the management plan and its outcomes? What recommendations are made?

DPaW need to continue to focus on managing Little Penguins in the remaining five years of the management plan. The increase in visitor numbers to the marine park and Penguin Island each year needs to be managed.

DPaW also need to focus on formalising the management of recreational activities and development of associated zoning, in particular for water sports.

DPaW need to revisit the marine park boundaries and progress the extension of these boundaries, including the addition of the Port Kennedy exclusion area, the Point Peron Sanctuary Zone and the waters out to Carnac Island.

## Appendix 1 List of stakeholders

Stakeholder Group	Response Received	Organisation
Oil and Gas Industry	N	Apache
	Y	BHP Billiton
	N	Woodside Energy Ltd
	Y	Chevron
	Y	NOPSEMA
Conservation Non-Government Agencies	N	Conservation Council
	N	Perth Region NRM
	N	BirdLife Australia
	N	Conservation Volunteers Australia
	Y	WWF
	N	Naragebup- Rockingham Regional Environmental Centre
Fishing	Y	WAFIC
	N	Recfishwest
Indigenous Groups	N	South West Aboriginal Land and Sea Council
Local Government	Y	City of Rockingham
Government	Y	Department of Transport
	Y	Department of Fisheries
	N	Department of Aboriginal Affairs
	Y	Department of Water
	Y	Department of Parks and Wildlife
	N	Western Australian Maritime Museum
	N	Department of Lands
	Y	Department of Environmental Regulation
	Y	Department of Mines and Petroleum
	Y	Landgate
	Y	Cockburn Sound Management Council
	N	Water Corporation
	Y	Tourism WA
	Y	Environmental Protection Authority
	Y	Western Australian Planning Commission
Commonwealth	N	SEWPAC
Tourism operators	N	Rockingham Wild Encounters
	N	West Oz Kiteboarding
	N	Perth Kitesurfing School
	N	Windsurfing WA
	Y	Safety Bay Windsurfing Club
	N	WA Surf
	N	Capricorn kayaks
	N	Rivergods
	N	Safety Bay yacht Club
	N	Australasian Diving Academy
	N	Scubanautics
	N	Western Australian Kite Surfing association
Scientists	N	AIMS
	N	CSIRO
	N	CSIRO
	N	UWA
	Y	Murdoch
	N	Curtin

## Appendix 2      Periodic assessment questions

1. *What strategies or actions of the management plan (ecological, social, and cultural) have not been implemented or are not being addressed? Are there any concerns in relation to delivering the plan strategies within ten years?*
2. *If the prioritisation identified in the management plan is not being adhered to, why?*
3. *What is the current status of the ecological and social values in the Management Plan?*
4. *Are there any concerning trends in any of the ecological assets (condition-pressure-response)*
5. *Are there any assets for which the management targets are not being met- especially those that are key performance indicators (KPIs)?*
6. *Are management responses appropriate to the concerns in (d or e), is adaptive management occurring? Is DPW management of these assets effective and efficient?*
7. *Are there any significant concerns in regards to achieving social and cultural outcomes identified in the management plan?*
8. *Are there any major issues that are not being adequately addressed?*
9. *Are there any changes in management focus/ effort required to deliver the expectations of the management plan and its outcomes? What recommendations are made?*

## Appendix 3 Summary of report cards

<b>KPI</b>	<b>Status of KPIs</b>			<b>Effectiveness Rating</b>
	<b>Condition</b>	<b>Pressure</b>	<b>Response</b>	
Water Quality	Good	Moderate	Satisfactory	
Sediment Quality	Satisfactory	Moderate	Satisfactory	
Seagrass Communities	Satisfactory	Moderate	Satisfactory	
Little Penguins	Unsatisfactory	High	Unsatisfactory	
Targeted Finfish	Unsatisfactory	High	Satisfactory	
Seascapes	Not assessed	Not assessed	Not assessed	Not assessed

<b>Non – KPI</b>	<b>Status of KPIs</b>			<b>Effectiveness Rating</b>
	<b>Condition</b>	<b>Pressure</b>	<b>Response</b>	
Geomorphology	Good	Moderate	Satisfactory	
Macroalgal (Subtidal reef communities)	Good	Moderate	Satisfactory	
Subtidal-Bottom Communities	Not assessed	Not assessed	Not assessed	Not assessed
Intertidal reef communities	Satisfactory	Moderate	Unsatisfactory	
Australian Sea lions (All metro Marine Park)	Good	High	Unsatisfactory	
Cetaceans	Satisfactory	Moderate	Satisfactory	
Seabirds and shorebirds	Satisfactory	Moderate	Unsatisfactory	
Invertebrates	Satisfactory	High	Satisfactory	

### Decision Rules for Management Effectiveness

The decision rules used to assess the overall status of each of the Key Values is provided below. There are a number of qualifiers that need to be noted;

- Older management plans have less well defined targets that are inferred with reference to newer style management plans;
- Condition could be influenced by pressures out of DPaW control and beyond the requirement of management plan targets;
- The theoretical understanding of the condition, pressures and response is correct;
- Response is unsatisfactory when either theoretical understanding or operational activity is in-sufficiently serviced;
- Ideally only quantitative information would inform this process. In the initial years for the WAMMP, qualitative information will also be used to inform these assessments ; and
- Thresholds for changes between levels described here are currently being further defined through the collection of long-term datasets and the retrieval of historical data. This refinement process is likely to be on-going for the WAMMP as we gain better understanding of local and State-wide asset responses.

Detailed assessment of each asset or value is provided in the individual report cards within in the park specific MPRA Annual Assessment. These clarify the level of qualitative and quantitative data, and assessment confidence used to make these assessments.

	<b>Condition</b>	<b>Pressure</b>	<b>Response<sup>1</sup></b>
<b>High Effectiveness</b>	Excellent, Good or Satisfactory	Low, moderate or high	Good or satisfactory
<b>Medium Effectiveness</b>	Satisfactory OR	Low, moderate or high	Unsatisfactory
	Unsatisfactory	Low, moderate or high	Good or satisfactory
<b>Low Effectiveness</b>	Unsatisfactory, or poor	Low, moderate or high	Unsatisfactory



## Appendix 4      Summary of stakeholder feedback

Concerns
Public don't know there is a marine park, the boundaries of the marine park or activities permitted/prohibited within it
Decline in water quality noticed throughout the marine park
Increase in motor boats and jet skis - disturbing Little Penguins and having an environmental impact on the marine park
Increase in boat speed limit throughout the park - signage needed throughout the park on how to report breaches
Decrease in seagrass noticed throughout the marine park
Quality and management of groundwater management- need to maintain healthy ground water and reduce contamination
Decline in the number and size of Little Penguins
People often seen fishing in sanctuary zone
A decline in fish noticed within the marine park - area is overfished
Rope washed up on beach and in marine park from abandoned mussel farm in Cockburn Sound
Lack of integration between user groups e.g. kite boarders, fishermen, passive park users

Suggestions
That better/more signage is provided when entering the marine park/at key access points. Signs should detail activities permitted/prohibited within the marine park and mark where there are sanctuary zones
Increase general awareness and education about the marine park - strategic awareness. In particular educate public about boundaries/extent of marine park. Education/signage at visitor centre on Penguin Island and on ferry on way to the island. Educate school groups heading to Penguin Island, target 7-12 year olds and they will educate their families on the marine park
The marine park needs to extend through different habitat zones, from shore to reef to include seagrass etc. The sanctuary zone at Point Peron also needs to be extended from shore to islands - water to mixed habitats
Rebuild visitor centre over the next 3 years. Move the whole visitor centre to the mainland to preserve Penguin Island and the animals that inhabit it
Greater enforcement for non-compliances such as fishing within a sanctuary zone
Better (more) parking access at Ferry Terminal to Penguin Island and boat ramps providing access to the marine park
Continue seagrass protection as a decrease in seagrass has been noticed throughout the park
Installation of cameras in penguin nesting boxes to remotely monitor penguins
Review of fees for visiting specialist areas, increase price for experience
Further collaboration with Cockburn Council