

**APPLICATION TO THE DEPARTMENT OF THE ENVIRONMENT AND
WATER RESOURCES ON THE
EXMOUTH GULF PRAWN MANAGED FISHERY**

*Against the Guidelines for the Ecologically Sustainable Management of
Fisheries*

October 2007



Department of Fisheries
Government of Western Australia



Fish for the future

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1. BACKGROUND

The purpose of this report is to update the Department of the Environment and Water Resources (DEW) on changes in the Exmouth Gulf Prawn Managed Fishery (the Fishery) to enable its re-assessment against the *Guidelines for Ecologically Sustainable Management of Fisheries*, under Part 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In November 2001, the WA Department of Fisheries (DFWA) submitted an application to the DEW (then Environment Australia) for assessment of the Fishery against the *Guidelines for the Ecologically Sustainable Management of Fisheries*, under Part 13 and 13A of the EPBC Act.

On 12 March 2003, the (then) Minister for the Environment and Heritage amended the list of exempt native specimens to include all specimens that are or are derived from fish or invertebrates, taken in accordance with the *Exmouth Gulf Prawn Managed Fishery Management Plan 1989* effectively declaring the Fishery as exempt from Part 13 and 13A of the EPBC Act for a period of five years. The exemption will expire on 11 February 2008.

The exemption came with 10 recommendations, focused on ensuring continued good management practices in the Fishery.

A copy of the DFWA application and the DEW assessment report and letter of approval are available on the DEW website

<http://www.environment.gov.au/coasts/fisheries/wa/egprawn/index.html>

Further information on the Fishery can also be obtained from the annual *State of the Fisheries* report. *State of the Fisheries* reports published since the original assessment (2002-03, 2003-04, 2004-05 and 2005-06 are presented as Appendices 1-4 to this report) can be downloaded at <http://www.fish.wa.gov.au/docs/sof/>

2. SUMMARY OF KEY CHANGES IN THE EXMOUTH GULF PRAWN MANAGED FISHERY SINCE ITS LAST ASSESSMENT

- Since the last assessment, DFWA has made progress towards addressing bycatch issues, including full implementation of Fish Escape Devices (FEDs). A Fisheries Research and Development Corporation (FRDC) project has also been undertaken to examine differences in species richness and abundance between trawled and untrawled areas, and found no significant differences.
- The outcomes of the FRDC project suggest that the regular observer-based monitoring of bycatch, as suggested in the Department's original application, is not required as a high priority.
- DFWA is developing a bycatch action plan.
- In early 2004 the United States Department of State assessed the use of turtle excluder devices (TEDs) in the Exmouth Gulf Prawn Managed Fishery, with a view to granting accreditation to allow for the importation of prawns into the United States. In June 2004 the DFWA was advised that this accreditation had been granted.

- Industry is also trialling options to reduce the size of the fleet to improve economic efficiency through the use of quad trawl gear.

3. PROGRESS IN IMPLEMENTING RECOMMENDATIONS

- 1. The ESD report, including all performance measures, responses and information requirements, should be formally incorporated into the management regime and decision making process within one year, with a clear timeframe for implementation.**

DFWA reports against the performance measures for the Fishery in the annual *State of the Fisheries Report*. DFWA liaises with Industry on an annual basis to determine the fishing arrangements for the coming year. This regular review ensures management arrangements are conducive to maintaining resource sustainability.

- 2. The ESD report should be amended to incorporate timeframes for all management responses to breaches of performance measures.**

A major element of the ESD report was the explicit determination of the operational objectives and performance indicators and measures that are used to assess the performance of the Fishery. The ESD report also outlined specific management responses to be implemented if performance limits were exceeded. These include varying the starting date of the season, a reduction in the length of the season and area closures.

Over the last 3 years, the Fishery has developed a real time management response program to ensure sustainability and also to enhance economic return to the Fishery through maximizing prawn sizes.

Improvements in knowledge and changes in fishing strategies over time mean that there is a need to be able to readily modify fishery performance indicators as appropriate, particularly in fisheries where there is variable recruitment such as prawns. The DFWA undertakes an annual pre season abundance survey and based on the outcomes of the survey the DFWA works with industry to set catch rate and size thresholds for the coming year. These catch rate and size thresholds and real time information on catch rates from Industry determine the period for which the Fishery remains open.

- 3. A mechanism should be developed to enable the amendment of management arrangements to respond to new information or future Government plans and policies.**

Section 65 of the *Fish Resources Management Act 1994* provides for the amendment of management plans.

The *Exmouth Gulf Prawn Managed Fishery Management Plan 1989* (clause 10) also provides the ability to alter the management arrangements (season opening and closing dates, area closures, etc.) from year to year according to what is considered to be in the better interests of the fishery.

- 4. DEW should be informed of any changes to the management plan or managerial commitments in the ESD report.**

There have been no major amendments to the management plan. However, a trial of quad gear, and removal of the 375 boat unit control by way of FRMA Exemption are in place.

In early 2004 the United States Department of State assessed the use of turtle excluder devices (TEDs) in the Exmouth Gulf Prawn Managed Fishery, with the view of granting accreditation to allow for the importation of prawns into the United States. In June 2004 the DFWA was advised that this accreditation had been obtained.

During 2005 secondary BRDs in the form of FEDs were made compulsory in all nets towed, except try nets by means of a condition of Managed Fishery Licences.

- 5. Opportunity should be provided to conservation, community, recreational fishing and world heritage area management interests to participate in the processes of the main advisory body to the WA Fisheries Minister for this fishery. DFWA should also ensure that any relevant indigenous interests are considered through appropriate consultative mechanisms.**

Commercial, conservation and recreational interests are included in the consultative process through membership of the Joint Trawl Management Advisory Committee (MAC). The committee meets 1 to 2 times per year.

Currently, the structure of the committee is as follows:

- Independent chair
- 8 members with expertise in the commercial prawn and scallop fishing industry
- 1 member with recreational fishing sector expertise
- 1 member with community sector expertise
- 1 member with conservation sector expertise
- Chief Executive Officer (ex officio) or nominee

The Committee does not include a specific position for a conservation representative or a member of the indigenous community. However, to ensure that these interests are included in the MAC consultation process, when relevant or deemed appropriate they are consulted.

- 6. Permitted byproduct should be limited to species currently harvested, with a robust system developed to add or remove species as appropriate. Suitable catch triggers should be developed to ensure any change in targeting behavior can be detected and addressed as it occurs. Management responses should be clarified, with timeframes for implementation, to address such changes, so that the management arrangements are able to minimise threats to byproduct species.**

A draft Fisheries Management Paper titled "Managing the Take of Byproduct in Managed Fisheries in Western Australia" is working towards meeting this recommendation.

It is proposed to manage the take of byproduct in managed fisheries by including a schedule within the management plan which specifies a list of byproduct species historically caught in the Fishery and a corresponding number/catch limit. The Minister has given his in-principal support for this strategy to deal with the take of byproduct.

The DFWA's Research Division is in the process of compiling the historical byproduct catch data for all of the trawl fisheries in order to produce schedules specific to each fishery.

The initial results of the FRDC Biodiversity project (see Recommendation 8) have also provided an inventory of bycatch (including byproduct) species caught at fixed sites throughout Exmouth Gulf and have provided information on the spatial distribution or byproduct species. The final report on this project will be completed by late 2007.

7. DFWA should participate in any cross-jurisdictional activities regarding relevant target and byproduct species, including squid.

DFWA currently participates in various cross-jurisdictional activities in order to ensure sustainability of the State's fish stocks. For example, DFWA regularly engages DEW regarding interaction with protected species and also consults with the Department of Agriculture, Forestry and Fisheries regarding the Offshore Constitutional Settlement and with the Australian Fisheries Management Authority (AFMA) on cross-jurisdictional fishery issues.

DFWA has not had the need to consider any cross-jurisdictional activities regarding species taken or activities within the Fishery since its last assessment.

8. Ongoing monitoring should be implemented sufficient to identify long-term trends in bycatch between fished and unfished areas to ensure that information used in the risk assessment for the fishery remains based on accurate and current data.

The FRDC Biodiversity project is working toward meeting this recommendation. The final report will be out in late 2007. Preliminary results indicate the Exmouth Gulf fish and invertebrate fauna is highly diverse with 298 fish species and 365 invertebrate species being sampled during three sampling trips between February 2004 and October 2004. Maximum species richness was found in the northwest of Exmouth Gulf adjacent to Bundegi Reef and in the northeast of Exmouth Gulf. Minimum species richness, evenness and diversity occurred in the central Exmouth Gulf area. However, no statistical significance was found for pooled data between trawled and untrawled sites with respect to fish and invertebrate abundance, species richness, evenness or diversity. There is some indication that in high trawl effort areas in Exmouth Gulf, faunal abundance is lower than for no, low or medium effort trawl areas. The abundance in these three other trawl categories was similar.

A highly significant seasonal reduction in abundance was observed for invertebrate species and this was a pattern observed at all sites sampled. There was no significant seasonal decline for fish species abundance although there was a seasonal decline in fish species richness.

One of the main objectives of this study was to compare the faunal composition between trawled and untrawled areas and if the faunal composition was similar, then it was highly likely that closed areas act as refuges for the majority of those species impacted by trawling. Faunal composition was similar in trawled and untrawled areas in general and therefore it is sufficient that the principal form of monitoring in Exmouth Gulf is of the extent of the trawled areas. The percentage of area trawled should not exceed that observed in recent years (20-40% of the total area of the fishery).

9. The importance of specific areas and habitats to applicable bycatch species during all stages of their life cycle should be considered when applying the results of biodiversity research to management arrangements.

The FRDC Biodiversity project addresses this recommendation. It is considered that the substantial permanent area closures and other temporal closures that are applied in the Fishery provide protection to the key life history stages of the majority of the bycatch species caught. The project identified that the 10-20 most common species of fish and invertebrates could be used as indicator species (for trends in abundance and diversity measures) in Exmouth. These are all relatively short-lived, abundant and widespread in both trawled and untrawled areas.

Therefore, the permanently closed nursery areas and other closures already in place in the Fishery will afford protection to habitats important for key bycatch species.

- 10. All protected species interactions by commercial operators should be reported and coupled with an education program to ensure industry has the capacity to make accurate reports.**

The Research logbooks completed by licence holders within the Fishery include provisions to report any interactions with protected species.

Reporting requirements are included as a standing item on the agenda for annual pre-season briefings. Fishers' are also given a Protected Marine Species Identification Guide that contains:

- pictures and a brief description of relevant protected species; and
- specific details to include in interaction reports.

4. CONCLUSION

This report should provide sufficient information for DEW to re-assess the Fishery against the *Guidelines for the Ecologically Sustainable Management of Fisheries*, under Part 13 and 13A of the *EPBC Act 1999*. However, should you require any further information please contact Joanne Kennedy on (08) 9482 7394 or via email Joanne.Kennedy@fish.wa.gov.au