

Queensland Eel Fishery 2009

Progress against DEWHA conditions & recommendations



Queensland Government

Queensland Primary Industries and Fisheries, part of the Department of Employment, Economic Development and Innovation (DEEDI), seeks to maximise the economic potential of Queensland's primary industries on a sustainable basis.

While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained in this report.

© The State of Queensland, Department of Employment, Economic Development and Innovation 2009.

Copyright protects this material. Except as permitted by the *Copyright Act 1968* (Cth), reproduction by any means (photocopying, electronic, mechanical, recording or otherwise), making available online, electronic transmission or other publication of this material is prohibited without the prior written permission of the Queensland Primary Industries and Fisheries.

Inquiries should be addressed to:

Intellectual Property and Commercialisation Unit
Queensland Primary Industries and Fisheries
GPO Box 46
Brisbane Qld 4001
or
copyright@dpi.qld.gov.au
Tel: +61 7 3404 6999

Progress in implementing Department of the Environment, Water, Heritage and the Arts (DEWHA) conditions and recommendations for the Queensland Eel Fishery fishery.

DEWHA made a range of recommendations to QPIF during its initial assessment of the Queensland Eel Fishery in 2004, in order to address perceived risks or uncertainties. DEWHA's assessment of progress against these recommendations can be found at <http://www.environment.gov.au/coasts/fisheries/qld/eel/report.html>

The fishery is due to be reassessed in November 2009 where it will be granted a new set of conditions and recommendations. Details of the progress QPIF has made in relation to the current recommendations are outlined in this document.

Recommendation 1:

QPIF to inform DEWHA of any intended amendments to the management arrangements that may affect sustainability of the target species or negatively impact on bycatch, protected species or the ecosystem.

Progress: Ongoing
No changes were made to management arrangements during the reporting period.

Recommendation 2:

By the end of 2006, QPIF to revise fishery specific objectives for the adult and juvenile eel fisheries to ensure that they specifically recognise the need to manage impacts on bycatch, protected species and the ecosystem. QPIF to also develop performance indicators and performance measures for target, bycatch, protected species and impacts on the ecosystem.

Progress: Complete
The Queensland Eel Fishery Performance Measurement System (PMS) has been adopted in the fishery following submission to DEWHA in February 2007. The PMS is a key component of any enhanced management arrangements for the eel fishery, as it provides a set of transparent and verifiable measures against which QPIF can assess and report on the performance of the fishery.

Recommendation 3:

QPIF to monitor the status of the adult and juvenile fisheries in relation to the performance measures once developed. Within 3 months of becoming aware of a performance measure not being met, QPIF to finalise a clear timetable for the implementation of appropriate management responses.

Progress: Ongoing

One performance measure was triggered by fishing during the 2008 effort year. Descriptions of the trigger event can be found in the 'Performance against fishery objectives' section of 2009 Queensland Eel Fishery Annual Status Report.

As part of QPIF's commitment to sustainable fisheries management, performance of the fishery against the identified objectives is analysed and reported publicly on an annual basis. A timetable for the implementation of appropriate management responses arising from any performance measure trigger will be developed within three months of QPIF becoming aware.

Recommendation 4:

QPIF to conduct a risk assessment of compliance and enforcement activities in the adult and juvenile eel fisheries. Outcomes of the risk assessment will be used to develop a compliance and enforcement strategy for the fisheries, including a timetable for the implementation of key components of the strategy.

Progress: Complete

In March 2007 the Queensland Boating and Fishing Patrol (QBFP) completed the compliance risk assessment for the Queensland eel fishery.

Detailed strategies to address the risks identified by this assessment have been developed through the QBFP strategic and operational planning processes that are reviewed annually.

Through identification and prioritisation of compliance risks associated with the fishery, planning and operational processes at the district level may be improved and risks mitigated.

Recommendation 5:

From 2005, QPIF to report publicly on the status of the fishery on an annual basis, including explicit reporting against each performance measure once developed.

Progress: Ongoing

The 2009 Queensland Eel Fishery Annual Status Report is the fifth report to be completed for the Queensland Eel Fishery.

QPIF has an ongoing commitment to publicly report on the fishery annually.

Recommendation 6:

QPIF to undertake fishery independent monitoring of representative impounded rivers on an annual basis to enable trends in adult eel abundance indicative of any declining recruitment to be identified.

Progress: Complete and Under Review

Fishery independent monitoring of freshwater species (including eels) occurred annually through the Long Term Monitoring Program (LTMP) between 2000 and 2006. Due to recent resourcing limitations, this program has not been undertaken during 2007-09 and its future is currently under review.

Recommendation 7:

QPIF to develop and implement sustainability indices for eel stocks within three years to ensure some assessment of the proportion of adult eels that can be sustainably harvested is conducted on an annual basis. The annual assessment of the adult eel resource will incorporate assessment of the impacts of environmental variability, where possible.

Progress: Complete and Under Review

A QPIF and the Fisheries Research and Development Corporation (FRDC) project showed that fishery independent CPUE data obtained from LTMP surveys was suitable to use as an index of abundance of adult eels and sustainability indicator.

LTMP surveys were conducted annually from 2000-2006. The program is currently under review in light of changes to QPIF resourcing.

In March 2007 QPIF developed a performance management system for the fishery. The fishery is assessed against the measures annually.

Recommendation 8:

In the event that the current genetic study on Longfin Eels reveals that eel stocks harvested in the fishery are not panmictic, QPIF will investigate alternative management arrangements with a view to implementing management measures that ensure that catchment fidelity is adequately taken into account. A program for the collection of fishery dependent and independent data to inform management will also be investigated.

Progress: Complete

Postgraduate research was undertaken at Southern Cross University (SCU) in NSW on the genetic population structure of longfin eels. Unpublished conclusions from this research suggest that long finned eels are panmictic (Moore 2008).

In addition to the SCU study, recently published research has found genetic trends which suggest panmixia within juvenile eel populations along Australia's east coast (Kang-Ning and Wann-Nian 2007).

Fishery dependent data continues to be collected through compulsory monthly log books.

Fishery independent monitoring occurred annually from 2000-2006 and is currently under review in light of budgetary limitations.

Recommendation 9:

QPIF to conduct a cost-benefit analysis on methods to facilitate juvenile eel recruitment upstream past waterway barriers. If an appropriate mechanism is identified, QPIF to implement the mechanism and/or encourage relevant authorities to put in place measures to facilitate ongoing juvenile eel recruitment past waterway barriers.

Progress: Complete

In May 2009, QPIF drafted an economic cost-benefit analysis titled 'Benefit-Cost Analysis for Proposed Juvenile Eel Recruitment Past Waterway Barriers' (Maroske, 2009), which was employed to investigate the benefits associated with proposed juvenile eel recruitment past waterway barriers. Conclusions from the analysis suggested that the high costs associated with building and maintaining an effective juvenile eel passage system would have to result in significantly increased eel recruitment for it to be an economically viable initiative. As a result it is difficult to justify the facilitation of trap-and-transport passage systems in the eel fishery as this exercise is not considered economically feasible, given the current lack of available resources and the total value of the fishery.

Recommendation 10:

Within three years, QPIF to undertake a risk analysis of the bycatch species, including protected species, taken in the fishery to identify those species vulnerable to fishing. Management measures to mitigate threats to any species found to be at high risk from fishing operations should be developed and implemented in a timely manner.

Progress: Complete

An ecological risk assessment (ERA) of the Queensland Eel Fishery was undertaken in September 2006. The ERA was submitted to DEWHA in July 2007. The ERA showed that risk posed to bycatch and protected species by the fishery is negligible to minor. An ERA is one aspect of QPIF's commitment to progress sustainable fisheries management.

Recommendation 11:

QPIF to implement the Species of Conservation Interest logbook in the adult and juvenile eel fisheries within 12 months to enable ongoing recording and monitoring of protected species interactions.

Progress: Complete

A Species of Conservation Interest (SOCI) logbook for both the adult and juvenile components of the Queensland Eel Fishery was implemented in November 2006. QPIF and the Queensland fishing industry are committed to minimising the impacts of fishing on protected species. SOCI logbooks will enable QPIF to monitor and mitigate interactions with Queensland's protected species, which will further support QPIF's commitment to sustainable fisheries management.