



Australian Government

Department of the Environment and Energy

Assessment of the
**NEW SOUTH WALES
OCEAN HAULING FISHERY**

MARCH 2018

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This report should be attributed as '*Assessment of the New South Wales Ocean Hauling Fishery March 2018*, Commonwealth of Australia 2018'.

Disclaimer

This document is an assessment carried out by the Department of the Environment and Energy of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*. It forms part of the advice provided to the Minister for the Environment and Energy on the fishery in relation to decisions under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for the Environment and Energy or the Australian Government.

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EXECUTIVE SUMMARY OF THE ASSESSMENT OF THE NEW SOUTH WALES (NSW) OCEAN HAULING FISHERY

In October 2017, the NSW Department of Primary Industries (DPI) submitted an application for the NSW Ocean Hauling Fishery to the Department of the Environment and Energy for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*. A public comment period was open from 23 October to 24 November 2017. One submission was received from the NSW Professional Fishermen's Association, in support of continued export approval for this fishery.

The fishery

The NSW Ocean Hauling Fishery is a share management fishery. It operates in state waters using haul nets off beaches and purse seine nets in deeper water offshore, targeting schooling fish species. Key target species include Australian sardines (pilchards), sea mullet, Australian salmon, blue mackerel, yellowtail scad and yellowfin bream.

The fishery is managed mainly through input controls including gear restrictions, entry requirements, limits to the number of fishers, seasonal and weekend closures and size limits for key species. A full total allowable commercial catch (TACC) determination setting process is currently under development for a number of quota species. An Environmental Impact Statement (EIS) was completed for the fishery in 2002 and remains valid.

Target stocks

Commercial harvest of this multi-species fishery is monitored annually and most target species are assessed as being fished within sustainable levels. Stocks of eastern sea garfish have rebuilt from previous depletion and are no longer considered overfished. Mulloway has been assessed as overfished and specific measures are in place to limit the impact of ocean haul activities on its recovery.

Protected species and ecosystems

There have been minimal reported interactions with protected species since 2012, with most incidentally caught protected species released alive. The 2002 EIS found risks to protected species were low and independent observer surveys have confirmed that interactions are rare.

The most likely impact of the fishery on protected species is disturbance to the nesting sites of protected birds on beaches. This potential threat of disturbance by commercial fishing to nesting birds was assessed as a moderate to high risk in the NSW government's independent assessment of Threat and Risk Abatement (TARA) for its marine estate. However, the 2017 TARA report's specific consideration of the Ocean Hauling Fishery assessed the risk to protected species from the fishery as low-minimal.

The broader health of the ecosystem in which the fishery operates is currently under review through the NSW government's Marine Estate Management Strategy (MEMA) process. There are no CITES species caught in this fishery.

Conclusion

On this basis, the Department considers that product taken in the NSW Ocean Hauling Fishery should be included in the list of exempt native specimens under Part 13A of the EPBC Act until 31 March 2028.

SECTION 1: ASSESSMENT SUMMARY OF THE NEW SOUTH WALES OCEAN HAULING FISHERY AGAINST THE *GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)*, CONSISTENT WITH THE EPBC ACT

| Guidelines assessment | Meets | Partially meets | Does not meet | Details |
|--------------------------------|---------|--|---------------|---|
| Management regime | 8 of 9 | | 1 of 9 n/a | Overall the management regime appears to be effective. The ongoing implementation of recent reforms will further increase effectiveness in the immediate future. |
| Principle 1 (target stocks) | 7 of 11 | 4 of 11 (1.1.4, 1.1.5, 1.1.6, 1.2.2). | | <p>Commercial harvest is monitored annually. Overall, most target stock species are at sustainable levels.</p> <p>1.1.4 – Currently no estimates of Indigenous harvest or illegal take.</p> <p>1.1.5 – Sound estimates of productivity are being developed. Transitioning to quota management for 4 species.</p> <p>1.1.6 – Ongoing development of appropriate reference points and trigger responses.</p> <p>1.2.2 – Currently no category for Blim equivalent. A review occurs when stocks fall below trigger points.</p> |
| Principle 2 (bycatch and TEPS) | 7 of 12 | 1 of 12 (2.1.1) | 4 of 12 n/a | <p>By catch and TEP interactions are thought to be low in the fishery due to targeted fishing of key species (adult schooling fish).</p> <p>2.1.1 – Fishers are not required to collect/report information on bycatch. Information on bycatch would be improved if fishers were required to report discards.</p> |

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|---------------------------------|-----------------------------------|-----|-----|---|
| Principle 2 (ecosystem impacts) | 5 of 5 1 – no outcome required | | | Ecosystem impacts considered minimal due to targeted fishing of key species. |
| EPBC requirements | | | | |
| Part 12 | Met | | | The <i>Marine Bioregional Plan for Temperate East marine region</i> considered, values not compromised. |
| Part 13 | N/a | N/a | N/a | N/a due to fishery operating in state waters only. |
| Part 13A | All met | | | Based on outcomes of Guidelines assessment, the Objects of Part 13A are considered met, with EPBC consultation requirements also met. |
| Part 16 | Met | | | The fishery's management arrangements are considered sufficiently precautionary to manage/mitigate known risks. |

Notes:**Assessment history:**

1st assessment finalised in 2003 – LENS with nine recommendations.

2nd assessment finalised in 2008 – LENS with ten recommendations.

No Part 13 assessment has been conducted, as the fishery operates entirely within NSW state waters.

Fishery reporting:

Annual report – The most recent full public reports of the status of the key stocks in this fishery are contained in the *Status of Fisheries Resources in NSW 2013-14 Full Report* – https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0008/598436/INT16-61462-Attachment-C-Status-of-Fisheries-Resources-in-NSW-2013-14-Full-Report-406-pages-updated.pdf. Subsequent reviews of these species' status are at the links below.

Protected species interactions – Fishers are required to record protected species interactions, however these are not reported publicly.

Key links:

Fishery information page on agency website – <http://www.dpi.nsw.gov.au/fisheries/commercial/fisheries/ocean-hauling>
Fishery Management Strategy for the Ocean Hauling Fishery, February 2003 (FMS) –
https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/632407/OH-FMS.pdf

Submission for reassessment of the NSW Ocean Hauling Fishery under the EPBC Act (2017) –
<http://www.environment.gov.au/system/files/consultations/9be7fdd1-8a96-4c09-81dc-60fc08e5b56d/files/assessment-2017.pdf>
One public comment received, in support of continued approval for the fishery, from the Professional Fishermen's Association (PFA).

Enforcing legislation:

NSW *Fisheries Management (General) Regulation 2010* – <https://www.legislation.nsw.gov.au/#/view/regulation/2010/475>

NSW *Fisheries Management (Ocean Hauling Share Management Plan) Regulation 2006* –
<https://www.legislation.nsw.gov.au/#/view/regulation/2006/736>

NSW *Fisheries Management (Supporting Plan) Regulation 2006* - <https://www.legislation.nsw.gov.au/#/view/regulation/2006/733>

NSW *Fisheries Management Act 1994* - <https://www.legislation.nsw.gov.au/#/view/act/1994/38>

Ecological Risk Assessment:

Ocean Hauling Fishery Environmental Impact Statement – Public Consultation Document. The assessment for this fishery comprises three volumes found here – <https://www.dpi.nsw.gov.au/fishing/commercial/ea/ohf-eis>.

New South Wales Marine Estate Threat and Risk Assessment Report – November 2016 (TARA report) –

http://www.marine.nsw.gov.au/_data/assets/pdf_file/0007/674566/Statewide-TARA-Draft-Report.pdf

DRAFT Marine Estate Management Strategy 2018 – 2028 (MEMA)

[https://www.marine.nsw.gov.au/_data/assets/pdf_file/0019/740170/Draft MEM strategy.pdf](https://www.marine.nsw.gov.au/_data/assets/pdf_file/0019/740170/Draft_MEM_strategy.pdf)

Stock assessments:

Status of fisheries resources in NSW 2014-15 Summary – http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0006/692646/INT16-161027-DRAFT-Status-fisheries-resources-NSW-2014-152-Summary.pdf

Status of Australian Fish Stocks - Stock status reports - relevant species 2016 (Fisheries Research and Development Corporation) -

<http://www.fish.gov.au/Jurisdiction/New-South-Wales>

Other:

NSW Ocean Hauling Fishery Commercial Fishers Code of Practice for Hauling Activities -

http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0016/631303/OHF-Hauling-CoP-24-11-09.pdf

NSW Purse Seine Industry Code of Practice - <https://www.dpi.nsw.gov.au/fishing/commercial/consultation>

Fisheries Compliance Enforcement Policy and Procedure - https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0010/639874/Fisheries-compliance-prosecution-policy-and-procedure.pdf

NSW commercial fisheries governance and consultation structure - <https://www.dpi.nsw.gov.au/fishing/commercial/consultation>

NSW Fisheries Statistics Report 2014-15 – http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0003/599421/Fisheries-statistics-report-2014-15.pdf

Survey of Recreational Fishing in NSW and ACT, 2013/14 (published 2015) -

http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0011/598628/West-et-al-Survey-of-rec-fishing-in-NSW-ACT-2013-14-2016_03_02.pdf

Monitoring and assessment of the impact of management changes under the Mulloway recovery program – Background

<https://www.dpi.nsw.gov.au/data/assets/pdf/0006/709710/INT16-139407-Mulloway-review-research-package-Oct-2016-Oct-update.pdf>

SECTION 2: DETAILED ANALYSIS OF THE NEW SOUTH WALES OCEAN HAULING FISHERY AGAINST THE *GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)*

| Guidelines criteria | Comment |
|---|---|
| THE MANAGEMENT REGIME | |
| The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should: | |
| Be documented, publicly available and transparent. | Meets Legislation, regulation, management strategy, environmental impact statements and fishery resources reports are available on the NSW Department of Primary Industries (DPI) website (see links above). |
| Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public. | Meets The management strategies are prepared through stakeholder and public consultation, adhering to state legislation. Development of new management arrangements are undertaken in accordance with consultative process described in the submission and NSW DPI's consultation structure (see links above). |
| Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process. | Meets A range of expertise and community interests are involved in fishery advisory committees and working groups. The Ministerial Fisheries Advisory Council includes representatives from the commercial, recreational, indigenous, aquaculture and conservation sectors Independent peer review and advice on stock status assessments are provided by stakeholders, scientists and agency representatives. |
| Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured. | Meets Objectives and performance measures are included in the FMS (see link above). The fishery's performance against FMS trigger points are publicly reported against in Fisheries Statistics reports (see link above). |
| Be capable of controlling the level of harvest in the fishery using input and/or output controls. | Meets The level of harvest is predominantly managed through input controls including gear restrictions, limits to the number of fishers, entry requirements, seasonal and weekend closures and key species size limits. |
| Contain the means of enforcing critical aspects of the management arrangements. | Meets NSW Fisheries officers enforce aspects of the management arrangements through patrols and inspections. Officers can also check information from fishers in real time against fishing activity and catch using new FisherOfficer software. See link above on compliance enforcement policy and procedures. |
| Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria. | Meets The fishery's performance against FMS trigger points are reviewed periodically (see link above to Fishery Statistics Report). Periodic reviews (2-3 years) of performance indicators and trigger points scheduled to be undertaken by NSW DPI. A Total Allowable Fishing (TAF) committee periodically reviews and sets catch and effort quota for components of the fishery. |

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| Be capable of assessing, monitoring and avoiding, remedying or mitigating any adverse impacts on the wider marine ecosystem in which the target species lives and the fishery operates. | <p>Meets Impacts of the fishery on the marine ecosystem were assessed through the EIS process in 2002 (link above) and the TARA process in 2016 (see link above, Appendix C, page 12).</p> <p>The broader health of the ecosystem in which the fishery operates, is currently under review through the MEMA process (link above). Ongoing monitoring is conducted through performance indicator reviews.</p> <p>Potential adverse impacts on the marine environment are assessed through environmental impact assessments, with mitigation measures outlined in the FMS (see links above).</p> |
| Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy. | <p>N/a The fishery operates in state waters only.</p> |
| PRINCIPLE 1 - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover. | |
| Objective 1 - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability. | |
| Information requirements | |
| <p>1.1.1 There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.</p> | <p>Meets Catch rates are monitored through catch, effort and disposal reports. As of December 2017, catch and effort for quota species are monitored and reported in real time via electronic reporting.</p> <p>A cross fishery scientific observer program, identifies and prioritises the high risk fishing methods, to focus observer resources on fishing methods likely to pose the most risk to fish stocks. The Ocean Hauling Fishery was last assessed in 2005 and found to be of low risk.</p> |
| Assessment | |
| <p>1.1.2 There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.</p> | <p>Meets NSW DPI assesses the status of key target stocks annually and a report is produced biennially. Key species are also considered biennially through FRDC Status of Key Stocks assessments (see links above).</p> <p>Commonwealth and Fisheries Queensland scientific representatives, take part in annual workshops to assess NSW fishery resources. These workshops consider shared stocks, catch information, research outcomes, management arrangements and stock assessment status.</p> <p>A list of scientific outputs and NSW DPI published research, relevant to stock assessment considerations for a number of key species caught in the fishery, is provided in NSW DPI's 2017 submission for the reassessment of the fishery (see link above).</p> |

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| <p>1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p> | <p>Meets All key species are managed as single stocks.</p> <p>Spatial distribution is considered in stock status assessments and factored into the management arrangements, including spatial and seasonal closures.</p> <p>Some species in the fishery are also caught in other fisheries (NSW and Commonwealth). Where appropriate, complementary arrangements are/will be developed to ensure sustainable harvest of straddling stocks.</p> |
| <p>1.1.4 There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.</p> | <p>Partially met Commercial harvest is monitored through an annual resource assessment process and as part of the FMS (see link above) performance monitoring process.</p> <p>Recreational fishing surveys are conducted regularly (see link above) and estimates of recreational harvest are considered in assessments of target stock status. There are no estimates of Indigenous harvest or illegal take.</p> |
| <p>1.1.5 There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p> | <p>Partially met Sound estimates of productivity have been or are currently being developed for main target species (e.g., sardines, blue mackerel, eastern sea garfish, and yellowtail scad), as these species transition to quota management. Full TACC determination setting process by annual review and committee consideration will apply to quota species in future.</p> |
| <p>Management responses</p> | |
| <p>1.1.6 There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.</p> | <p>Partially met The FMS specifies upper and lower trigger points for target species (and key secondary and byproduct species). When performance indicators are triggered, a review is conducted.</p> <p>The development of appropriate reference points and trigger responses is ongoing, with current triggers considered conservative by NSW DPI.</p> |
| <p>1.1.7 There are management strategies in place capable of controlling the level of take.</p> | <p>Meets Currently, take is mainly managed through input controls, including gear restrictions, limit to the number of fishers, entry requirements, seasonal and weekend closures and size limits for key species.</p> <p>However, this fishery is in active transition to adopt a number of output controls, including catch and effort quota for four primary target species. This will include increases to minimum shareholding requirements which will further limit the number of fishers endorsed.</p> |

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| <p>1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.</p> | <p>Meets</p> <p>There are 18 target species and 8 conditional target species determined across the different net types used in the Ocean Hauling Fishery. The five main species by volume (sardines, sea mullet, Australian salmon, blue mackerel and Yellowtail scad) comprise >90% of landed catch. The other target species comprise most of the remainder of the catch, with minimal byproduct.</p> <p>Some byproduct species are monitored, reported and resource assessed annually, with rules for byproduct articulated in the FMS (see link above). Fishers must not use a net to take fish, unless at least 80% (by whole weight) of the catch taken from each haul is comprised of target species, or conditional target species for that type of net.</p> |
| <p>(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)</p> | |
| <p>1.1.9 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p> | <p>Meets</p> <p>The fishery's management arrangements appear likely to maintain stocks within ecologically viable levels.</p> |

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| <p>If overfished, go to Objective 2: If not overfished, go to PRINCIPLE 2:</p> | |
| <p>Objective 2 - Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.</p> | |
| <p>Management responses</p> | |
| <p>1.2.1 A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.</p> | <p>Meets The Ocean Hauling Fishery is a multi-species fishery with the majority of species assessed as being fished sustainably. However, two species (not key target) are currently assessed as overfished. As these species are caught in a number of NSW fisheries, recovery measures are applied to other fisheries as well as the Ocean Hauling Fishery. The two overfished species are:</p> <ul style="list-style-type: none"> • silver trevally – growth overfished. Current recovery response is an increase in minimum size limit across all sectors. Significant trawling grounds where silver trevally was historically taken have been closed with introduction of the Batemans Marine Park. • mullocky – remains overfished. A recovery program was developed and implemented in 2013. The arrangements include; a reduction in recreational bag limits, increase in minimum legal length, a bycatch allowance of 10 fish (with size limits) caught in meshing nets and a 500 kilogram trip limit for beach hauling. Ocean hauling is a small contributor to the overall exploitation of mullocky (< 2 tonnes). A review of the mullocky recovery program actions is underway to determine the effectiveness of the measures implemented. The mullocky recovery working group recently met in January 2018. The review is ongoing. See the 2016 review at link above. <p>For further information on the status and management response for these species, see the 2017 submission and the <i>Status of Australian Fish Stocks - Stock status reports - relevant species 2016</i> (Fisheries Research and Development Corporation). Links above.</p> <p>Eastern sea garfish stocks were assessed as overfished during 2002 to 2013. In 2013, the stock status moved to 'fully fished' where it currently remains. Catch quota management for this species commenced at the end of 2017. See submission and 2014-2015 status report, links above.</p> |
| <p>1.2.2 If the stock is estimated as being at or below the biological and / or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a 'whole of fishery' effort or quota reduction are implemented.</p> | <p>Partially met Management arrangements do not have a category for Blim equivalent. The FMS requires a review of management arrangements if stocks fall below specified trigger points.</p> <p>Mullocky is the only stock currently confirmed below the default limit reference point articulated in the FRDC's <i>Status of Australian Fish Stocks</i> link above). As described above, management measures to reduce catch of mullocky have been in place since 2013, these arrangements are currently under review.</p> |

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| PRINCIPLE 2 - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem. | |
| Objective 1 - The fishery is conducted in a manner that does not threaten bycatch species. | |
| Information requirements | |
| 2.1.1 Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch. | <p>Partially met</p> <p>Fishers can only retain permitted species and are not required to collect or report information on bycatch. Scientific observers have recorded catch data on target species and bycatch through NSW's cross-fishery observer program (described above).</p> <p>In 2005, a scientific observer survey was conducted on the use of general purpose hauling nets in the fishery, with low rates of bycatch and discards recorded (see 2017 submission, link above). The Observer-based Surveys of Ocean Haul Netting from Beaches in New South Wales - Final Report appears to be the latest, and unpublished, report.</p> |
| Assessment | |
| 2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing. | <p>Meets</p> <p>The fishery's EIS (2002, link above) noted that there was limited data about bycatch, however, the impact on bycatch was considered to be minimal, given the targeted fishing of large single species aggregations of adult fish.</p> <p>In 2017, the statewide TARA process (link above) assessed the impact of commercial fisheries on pelagic assemblages of fish (including the purse seine sector of this fishery) and concluded that the risk to harvest and bycatch assemblages was moderate to high, although these were not considered at the species level.</p> |
| Management responses | |
| 2.1.3 Measures are in place to avoid capture and mortality of bycatch species unless it is determined that the level of catch is sustainable (except in relation to endangered, threatened or protected species). Steps must be taken to develop suitable technology if none is available. | <p>Meets</p> <p>Measures in place to avoid capture and mortality of bycatch include increased mesh size to reduce catch of undersized (juvenile) fish, along with various temporal and spatial closures applied throughout the fishery. Specific rules also apply to net setting and net attendance, depending on the net used, which minimises the time period of potential bycatch interactions.</p> <p>In addition to specific fishery measures, bycatch species are protected through marine protected areas and beaches, where hauling is not permitted.</p> |
| 2.1.4 An indicator group of bycatch species is monitored. | <p>N/A</p> <p>Given the minimal risk identified for bycatch, monitoring of indicator species of bycatch is not required.</p> |
| 2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers. | <p>N/A</p> <p>No triggers apply, given that there are no indicator species monitored due to minimal bycatch.</p> |
| 2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective. | <p>Meets</p> <p>The fishery is conducted in a way that minimises threat to bycatch species (for instance, net mesh sizes are adjusted to ensure low impact on bycatch species).</p> |

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| Objective 2 - The fishery is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species and avoids or minimises impacts on threatened ecological communities. | |
| Information requirements | |
| 2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities. | Meets Since 2005 it has been a requirement for fishers to report all interactions with protected species through catch and effort log books. |
| Assessments | |
| 2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species. | Meets The last observer-based survey in the fishery (2005) reported no interactions with marine mammals, sea turtles or seabirds during fishery operations. There were five interactions reported by fishers in logbooks between 2012 and 2016. Interactions recorded were one large sea bird (caught, discarded dead) and four grey nurse sharks (caught, released alive and healthy). The EIS (2002) for the fishery (link above), noted that risks to protected species were considered low (see pages F 249 to F 258). The EIS public consultation document lists all the protected species that could be 'directly or indirectly' affected by the Ocean Hauling Fishery. The 2002 EIS noted the potential for behaviour modification in dolphins, sharks and some birds (albatross and petrels), resulting in potential interactions. However, the most likely impact of the fishery on protected species is disturbance to the beach nesting sites of protected birds. Disturbance of birds by beach activities associated with commercial fisheries (including the Ocean Hauling Fishery) was assessed as a moderate to high risk in the 2017 TARA process (link above). However, the TARA's specific consideration of the Ocean Hauling Fishery assessed the risk to protected species from the fishery as low-minimal (Appendix C, page 14). The broader health of ecosystem in which the fishery operates, including assessment of risks to protected species, is currently under review through the MEMA process (see link above). |
| 2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities. | N/A There are no EPBC listed threatened ecological communities within the area of the fishery. |

| Management responses | |
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| <p>2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p> | <p>Meets</p> <p>All fishers are required to ensure fishing operations (with consideration of area, time and methods) are conducted in a manner that minimises the potential for interactions with threatened species and populations.</p> <p>The <i>NSW Ocean Hauling Fishery Commercial Fishers Code of Practice for Hauling Activities</i> (link above) requires that fishers are familiar with the identification of protected and threatened species, populations and communities.</p> <p>The <i>NSW Purse Seine Industry Code of Practice</i> (link above) states that if fishers encounter any threatened species, relevant provisions in threatened species recovery plans or threat abatements plans must be implemented.</p> <p>There are specific measures in the FMS to minimise disturbance to protected bird species, including beach access rules in certain locations. Road access to particular beaches have been restricted to protect the hooded (Eastern) plover, listed as vulnerable under the EPBC Act.</p> <p>There are no specific management responses to mitigate potential behaviour modification in dolphins, sharks and some birds (albatross and petrels, see 2.2.2) which could be affected by fishing operations. However, appropriately selected MPAs (to protect threatened species) assist in awareness of these risks and provide spatial refugia from potential interactions with the fishery.</p> |
| <p>2.2.5 There are measures in place to avoid impact on threatened ecological communities.</p> | <p>N/A</p> <p>There are no EPBC listed threatened ecological communities within the area of the fishery.</p> |
| <p>2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p> | <p>Meets</p> <p>The fishery is conducted in a way that is likely to be effective in avoiding impacts to protected species and ecological communities.</p> |
| Objective 3 - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally. | |
| Information requirements | |
| <p>2.3.1 Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fisheries impact on the ecosystem and environment generally.</p> | <p>Meets</p> <p>An EIS has been undertaken (2002) that collated information on fishery impacts on the ecosystem and environment generally. The FMS performance assessment process monitors the management of any ongoing impacts on the ecosystem. See links above.</p> |

| Assessment | |
|---|--|
| <p>2.3.2 Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery.</p> <p>1. Impacts on ecological communities</p> <ul style="list-style-type: none"> • Benthic communities • Ecologically related, associated or dependent species • Water column communities <p>2. Impacts on food chains</p> <ul style="list-style-type: none"> • Structure • Productivity/flows <p>3. Impacts on the physical environment</p> <ul style="list-style-type: none"> • Physical habitat • Water quality | <p>Meets</p> <p>Impacts of the fishery on the marine ecosystem were assessed through the EIS process in 2002 (link above) and the TARA process in 2017 (link above). The TARA report notes (in Appendix C, page 14) that the consequence of the potential impacts of the fishery poses a minimal risk to most of the relevant marine habitats in which it operates, although risk to beaches in the Northern and Southern regions was assessed as moderate (risk to beaches in the Central region was assessed as minimal).</p> |
| Management responses | |
| <p>2.3.3 Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.</p> | <p>Meets</p> <p>The main management measures in place to prevent damage to ecosystems are spatial and temporal closures.</p> |
| <p>2.3.4 There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.</p> | <p>Meets</p> <p>There are limited specific management responses due to low identified risk. However, the FMS describes performance measures and triggered responses, including actions concerning the number of beaches fished.</p> |
| <p>2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p> | <p>Meets</p> <p>The management response appears likely to be effective in minimising the impact of the fishery on the ecosystem.</p> |

SECTION 3: ASSESSMENT OF THE NEW SOUTH WALES OCEAN HAULING FISHERY AGAINST THE REQUIREMENTS OF THE EPBC ACT

The table below is not a complete or exact representation of the EPBC Act. It is intended to show that the relevant sections and components of the EPBC Act have been taken into account in the formulation of advice on the fishery in relation to decisions under Part 13 and Part 13A.

Part 12

| Section 176 Bioregional Plans | Comment |
|---|--|
| (5) Minister must have regard to relevant bioregional plans | Meets The fishery operates adjacent to the Temperate East Marine Region. It is not expected to have an impact on matters identified as priorities in the <i>Marine bioregional plan for the Temperate East Marine Region</i> . |

Part 13 - not required, fishery operates in state waters only.

Part 13A

| Section 303BA Objects of Part 13A | |
|---|---|
| (1) The objects of this Part are as follows: (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention; (b) to protect wildlife that may be adversely affected by trade; (c) to promote the conservation of biodiversity in Australia and other countries; (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way; (e) to promote the humane treatment of wildlife; (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife. | |
| Section 303DC Minister may amend list (non CITES species) | Comment |
| (1) The Minister may, by legislative instrument, amend the list referred to in section 303DB [list of exempt native specimens] by: (a) doing any of the following: (i) including items in the list; (ii) deleting items from the list; (iii) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; (iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or | The Department recommends that specimens derived from species harvested in the NSW Ocean Hauling Fishery , other than specimens that belong to species listed under Part 13 of the EPBC Act (other than a conservation dependent species), and specimens that belong to taxa listed under section 303CA (Australia's CITES list), be included in the list of exempt native specimens until 31 March 2028. |

| | | |
|------|---|--|
| (b) | correcting an inaccuracy or updating the name of a species. | |
| (1A) | In deciding to amend the LENS, the Minister must rely primarily on outcomes of Part 10, Div 1 or 2 assessment | N/a. Not a Commonwealth fishery. |
| (1C) | The above does not limit matters that may be considered when deciding to amend LENS. | Meets Through the above assessment at Section 2 against the Guidelines, the Department has taken into account all matters relevant to making an informed decision to amend the list of exempt native specimens to include product taken in this fishery. |
| (3) | Before amending the LENS, the Minister must consult: | Meets The submission from the NSW DPI was made available on DoEE website from 23 October 2017 to 24 November 2017. One comment was received from the NSW Professional Fishermen's Association, in support of continued export approval for the fishery. |
| (a) | other Minister or Ministers as appropriate; and | |
| (b) | other Minister or Ministers of each State and self-governing Territory as appropriate; and | |
| (c) | other persons and organisations as appropriate. | |

Part 16

| Section 391 Minister must consider precautionary principle in making decisions | | Comment |
|--|--|--|
| (1) | Minister must take account of the precautionary principle in making a decision, to the extent that the decision is consistent with other provisions under this Act. | Meets Given limited entry requirements and the use of selective fishing gear generally targeting single species of adult schooling fish, precautionary measures are considered to be in place, to prevent serious or irreversible environmental damage being caused by this fishery. |
| (2) | The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage. | |

REFERENCES

Department of the Environment (2012) *Marine Bioregional Plan for the Temperate East Marine Region*.