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Assessment of the

###### South Australian Abalone Fishery

November 2015

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**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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# Section 1: Summary of the Assessment for the South Australian Abalone Fishery Against the Guidelines for the Ecologically Sustainable Management of Fisheries (2nd Edition)

**Purpose**: To enable transparent articulation of which commercial fisheries assessed under the EPBC Act clearly meet all legislative requirements and all Guidelines, and those which may require further investigation or assessment to demonstrate requirements are met.

**Summary:** Overview of South Australian Abalone Fishery against the relevant requirements of the Guidelines and the EPBC Act.

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| **Guidelines** | **Meets** | **Partially meets** | **Does not meet** | **Details** |
| Management regime | 8 of 9 | 1 of 9 |  | Management arrangements for the South Australian Abalone Fishery (the fishery) are readily available and developed with transparent process, however a range of community interests are not involved in ongoing management arrangements. |
| Principle 1 (target stocks) | 10 of 11 | 1 of 11 |  | Robust and active management of target stocks, however harvest strategy lacks performance indicator and reference point to define ‘overfished’. |
| Principle 2 (bycatch and TEPS) | 12 of 12 |  |  | Bycatch not a concern in the fishery, given highly selective fishing method. |
| Principle 2 (ecosystem impacts) | 5 of 5 |  |  | Ecosystem impacts not a concern in the fishery, given highly selective fishing method. |
| **EPBC requirements** | | | | |
| Part 12 | 1 of 1 |  |  | Fishing activities do not compromise values identified in relevant MBP. |
| Part 13 | 12 of 12 |  |  | No interactions recorded or likely with Part 13 species, other than sightings of white sharks. |
| Part 13A | 1 of 3  1 of 3 N/a | 1 of 3 |  | Limited consultation if LENS is amended, although sufficient for strict requirements, as per advice to Minister in MS14-002367. |
| Part 16 | 1 of 1 |  |  | Precautionary measures built into management arrangements. |
| **Conclusion**: This fishery targets Greenlip Abalone (Haliotis laevigata) and Blacklip Abalone (H. rubra) by hand collection. It operates in three zones (Western, Central and Southern). Abalone can be susceptible to overfishing and local stocks in some areas of the fishery are considered depleted, although not overfished. However, management arrangements limit fishing in identified depleted areas as appropriate, in response to annual stock assessments. There are no bycatch or protected species concerns with this fishery, therefore it meets all environmental requirements of the EPBC Act and most of the Guidelines.  Outstanding issue 1: Target stocks are transparently and actively managed, however harvest strategy does not articulate what ‘overfished’ is, and therefore at what point fishing would stop if stocks became seriously depleted. | | | | |
| **Final recommendation for 2015 assessment of SA Abalone Fishery**: Low risk, eligible for 10 year approval (2015-2025). | | | | |

**Notes:**

**Assessment history:**

The assessment history for the South Australian Abalone Fishery is available on the Departments website at <http://environment.gov.au/marine/fisheries/sa/abalone>.

1st assessment finalised June 2004 – Exempt from export provisions of Part 13A of the EPBC Act until 21 June 2009 (GN 34, 25 August 2004). Export approval was subject to 11 recommendations. Accredited under Part 13 in November 2007.

2nd assessment finalised June 2009 – Exempt from export provisions of Part 13A of the EPBC Act until 21 June 2012 (F2009L02455). Export approval was subject to seven recommendations. Accredited under Part 13 of the EPBC Act in June 2009. Export approval extended until 21 June 2013 (F2012L01241).

assessment finalised 2013 – LENS with 4 recs. No public comments received.

3rd assessment finalised August 2013 – Exempt from export provisions of Part 13A of the EPBC Act until 24 August 2018 (F2013L01632). Export approval was subject to seven recommendations.

**Fishery reporting:**

Annual report

– last provided in July 2014

Protected species interactions

– All SA fishery interactions provided annually and are publicly available on the Research Report Series section of the SARDI website –<http://pir.sa.gov.au/research/publications/research_report_series>.

– Last published February 2014 (fishing year of 2012/13): <http://pir.sa.gov.au/__data/assets/pdf_file/0011/232400/Wildlife_Interactions_in_SA_Fisheries_2013_-_FINAL.pdf>

**Key links:**

– Fishery information page on Department of Primary Industries and Regions SA (PIRSA) website, including stock assessments for all three zones – <http://pir.sa.gov.au/fishing/commercial_fishing/commercial_fisheries/abalone_fishery>

– Management Plan for the SA Commercial Abalone Fishery – September 2012 (expires 2022), includes harvest strategy – <http://pir.sa.gov.au/__data/assets/pdf_file/0004/12982/Abalone_Fishery_Management_Plan_-_September_2012_.pdf>

**Ecological Risk Assessment**

– Ecological Risk Assessment – June 2009 <http://pir.sa.gov.au/__data/assets/pdf_file/0008/173996/ESD_Abalone_Report.pdf>

– FRDC Status of Key Australian Fish Stocks 2014 –

– Greenlip Abalone <http://fish.gov.au/reports/molluscs/abalones/Pages/greenlip_abalone.aspx>. Status in SA: Western Zone = sustainable, Central Zone = transitional depleting, Southern Zone = negligible.

– Blacklip abalone <http://fish.gov.au/reports/molluscs/abalones/Pages/blacklip_abalone.aspx>. Status in SA: Western Zone = transitional depleting, Central Zone = transitional depleting, Southern Zone = sustainable.

# Section 2: Detailed Analysis of the South Australian Abalone Fishery Against the Guidelines for the Ecologically Sustainable Management of Fisheries (2nd Edition)

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| **Guidelines for the Ecologically Sustainable Management of Fisheries (2nd edition)** | **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 | The South Australian Abalone Fishery (the fishery) is managed through publicly available legislation. Management plan for the South Australian Commercial Abalone Fishery – September 2012 (Fishery Management Plan) also available online (links above). |
| Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public | The Fishery Management Plan was developed through consultative process, including public consultation. |
| Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process | Co-managed between PIRSA and three representative industry groups. No formal management committee but a harvest strategy review committee involving an independent chair and scientists. |
| Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured | Yes, goals, objectives, strategies and performance indicators addressed in the Fishery Management Plan. Harvest strategy currently being reviewed and refined. |
| Be capable of controlling the level of harvest in the fishery using input and/or output controls | Yes, input and output controls, including limited entry, spatial closures, size limits, individual transferable quotas (ITQ) and total allowable commercial catches (TACC). |
| Contain the means of enforcing critical aspects of the management arrangements | Compliance risk assessment conducted annually, followed by annual development of compliance plan. |
| Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria | Stock assessment/stock status and TACCs reviewed annually. In SA, management plans are reviewed after 5 years operation. |
| 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 | An ecological risk assessment (ERA) was conducted in 2009. Risks addressed in 2012 Fishery Management Plan (Goal 3). Overall, fishery has minimal impact on wider marine environment. |
| Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy | No significant intersection with Commonwealth plans. |
| **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 | |
| ***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. | Yes, mandatory logbooks are used to record daily information on location, effort and total catch by species. |
| Assessment | |
| ***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. | Yes, annual stock assessment/stock status considers fishery dependent and independent data. |
| ***1.1.3*** The distribution and spatial structure of the stock(s) has been established and factored into management responses*.* | Yes, harvest strategy undertaken within 13 ‘spatial assessment units’ (SAUs). |
| ***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. | Good understanding of recreational and Indigenous harvest factored into catch levels of target species for stock assessments. |
| ***1.1.5*** There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested. | Yes, annual stock assessments include consideration of fishery independent surveys. |
| Management responses | |
| ***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. | Yes, harvest decision rules articulated in harvest strategy (within management plan). However, strategy lacks performance indicator and reference point below which fishery considered overfished. |
| ***1.1.7*** There are management strategies in place capable of controlling the level of take. | Yes, both input and output controls. |
| ***1.1.8*** Fishing is conducted in a manner that does not threaten stocks of by-product species. | Hand collected dive fishery, therefore no byproduct. |
| (Guidelines 1.1.1 to 1.1.7 should be applied to by-product species to an appropriate level) | |
| ***1.1.9*** The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective. | Appears likely, based on historic performance. |
| If overfished, go to Objective 2:  If not overfished, go to PRINCIPLE 2: | |
| **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. | |
| Management responses | |
| ***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. | Management plan articulates control rules should performance triggers be breached. |
| ***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. | Some SAUs assessed as sustainable, other SAUs assessed as ‘weak’ or overfished. Spatial and temporal closures or reductions in catch implemented in response. |
| **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. | Yes, mandatory daily logbooks, data summarised in annual reports. |
| Assessments | |
| ***2.1.2*** There is a risk analysis of the bycatch with respect to its vulnerability to fishing. | No bycatch due to hand collection method of fishing. |
| 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. | Not applicable. |
| ***2.1.4*** An indicator group of bycatch species is monitored. | Not applicable. |
| ***2.1.5*** There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers*.* | Not applicable. |
| ***2.1.6*** The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective. | Not applicable. |
| **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. | Interactions reported in mandatory daily logbooks. Only interactions reported since 2007 are sightings of white sharks. Divers may use shark cages to limit interactions with white sharks as a safety precaution. |
| Assessments | |
| ***2.2.2*** There is an assessment of the impact of the fishery on endangered, threatened or protected species. | Yes, ERA in 2009. Given there is no capture of any threatened, endangered or protected species (TEPS), risk rating was assessed as negligible. |
| ***2.2.3*** There is an assessment of the impact of the fishery on threatened ecological communities. | Only minimal overlap of fishery with EPBC listed Giant Kelp threatened ecological community (TEC), listed in August 2012. The 2009 ERA therefore does not specifically consider this TEC, but does consider impact on habitat, risk rating assessed as negligible. |
| Management responses | |
| ***2.2.4*** There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species. | Not applicable. |
| ***2.2.5*** There are measures in place to avoid impact on threatened ecological communities. | Not applicable. |
| ***2.2.6*** The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective. | Not applicable. |
| **Objective 3 - The** fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally. | |
| Information requirements | |
| **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. | Yes, fishery dependent and fishery independent data collected. |
| Assessment | |
| **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.  1. Impacts on ecological communities  • Benthic communities  • Ecologically related, associated or dependent species  • Water column communities  2. Impacts on food chains  • Structure  • Productivity/flows  3. Impacts on the physical environment  • Physical habitat  • Water quality | Yes, comprehensive ERA conducted in 2009, risks generally identified as minimal. Ongoing low risks addressed in management plan. |
| Management responses | |
| ***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. | While significant damage to ecosystems unlikely, management responses prescribed in management plan. |
| ***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. | Yes, described in management plan. |
| ***2.3.5*** The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective. | Appears likely. |

# Section 3: Assessment of the South Australian Abalone Fishery Against the Requirements of the EPBC Act

**Please Note** – the table below is not a complete or exact representation of the EPBC Act. It is intended as a checklist of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Part 13 and Part 13A.

**Part 12**

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|  | **Comment** |
| **Section 176 Bioregional Plans** | |
| (5) Minister must have regard to relevant bioregional plans | KEFs and BIAs in bioregional plan for south-west not compromised by fishing activity. |

**Part 13**

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|  | **Comment** |
| **Accreditable plan, regime or policy (Division 1, Division 2, Division 3, Division 4)** | |
| s. 208A (1) (a-e) , s.222A (1) (a-e), s.245A (1) (a-e), s.265 (1) (a-e)  Does the fishery have an accreditable plan of management, regime or policy? | The South Australian Abalone Fishery will be managed under the Management plan for the South Australian Commercial Abalone Fishery – September 2012, and the SA Fisheries Management Act 2007. |
| **Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes** | |
| (f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing? | The Department considers that the management regime requires that all reasonable steps are taken to avoid the killing or injuring of protected species, and the risk of interaction under current fishing operations is low. On this basis, the Department is satisfied that an action taken by an individual fisher, acting in accordance with the management regime, would not be expected to have a significant impact on a listed threatened species protected by the EPBC Act. |
| (g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species. | The Department considers that the fishery to which the management regime relates does not, or is not likely to, adversely affect the survival in nature of a listed threatened species or population of that species. |
| **Division 2 Migratory species, Section 222A Minister may accredit plans or regimes** | |
| (f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing? | The Department considers that the management regime requires that all reasonable steps are taken to avoid the killing or injuring of migratory species, and the risk of interaction under current fishing operations is low. On this basis, the Department is satisfied that an action taken by an individual fisher, acting in accordance with the management regime, would not be expected to have a significant impact on a listed migratory species protected by the EPBC Act. |
| (g) And, is the fishery likely to adversely affect the conservation status of a listed migratory species or a population of that species? | The Department considers that the fishery to which the management regime relates does not, or is not likely to, adversely affect the survival in nature of a listed migratory species or population of that species. |
| **Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes** | |
| (f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing? | The Department considers that the management regime requires that all reasonable steps are taken to avoid the killing or injuring of whales and cetaceans, and the risk of interaction under current fishing operations is low. On this basis, the Department is satisfied that an action taken by an individual fisher, acting in accordance with the management regime, would not be expected to have a significant impact on a whale or cetacean species protected by the EPBC Act. |
| (g) And is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species? | The Department considers that the fishery to which the management regime relates does not, or is not likely to, adversely affect the survival in nature of a whale or cetacean or population of that species. |
| **Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes** | |
| (f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing? | The Department considers that the management regime requires that all reasonable steps are taken to avoid the killing or injuring of listed marine species, and the risk of interaction under current fishing operations is low. On this basis, the Department is satisfied that an action taken by an individual fisher, acting in accordance with the management regime, would not be expected to have a significant impact on a listed marine species protected by the EPBC Act. |
| (g) And is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species? | The Department considers that the fishery to which the management regime relates does not, or is not likely to, adversely affect the survival in nature of a listed marine species or population of that species. |
| **Section 303AA Conditions relating to accreditation of plans, regimes and policies** | |
| (1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265. | The Department of the Environment and Energy recommends that the South Australian Abalone Fishery be accredited under sections 208A, 222A, 245 and 265. |
| (2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:  (a) during a particular period; or  (b) while certain circumstances exist; or  (c) while a certain condition is complied with.  In such a case, the instrument of accreditation is to specify the period, circumstances or condition. | No condition has been imposed on the South Australian Abalone Fishery under Part 13. |
| (7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened. | Not applicable. |

**Part 13A**

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| **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. | |
|  | **Comment** |
| **Section 303DC Minister may amend list (non CITES species)** | |
| (1) The Minister may amend the LENS by:  (a) doing any of the following:  (i) including items in the list;  (ii) deleting items fromthelist;  (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 | The Department **recommends** that specimens that are or are derived from fish or invertebrates, taken in the South Australian Abalone Fishery as defined in the management regime in force under the South Australian *Fisheries Management Act 2007*, but not including   * specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or * specimens that belong to taxa listed under section 303CA of the EPBC Act (Australia’s CITES list)   be included in the list of exempt native specimens until 25 July 2025. |
| (1A) In deciding to amend LENS, Minister must rely primarily on outcomes of Part 10, Div 1 0r 2 assessment | Not applicable. No assessment under Part 10 of the EPBC Act has been completed as the South Australian Abalone Fishery is not a Commonwealth fishery. |
| (1C) The above does not limit matters that may be considered when deciding to amend LENS. | The Department considers that the amendment of the list of exempt native specimens to include product derived from the fishery would be consistent with the provisions of Part 13A (listed above) as:   * the fishery will not harvest any Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species * there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see links above) * the operation of the fishery is unlikely to be unsustainable and threaten biodiversity within the next ten years. |
| (3) Before amending LENS, Minister must consult:  (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. | General consultation with the (SA) Minister for Fisheries in October 2014 (MS14-002367). |

**Part 16**

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|  | **Comment** |
| **Section 391 Minister must consider precautionary principle in making decisions** | | |
| (1) Minister must take account of precautionary principle  (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. | Precautionary management measures in place  The precautionary principle has been considered by the Department when making its recommendation to the delegate to include specimens in the list of exempt native specimens. |