Nature Conservation Society of South Australia

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The Director
Sustainable Fisheries Section
Department of the Environment
GPO Box 787
CANBERRA ACT 2601

May 21, 2014

RE: Ecological Assessment of the South Australian Beach-Cast Seagrass and Marine Algae Fishery

Dear Director,

The Nature Conservation Society of South Australia (NCSSA) welcomes the opportunity to provide comments on the Ecological Assessment of the South Australian Beach-Cast Seagrass and Marine Algae Fishery report prepared by Primary Industries and Regions South Australia (PIRSA).

As South Australia's primary nature conservation advocacy organisation, NCSSA has been a long term advocate for the protection of biodiversity in South Australia with particular attention being paid to nationally and state listed threatened plants, animals and ecological communities.

Although we acknowledge the commercial harvesting of beach-cast seagrass and marine algae is a relatively small but growing industry in South Australia, NCSSA has serious concerns regarding the current lack of quantifiable data to inform the ecological assessment of this fishery. We strongly recommend that report should contain further reference to existing research programs and investigation both in Australia and overseas on the impact of harvesting operations on biodiversity including species of international, national and state conservation significance. We also strongly recommend that both the Federal and State Governments provide further commitment to resourcing an effective long-term monitoring program to demonstrate the ecological sustainability of the fishery.

Please refer to the following pages for our comments on the Assessment Report. If you would like to clarify or discuss any of the points raised please contact me on (08) 7127 4633 or via email at nicki.depreu@ncssa.asn.au

Yours sincerely,

Nicki de Preu

Conservation Ecologist

NCSSA provides the following comments on the specific sections of the assessment report 'Ecological Assessment of the South Australian Beach-Cast Seagrass and Marine Algae Fishery'

2. Purpose

The stated purpose of the report is to provide the Department of the Environment (DotE) with an assessment of the management arrangements in place for the fishery and address the level of change that has occurred in the fishery since export approval lapsed in 2009. We strongly recommend that the report should address the level of change that has occurred in the fishery since the previous assessment by AGDEH (2004). During this time there has been a significant lack of progress in finalising the management plan to guide future development of the industry. As part of the current EPBC assessment process, we strongly recommend that PIRSA commit to finalising the management plan within 12 months of acceptance of the final assessment report.

3.2.1 Commercial History

The report states that there are no annual stock assessments by SARDI for the fishery and that this information is considered confidential under the Fisheries Act 2007. We question how this meets the requirement for assessment against the Guidelines for Ecologically Sustainable Management of Fisheries (2nd Edition) for the management regime to be:

- documented, publically available and transparent; and
- developed through a consultative process providing opportunity for all interested and affected parties, including the general public.

The statement in paragraph 2 (Page 8) that "there is currently no research basis on which to determine ecologically sustainable wrack harvest levels" is inaccurate and misleading. There have been a number of research studies and investigations in Australia and overseas in relation to sustainable harvest levels for this fishery (for example Orr, 2013; Birtwell et al., 2013; Duong, 2008 and Dugan, J.E et al., 2003). We strongly recommend that this the report acknowledges these studies.

We support the statement that "In the absence of this scientific data and because of concerns regarding the possible impact on coastal fisheries and the environment from the removal of wrack accumulations, PIRSA has adopted a 'precautionary approach' to the harvesting of wrack". Given the potential future expansion of the fishery we would strongly recommend that a regular monitoring program is implemented to document changes in the distribution and biomass of beachwrack in areas where commercial licences apply. We also recommend that a proportion of the licence fees are directed towards research programs to investigate the effects of commercial harvest in the Beachport area as was stated in the 2004 assessment report.

We also recommend that this section of the report should acknowledge there has been considerable change to the methods used for commercial harvest since the initial 2004 assessment report.

3.2.1 Commercial Harvesting

We strongly recommend that more detailed maps showing the areas where commercial licences apply are included in the assessment report to provide a more accurate representation of the commercial harvest zones referred to in the second paragraph in this section.

The report states that "Harvesting is sporadic, being carried out opportunistically whenever significant quantities of wrack are deposited on the foreshore" and "As a result, the majority of harvesting takes place during winter and spring when peak accumulations occur after storms or periods of strong wind" citing Kirkman & Kendrick 1997 and Duong 2008. Historical data from the 2003 assessment report indicates that harvesting occurs throughout the year so could potentially impact bird species of international and national conservation significance that utilise beachwrack for shelter, nesting and feeding at key times of the year. Christie and Jessop (2007) identified the Beachport (Rivoli Bay) area as a site potentially threatened by macroalgal harvesting. This area was considered to have internationally significant numbers of Ruddy Turnstone, and the second highest number of birds of the nine ocean beaches surveyed (across 13 species). We strongly recommend that the fishery introduce a closed season during times when birds are dependent on wrack, e.g. around the arrival and departure time for migratory birds (particularly during moulting) and nesting season for the resident species Hooded Plover, Red-capped Plover and Pied Oystercatcher.

We acknowledge the use of 'exclusion zones' interspersed within harvest sites in the areas accessible to commercial harvesting that is intended to regulate the impact of the fishery so that no more than 75% of the estimated total biomass of beach cast seagrass and macroalgae wrack is removed from a specific license area. Given the spatial and temporal variation in the resource and current lack of monitoring we recommend that the additional information should be provided for the assessment report including detail of how biomass is assessed, frequency of assessment and who is responsible for this. The last sentence in this section of the report (Page 9) states that "There is no estimate of the percentage of macroalgae that is usually harvested from a wrack but due to the very large size of such wrack accumulations and the high turn-over rate, it is expected that this percentage would be quite low". Although this assumption may be correct we strongly recommend that a regular and long-term monitoring program be implemented to confirm this.

3.2.4 Amenity clearing

We acknowledge the need for amenity clearing in specific areas due to public concerns associated with the decomposition of wrack access issues for boat ramps or marinas. The report states that "Wracks that are removed for public amenity purposes are small amounts and are only harvested periodically" however we recommend that, as with the commercial fishery, this information should be documented and reported on annually to enable an assessment of the scale and frequency of amenity clearing in future reports.

3.2.5 Recreational clearing

The report states that "There is currently no estimate of product taken recreationally but this is considered to be a very small amount" (Page 10). As per our comments on both the commercial fishery and amenity clearing we also recommend that the number of applications for recreational clearing and amounts removed should be reported annually as part of the ongoing assessment of the industry.

3.3.4 Birds

We strongly support the statement that "many shorebirds and seabirds are associated with wrack accumulations" and utilise them "for a for a variety of purposes including nesting, shelter during strong winds or storms and camouflage while resting (Campbell & Anderson 2007)". We also support the statement that "In South Australia, a total of 40 species of birds have been recorded utilising

beach-cast wrack in some way" (McCulloch 1996) and recognition of the important habitat value for birds. We strongly recommend that additional information is provided as an Appendix to the report that includes a list of bird species that have been recorded utilising beach wrack, their conservation ratings where appropriate and months that they have been recorded as part of an ongoing monitoring program to assist in the sustainable management of the fishery.

3. *ESD Assessment of the Management Regime Against Principle 1 and 2*
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

Assessment
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.

The report states that "Accurate commercial catch reporting has been in place for the fishery since 1997 as part of the legislative requirements of the Act" and that "Licence holders are required to provide data on their fishing activities through monthly catch and effort returns." Changes to the Fisheries Act in 2007 mean that this information is now considered confidential and therefore not publically available. We question how this meets the requirement for assessment against the Guidelines for Ecologically Sustainable Management of Fisheries (2nd Edition) for the management regime to be:

- documented, publically available and transparent; and
- developed through a consultative process providing opportunity for all interested and affected parties, including the general public.

The 2004 assessment recommended further research to determine ecologically sustainable beach-cast harvest levels, including a timetable for implementation, and for the program outline to be made publicly available by July 2005. We advocate strongly that this recommendation be included in the current assessment with a commitment for regular, long-term monitoring of the fishery to demonstrate its' ecological sustainability.

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.

The current assessment states "there are no formal reference points to trigger management actions and no research basis from which to determine ecologically sustainable beach-cast wrack harvest levels" and that "any assessment of wrack abundance is problematic because of the highly patchy and mobile nature of the resource". We acknowledge the application of the precautionary principle and input controls to ensure regulation of the fishery. We strongly recommend that key performance indicators and reference points in Tables 5 & 6 of the 2004 (Pages 18-19) assessment are addressed in the current assessment to enable guidelines for ongoing management and evaluation of the industry.

We also strongly recommend that the Federal Government require a commitment by PIRSA to finalise the management plan for the fishery in South Australia within 12 months of completion of the current assessment.

Assessment

2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.

The report states that “An environmental impact study was conducted by a private consultant prior to approval being granted for the existing Beachport harvest area” and that “Any proposed increase in access or the granting of new licences will be subject to further environmental impact assessments to indicate that this proposed change to management arrangements would be ecologically sustainable”. Given the highly variable spatial and temporal distribution of the resource and current lack of long-term monitoring we question whether the impact of the fishery on endangered, threatened or protected species can be effectively evaluated. Although methodology and parameters to be measured have been clearly stipulated, practical implementation to enable assessment of impact is more difficult requiring rigorous survey design and analysis. We strongly recommend that further resources are provided for local shorebird experts to undertake regular monitoring of commercial harvest areas as part of broader surveys to assess shorebird numbers across the region.

References

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