



Australian Government

Department of the Environment

Assessment of the South Australian Rock Lobster Fishery

October 2013

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Disclaimer

This document is an assessment carried out by the Department of the Environment 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 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 or the Australian Government.

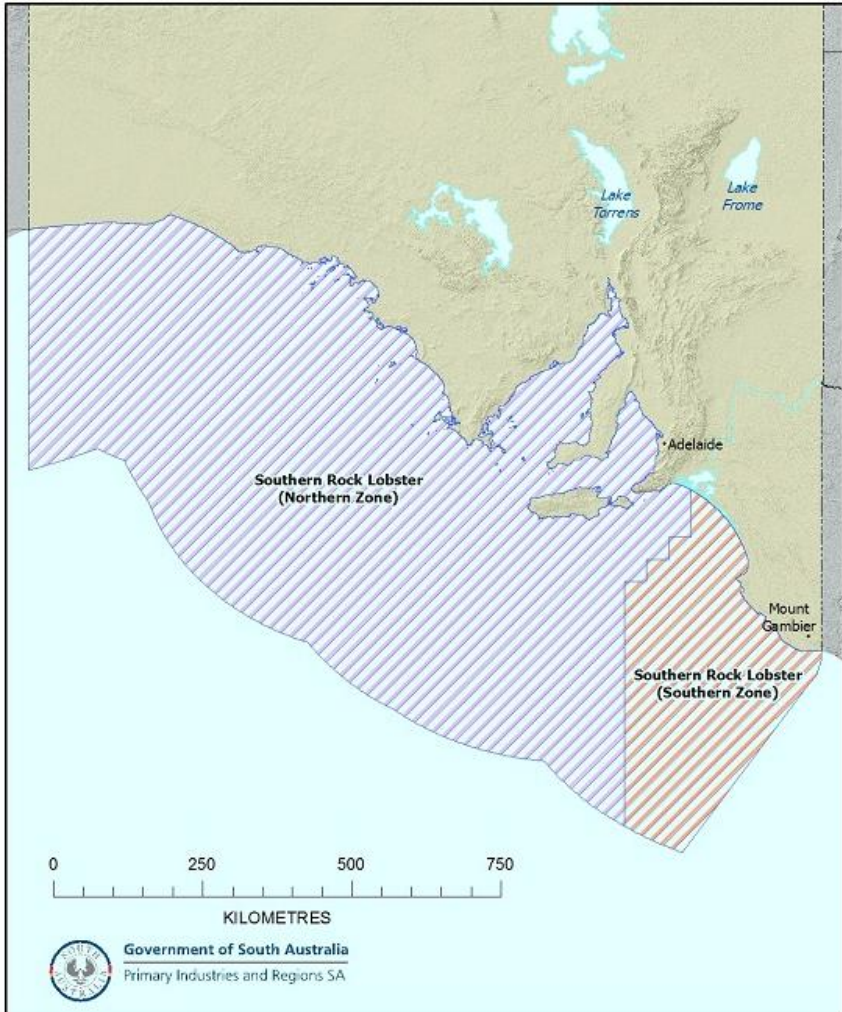
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Contents

Table 1:	Summary of the South Australian (SA) Rock Lobster Fishery	1
	Table 1 contains a brief overview of the operation of the fishery, including: the gear used, species targeted, byproduct species, bycatch species, annual catch, management regime and ecosystem impacts.	
Table 2:	Progress in implementation of recommendations made in the 2008 assessment of the SA Rock Lobster Fishery	8
	Table 2 contains an update on the progress that has been made by the Department of Primary Industries and Regions South Australia (PIRSA) in implementing the recommendations made in the 2008 assessment.	
Table 3:	The Department of the Environment's (the Department) assessment of the SA Rock Lobster Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and Part 13A.....	15
	Table 3 contains the Department's assessment of the fishery's management arrangements against all the relevant parts of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> that the delegate must consider before making a decision.	
	The Department's final recommendations to PIRSA for the SA Rock Lobster Fishery	24
	This section contains the Department's assessment of the fishery's performance against the Australian Government's <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i> and outlines the reasons the Department recommends that product derived from the fishery be included in the list of exempt native specimens.	
Table 4:	The SA Rock Lobster Fishery Assessment – Summary of Issues and Recommendations, October 2013	25
	Table 4 contains a description of the issues identified by the Department with the current management regime for the fishery and outlines the proposed recommendations that would form part of the delegate's decision to include product derived from the fishery in the list of exempt native specimens.	
References.....		29

Table 1: Summary of the South Australian (SA) Rock Lobster Fishery

<p>Key documents relevant to the fishery</p>	<ul style="list-style-type: none"> • <i>SA Fisheries Management Act 2007</i> • The Fisheries Management (Rock Lobster Fisheries) Regulations 2006 • The Fisheries Management (General) Regulations 2007 • The Fisheries Management (Fish Processor) Regulations 2006 • SA Fisheries Management Series, Management Plan for the South Australian Commercial Northern Zone Rock Lobster Fishery - 2007 • Management Plan for the South Australian Commercial Southern Zone Rock Lobster Fishery - 2013 • South Australian Research and Development Institute Fishery Assessment Report, Southern Zone Rock Lobster (<i>Jasus edwardsii</i>) Fishery 2010/11 • South Australian Research and Development Institute Fishery Assessment Report, Northern Zone Rock Lobster (<i>Jasus edwardsii</i>) Fishery 2010/11 • SA Fisheries Management Series, Ecological Assessment of the South Australian Rock Lobster (<i>Jasus edwardsii</i>) Fishery, Reassessment Report 2013 • <i>Marine bioregional plan for the South-west Marine Region 2012</i>
<p>Area</p>	<p>The SA Rock Lobster Fishery operates in SA state waters and Commonwealth waters offshore of the border of Victoria and SA, west to the border of SA and Western Australia (WA) and seaward to the limit of the 200 nautical mile Australian Fishing Zone.</p> <p>For management purposes the fishery is split into two zones, the Southern and Northern Zone, which each having their own management plan (Figure 1).</p> <p>The Southern Zone includes all waters between the mouth of the Murray River south-east to the Victorian border, a stretch of coastline 425 kilometres (km) long, and covers an area of 22,000 km².</p> <p>The Northern Zone includes all waters between the mouth of the Murray River west to the Western Australian border, a stretch of coastline 3,700 km long, and covers an area of 207,000 km².</p>

	<p style="text-align: center;">Area of the Rock Lobster Fisheries</p>  <p>The map illustrates the coastal waters of South Australia, divided into two management zones for the Southern Rock Lobster fishery. The Northern Zone is shaded with blue diagonal lines, and the Southern Zone is shaded with red diagonal lines. Key geographical features labeled include Lake Torrens, Lake Frome, Adelaide, and Mount Gambier. A scale bar at the bottom indicates distances from 0 to 750 Kilometres. The logo of the Government of South Australia, Primary Industries and Regions SA, is located in the bottom left corner of the map area.</p> <p>Figure 1. The area of the SA Rock Lobster Fishery showing the two management areas (Source: Draft Management Plan for the South Australian Commercial Northern Zone Rock Lobster Fishery - 2013).</p>
<p>Target Species</p>	<p>The fishery targets southern rock lobster (<i>Jasus edwardsii</i>).</p> <p>Southern rock lobsters occur around southern mainland Australia, Tasmania and New Zealand (Booth et al. 1990). In Australia, southern rock lobsters can be found from Coffs Harbour in northern New South Wales, south and west around to Geraldton in WA, however most of the population is found in SA, Victoria and Tasmania in depths of one to 200 metres (m) (Brown and Phillips 1994). Mating occurs from April to July and eggs are brooded over the winter for about 3-4 months.</p> <p>The larvae hatch in early spring, passing through a brief (10-14 days) nauplius phase (a larval form with three pairs of appendages and a single median eye, occurring usually as the first stage of development after leaving the egg), then into a planktonic leaf-like phyllosoma phase (second stage of larval development where larvae are transparent and flat), before being transported offshore by ocean currents.</p>

	<p>The larvae develop through a further 11 stages over 12-23 months before finally metamorphosing into the puerulus stage (fully formed miniature rock lobsters) near the continental shelf break (Booth et al. 1991). The pueruli actively swim inshore to settle onto reef habitat in depths from 50 m to the intertidal zone. Growth rates are variable depending on environmental factors, with adult southern rock lobsters typically recruiting into the fishery between 3-5 years of age.</p>
Fishery status	<p>The SA Rock Lobster Fishery is reported as SA's most valuable commercial fishery. Current key biological performance indicators used to assess the Southern Zone and Northern Zone are catch rate (catch per unit effort (CPUE)) and pre-recruit index. Additional performance indicators include total biomass, mean weight, actual catch vs total allowable commercial catch (TACC), puerulus settlement index and egg production.</p> <p>The Status of Key Australian Fish Stocks 2012 (Flood et al., 2012) describes the whole southern rock lobster stock (which encompasses Tasmania, Victoria and South Australia) as sustainably fished. A sustainable classification is given to a stock for which the biomass is considered to be at a level sufficient to ensure that, on average, future levels of recruitment are adequate (i.e. not recruitment overfished) and for which fishing pressure is adequately controlled to avoid the stock becoming recruitment overfished.</p> <p>Southern Zone: The 2010-11 stock assessment for the Southern Zone of the SA Rock Lobster Fishery described the southern rock lobster stock as fully fished but noted the stock had experienced significant declines since 2003. Despite positive signs of improved recruitment in 2009 a further decline in recruitment into the zone is predicted for 2013 to 2016, due to environmental factors. This information is based on decreasing biomass and CPUE estimates. Following the declines in recruitment in the Southern Zone, PIRSA lowered the TACC for the fishery from 1770 tonnes (t) in 2008-09 to 1250 t in 2012-13 to aid in reducing the risk of the stock becoming recruitment overfished.</p> <p>Northern Zone: The 2010-11 stock assessment for the Northern Zone of the SA Rock Lobster Fishery described the southern rock lobster stock as overfished and noted that the stock had experienced significant declines between the period 1999 to 2008. In the 2009 season, the TACC was reduced from 470 t to 310 t, subsequently recruitment and CPUE in 2009 and 2010 increased, suggesting stock recovery. However, a further decline in recruitment into the zone between 2013 to 2016 is anticipated following low puerulus settlement between 2007 and 2011, due to environmental factors. While the stock in the Northern Zone has seen general declines in recruitment between the period 1999 to 2008, the increase in CPUE and recruitment in 2009 and 2010 has allowed for a small increase in the TACC to 345 t in 2012-13 season which is consistent with the new harvest strategy for the zone.</p>
Commercial licences issued	<p>In 2012 there were 181 licences in operation in the Southern Zone of the fishery and 67 licences in the Northern Zone.</p>

	As rock lobster licences originated from the SA Marine Scalefish Fishery, each licence also allows the targeting of some scalefish, mollusc, annelid (polychaete worms) and shark species within the respective Zones.
Byproduct Species	<p>In addition to southern rock lobster, licence holders are allowed to take octopus (<i>Octopus spp.</i>), giant crab (<i>Pseudocarcinus gigas</i>), a number of scalefish species, molluscs, annelids (polychaete worms), crustaceans and sharks depending on the level of access to the fishery that the licence stipulates.</p> <p>PIRSA has advised that current catch rates of octopus are relatively low in both the Southern and Northern Zones of the fishery. The 2013 Ecologically Sustainable Development Risk Assessment of the fishery concluded that there was no indication the level of bycatch of octopus was unsustainable.</p> <p>The stock status report for the SA Giant Crab Fishery has assessed the giant crab stock as undefined due to some inconsistency in the performance indicators. However, total catch has remained relatively stable since introduction of quota in the SA Giant Crab Fishery in 2003 and total effort has generally declined (Chick, 2013).</p> <p>PIRSA considers that the risk to other byproduct species is negligible due to the level of take being low compared to the overall biomass and take by other fisheries. All scalefish species taken are subject to quota, bycatch or other catch limits.</p>
Gear	<p>Fishers predominantly harvest lobsters using steel framed pots covered with wire mesh. Lobsters enter pots through a moulded plastic neck and pots are generally left out over night and retrieved the following day.</p> <p>A number of line methods (longline, dropline, rod, handline) can also be used to catch scalefish species. A 400 hook limit has been placed on licences entitled to use longline and droplines except in waters of the Spencer Gulf and Gulf St Vincent where a maximum of 200 hooks applies.</p>
Season	<p>The fishing season opens for the Southern Zone on 1 October and closes on 30 May of each year. The Southern Zone is closed to fishing between 1 June and 30 September of each year to protect spawning lobsters.</p> <p>The fishing season opens for the Northern Zone on 1 November and closes on 30 May of each year. The Northern Zone is closed to fishing between 1 June and 31 October of each year to protect spawning lobsters.</p>
Commercial harvest	<p>Total landings of rock lobster for 2008-09 was 1810 t.</p> <p>Total landings of rock lobster for 2009-10 was 1553 t.</p> <p>Total landings of rock lobster for 2010-11 was 1557 t.</p> <p>Total landings of rock lobster for 2011-12 was 1549 t.</p>
Value of commercial harvest	The gross value of production for the fishery in 2011-12 was approximately \$96 million.

<p>Take by other sectors</p>	<p>Recreational</p> <p>Southern rock lobster is a popular recreational species, with recreational catch managed through a combination of output controls, including gear restrictions, compulsory tail fin clipping, minimum legal size limits, a maximum daily bag limit and a maximum daily boat limit. These measures aim to ensure the total catch is maintained within sustainable limits and that access to the fishery and fishing opportunities are equitably distributed between participants.</p> <p>The Draft Management Plan for the South Australian Commercial Northern Zone Rock Lobster Fishery - 2013 and the Management Plan for the South Australian Commercial Southern Zone Rock Lobster Fishery - 2013 specify that recreational and commercial catch will be limited to a percentage of the total state-wide southern rock lobster catch each year. Recreational catch will be limited to 3.5 per cent of the total catch in the Northern Zone and 3.5 per cent of the total catch in the Southern Zone. This share was estimated to be in the order of approximately 126 t in 2007. A recreational catch survey completed in 2007-08 estimated recreational catch to be approximately 2.5 per cent of the fishery's total harvest which equates to approximately 60 t.</p> <p>Indigenous</p> <p>There is little available information on the take of southern rock lobster by the Indigenous traditional fishing sector. However, PIRSA is currently engaged in Indigenous Land User Agreement (ILUA) negotiations with native title claimants and other stakeholder groups, including the commercial fishing industry.</p> <p>A share of access to the fishery has been allocated and set aside for the purpose of resolving these native title claims. A nominal share of one per cent of the total fishery catch has been made to the Indigenous traditional sector in the Northern Zone and one per cent of the overall resource in the Southern Zone. This share was estimated to be in the order of approximately 36 t of the total fishery catch in 2007.</p> <p>Illegal</p> <p>No estimation of southern rock lobster illegally removed from the fishery each year has been completed. PIRSA considers that illegal take of southern rock lobster in the area of the fishery is negligible.</p>
<p>Management arrangements</p>	<p>The SA Rock Lobster Fishery is managed under the Management Plan for the South Australian Northern Zone Rock Lobster Fishery – September 2007 and the Management Plan for the South Australian Southern Zone Rock Lobster Fishery - 2013, <i>SA Fisheries Management Act 2007</i> and SA Fisheries Management (Rock Lobster Fisheries) Regulations 2006. A combination of input and output controls are used, including:</p> <p><u>Input controls</u></p> <ul style="list-style-type: none"> • limited entry • seasonal spawning closures

	<ul style="list-style-type: none"> • minimum of 20 pots per licence • maximum of 100 pots per licence • compulsory Vessel Monitoring System (VMS) in the Northern Zone <p><u>Output controls</u></p> <ul style="list-style-type: none"> • individual transferable quota (ITQ) for each licence • TACC limits • no retention of spawning females • minimum legal length- <ul style="list-style-type: none"> Southern Zone- 98.5 millimetres (mm) carapace length Northern Zone- 105 mm carapace length <p>Most of the fishery operates within the Commonwealth bioregional planning area of the South-west Marine Region. A small area of the fishery (eastern side) operates within the Commonwealth bioregional planning area of the South-east Marine Region.</p>
Export	More than 95 per cent of the annual catch is exported, predominantly to Hong Kong.
Bycatch	<p>Bycatch in the fishery is considered to be low. A bycatch sampling program carried out from 2001-02 to 2003-04 provided information on bycatch diversity and estimates of bycatch catch rates. The study identified 40 species of bycatch caught in pots in the fishery. Results indicated that bycatch was dominated by temperate reef finfish, particularly leatherjackets (multiple spp.) and blue throat wrasse (<i>Notolabrus tetricus</i>). Many finfish species are used as bait in lobster fishing. Crustaceans were the next largest component of bycatch (Brock et al., 2007).</p> <p>Bycatch from 2010 to 2012 in the Southern Zone was estimated to be 6 fish per 100 pot lifts and in the Northern Zone was estimated to be 12 fish per pot lift. The catch rates of bycatch in the fishery are similar to those reported by Brock et al., 2007 and reflects that bycatch in the fishery has not varied significantly since 2001.</p> <p>Ongoing regular bycatch reporting in the fishery is voluntary.</p>
Interaction with Protected Species¹	<p>The SA Rock Lobster Fishery has previously recorded interactions with sea turtles, dolphins, New Zealand fur seals and Australian sea lions. The <i>Ecologically Sustainable Development Risk Assessment (ERA) for the South Australian Commercial Rock Lobster Fishery – June 2013</i> rates the fishery as posing a moderate risk to Australian sea lions and a negligible risk to other threatened species that occur in the fishery.</p>

¹ 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and listed threatened, listed marine and listed migratory species.

	<p>Australian sea lions</p> <p>PIRSA has advised that from 1 November 2013, lobster pots used in the Northern Zone (in waters less than 100m deep) will be required to be fitted with metal rods that extend from the base of the pot to the base of the pot collar (Sea Lion Exclusion Devices (SLEDs)). The operational specifications for these SLEDs are in accordance with the conclusions and recommendations made by Goldsworthy et al. (2010) to mitigate against the incidental capture of Australian sea lions and New Zealand fur seals.</p>
Ecosystem Impacts	<p>The 2013 ERA for the fishery assessed the potential impacts of the fishery on the surrounding ecosystem by considering the removal of rock lobster, ghost fishing, addition and/or movement of biological material, habitat disturbance, air quality, water quality and bait collection. The ERA determined the impacts of these processes on the ecosystem as 'negligible' to 'low'.</p> <p>The <i>Bioregional plan for the South-west Marine Region 2012</i> identifies key ecological features present in the area of the fishery, including ancient coastline at 90–120 m depth, a meso-scale eddy, the Kangaroo Island Pool, canyons and adjacent shelf break and upwellings offshore of the Eyre Peninsula. The plan further notes that there are pressures in the area of the fishery from chemical pollutants and oil pollution (from fishing vessels), physical habitat modification, harvesting of living resources, and bycatch. While noting these concerns, given the benign harvesting method used in the SA Rock Lobster Fishery (traps), the Department considers that impacts to the physical ecosystem are likely to be low.</p> <p>A bioregional plan for the South-east Marine Region has not yet been finalised.</p>
Impacts on CITES species	<p>No specimens listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are permitted to be harvested in the fishery. Therefore no assessment of the fishery's impact on specimens listed under CITES has been conducted.</p>
Impacts on World Heritage property/RAMSAR site	<p>There are no World Heritage or RAMSAR Convention sites within the area of the fishery, therefore no assessment has been conducted.</p>

Table 2: Progress in implementation of conditions and recommendations made in the 2008 assessment of the SA Rock Lobster Fishery

Condition on Part 13 accreditation	Progress	Recommended Action
<p>1. By the commencement of the 2010 fishing season PIRSA to require the adoption of appropriate measures to mitigate interactions with protected species.</p>	<p>PIRSA has advised that in 2007, research was undertaken by the South Australian Research and Development Institute of Aquatic Sciences (SARDI) to investigate appropriate measures to mitigate interactions between the South Australian Rock Lobster Fishery and the Australian sea lion (ASL). A key finding of this research was that rock lobster pots with a correctly fitted spike (Sea Lion Exclusion Device (SLED)) would significantly reduce the likelihood of Australian sea lion entrapment.</p> <p>Subsequently, in 2010, the SA Rock Lobster Industry adopted a Code of Practice to use such SLEDs when ASL activity is apparent e.g. foraging, breeding sites, haul-out sites.</p> <p>PIRSA has further advised that from 1 November 2013 all commercial lobster pots in the Northern Zone will be required to be fitted with SLEDs in waters less than 100 m. PIRSA advised licence holders of its decision to implement mandatory use of SLEDs in a Notice to Fishers sent to all licence holders in June 2013.</p>	<p>The Department of the Environment (the Department) considers the issues covered by this condition to be met.</p>

Recommendation	Progress	Recommended Action
<p>1. Operation of the fishery will be carried out in accordance with the Rock Lobster Fishery (RLF) management regime in force under the <i>SA Fisheries Management Act 2007</i>, Fisheries Management (Rock Lobster Fisheries) Regulations 2006 and the Fisheries Management (General) Regulations 2007.</p>	<p>PIRSA has advised that the SA Rock Lobster Fishery has operated in accordance with the Management Plan for the South Australian Southern Zone Rock Lobster Fishery – September 2007 and the Management Plan for the South Australian Northern Zone Rock Lobster Fishery- September 2007 under the SA Fisheries Management (Rock Lobster Fisheries) Regulations 2006 and the SA Fisheries Management (General) Regulations 2007.</p>	<p>The Department considers the issues covered by this recommendation to be met.</p> <p>The Department recommends that this recommendation be continued (see Recommendation 1, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>2. The Department of Primary Industries and Resources South Australia (PIRSA) to advise DEWHA of any intended amendments to the management arrangements that may affect the assessment of the fishery against the criteria on which the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) decisions are based.</p>	<p>PIRSA has advised that new management plans for the Southern and Northern Zones of the SA Rock Lobster Fishery have been developed in accordance with the <i>Fisheries Management Act 2007</i>. The new management plans provide the broad policy framework to guide management decision-making for the fishery. The plans also describe the management measures that have been introduced to ensure the long-term sustainability of SA's rock lobster resource.</p> <p>The new Management Plan for the South Australian Commercial Southern Zone Rock Lobster Fishery came into force on 1 October 2013. The new plan includes a harvest strategy, describes the biological, economic and social characteristics of the fishery, identifies potential impacts of the fishery on its associated ecosystems and introduces performance monitoring measures for the fishery.</p> <p>The draft Management Plan for the South Australian Commercial Northern Zone Rock Lobster Fishery is anticipated to be finalised in mid 2014. It is not envisaged that the new plan will affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>	<p>The Department considers the issues covered by this recommendation to be met.</p> <p>The Department recommends that this recommendation be continued (see Recommendation 2, Table 4).</p>
<p>3. PIRSA to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable management of Fisheries 2nd Edition</i>.</p>	<p>PIRSA has presented annual reports to the Department that described all of the fisheries it manages, which included specific reporting on the SA Rock Lobster Fishery. PIRSA has advised that it will continue to provide reports to the Department on a yearly basis.</p>	<p>The Department considers the issues covered by this recommendation to be met.</p> <p>The Department recommends that this recommendation be continued (see Recommendation 3, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>4. By December 2010 PIRSA to implement the new management plans, incorporating a review of the appropriateness of stock abundance triggers.</p>	<p>PIRSA has advised that the new Management Plan for the South Australian Commercial Southern Zone Rock Lobster Fishery came into force on 1 October 2013.</p> <p>The Draft Management Plan for the South Australian Commercial Northern Zone Rock Lobster Fishery is not anticipated to be finalised until mid 2014, due to uncertainties in the harvest strategy following the implementation of marine park sanctuary zones in SA waters. The plan will bring in a new harvest strategy, describe the biological, economic and social characteristics of the fishery, identify potential impacts of the fishery on its associated ecosystems and introduces performance monitoring measures for the fishery.</p> <p>PIRSA has advised that new harvest strategies for both the Southern and Northern Zones were implemented in 2011. The robustness of each harvest strategy to uncertainties such as starting biomass, level and variability in recruitment, variability in Catch Per Unit of Effort (CPUE), and trends in CPUE were tested by independent scientists and found to be appropriate.</p>	<p>The Department notes that while this recommendation has not been fully addressed, substantial progress has been made towards its completion. Therefore, the Department considers the issues covered by this recommendation to be partially met.</p> <p>The Department recommends that this recommendation be continued (see Recommendation 4, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>5. PIRSA to continue to work towards the implementation of a program to collect fishery-independent information, or test existing fishery-independent information, in the Northern Zone.</p>	<p>While PIRSA has advised that it considers a fishery independent monitoring program to be important to future assessments of the resource in the Northern Zone, there have been insufficient resources to implement such a program since the last assessment. However, PIRSA is continuing to work with industry to determine alternative opportunities for monitoring and assessment with regard to cost, benefit, risk and effectiveness at meeting management objectives.</p> <p>PIRSA has also advised that industry has invested in a voluntary catch sampling program as well as on board observers. The catch sampling program provides spatially-explicit data for the assessment of the status of the fishery in both zones. The observer program adds information to the catch sampling program and is compared to fisher's voluntary pot sampling data to provide support to the trends observed in these data.</p>	<p>The Department considers the issues covered by this recommendation to be partially met.</p> <p>The Department recommends that a similar recommendation be continued (see Recommendation 5, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>6. PIRSA to conduct an ERA prior to the implementation of the new management plans for the NZRLF and the SZRLF. In the development and implementation of the ERA, PIRSA to: identify areas at risk of localised depletion and implement appropriate management measures to address the identified risks; and implement appropriate measures to ensure risks identified in relation to bycatch and by-product are addressed and minimised.</p>	<p>PIRSA has advised that an ecological risk assessment (ERA) was conducted in 2011 (published in June 2013) which assessed the current known and potential risks to the ecosystem from the fishery.</p> <p>While localised depletion was not assessed specifically as part of the ERA, risks to the target stocks were assessed as moderate. The target stocks in the Northern and Southern Zones were assessed as overfished and fully fished, respectively and management measures such as the lowering of TACC's have been implemented to ensure the stocks continue in a recovery state.</p> <p>The risks to byproduct were assessed through the ERA as negligible to low for the species caught (Velvet and Giant Crab, scalefish and sharks). Catch of giant crab in the fishery is taken account of in the stock assessment for the SA Giant Crab Fishery. No management measures have been put in place for the velvet crab, scalefish and sharks caught in the fishery due to the low ERA ratings.</p> <p>Risks to bycatch species were assessed as negligible to moderate, due to the presence of ASL and New Zealand fur seal colonies in the Northern Zone of the fishery. SLEDs will be implemented in the Northern Zone to lower the risk of sea lion and fur seal pups becoming entrapped in the pots. The ERA stipulates that the implementation of metal spikes in lobster pots lowers the risk from moderate to low.</p>	<p>The Department considers the issues covered by this recommendation to be met.</p>

Recommendation	Progress	Recommended Action
<p>7. PIRSA to develop and implement methods to reduce the capture and improve survivorship of juvenile rock lobster across all Zones of the RLF.</p>	<p>PIRSA has advised that minimum legal size limits have been in place in the fishery since 1968 which allows 50 per cent of females to reach sexual maturity. Size limits are different in each zone of the fishery due to the different growth characteristics of the lobster in each zone. Investigation of the growth characteristics has shown that the size at maturity of lobsters in the Northern Zone was higher due to faster growth of lobsters in that area. Minimum size limits have been set at 105 millimetres (mm) for the Northern Zone and 98.5 mm for the Southern Zone. Both size limits have been set slightly higher than the average age at maturity (92.2 mm for the southern Zone and 104.1 mm for the Northern Zone).</p> <p>PIRSA has also advised that escape gaps have been mandatory in the Northern Zone since 2003 which has been shown to reduce catch rates of undersized lobsters.</p> <p>In addition, PIRSA has advised that the TACC setting process involves a pre-recruit index as a secondary performance indicator which allows ongoing monitoring of the abundance of juvenile lobsters in both zones of the fishery.</p>	<p>The Department considers the issues covered by this recommendation to be met.</p>

Table 3: The Department of the Environment’s assessment of the SA Rock Lobster Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and Part 13A.

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary 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. A complete version of the EPBC Act can be found at <http://www.comlaw.gov.au/>.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	The Department’s assessment of the SA Rock Lobster Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy 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; and</p>	<p>The SA Rock Lobster Fishery will be managed under the SA <i>Fisheries Management Act 2007</i>, Fisheries Management (Rock Lobster Fisheries) Regulations 2006 and the Fisheries Management (General) Regulations 2007.</p> <p>The management regime for the SA Rock Lobster Fishery was first accredited under Part 13 of the EPBC Act in October 2003, then recredited in November 2007 and October 2008. The management arrangements for the fishery have changed since the October 2008 accreditation was granted, with lobster pots in the Northern Zone of the fishery now required to be fitted with spikes to lower the risk of Australian sea lion (ASL) pups becoming trapped in pots. The <i>Ecologically Sustainable Development Risk Assessment (ERA) for the South Australian Commercial Rock Lobster Fishery – June 2013</i> rates the fishery as posing a moderate risk to ASL and a negligible risk to other listed threatened species that occur in the fishery however, since 2008 there have been no reported interactions with listed threatened species.</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>As such the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed threatened species in the SA Rock Lobster Fishery.</p> <p>Therefore, the Department considers the current operation of the SA Rock Lobster Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
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Part 13 (cont.)

<p>Division 2 Migratory species Section 222A Minister may accredit plans or regimes</p>	<p>The Department's assessment of the SA Rock Lobster Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p>	<p>The SA Rock Lobster Fishery will be managed under the SA <i>Fisheries Management Act 2007</i>, Fisheries Management (Rock Lobster Fisheries) Regulations 2006 and the Fisheries Management (General) Regulations 2007.</p> <p>The management regime for the SA Rock Lobster Fishery was first accredited under Part 13 of the EPBC Act in October 2003, then recredited in November 2007 and October 2008. The management arrangements for the fishery have not significantly changed with regards to listed migratory species since the October 2008 accreditation was granted. The 2013 ERA rates the fishery as posing a low risk to migratory species that occur in the fishery and historically, interactions with listed migratory species are considered minimal. As such the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed migratory species in the fishery.</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The Department further considers the current operation of the SA Rock Lobster Fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p>
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Part 13 (cont.)

<p>Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes</p>	<p>The Department's assessment of the SA Rock Lobster Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p>	<p>The SA Rock Lobster Fishery will be managed under the <i>SA Fisheries Management Act 2007</i>, Fisheries Management (Rock Lobster Fisheries) Regulations 2006 and the Fisheries Management (General) Regulations 2007.</p> <p>The management regime for the SA Rock Lobster Fishery was first accredited under Part 13 of the EPBC Act in October 2003, then reaccredited in November 2007 and October 2008. The management arrangements for the fishery have not significantly changed with regards to cetaceans since the October 2008 accreditation was granted. The 2013 ERA rates the fishery as posing a low risk to whales and other cetaceans that occur in the fishery and historically, interactions with cetaceans are considered minimal. As such the Department considers that all reasonable steps are being taken to prevent the killing or injuring of cetaceans in the SA Rock Lobster Fishery.</p>

(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.	Therefore, the Department considers the current operation of the SA Rock Lobster Fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.
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Part 13 (cont.)

Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	The Department's assessment of the SA Rock Lobster Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; and</p>	<p>The SA Rock Lobster Fishery will be managed under the SA <i>Fisheries Management Act 2007</i>, Fisheries Management (Rock Lobster Fisheries) Regulations 2006 and the Fisheries Management (General) Regulations 2007.</p> <p>The management regime for the SA Rock Lobster Fishery was first accredited under Part 13 of the EPBC Act in October 2003, then reaccredited in November 2007 and October 2008. The management arrangements for the fishery have changed since the October 2008 accreditation was granted and now requires lobster pots in the Northern Zone to be fitted with SLEDs to lower the risk of fur seal and Australian sea lion pups becoming trapped in pots. The 2013 ERA rates the fishery as posing a moderate risk to Australian sea lions that occur in the fishery however, since 2008 there have been no reported interactions with listed marine species. As such the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed marine species in the SA Rock Lobster Fishery.</p>

(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.	Therefore, the Department considers the current operation of the SA Rock Lobster Fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species.
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Part 13 (*cont.*)

Section 303AA Conditions relating to accreditation of plans, regimes and policies	The Department's assessment of the SA Rock Lobster Fishery
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The Department recommends that the management regime for the SA Rock Lobster 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: <ul style="list-style-type: none"> (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.	The Department considers that no conditions are required for the accreditation of the management regime for the SA Rock Lobster 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.	

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 CITES² 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.

² Convention on International Trade in Endangered Species of Wild Fauna and Flora

Part 13A

Section 303DC Minister may amend list	The Department's assessment of the SA Rock Lobster Fishery
<p>(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none"> (a) including items in the list; (b) deleting items from the list; or (c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or (d) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or (e) correcting an inaccuracy or updating the name of a species. 	<p>The Department recommends that product derived from the SA Rock Lobster Fishery be included in the list of exempt native specimens until 26 October 2018.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>No assessment of the SA Rock Lobster Fishery has been carried out under Part 10 of the EPBC Act.</p>
<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>The Department considers that the amendment of the list of exempt native specimens to include product taken in the SA Rock Lobster Fishery until 26 October 2018 would be consistent with the provisions of Part 13A (listed above) as:</p>

	<ul style="list-style-type: none"> ▪ 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 Table 1) ▪ the operation of the SA Rock Lobster Fishery is unlikely to be unsustainable and threaten biodiversity within the next 5 years, and ▪ the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify crustaceans, molluscs or fish as a class of animal in relation to the welfare of live specimens.
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <p>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</p> <p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>	<p>The Department considers that the consultation requirements have been met.</p> <p>The application from PIRSA was released for public comment from 30 August 2013 to 1 October 2013. The public comment period sought comment on:</p> <ul style="list-style-type: none"> ▪ the proposal to amend the list of exempt native specimens to include product derived from the SA Rock Lobster Fishery, and ▪ the application provided by PIRSA for the SA Rock Lobster Fishery. <p>No comments were received.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the SA Rock Lobster Fishery made under section 303DC will be gazetted and made available on the Department's website.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The Department's assessment of the SA Rock Lobster Fishery
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	Having regard to the precautionary management measures in place in these fisheries, summarised in Table 1, the Department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303DC and section 303FN.
(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.	

Part 12

Section 176 Bioregional Plans	The Department's assessment of the SA Rock Lobster Fishery
(5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant.	The <i>Bioregional plan for the South-west Marine Region 2012</i> has been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN. Extraction of living resources has been identified as a pressure operating within the South-west Marine Bioregion planning area in which the SA Rock Lobster Fishery operates. Bycatch of turtles, sea snakes, seabirds and seahorses is also a recognised pressure of potential concern. However, the <i>Ecologically Sustainable Development Risk Assessment - June 2013</i> assessed the impacts of the fishery to the physical ecosystem as negligible to low due to the benign harvesting method used in the fishery (traps). In addition, an annually reviewed total allowable commercial catch restricts the removal of rock lobster from the ecosystem to sustainable levels.

The Department of the Environment's final recommendations to the Department of Primary Industries and Regions South Australia for the SA Rock Lobster Fishery

The material submitted by the Department of Primary Industries and Regions South Australia (PIRSA) indicates that the SA Rock Lobster Fishery operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*.

Stock Status

The Department of the Environment (the Department) considers that overall the target stock of rock lobster is not overfished and that the management regime in place in the SA Rock Lobster Fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing.

Management arrangements in place in the fishery include:

- limited entry
- a total allowable commercial catch (TACC)
- seasonal closures, and
- size restrictions (minimum legal length) for rock lobster in both zones.

Fishery dependent and independent surveys are regularly conducted in the Southern Zone and voluntary catch sampling is undertaken in the Northern Zone to establish recruitment strength and abundance of southern rock lobster in the fishery. While the overall stock (which extends across waters of Tasmania, Victoria and SA) is considered to be sustainably fished and not subject to overfishing, localised depletion has occurred in some areas of the Northern Zone. PIRSA has decreased the TACC in both zones since the Department's previous assessment in 2008, to ensure these stocks recover to sustainable levels.

The Department considers that the management measures used in the fishery are sufficient to ensure that the fishery is conducted in a manner that will not lead to further overfishing and that stocks that are currently overfished will not remain that way.

Ecosystem Impacts

Taking into account the management measures for the target species and the benign fishing method (traps), the Department considers that fishing operations conducted under the Management Plan for the South Australian Commercial Northern Zone Rock Lobster Fishery - 2007 and the Management Plan for the South Australian Commercial Southern Zone Rock Lobster Fishery - 2013 will be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

The Department considers that product taken in the fishery should be included in the list of exempt native specimens under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* for a period of five years, until 26 October 2018. To contain and minimise the risks in the longer term the recommendations listed in Table 4 have been made. Unless a specific time frame is provided, each recommendation should be addressed during the five year period.

Table 4: SA Rock Lobster Fishery Assessment – Summary of Issues and Recommendations October, 2013

Issue	Recommendation
<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of the Environment needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or the ecosystem.</p>	<p>Recommendation 1:</p> <p>Operation of the South Australian (SA) Rock Lobster Fishery will be carried out in accordance with the management regime in force under the <i>SA Fisheries Management Act 2007</i>, SA Fisheries Management (Rock Lobster Fisheries) Regulations 2006 and the SA Fisheries Management (General) Regulations 2007.</p> <p>Recommendation 2:</p> <p>The Department of Primary Industries and Regions South Australia (PIRSA) to continue to inform the Department of the Environment (the Department) of any intended material changes to the SA Rock Lobster Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>

<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to the Department annually in order for the performance of the fishery and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries-2nd Edition</i> and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's recommendations. Electronic copies of the guidelines are available from the Department's website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</p>	<p>Recommendation 3:</p> <p>PIRSA to continue to produce and present reports to the Department annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries-2nd Edition</i>.</p>
<p><u>Implementation of management plans</u></p> <p>The Department notes that the Management Plan for the South Australian Commercial Southern Zone Rock Lobster Fishery – 2013 was implemented in October 2013 and the draft Management Plan for the South Australian Commercial Northern Zone Rock Lobster Fishery – 2013 is currently being finalised, with the plan expected to be implemented in mid 2014.</p> <p>The Department considers the finalisation of the Northern Zone management plan to be a high priority. The finalisation of the management plan will ensure that the fishery operates within a clear administrative framework and will allow for a wide range of measures to be implemented that will aid in the promotion of ecosystem based fisheries management. The Department acknowledges that a number of the management arrangements contained in the new management plans were implemented in 2011 and while this is a positive step for the fishery, the Department considers that the finalisation of the Northern Zone management plan would ensure management arrangements are sufficiently enforceable and robust.</p> <p>Under provisions in the EPBC Act, the Department must be advised of any amendments to existing or new management plans. If deemed necessary, the Northern Zone plan may need to undergo assessment in order for the fishery to retain its accreditation under Parts 13 and 13A of the EPBC Act.</p>	<p>Recommendation 4:</p> <p>PIRSA to finalise the new management plan for the Northern Zone of the fishery by mid 2014.</p>

Data collection for stock monitoring

Collection of fishery data forms an important part of stock assessments as it provides insights into the nature of changes that may occur in the fishery. Fishery dependent and independent surveys are regularly conducted in the Southern Zone and the Department is aware that industry has implemented a voluntary catch sampling program and on board observers in the Northern Zone of the fishery. The information collected through these voluntary programs is likely to be useful and may aid in future stock assessment processes however, appropriate validation of these data will ensure consistency is applied across the fishery. The Department therefore recommends that PIRSA continue working towards improved validation of data collected in the Northern Zone of the fishery.

Recommendation 5:

PIRSA to continue work towards improved validation of fishery-dependent data in the Northern Zone.

Localised depletion

It is important that all key target stocks in the fishery remain at or above sustainable levels and are not subject to localised depletion. While the overall stock of southern rock lobster (which encompasses Victoria, SA and Tasmania) has been assessed as sustainably fished (Flood et al., 2012), the 2013 Ecologically Sustainable Development Risk Assessment (ERA) for the SA Rock Lobster Fishery has assessed the Northern Zone as overfished, although the stock appears to be in a rebuilding stage. The Department acknowledges that the Northern Zone is an economically important area of the fishery and that stronger Catch Per Unit of Effort (CPUE) and recruitment were reported in 2009-2010 however, it is also noted that the 2010-2011 stock assessments for both zones indicate that 2013-2016 will see a further drop in recruitment due to low settlement rates in previous years. The Department is aware that declines in recruitment in recent years have been attributed to environmental factors.

The Department notes that TACCs have been lowered to compensate for the low settlement years, however localised depletion of rock lobster is of concern and may require further monitoring to ensure fishing pressures do not affect stocks in the fishery. This is particularly relevant in the Northern Zone, where areas close to fishers' home ports are fished more vigorously.

The Department therefore recommends that PIRSA continue to actively monitor stocks of rock lobster in the fishery and if stocks continue to decline, ensure that appropriate management measures are developed and implemented that allow for the recovery of stocks to sustainable levels.

Recommendation 6:

PIRSA to continue monitoring southern rock lobster stocks in the fishery and if stocks continue to decline, implement timely, appropriate management measures to recover the stocks to sustainable levels.

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