



**Australian Government**

---

**Department of the Environment and Energy**

Assessment of the  
**Victorian Sea Urchin Fishery**

**August 2016**

© Copyright Commonwealth of Australia, 2016.



*Assessment of the Victorian Sea Urchin Fishery August 2016* is licensed by the Commonwealth of Australia for use under a Creative Commons By Attribution 3.0 Australia licence with the exception of the Coat of Arms of the Commonwealth of Australia, the logo of the agency responsible for publishing the report, content supplied by third parties, and any images depicting people. For licence conditions see: <http://creativecommons.org/licenses/by/3.0/au/>.

This report should be attributed as '*Assessment of the Victorian Sea Urchin Fishery August 2016*, Commonwealth of Australia 2016'.

#### **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.

While reasonable efforts have been made to ensure that the contents of this report are factually correct, the Australian Government does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this report. You should not rely solely on the information presented in the report when making a commercial or other decision.

## CONTENTS

Section 1: Summary of the Assessment for the Victorian Sea Urchin Fishery Against the Guidelines for the Ecologically Sustainable Management of Fisheries (2nd Edition) .....	2
Section 2: Detailed Analysis of the Victorian Sea Urchin Fishery Against the Guidelines for the Ecologically Sustainable Management of Fisheries (2nd Edition).....	5
Section 3: Assessment of the Victorian Sea Urchin Fishery Against the Requirements of the EPBC Act.....	12

## SECTION 1: SUMMARY OF THE ASSESSMENT FOR THE VICTORIAN SEA URCHIN 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.

Overview of Victorian Sea Urchin Fishery against the relevant requirements of the Guidelines and the EPBC Act.

Guidelines	Meets	Partially meets	Does not meet	Details
Management regime	6 of 9 1 of 9 N/a	2 of 9		<p><b>The management regime is effective.</b></p> <p>The Victorian Sea Urchin Fishery (the fishery) is managed under the <i>Sea Urchin Fishery Baseline Management Arrangements</i> (SUF Management Plan). The SUF Management Plan was developed in consultation with commercial fishing interests, and in accordance with the Fisheries Regulations 2009 (Vic) and <i>Fisheries Act 1995</i> (Vic). Consultation is not open to the public. Committee membership is limited.</p> <p>Management regime includes strategic objectives linked to actions and performance criteria. Harvest is managed through input and output controls, and compliance reporting to enforce management arrangements.</p>
Principle 1 (target stocks)	5 of 11 3 of 11 N/a	3 of 11		<p><b>Target stocks are generally well managed for the scale of the fishery.</b></p> <p>The information collection system is appropriate to the scale of the fishery. Data includes an appropriate mix of fishery independent and dependent research. The spatial structure and dynamics of the fishery is known, including the status of target species. Harvest fractions are very low (i.e. 2 to 3% of estimated biomass).</p>
Principle 2 (bycatch and TEPS)	5 of 12 7 of 12 N/a			<p><b>Risks to bycatch and protected species are negligible.</b></p> <p>Impacts on bycatch and TEPS of low concern due to hand collection fishing method.</p>
Principle 2 (ecosystem impacts)	3 of 5 2 of 5 N/a			<p><b>Ecological risk is low.</b></p> <p>Ecosystem impacts of low concern due to highly selective fishing method and other management practices.</p>
EPBC requirements	Meets	Partially meets	Does not meet	Details
Part 12				<p><b>Not applicable.</b></p> <p>There is no relevant Marine Bioregional Plan for the South-east Marine Region in which the fishery operates.</p>
Part 13				<p><b>Not applicable.</b></p>

				Part 13 accreditation is not required as the fishery operates in state waters only.
Part 13A	1 of 3 1 of 3 N/a	1 of 3		<b>Partially meets.</b> Limited consultation if LENS is amended, although sufficient for strict requirements, as per advice to Minister in MS14-002367.
Part 16	1 of 1			<b>Meets.</b> The management regime for the fishery is considered suitably precautionary.
<b>Conclusion:</b> The fishery targets white sea urchin ( <i>Heliocidaris erythrogramma</i> ) and black (long-spined) sea urchin ( <i>Centrostephanus rodgersii</i> ) by hand collection. It operates in state waters across four management zones (Western, Port Phillip Bay, Central and Eastern) with a TACC set for each zone. A 2002 survey collected limited information on the overall biomass within the fishery boundary. Annual data is collected by commercial fishers for targeted reefs. The management regime is precautionary and there are no concerns for bycatch, protected species or ecosystem impacts. Therefore, the fishery meets all environmental requirements of the EPBC Act and most of the Guidelines.				
<b>Final recommendation for 2016 assessment of Victorian Sea Urchin Fishery:</b> Low risk, eligible for 10 year approval (2016–2026).				

**Notes:****Assessment history:**

The assessment history for the Victorian Sea Urchin Fishery is available on the Departments website at <http://www.environment.gov.au/marine/fisheries/vic/sea-urchin>.

- 1<sup>st</sup> assessment finalised November 2005 – the fishery was declared an approved wildlife trade operation (WTO) until November 2008. Product from the fishery was included in the list of exempt native specimens (LENS) while a WTO was in place for the fishery. Export approval was subject to 6 recommendations and 3 conditions.
- 2<sup>nd</sup> assessment finalised October 2008 – the fishery was declared an approved WTO until 4 November 2011. Product from the fishery was included in the LENS while a WTO was in place for the fishery. Export approval was subject to 3 recommendations and 3 conditions.
- 3<sup>rd</sup> assessment finalised October 2011 – product from the fishery was included in the LENS until 1 November 2016 (F2011L02159). Export approval was subject to 3 recommendations.

***Fishery reporting:***

- Annual reports are not publicly available.
- Protected species interactions are not publicly available.

***Key links:***

- Department of Economic Development, Jobs, Transport and Resources available at <https://economicdevelopment.vic.gov.au/about-us/news/new-fisheries-authority-announced>.
- Note the fishery is now managed by the Victorian Fisheries Authority – <https://vfa.vic.gov.au/>.
- Information on the Victorian Sea Urchin Fishery is available at <https://vfa.vic.gov.au/commercial-fishing/sea-urchin>.

**Management plan:**

- Sea Urchin Fishery Baseline Management Arrangements in accordance with Victorian legislation.

**Enforcing legislation:**

- *Fisheries Act 1995* (Vic) and *Fisheries Regulations 2009* (Vic) are available on the Victorian Legislation website at <http://www.legislation.vic.gov.au/>.

***Harvest strategy or document that articulates control rules***

- It is anticipated that a harvest strategy will be developed by industry with guidance from the department and the *National Guidelines to Develop Fishery Harvest Strategies*.

***Ecological Risk Assessment***

- An ecological risk assessment was conducted in 2008, but is not publicly available.

***Publicly available stock assessment***

- Stock assessments have not been undertaken to date due to low/conservative catch level.

## SECTION 2: DETAILED ANALYSIS OF THE VICTORIAN SEA URCHIN FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)

Guidelines	Meets	Partially meets	Does not meet	Comment
<b>THE MANAGEMENT REGIME</b>				
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	<b>Meets.</b> The Victorian Sea Urchin Fishery (the fishery) operates under the <i>Sea Urchin Fishery Baseline Management Arrangements</i> and in accordance with the Victorian <i>Fisheries Act 1995</i> and the Victorian Fisheries Regulations 2009, which are all available publicly.  These baseline management arrangements are considered appropriate because catch is a small proportion of the estimated biomass and there are few operators. The management framework involves a progression from low cost, low yield at Level 1 (baseline arrangements) to higher cost, optimum yield at Level 3. At this stage there is no requirement to develop the fishery beyond baseline total allowable commercial catch (TACC) levels.			
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public	<b>Partially meets.</b> Consultative, but not open to general public.  The management regime was developed in consultation with commercial permit holders and the Eastern Victorian Sea Urchin Divers Association Inc. as the key stakeholders in accordance with Victorian legislation. Public consultation under Part 3A of the Fisheries Act was not required. Due to the scale of the fishery, meetings with industry have tended to be small and linked with other events such as cost recovery meetings. Consultation prior to setting annual TACCs is undertaken with licence holders and in accordance with legislative requirements.			
Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process	<b>Partially meets.</b> Limited expertise and public interest involved in fishery management committees.  Industry is involved in annual TACC setting but consultation is undertaken informally and by post due to the low catch levels and industry's desire to keep management costs low. The extent of meetings and consultation may change if the fishery expands. Inter-jurisdictional consultation and information occurs with Tasmania and New South Wales as required.			
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured	<b>Meets.</b> Management regime includes specific objectives and performance measures, which meet the broad objectives within the <i>Fisheries Act</i> . Management strategies include mandatory pre-launch, and pre- and post-landing activity reports, which are matched to electronic at-sea reporting to confirm catch, effort and location.			
Be capable of controlling the level of harvest in the fishery using input and/or output controls	<b>Meets.</b> A combination of input and output controls are used. <u>Input controls</u> <ul style="list-style-type: none"> <li>no take areas (waters &lt;2 metres),</li> <li>gear restrictions,</li> <li>spatial management (reef codes within four zones (Western, Central, Port Phillip Bay, Eastern),</li> </ul>			

	<ul style="list-style-type: none"> <li>• area conditions on licence, and</li> <li>• mandatory at-sea reporting via mobile smart phone app.</li> </ul> <p><u>Output controls</u></p> <ul style="list-style-type: none"> <li>• non-transferable fishery access licence,</li> <li>• annual TACC with quota management system (QMS) and individual transferable quota (ITQ),</li> <li>• recreational possession limits (20 fish/day), and</li> <li>• each licence must have a minimum twenty ITQ units.</li> </ul> <p>The baseline conservative TACC is set using biomass estimates from the 2002 study by Blount &amp; Worthington (2003). Harvest fractions are very low (i.e. 2 to 3% of estimated biomass). Changes to the TACC that are beyond the baseline levels require fishery independent data (e.g. an abundance survey) and/or at least four years of fishery dependent data.</p>
Contain the means of enforcing critical aspects of the management arrangements	<p><b>Meets.</b></p> <p>Effective enforcement capability is in place with active involvement from Fisheries Victoria's Education and Enforcement team. Enforcement measures are adjustable according to the perceived risk of non-compliance. On-land reporting and at-sea compliance approaches are employed. Prior notification of intent to fish (pre-launch, pre- and post-landing). Mandatory reporting of all fishing activity (daily catch, location, timing) using newly developed smart phone app (fishery-specific).</p>
Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria	<p><b>Meets.</b></p> <p>Baseline management arrangements are reviewed every 4 years. A decision to move from level 1 management to level 2 requires a review of the fishery. This would also result in an increased annual TACC as each level of management has a TACC threshold. Annual review of compliance risk assessment.</p>
Be capable of assessing, monitoring and avoiding, remedying or mitigating any adverse impacts on the wider marine ecosystem in which the target species lives and the fishery operates	<p><b>Meets.</b> Hand collection harvesting is highly selective so there is no bycatch in the fishery and impacts of fishing on the ecosystem are negligible. Monitoring of catch and effort data provides information on spatial trends, and will continue as part of the management of this fishery.</p>
Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy	<p><b>Not applicable.</b></p> <p>No impact to bycatch or byproduct species.</p>
<p><b>PRINCIPLE 1</b> - 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.</p>	
<p><b>Objective 1</b> - 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.</p>	
<p><b>Information requirements</b></p>	
<p><b>1.1.1</b> There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.</p>	<p><b>Meets.</b></p> <p>Data collection in the fishery is based on catch and effort information provided by fishers through mandatory daily reporting of catch, bycatch and byproduct via a smart phone app. This new technology is being used effectively by operators. In the event of the app failing, fishers can make reports by calling the duty officer. DEDJTR may use its discretion where fishers fail to notify the duty officer in the event of hardware failure.</p> <p>No independent observer coverage for this fishery.</p>
<p><b>Assessment</b></p>	



<p><b>1.1.2</b> There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.</p>	<p><b>Partially meets.</b></p> <p>The last stock assessment was undertaken in 2002. Since then, a conservative quota has been intentionally set at low levels under baseline management arrangements. Incidental abundance data is collected at specific sites as part of the annual abalone fishery independent surveys conducted by Fisheries Victoria.</p> <p>The fishery is considered under exploited, harvesting only 2–3% of the biomass. Should increases in TACC be requested by industry, stock assessments would be reviewed.</p> <p>Fishery-dependent information is the primary data source for this fishery. Adjustments to the current management arrangements will be made in consultation with industry and in response to standardised reef-based CPUE. Sea urchin stocks are also monitored as part of the abalone stock assessments.</p> <p>The next review of management arrangements will likely coincide with a review of the Fisheries Regulations, which will sunset in 2019 or earlier if industry proposes.</p>
<p><b>1.1.3</b> The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p>	<p><b>Partially meets.</b></p> <p>The fishery consists of four zones with two zones being fished under current management arrangements. Finer scale management is possible with scope for increased production.</p> <p>Sea urchin populations can vary significantly in abundance, roe quality and quantity between individual reefs (Worthington and Blount, 2003). Fishing occurs in the Eastern and Port Phillip Bay zones only, as very little information is available on Central and Western zones.</p>
<p><b>1.1.4</b> There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.</p>	<p><b>Meets.</b></p> <p>Knowledge of the biomass within the fishery boundary is based largely on the 2002 survey (Worthington &amp; Blount 2003). The primary source of information on commercial removals is daily catch reports obtained through the smart phone app.</p> <p>The level of recreational and indigenous harvest is unknown but believed to be negligible. As no significant recreational or indigenous catch has been measured to date, catch will continue to be recognised and managed under existing legislation using output controls in the form of a daily bag limits. Explicit catch shares and opportunities for indigenous participation in the fishery may be considered as part of any future allocations as more information on this catch becomes available.</p>
<p><b>1.1.5</b> There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p>	<p><b>Partially meets.</b></p> <p>The potential productivity across the fishery boundary is not well known. Fishers tend to focus on reefs with known productive populations of sea urchin. Given the conservative TACC, this approach is considered sustainable.</p> <p>While abundance data is lacking for the entire fishery, the amount of fishery dependent information that is available is expanding for fished reefs. The fishery is considered under exploited and therefore operating well below its potential productivity.</p>
<p><b>Management responses</b></p>	
<p><b>1.1.6</b> There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.</p>	<p><b>Meets.</b></p> <p>The baseline management plan for the fishery specifies the catch limit reference points, which define the baseline TACC: 2% of estimated biomass for white urchin in Port Phillip Bay and Eastern Zone, and 3% for black urchin in Eastern Zone. The lower reference point for white urchin is due to increased susceptibility of this species to overfishing.</p> <p>The specific requirements for setting, monitoring and reviewing the TACC, management objectives, and associated reference points will be outlined in the harvest strategy for each management zone. Licence holders, with guidance from the DEDJTR and the <i>National Guidelines to Develop Fishery Harvest Strategies</i>, will develop these harvest strategies.</p>
<p><b>1.1.7</b> There are management strategies in place capable of controlling the level of take.</p>	<p><b>Meets.</b></p>

	<p>Yes. Strategies that control the level of take include commercial input and output controls such as TACC, spatial closures and a recreational bag limit. The fishery uses spatial management to support the productivity, viability and sustainability of the fishery, particularly white urchin populations in the Eastern Zone. TACCs are set for each management zone. Catch restrictions by zone ensure that effort is spread spatially. The reporting framework provides catch and effort data for compliance purposes as well as providing spatially validated fishery-dependent data, particularly location data to support future review and adjustments to the TACC.</p> <p>Industry self-management in each zone is key to implementing sub-zonal management. This measure may require stronger regulatory tools (e.g. fisheries notices to close specific reefs or larger areas) if sustainability concerns arise.</p>
<b>1.1.8</b> Fishing is conducted in a manner that does not threaten stocks of byproduct species.	<p><b>Not applicable.</b></p> <p>Sea urchin fishers are only authorised to harvest by hand using underwater breathing apparatus. Harvest of other species, including rock lobster, giant crab, jellyfish, scallop and abalone, is not authorised by the sea urchin licence.</p>
(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)	
<b>1.1.9</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	<p><b>Meets.</b></p> <p>The fishery has a high chance of meeting the objective under the existing baseline management arrangements. TACC and effort is conservative and likely to maintain ecologically viable stock levels.</p>
<p><b>If overfished, go to Objective 2:</b></p> <p><b>If not overfished, go to PRINCIPLE 2:</b></p>	
<b>Objective 2</b> - 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.	
<b>Management responses</b>	
<b>1.2.1</b> A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.	<p><b>Not applicable.</b></p> <p>A precautionary approach is taken to manage the fishery although the stock is not overfished or below defined reference points.</p>
<b>1.2.2</b> If the stock is estimated as being at or below the biological and / or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a 'whole of fishery' effort or quota reduction are implemented.	<p><b>Not applicable.</b></p> <p>See 1.2.1 above.</p>
<b>PRINCIPLE 2</b> - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.	
<b>Objective 1</b> - The fishery is conducted in a manner that does not threaten bycatch species.	
<b>Information requirements</b>	
<b>2.1.1</b> Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.	<p><b>Not applicable.</b></p> <p>Reliable information is available to indicate no bycatch concerns for the fishery due to the harvesting method used.</p>

<b>Assessments</b>	
<b>2.1.2</b> There is a risk analysis of the bycatch with respect to its vulnerability to fishing.	<b>Not applicable.</b> A risk analysis for bycatch species is not necessary due to the harvesting method used.
<b>Management responses</b>	
<b>2.1.3</b> 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.	<b>Not applicable.</b> No additional measures are necessary as the fishery does not take bycatch.
<b>2.1.4</b> An indicator group of bycatch species is monitored.	<b>Not applicable.</b> No bycatch is taken, and therefore no monitoring of any indicator group is required.
<b>2.1.5</b> There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.	<b>Not applicable.</b> No decision rules are required as there is no monitoring of bycatch indicator group.
<b>2.1.6</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	<b>Meets.</b> The fishery is conducted in a manner that does not threaten bycatch species, and therefore highly likely to achieve the objective.
<b>Objective 2</b> - 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.	
<b>Information requirements</b>	
<b>2.2.1</b> Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.	<b>Meets.</b> Legislative provisions require operators to provide reliable information on interactions with endangered, threatened or protected species (TEPS) and threatened ecological communities (TECs). Interactions with protected species are reported via the fishery's smart phone app and fishery independent data is also collected through surveys. There are no records of harmful interactions with TEPS or TECs, although observer reports have recorded some protected species present around fishing activities.
<b>Assessments</b>	
<b>2.2.2</b> There is an assessment of the impact of the fishery on endangered, threatened or protected species.	<b>Meets.</b> The 2008 ERA does not clearly identify the range of potential impacts or interactions of the fishery on TEPS. However, the operation of the fishery is unlikely to have an impact to TEPS due to the fishing method.
<b>2.2.3</b> There is an assessment of the impact of the fishery on threatened ecological communities.	<b>Meets.</b> Not applicable, the operation of the fishery is unlikely to have an impact on TECs due to the fishing method.
<b>Management responses</b>	

<b>2.2.4</b> There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.	<b>Not applicable.</b> No risks to TEPs identified. DEDJTR will implement mitigation strategies if it finds interactions with endangered, threatened or protected species becomes a risk.
<b>2.2.5</b> There are measures in place to avoid impact on threatened ecological communities.	<b>Not applicable.</b> No risks to TECs identified. DEDJTR will implement mitigation strategies if it identifies any risk to TECs.
<b>2.2.6</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	<b>Meets.</b> The fishery is conducted in a manner capable of minimising any adverse impacts to TEPs and TECs, and therefore the management regime has a high chance of achieving the objectives.
<b>Objective 3</b> - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.	
<b>Information requirements</b>	
<b>2.3.1</b> Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fisheries impact on the ecosystem and environment generally.	<b>Meets.</b> Fishery dependent and fishery independent data is available on the fishery. These reports do not directly address all matters identified at item 2.3.2, however the information collected is appropriate to the scale of the fishery. Research includes the effect of sea urchin culling in the Eastern Zone and Tasmania. The 2008 ERA identified potential effects of fishing on serial depletion of the eastern and Port Phillip Bay sea urchin populations. The threat was assessed as moderate, but has since been reduced under the current management arrangements, fishing method and harvest levels.
<b>Assessment</b>	
<b>2.3.2</b> 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 <ul style="list-style-type: none"> <li>• Benthic communities</li> <li>• Ecologically related, associated or dependent species</li> <li>• Water column communities</li> </ul> 2. Impacts on food chains <ul style="list-style-type: none"> <li>• Structure</li> <li>• Productivity/flows</li> </ul> 3. Impacts on the physical environment <ul style="list-style-type: none"> <li>• Physical habitat</li> <li>• Water quality</li> </ul>	<b>Meets.</b> The 2008 ERA identified potential effects of fishing on serial depletion of the eastern and Port Phillip Bay sea urchin populations. The threat was assessed as moderate, but has since been reduced under the current management arrangements, fishing method and harvest levels. No specific research has been conducted on impacts of the fishery on the environment as the nature of the fishery is not considered to have a significant impact, particularly at the baseline management level. Given the selective harvesting the fishery is expected to have minimal impact on substrate and associated biota.
<b>Management responses</b>	

<p><b>2.3.3</b> Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.</p>	<p><b>Not applicable.</b> Significant damage to ecosystems caused by hand collection of sea urchins is considered unlikely. The controls specified in the baseline management arrangements are considered suitable to minimise the risks of significant damage to ecosystems that may occur from the impacts described in 2.3.1.</p>
<p><b>2.3.4</b> There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.</p>	<p><b>Not applicable.</b> No ecosystem impacts detected.</p>
<p><b>2.3.5</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p><b>Meets.</b> The management regime is suitably precautionary and has a high chance of achieving the objectives.</p>

### SECTION 3: ASSESSMENT OF THE VICTORIAN SEA URCHIN 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 13A.

#### Part 12

	Meets	Partially meets	Does not meet	Comment
<b>Section 176 Bioregional Plans</b>				
(5) Minister must have regard to relevant bioregional plans	<b>Not applicable.</b> There is no relevant marine bioregional plan (MBP) for the South-east Marine Region.			

#### Part 13

Part 13 accreditation is not required as the fishery operates in state waters only.

#### Part 13A

<b>Section 303BA Objects of Part 13A</b>				
(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 (g) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.				
	Meets	Partially meets	Does not meet	Comment
<b>Section 303DC Minister may amend list (non CITES species)</b>				
(1) The Minister may amend the LENS by: (a) doing any of the following: (i) including items in the list; (ii) deleting items from the list; (iii) imposing a condition or restriction to which the inclusion of a specimen in the list is subject;	The Department <b>recommends</b> that specimens that are or are derived from fish or invertebrates, taken in the Victorian Sea Urchin Fishery as defined in the management regime in force under the <i>Fisheries Act 1995</i> (VIC) and the Fisheries Regulations 2009 (VIC), but not including <ul style="list-style-type: none"> <li>specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or</li> <li>specimens that belong to taxa listed under section 303CA of the EPBC Act (Australia's CITES list),</li> </ul> be included in the list of exempt native specimens until 28 August 2026.			

(iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject	
(1A) In deciding to amend LENS, Minister must rely primarily on outcomes of Part 10, Div 1 or 2 assessment	<b>Not applicable.</b> The fishery is managed under Victorian legislation and operates within state waters. Therefore, no assessment has been carried out under Part 10 of the EPBC Act.
(1C) The above does not limit matters that may be considered when deciding to amend LENS.	<b>Meets.</b> The fishery is consistent with the Objects of Part 13A.
(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.	<b>Partially meets.</b> General consultation with the Victorian Minister for Fisheries in October 2014 (MS14-002367).

## Part 16

	Meets	Partially meets	Does not meet	Comment
<b>Section 391 Minister must consider precautionary principle in making decisions</b>				
(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.	<b>Meets.</b> Yes, precautionary performance triggers are articulated in management plan.			