Australian Government

Department of the Environment and Energy

Assessment of the

Victorian Giant Crab Fishery

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Disclaimer

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

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SECTION 1: SUMMARY OF THE ASSESSMENT FOR THE VICTORIAN GIANT CRAB 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 Giant Crab Fishery against the relevant requirements of the Guidelines and the EPBC Act.

Guidelines	Meets	Partially meets	Does not meet	Details
Management regime	8 of 9 1 N/a			**The management regime is effective.** The Giant Crab Fishery (the fishery) is managed by the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) under the *Giant Crab Fishery Management Plan 2010* (Fishery Management Plan). The Fishery Management Plan was developed in consultation with stakeholders, and in accordance with the Fisheries Regulations 2009 (Vic) and *Fisheries Act 1995* (Vic). A review of the Fishery Management Plan is anticipated to begin in late 2016, and will include an ecological risk assessment (ERA) and consultation with commercial fishers. Input and output controls are used to manage harvest. There is no recreational or Indigenous catch.
Principle 1 (target stocks)	4 of 11 1 N/a	6 of 11		**Target stocks are generally well managed.** Stock is considered stable and currently above limit reference point. Total allowable commercial catch (TACC) adjustments, limited entry and reduced effort were contributing factors to stock improvements following a periodic management review. Annual TACC based on information from annual stock assessments, commercial fishers and non-government organisations. Some reports relating to the fishery such as ERA are not publicly available. The south-eastern Australian stock levels is classified as transitional-depleting (FRDC 2014), and no observed increase in catch-per unit effort (CPUE) despite TACC reductions. The population dynamics of female Giant Crabs remains uncertain.
Principle 2 (bycatch and TEPS)	7 of 12 5 N/a			**Risks to bycatch and protected species are minimal.** Negligible byproduct – mostly fish species retained as bait (<1% of combined bycatch and byproduct). Low bycatch – mostly hermit crabs (all returned to the water alive). No recent observer coverage for this fishery. Reporting of threatened, endangered or protected species (TEPS) interactions is mandatory. Impact is negligible.

				ERA based on National ecological sustainable development (ESD) framework does not address impact of ghost fishing, but this is considered negligible. ERA does not refer to potential impacts on threatened ecological communities (TECs), but is unlikely due to the depth at which crabs are fished.
Principle 2 (ecosystem impacts)	3 of 5	2 of 5		**Ecological risk is low.** A fishery-specific risk assessment indicates a low-negligible risk. The fishery has a small footprint relative to the habitat area (FRDC 2014).
EPBC requirements	**Meets**	**Partially meets**	**Does not meet**	**Details**
Part 12	1 N/a			**Not applicable.** No relevant marine bioregional plan in the vicinity of the fishery.
Part 13	11 of 12 1 N/a			**Meets.** The management plan requires operators to report TEPS interactions and to take all reasonable steps to avoid TEPS mortality or morbidity. No recent reports of interactions with Part 13 species. The Fishery Management Plan requires accreditation as part of this assessment approval process.
Part 13A	1 of 3 1 N/a	1 of 3		**Partially meets.** Limited consultation if LENS is amended, although sufficient for strict requirements, as per advice to Minister in MS14–002367.
Part 16	1 of 1			**Meets.** A precautionary approach is taken to manage the fishery. Importantly, fishing effort (one operator) and TACC are low and therefore potential impacts are minimised.

Conclusion:

This fishery targets Giant Crab (*Pseudocarcinus gigas*) using deep water traps similar to rock lobster pots. Entry to the fishery is limited to 18 Giant Crab Fishery (Western Zone) Access Licences. The fishery is quota managed and the TACC is set annually.

Commercial harvest is limited to the Western Rock Lobster Fishery Management Zone. A Victorian Rock Lobster Fishery (Western Zone) Access Licence is mandatory in order to access pot entitlements. At the time of this assessment there were no fishing permits to take Giant Crab in the Eastern Rock Lobster Fishery Management Zone.

The target species is not considered overfished in Victorian waters. Catch data shows the Giant Crab stock is above the limit reference point. Since a review of management arrangements, Giant Crab stock recruitment has improved in Victorian waters, and management measures have reversed the downward trend in CPUE between 2003 and 2011 by reducing annual TACC and fishing effort. CPUE is used for determining the stability of Giant Crab stock.

There are no bycatch, TEPS or ecosystem concerns with the fishery. The management arrangements continues to require operators to report TEPS interactions and to take all reasonable steps to avoid mortality or morbidity TEPS. DEDJTR intend reviewing the management plan within the next 12 months

and will also examine options to improve the management arrangements. The fishery meets all environmental requirements of the EPBC Act and most of the Guidelines.
Final recommendation for 2016 assessment of Victorian Giant Crab Fishery: Low risk, eligible for 10 year approval (2016–2026). The Department recommends Part 13 accreditation of the Fishery Management Plan 2010.

Notes:

Assessment history:

The assessment history for the Victorian Giant Crab Fishery is available on the Departments website at http://environment.gov.au/marine/fisheries/vic/giant-crab.

– 1st assessment finalised March 2004 – wildlife trade operation (WTO) until 19 March 2007 (see Gazette notice (GN) 13, 31 March 2004). Export approval was subject to 2 conditions and 10 recommendations. The list of exempt native specimens was amended to include product from the fishery while a WTO was in place (GN 42, 20 October 2004). Giant Crab Fishery Management Plan 2003 accredited under Part 13.

– 2nd assessment decision March 2007 – wildlife trade operation (WTO) until 14 March 2010 (see GN 46, 14 March 2007). Export approval was subject to 3 conditions and 5 recommendations.

– 3rd assessment decision March 2010 – product from the fishery was included in the list of exempt native specimens (LENS) until 13 March 2015 (F2010L00650). Export approval was subject to 6 recommendations.

Fishery reporting:

– Annual reports are publicly available.

– Protected species interactions information is not made public.

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. Information for the fishery is available at https://vfa.vic.gov.au/.

– Information on the Rock Lobster Resource Advisory Group is available at https://vfa.vic.gov.au/commercial-fishing/rock-lobster/rock-lobster-resource-advisory-group.

– Department of Primary Industries 2007 ‘Submission for reassessment of the Victorian Giant Crab Fishery: Report to the Australian Government Department of the Environment and Water Resources, February 2007’, Available at http://www.environment.gov.au/marine/fisheries/vic/giant-crab/submission-2007.

– Department of Primary Industries 2009 ‘Application to the Department of the Environment, Water, Heritage and the Arts for reassessment of the Victorian Giant Crab Fishery, December 2009’, Available at http://www.environment.gov.au/marine/fisheries/vic/giant-crab/submission-2009.

– Department of Primary Industries 2009 ‘Application to the Department of the Environment, Water, Heritage and the Arts for re-assessment of the Victorian Giant Crab Fishery’, Victorian Department of Primary Industries, Victoria, Available at http://www.environment.gov.au/marine/fisheries/vic/giant-crab/submission-2009.

– Fletcher WJ, Chesson J, Fisher M, Sainsbury KJ, Hundloe T, Smith ADM and Whitworth B 2002 ‘National ESD reporting framework for Australian fisheries: The 'how to' guide for wild capture fisheries’, Fisheries Research and Development Corporation, FRDC Project 2000/145, Canberra Australia, Available at http://www.fisheries-esd.com.au/a/pdf/WildCaptureFisheries_V1_01.pdf.

Management plan:

– Victorian Giant Crab Fishery Management Plan 2010 was accredited under Part 13 of the EPBC Act on 18 August 2016 http://www.environment.gov.au/system/files/pages/b676dcfc-7165-4fbd-812b-013c75357b4c/files/accreditation-plan-part13-giant-grab-aug-2016.pdf. This management plan will be reviewed in 2016–2017.

Enforcing legislation:

– The *Fisheries Act 1995* and Fisheries Regulations 2009 are available on the Victorian legislation website at http://www.legislation.vic.gov.au/.

Harvest strategy:

– Harvest strategy is outlined in the Victorian Giant Crab Fishery Management Plan 2010.

Ecological Risk Assessment:

– Ecological Risk Assessment was conducted in 2009 but is not publicly available.

Publicly available stock assessment

– Stock Assessment Reports are available at https://vfa.vic.gov.au/commercial-fishing/giant-crab/stock-assessment-reports.

– Fisheries Research and Development Corporation's (FRDC) 2014 Status of Key Australian Fish Stocks (SAFS) Reports 2014 at http://www.fish.gov.au/pages/safs_report.aspx.

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

	Meets	Partially meets	Does not meet	Comment
THE MANAGEMENT REGIME				
The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:				
Be documented, publicly available and transparent	**Meets.** The Department of Economic Development, Jobs, Transport and Resources (DEDJTR) manages the Giant Crab Fishery (the fishery) through the Giant Crab Fishery Management Plan 2010 (Fishery Management Plan), and Fisheries Regulations 2009 (Vic) under the provisions of the *Fisheries Act 1995* (Vic). The management regime is publicly available and transparent.			
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public	**Meets.** The Fishery Management Plan was developed after consultation with and agreement from commercial Giant Crab fishers, and in accordance with legislative provisions. It is a statutory requirement that a management plan is publicly available for comment for at least 60 days prior to a decision by the minister to declare it. All interested and affected parties including the public were provided with opportunities to engage in the consultation process.			
Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process	**Meets.** The management regime includes opportunities to involve a range of experts and community interests in the stock assessment and total allowable commercial catch (TACC) setting process. Annual consultation occurs through the Rock Lobster and Giant Crab Resource Assessment Group, statutory public consultation and the TACC Forum. Annual stock assessment reports are available on the DEDJTR website.			
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured	**Meets.** Strategic objectives and performance measures are contained within the Fishery Management Plan. The three main objectives of the Fishery Management Plan are: • sustainability of the Giant Crab resource • resource access and utilisation, and • cost-effective and participatory management. Key strategies include rebuilding the Giant Crab biomass, and maintaining the ecological integrity of the fishery ecosystem.			
Be capable of controlling the level of harvest in the fishery using input and/or output controls	**Meets.** Harvesting is controlled by reductions in the TACC over consecutive seasons between 2011–12 and 2014– 15 and declines in catch per unit effort (CPUE) have stabilised. Harvest control strategies are employed in the western zone where fishing effort is focused. Control measures differ in the eastern zone,			

	which is managed as a developing fishery. Two 12-month permits were issued in the early 2000s, but no fishing was ever undertaken. Western Zone (commercial fishery only) • limited entry via Giant Crab Fishery (Western Zone) Access Licence, which is capped at 18 and must be directly linked to a Rock Lobster Fishery (Western Zone) Access Licence • annual TACC and individual transferable quota (ITQ) • zone management • catch disposals recorded • minimum carapace length • closed seasons • gear restrictions, and • protection of berried females. Eastern Zone (developing fishery) • limited entry via Giant Crab Fishery (Eastern Zone) Access Licence, and must be directly connected to a Rock Lobster Fishery (Eastern Zone) Access Licence • general permits (two have been issued since early 2000s but not used), and • output controls subject to permit conditions. Licensing/permits Note the Giant Crab Fishery Access Licence can only be operated if it is linked to a Rock Lobster Fishery Access Licence for a specific zone because a Giant Crab Fishery Access Licence does not, under normal circumstances, have a pot entitlement.
Contain the means of enforcing critical aspects of the management arrangements	**Meets.** The compliance strategy contains performance indicators. The strategy is reviewed annually, and results are presented to stakeholders at annual TACC forums. Compliance effort is commensurate with the size of fishery and risks identified in the compliance risk assessment. Inspections are undertaken and targeted operations have been carried out where risks have been identified. Under cross-jurisdictional management arrangements Giant Crab captured in Victorian waters must be landed at Victorian ports. Fishers can apply for authorisation to land Giant Crab quota at designated ports in South Australia or New South Wales but not in Tasmania.
Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria	**Meets.** Monitoring of the fishery is undertaken through annual stock assessments. Stock assessment reports are publicly available. Performance indicators are outlined in the Fishery Management Plan. Performance is measured against stated goals, objectives, strategies and reference points. Triggering a performance indicator results in a review of the TACC for the following season. Information gathered via trends in stock indicators and at the annual TACC forum. No trigger or limit reference points have been breached since the most recent assessment under the EPBC Act.

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	**Meets.** The management regime has the capacity to mitigate potential impacts on the wider marine ecosystem. Specific actions include spatial closures, limited entry, and gear restrictions. An Ecological Risk Assessment (ERA) was conducted in February 2009 based on the national ecological sustainable development reporting framework (Fletcher et al. 2002). The ERA found the fishery was a low risk to the wider marine ecosystem (see DPI 2009).
Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy	**Not applicable.** No Commonwealth plans or strategies are relevant to the Giant Crab Fishery.
PRINCIPLE 1 - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover**.**	
Objective 1 - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.	
Information requirements	
1.1.1 There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.	**Partially meets.** Logbooks are used to record target species catch. This information is validated through Catch Disposal Records. Length data on landed crabs is also collected. An on-board observer program was conducted in the fishery between 2004–05 and 2008–09, but there is no current observer program for the fishery. A stock assessment model is not used in this fishery due to the low fishing effort. The estimated Giant Crab biomass is uncertain.
Assessment	
1.1.2 There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.	**Meets.** Annual stock assessments are undertaken for the western management zone, but not for the eastern management zone where there is no commercial fishing. Western Zone biomass is believed to be fully fished but uncertainty exists due to a lack of quantitative data on the fishery. Stocks may have been overfished prior to the introduction of quota management. The TACC has been about 11 tonne since 2012–13. CPUE is the primary performance indicator. Size frequency and proportion of TACC are secondary indicators. CPUE is used because of the logistical challenges and expense required to obtain fishery-independent data and the small size of the fishery. Modelling is not used in this fishery due to the low effort directed at giant crabs. CPUE was reviewed and the standardisation method changed to account for soak time. Without this standardisation, CPUE has been artificially depressed.
1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.	**Partially meets.** Spatial information is collected but yet to be used. Giant Crab found in Victorian waters are understood to be part of a single southern Australia stock.

	The fishery is comprised of two zones (i.e. western and eastern) but fishing occurs only in the Western Zone. The Eastern Zone is believed to have low Giant Crab abundance as the substrate is not suitable. There has been some exploratory fishing in this zone under permit but not as a commercial fishing operation.
1.1.4 There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.	**Partially meets.** There is no recreational or indigenous take due to the depth (~150m–300m) and distance from shore at which Giant Crab is found. The fishery is not considered overfished, but given the shared resource between different jurisdictions, there is a need to consider the fishery in whole of stock level. Two primary management tools are TACC and legal minimum length. TACC has been continually reduced from 25 tonne in 2009 to 10.5 tonne in 2016–17 due to declining CPUE. There has been no observed increase in CPUE (FRDC 2014).
1.1.5 There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.	**Partially meets.** Productivity is currently being estimated. There is no reliable biomass estimate for the Giant Crab Fishery. The southern Giant Crab stock is shared between Tasmania, Victoria and South Australia. DEDJTR continues to work with these jurisdictions and independent researchers (e.g. Gardner *et al.* 2007) to determine the broader impact of management arrangements for the fishery. Victorian stock status reports are based on fishery dependent data, which are prepared annually.
Management responses	
1.1.6 There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.	**Meets.** Management arrangements include performance indicators, reference and trigger points. CPUE is the primary performance indicator for this fishery. Size frequency and proportion of TACC caught are secondary indicators. An automatic reduction of quota is triggered when CPUE falls to 80% of the reference point (0.52 kg/24 hr pot lift). A TACC review is triggered if the CPUE declines for two consecutive seasons. CPUE has fallen below the trigger on two occasions (2002–03 and 2010–11). The latter decline prompted a reduction in TACC for 2011–12 season. TACC has been continually reduced since that time to 10 tonne for the 2016–17 fishing season. In 2014, DEDJTR adopted the Rock Lobster and Giant Crab Resource Advisory Group (RLGC RAG) recommendation to standardise the catch and effort data to take account of longer pot soak times. Following the review, CPUE for the fishery has remained above the trigger point for the limit reference point.
1.1.7 There are management strategies in place capable of controlling the level of take.	**Meets.** Giant Crab fishers in the Western Zone are subject to a range of input and output controls: • limited entry (max. 18 Giant Crab Fishery (Western Zone) Access Licences) • annual TACC and ITQs • zone management • catch disposal records

	• minimum carapace length • closed seasons • gear restrictions, and • protection of berried females. The fishery is quota managed so effort is limited to the TACC. For example, in 2014–15 the TACC was 10.5 tonne and the targeted take (i.e. the amount taken by fishers who took more than 1 tonne) was 10.2 tonne. Effort could therefore only increase by 0.3 tonne. This amount was taken by fishers who did not target crabs, i.e. bycatch in the rock lobster fishery.
1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.	**Meets.** Effort is relatively low, take of byproduct species is low, or impacts on byproduct whole stock have been demonstrated to be low. Fishers report byproduct in daily catch logs. Historically, on-board observers have been used to monitor discards and bycatch and the information obtained is considered in management decisions. Byproduct is considered low due to the gear (baited lobster pots) and fishing method used. Byproduct species include octopus, southern rock cod, leatherjacket, conger eel and morwong (see DPI 2007). A total of 19 bycatch/byproduct species were recorded on Giant Crab fishing trips during the on-board observer program. The bulk of the catch (95%) was comprised of hermit crabs, with other animals making up less than 1% per species.
(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)	
1.1.9 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	**Partially meets.** The management response has a chance of achieving the objective.
If overfished, go to Objective 2: **If not overfished, go to PRINCIPLE 2:**	
Objective 2 - Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.	
Management responses	
1.2.1 A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.	**Not applicable.** The fished stock is not below the defined reference point. A precautionary approach is taken to help rebuild the fished stock.

1.2.2 If the stock is estimated as being at or below the biological and / or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a 'whole of fishery' effort or quota reduction are implemented.	**Partially meets.** While fishery is not considered overfished, given the shared resource between different jurisdictions, there is a need to take a whole of stock level approach due to uncertainties surrounding population size. The TACC has been significantly reduced to allow for rebuilding of the stock. Recommendations have been adopted to standardise the catch and effort data to take account of longer pot soak times. CPUE is now consistently above the trigger point for the limit reference point.
PRINCIPLE 2 - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.	
Objective 1 - The fishery is conducted in a manner that does not threaten bycatch species.	
Information requirements	
2.1.1 Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.	**Meets.** DEDJTR collect information from up-to-date logbooks. Bycatch in the fishery is low, and comprised mostly of hermit crabs. Commercial fishers are required to record bycatch in logbooks including undersized crab and comprehensive bycatch. On-board observers also record bycatch data and protected species interactions. Nineteen bycatch/byproduct species, mostly hermit crabs (95%) were recorded during the on-board observer program.
Assessments	
2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.	**Meets.** Risk analysis of bycatch vulnerability has been conducted with respect to the vulnerability of bycatch to fishing. The 2009 risk assessment considered target species, bycatch, protected species, discards, and impacts of the fishery on the environment (see DPI 2009). No high risks were identified in the internal assessment. There is no long-term bycatch monitoring program in place to detect trends in bycatch.
Management responses	
2.1.3 Measures are in place to avoid capture and mortality of bycatch species unless it is determined that the level of catch is sustainable (except in relation to endangered, threatened or protected species). Steps must be taken to develop suitable technology if none is available.	**Meets.** Management responses are in place to avoid the capture and mortality of bycatch species. Existing management arrangements are adequate to address bycatch capture and mortality. Hobday *et al.* (2008) reported that the level of bycatch is low and unlikely to impact non-target species. Industry have responded to identified risks by using bait that is less attractive to seals and or developed benign seal exclusion devices. Traps also have gaps that allow undersize crabs to escape.
2.1.4 An indicator group of bycatch species is monitored.	**Not applicable.** Bycatch is considered very low and therefore monitoring of indicator species is considered not necessary.
2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.	**Not applicable.** No specific decision rules have been developed due to the very low bycatch figures.

2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	**Meets.** The potential to achieve the objective of minimal bycatch in the fishery is improved through the management arrangements and fishing method used.
Objective 2 - The fishery is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species and avoids or minimises impacts on threatened ecological communities.	
Information requirements	
2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.	**Meets.** Incidental interactions with protected species must be reported by operators using the Protected Species Interactions form contained in the Giant Crab Daily Catch Record Book. On-board observer programs were conducted in the fishery between 2004-05 and 2008-09.
Assessments	
2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.	**Meets.** No high risks were identified in the 2009 ecological risk assessment for the fishery (see DPI 2009). The current management arrangements including limited entry, quota management, minimum size, gear restrictions and closed seasons are considered adequate to address the low risks that may occur in the fishery.
2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.	**Not applicable.** While the area of the fishery overlaps with the EPBC listed Giant Kelp Marine Forests of South East Australia threatened ecological community, fishing effort is generally in waters too deep to be suitable for giant kelp. In additions, as a trap fishery, it is considered unlikely to significantly impact the benthic habitat
Management responses	
2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.	**Not applicable.** Interactions with protected species are considered very low to negligible, and management arrangements require fishing operators to take appropriate action to minimise any impacts to TEPS. DEDJTR are prepared to implement mitigation strategies if required.
2.2.5 There are measures in place to avoid impact on threatened ecological communities.	**Not applicable.** This measure is not considered necessary as the fishery does not significantly interact with threatened ecological communities. DEDJTR are prepared to implement mitigation strategies if required.
2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	**Meets.** Management arrangements and fishing method used have a high chance of achieving the objective.
Objective 3 - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.	

Information requirements	
2.3.1 Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fisheries impact on the ecosystem and environment generally.	**Partially meets.** Operators collect fishery dependent data including incidental interactions with protected species, but have limited capacity to collect all the information identified at item 2.3.2. An internal ERA was conducted in February 2009, which considered most of the ecosystem components listed in item 2.3.2.
Assessment	
2.3.2 Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery. 1. Impacts on ecological communities • Benthic communities • Ecologically related, associated or dependent species • Water column communities 2. Impacts on food chains • Structure • Productivity/flows 3. Impacts on the physical environment • Physical habitat • Water quality	**Partially meets.** The 2009 internal ERA considered most ecosystem components listed in item 2.3.2 with the exception of impact on food chains. The ERA indicates negligible to low risk for other ecosystem components (see DPI 2009). The ERA acknowledges the lack of information available on the physical habitat at lower depths where Giant Crabs occur, but the gear used in Giant Crab fishing is not dragged and has minimal drift, and the fishing footprint is insignificant relative to the size of the habitat.
Management responses	
2.3.3 Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.	**Meets.** The fishery takes a precautionary approach to harvesting Giant Crabs, and has mechanisms in place for reporting of protected species interactions and bycatch and byproduct. There is very low fishing effort, low impact fishing methods employed and the ERA rates the fishery as a low risk to the marine ecosystem. Although the ERA lacks specific information on the impacts on food chains, the fishery is unlikely to have a significant impact on the ecosystem. DEDJTR will implement a management response if finds that the ecosystem is at risk.
2.3.4 There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a	**Meets.** The fishery contains decision rules that would trigger further management responses. The fishery is unlikely to have a significant impact on the ecosystem.

predetermined level, or where action is indicated by application of the precautionary approach.	Performance measures are developed and implemented in consultation with industry bodies. Management measures and actions in the event that a performance trigger falls below a pre-determined level are specified in the management plan. Additional information is gathered via trends in stock indicators and at the annual TACC forum. No trigger or limit reference points have been breached in the past 4 years. The fishery is unlikely to have a significant impact on the ecosystem. DEDJTR is prepared to implement mitigation strategies if required.
2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	**Meets.** Management arrangements and fishing method used have a high chance of achieving the objective to conduct the fishery in a manner that minimises the impact of fishing operations on the ecosystem.

SECTION 3: ASSESSMENT OF THE VICTORIAN GIANT CRAB FISHERY AGAINST THE REQUIREMENTS OF THE EPBC ACT

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

Part 12

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

Part 13

	Meets	Partially meets	Does not meet	Comment
Accreditable plan, regime or policy (Division 1, Division 2, Division 3, Division 4)				
s. 208A (1) (a-e) , s.222A (1) (a-e), s.245A (1) (a-e), s.265 (1) (a-e) Does the fishery have an accreditable plan of management, regime or policy?	**Meets.** Yes, the Giant Crab Fishery Management Plan 2010 is an accreditable plan.			
Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes				
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing?	**Meets.** Yes, the management regime contains strategic objectives with specific action items to help ensure fishers take all reasonable steps to minimise any adverse impacts to listed threatened species.			
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species.	**Meets.** No, the fishery is highly unlikely to adversely affect the survival or recovery in nature of listed threatened species.			
Division 2 Migratory species, Section 222A Minister may accredit plans or regimes				
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed migratory	**Meets.**			

	species are not killed or injured as a result of the fishing?	Yes, the management regime contains strategic objectives with specific action items to help ensure fishers take all reasonable steps to minimise any adverse impacts to listed migratory species.
(g)	And, is the fishery likely to adversely affect the conservation status of a listed migratory species or a population of that species?	**Meets.** No, the fishery is highly unlikely to adversely affect the conservation status of listed migratory species or a population of that species.
Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes		
(f)	Will the plan, regime or policy require fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing?	**Meets.** Yes, the management regime contains strategic objectives with specific action items to help ensure fishers take all reasonable steps to minimise any adverse impacts to cetaceans.
(g)	And is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species?	**Meets.** No, the fishery is highly unlikely to adversely affect the conservation status of cetacean or a population of that species.
Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes		
(f)	Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing?	**Meets.** Yes, the management regime contains strategic objectives with specific action items to help ensure fishers take all reasonable steps to minimise any adverse impacts to listed marine species.
(g)	And is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?	**Meets.** No, the fishery is highly unlikely to adversely affect the conservation status of a listed marine species or populations of that species.
Section 303AA Conditions relating to accreditation of plans, regimes and policies		
(1)	This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	**Meets.** The Department recommends the Victorian Giant Crab Fishery Management Plan 2010 be accredited under the EPBC Act.
(2)	The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with.	**Not applicable.** The instrument of accreditation is not time dependent, does not include any special circumstances, and does not contain conditions.

In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	**Not applicable.**

Part 13A

Section 303BA Objects of Part 13A				
(1) The objects of this Part are as follows: (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention; (b) to protect wildlife that may be adversely affected by trade; (c) to promote the conservation of biodiversity in Australia and other countries; (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way; (e) to promote the humane treatment of wildlife; (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.				
	Meets	**Partially meets**	**Does not meet**	**Comment**
Section 303DC Minister may amend list (non CITES species)				
(1) The Minister may amend the LENS by: (a) doing any of the following: (i) including items in the list; (ii) deleting items from the list; (iii) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; (iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject.	The Department **recommends** that specimens that are or are derived from fish or invertebrates, taken in the Victorian Giant Crab Fishery as defined in the management regime in force under the *Fisheries Act 1995* (VIC) and the Fisheries Regulations 2009 (VIC), but not including • specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or • specimens that belong to taxa listed under section 303CA of the EPBC Act (Australia's CITES list) be included in the list of exempt native specimens until 28 August 2026.			

(1A)	In deciding to amend LENS, Minister must rely primarily on outcomes of Part 10, Div. 1 or 2 assessment	**Not applicable.** 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.	**Meets.** 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.	**Partially meets.** General consultation with the Victorian Minister for Fisheries in October 2014 (MS14-002367).

Part 16

		Meets	Partially meets	Does not meet	Comment
Section 391 Minister must consider precautionary principle in making decisions					
(1)	Minister must take account of precautionary principle.	**Meets.** Yes, precautionary management measures in place.			
(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.				