



Australian Government

Department of the Environment, Water, Heritage and the Arts

Assessment of the
Western Australia Trochus Fishery

June, 2009

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Disclaimer

This document is an assessment carried out by the Department of the Environment, Water, Heritage and the Arts 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 Delegate of the Minister for the Environment, Heritage and the Arts on the fishery in relation to decisions under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for the Environment, Heritage and the Arts or the Australian Government.

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Background

In October 2008, the Department of Fisheries Western Australia (DFWA) submitted an ‘*Application to the Australian Government Department of the Environment, Water, Heritage and the Arts on the Trochus Fishery*’ (the submission) to instigate an assessment of the Western Australia Trochus Fishery (WATF) under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The WATF has not previously been fully assessed for the purposes of Part 13A.

The submission reports on the WATF against each of the guidelines outlined in section 3 of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries 2nd Edition* (the Guidelines). The submission provided to the Australian Government Department of the Environment, Water, Heritage and the Arts (DEWHA) meets the comprehensive information requirements stipulated in Appendix A of the Guidelines.

The submission was released for a public comment period that closed on 18 December 2008. No public comments were received.

A summary of the WATF and its management arrangements is in Table 1. An assessment of the WATF against section 3 of the Guidelines and the legislative requirements of Part 13A of the EPBC Act is in Tables 2 and 3 respectively.

As the fishery is hand collection and operates only in State waters, a Part 13 accreditation for the WATF in relation to protected species provisions under the EPBC Act is not required at this time.

Table 1: Summary of the Western Australia Trochus Fishery (WATF)

<p>Publicly available information relevant to the fishery</p>	<ul style="list-style-type: none"> • Department of Fisheries Western Australia (DFWA) ‘<i>Application to the Australian Government Department of the Environment, Water, Heritage and the Arts on the Trochus Fishery, October 2008</i>’ (the Submission) • <i>WA Fish Resources Management Act 1994</i> • <i>WA Fish Resources Management Regulations 1995</i>
<p>Area</p>	<p>Fishing grounds located in remote Kimberley Region of Western Australia, including native title area waters of the Bardi Jawi and Mayala people.</p> <p>The WATF is located at One Arm Point on the Dampier Peninsula and Buccaneer Archipelago, north of Broome. The licence area includes all the waters under the Bardi Jawi and Mayala Native Title Claim areas. The fishery is located completely in State waters and most of the harvesting is undertaken on the outer reefs during low tides.</p>
<p>Fishery status</p>	<p>A recent (2006) fishery independent stock survey estimated total harvestable biomass (shell weight) to be 213 tonnes in the fishery. Using reference point analysis, a biologically sustainable harvest was estimated at 37 tonnes (dry shell weight). DFWA will aim to repeat the</p>

	survey at least every five years to ensure the estimates remain accurate and appropriately precautionary.
Target Species	The WATF targets one species (<i>Trochus niloticus</i>).
Byproduct Species	There are no byproduct species taken in the WATF.
Gear	Trochus collectors use boats (mostly 4-5m dinghies) to access reefs from which they hand harvest trochus from exposed reef tops during low tides.
Season	The WATF's management arrangements include seasonal closures from 1 June to 31 October each year.
Commercial harvest	<p>Between 1985 and 1995, the WATF reported catches between 30 to 73 tonnes per year. The higher reported catches coincide with the higher market prices and the availability of additional larger boats in the One Arm Point community.</p> <p>The annual catch of trochus is greatly influenced by socio-economic reasons that influence effort. Therefore the fluctuation can largely be attributed to this factor. Market price, alternative employment opportunities in the community, and availability of suitable boats have had a significant impact on the catch throughout the years.</p> <p>For more details on commercial harvest, please refer to the Submission.</p>
Value of commercial harvest	<p>The fishery is estimated to be worth approximately \$120,000 per year (based on \$8.00 per kilo dry shell weight of trochus, currently worth closer to \$10 per kg). The price of shell on the world market varies from year to year which influences the value of the WATF.</p> <p>The WATF is of high value to the local participants, who have a cultural link to the fishery and also have very limited opportunities for financial independence.</p>
Take by other sectors	No recreational take evident. Take from illegal foreign fishing (IFF) is estimated at 15-20 t annually.
Commercial licences issued	<p>The WATF is located at One Arm Point north of Broome and the license area includes all the waters under the Bardi Jawi and Mayala Native Title Claim areas. The Mayala people allow the Bardi Jawi people to fish within the Mayala Native Title area under an agreement.</p> <p>Each trochus collector is nominated by Ardyaloon Council (commercial arm of the Ardyaloon Aboriginal Community Council at One Arm Point) and required to hold a Commercial Fishing Licence issued by DFWA. The trochus collectors are exempt from holding a WA Fishing Boat Licence.</p>
Management arrangements	The WATF is managed under a policy designed specifically for Aboriginal communities (Appendix 2 of Submission). The policy guidelines dictate the standards for issuing licences to the community to harvest trochus. Each trochus collector nominated by Ardyaloon Council is required to hold a Commercial Fishing Licence issued by the

	<p>DFWA.</p> <p>In 2007 the Ardyaloon Council and the DFWA agreed to a revised set of co-management arrangements for the WATF including:</p> <ul style="list-style-type: none"> • Maximum size limit of 100 mm (basal shell diameter); • Minimum size limit of 75 mm (basal shell diameter); • Two area closures; • Annual quota of 15 tonnes; • Five month seasonal fishing closure; • All trochus must be harvested from exposed reef (no diving permitted); and • All shell must be sold through one central point.
Export	The major export markets are South East Asia and Italy, for buttons and other jewellery items.
Bycatch	There are no known interactions of the WATF with bycatch species due to the selective method of fishing used – hand harvesting only on exposed reef tops during low tide, the negligible level of bycatch is expected to continue.
Interaction with Protected Species¹	<p>There are no known interactions of the WATF with protected species due to the selective method of hand harvesting.</p> <p>Fishers are not required to report interactions with protected species under Part 13, as the WATF operates solely within state waters.</p>
Ecosystem Impacts	<p>Due to the benign harvesting method used in the WATF (hand harvesting), impacts to the physical ecosystem are negligible.</p> <p>In addition, impacts on the foodweb are unlikely, given that take of the target species is limited to ecologically sustainable levels by way of the fishery’s implementation of minimum size limits, annual quotas and the conservative estimate of biologically sustainable catch in the fishery (37 tonnes, shell weight). The current annual quota is approximately 40% of the biologically sustainable catch limit.</p>
Impacts on CITES species	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 WATF’s impact on specimens listed under CITES has been conducted.

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

Table 2 –Assessment of the WATF against section 3 of the *Guidelines for the Ecologically Sustainable Management of Fisheries 2nd Edition*

MANAGEMENT REGIME

<p>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:</p>	
<ul style="list-style-type: none"> • Be documented, publicly available and transparent 	<p>Management arrangements for the WATF are available on the DFWA website, upon request to DFWA, in the annual SoFR and in DFWA’s annual report to Parliament.</p> <p>DFWA has also committed to making key management documents for its fisheries publicly available, such as the outcomes of the Ecological Risk Assessment and subsequent management responses to identified risks required as part of Recommendation 1, Table 4.</p>
<ul style="list-style-type: none"> • Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public 	<p>The WATF is a co-managed fishery between the Ardyaloon Council (Ardyaloon Incorporated who represents the Bardi Jawi and Mayala Native Title holders of One Arm Point) and DFWA. The nature of this management arrangement requires all stakeholders to be involved and consulted in management decisions.</p>
<ul style="list-style-type: none"> • Ensure that a range of expertise and community interests are involved in individual fishery management communities and during the stock assessment process 	<p>The WATF is a co-managed fishery between the Ardyaloon Council (Ardyaloon Incorporated) and DFWA. As such, relevant stakeholders are closely engaged with DFWA at all stages of the fishery’s management.</p>
<ul style="list-style-type: none"> • Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured 	<p>To date, the small scale of the fishery, fluctuation of effort linked to factors external to the fishery and the benign method of harvesting (hand collection) have meant the management arrangements of the fishery have been appropriately precautionary. However, DEWHA has recommended DFWA complete an Ecological Risk Assessment for the Fishery (Recommendation 1, Table 4), which provides for an</p>

	opportunity to develop strategic responses to identified risks.
<ul style="list-style-type: none"> • Be capable of controlling the level of harvest in the fishery using input and/or output controls 	<p>One species of trochus is retained by the WATF (<i>Trochus niloticus</i>) and DEWHA considers that the WATF has a range of both input and output controls in place to appropriately manage harvest within the fishery. DWEWHA acknowledge the resource limitations for such a small fishery, and considers the management arrangements are appropriately precautionary to control the level of harvest in the fishery. In addition, DEWHA has recommended DFWA conduct a compliance risk assessment to ensure these arrangements remain effective.</p>
<ul style="list-style-type: none"> • Contain the means of enforcing critical aspects of the management arrangements 	<p>A collaborative Bardi Jawi Ranger Program has recently been established within the region, between the Bardi Jawi Community, DFWA and the Australian Custom Services, which is working towards enforcing the WATF management arrangements as well as combating IFF within the region. DEWHA considers IFF to be an area of concern to the WATF's stocks sustainability and as such has developed Recommendation 4, Table 4 to ensure this concern continues to be addressed.</p>
<ul style="list-style-type: none"> • Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria 	<p>DFWA will provide an annual report to DEWHA as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (Condition 3, Table 4).</p>
<ul style="list-style-type: none"> • 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>Due to the nature and scale of the WATF, the impact of the fishery on the wider ecosystem is considered to be very low. However, DEWHA recommends that DFWA undertake and finalise an Ecological Risk Assessment (ERA) for the WATF, including an assessment of the fishery's impact on the marine ecosystem and implement subsequent management responses, as appropriate, to the identified risks (Recommendation 1, Table 4).</p>
<ul style="list-style-type: none"> • Requires compliance with relevant threat abatement plans, 	<p>The WATF has negligible to nil interaction with bycatch species and as</p>

	such is in compliance with all relevant plans and policies.
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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	
<p>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.</p>	<p>DEWHA considers that the recent introduction of the daily research logbook to support the fishery independent stock surveys provides for an appropriate level of fishery dependent and independent information collected for the WATF. DEWHA recommend DFWA seek to develop and implement the current information collection programs into a longer term monitoring and stock assessment program that ensures the ongoing sustainability of trochus stocks related to the fishery (Recommendation 2, Table 4).</p>
Assessment	
<p>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 years².</p>	<p>DEWHA acknowledges that the recent independent stock survey was used to determine the biologically sustainable harvest estimate and that the DFWA is planning to repeat this survey every three years. DEWHA supports the continuation of this survey and also recommends that the finer scale information collected through the newly implemented log books be incorporated into future harvest estimates as per Recommendation 2, Table 4.</p>

² Review should be undertaken by the relevant management authority in a transparent way.

<p>1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p> <p>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.</p> <p>1.1.5 There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p>	<p>Trochus have a short larval period and it is believed that dispersal to other reefs is limited, and populations of trochus are therefore isolated. Because trochus are a relatively sedentary species with low dispersal, and because of the nature of the WATF (being a hand collection fishery), there is a risk of localised depletion of trochus stocks. As such DEWHA recommends that future stock assessments be capable of identifying areas and species at risk of localised and/or serial depletion as per Recommendation 2, Table 4.</p> <p>DEWHA acknowledges that outside of the WATF there is no known recreational or other indigenous fishing of trochus and that the only other source of trochus removal is from illegal foreign fishing (IFF). DEWHA also acknowledges that this level of this removal (estimated to be 15-20t) is comparable with the level of harvest taken by the WATF itself. Therefore continued inclusion of IFF estimates into stock assessments for the WATF is of paramount importance (Recommendation 2, Table 4).</p> <p>The continued independent stock survey combined with the information collected through log book data should continue to provide for sound estimates. External factors (such as market price) are expected to also play a role in restricting harvest levels.</p>
<p>Management responses</p> <p>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.³</p> <p>1.1.7</p>	<p>Biologically sustainable reference points have recently been set for the WATF which include a limit reference point (62t) and a target reference point (37t). A conservative total allowable catch of 15t has also been set to further protect the stocks.</p> <p>The WATF's co-management arrangements include restrictions on the</p>

³ Reference points can allow for seasonal fluctuations in stock recruitment and other areas of uncertainty.

<p>There are management strategies in place capable of controlling the level of take.</p> <p>1.1.8 Fishing is conducted in a manner that does not threaten stocks of by-product species. (Guidelines 1.1.1 to 1.1.7 should be applied to by-product species to an appropriate level)</p> <p>1.1.9 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>area that can be harvested which include two community-initiated area closures and seasonal closures. There are also size limits to protect juvenile and breeding stocks, a conservative annual quota (15t) and a mandatory daily logbook. Additionally, all product must be sold through one central point therefore catch figures are easily traceable. Although DEWHA commends the range of co-management arrangements in place within the WATF, it is recommended that a compliance risk assessment be conducted to better direct available resources to further increase the effectiveness of limited enforcement and compliance resources (Recommendation 3, Table 4)</p> <p>As harvest in the WATF is by hand collection and the target species is easily identifiable, there are no byproduct species taken in the fishery.</p> <p>The co-management arrangements, along with the scale of the WATF, have a high chance of achieving the objective. However, further increases to IFF may jeopardise this if not correctly factored in stock assessments.</p>
<p>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.</p>	
<p>Management responses</p> <p>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</p>	<p>To date, the fishery has been managed in a conservative manner that ensures the stock remains above a defined limit reference point. Should subsequent stock assessments show the stock to be below this biological reference point, DFWA will take action to develop and implement an</p>

<p>should aim for recovery within a specific time period appropriate to the biology of the stock.⁴</p> <p>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.</p>	<p>appropriate recovery strategy for the stock.</p> <p>In the unlikely event that the limit reference point is breached, management responses such as further restricting catch limits, extended area/seasonal closures can be implemented.</p>
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PRINCIPLE 2 – Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem⁵

<p>Objective 1: The fishery is conducted in a manner that does not threaten bycatch species.</p>	
<p>Information requirements</p> <p>2.1.1 Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.</p>	<p>Due to the highly selective nature of the harvesting within the WATF, bycatch is considered to be negligible, if at all. As such, formal information collection mechanisms have not been developed to monitor bycatch.</p> <p>DEWHA considers that due to the nature and scale of the WATF there is a high likelihood that the fishery is conducted in a manner that does not threaten bycatch species. Should this situation change, or the ERA process indicate otherwise, DEWHA expects that the DFWA would implement appropriate actions to ensure that the bycatch species are not threatened by this fishery.</p>

⁴ Strategies require that recovery should take place within specified times with certain degrees of probability.

⁵ The issues addressed under the principle are those that define components of ecosystem integrity.

<p>Assessments</p> <p>2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.⁶</p>	<p>Due to the highly selective nature of the harvesting within the WATF, bycatch is considered to be negligible, if at all. Although DEWHA considers that completion of Recommendation 1, Table 4 is necessary to confirm this assumption.</p>
<p>Management responses</p> <p>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.</p> <p>2.1.4 An indicator group of bycatch species is monitored.</p> <p>2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.</p> <p>2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>As per 2.1.1</p> <p>As per 2.1.1</p> <p>As per 2.1.1.</p> <p>As per 2.1.1.</p>

⁶ The vulnerability of a bycatch species may be its vulnerability to fishing technology (eg its catchability), or its vulnerability in terms of ecological impact (e.g. loss of predators or prey).

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.⁷	
Information requirements	
<p>2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.</p>	<p>There have been no known interactions with endangered, threatened or protected species within the WATF which is attributed to the scale and nature of the fishery. Therefore there are no formal mechanisms in place to gather information on protected species interactions.</p> <p>DEWHA considers that due to the nature and scale of the WATF there is a high likelihood that the fishery is conducted in a manner that does not threaten protected species and threatened ecological communities. Should this situation change, or the ERA process indicate otherwise, DEWHA expects that the DFWA would implement appropriate actions to ensure that protected species are not threatened by this fishery.</p>
Assessments	
<p>2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.</p>	<p>Due to the highly selective nature of the harvesting within the WATF, interactions with protected species are considered to be negligible if at all. Although DEWHA considers that completion of an ERA (Recommendation 1, Table 4) is necessary to confirm this assumption.</p>
<p>2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.</p>	<p>There are currently no threatened ecological communities within the WATF. DEWHA expects that should this change, appropriate assessments will be undertaken.</p>
Management responses	
<p>2.2.4</p>	<p>DEWHA expects that the completion of the ERA under</p>

⁷ 'Protected' species are those which warrant a higher degree of conservation and for which explicit legislative or other mechanisms exist, e.g. they may be categorised under separate legislation as 'endangered', 'threatened' or 'protected'.

<p>There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p> <p>2.2.5 There are measures in place to avoid impact on threatened ecological communities.</p> <p>2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Recommendation 1, Table 4 will identify if the implementation of any additional management responses are required. Based on the nature and scale of the WATF, boat strike is the most likely interaction with protected species.</p> <p>There are currently no threatened ecological communities within the WATF. DEWHA expects that should this change, appropriate management responses will be implemented.</p> <p>As the level of interaction between the fishery and protected species and threatened ecological communities is considered to be extremely negligible, if at all, DEWHA considers that the current management arrangements have a high chance of achieving the objective.</p>
<p>Objective 3: The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>	
<p>Information requirements</p> <p>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.</p>	<p>The impact of the WATF on the ecosystem is thought to be negligible due to the nature and scale of the fishery. Although to date, no information has been gathered regarding impacts on the ecosystem.</p> <p>DEWHA considers that due to the nature and scale of the WATF there is a high likelihood that the fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally. Should this situation change, or the ERA process indicate otherwise, DEWHA expects that the DFWA would implement appropriate actions to ensure that the ecosystem generally is not negatively impacted upon by the operation of the WATF.</p>
<p>Assessment</p> <p>2.3.2</p>	<p>Impacts of the WATF on the ecosystem are believed to be low due to</p>

<p>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.</p> <p>(a) Impacts on ecological communities</p> <ul style="list-style-type: none"> • Benthic communities • Ecologically related, associated or dependent species • Water column communities <p>(b) Impacts on food chains</p> <ul style="list-style-type: none"> • Structure • Productivity/flows <p>(c) Impacts on the physical environment</p> <ul style="list-style-type: none"> • Physical habitat • Water quality 	<p>the relatively benign method of fishing, however DEWHA considers that the completion of an ERA (Recommendation 1, Table 4) is necessary to confirm this assumption.</p>
<p>Management responses</p> <p>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.</p> <p>2.3.4 There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.</p> <p>2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>As the impact of the WATF on the ecosystem is currently considered negligible, DEWHA do not consider that specific management responses are required.</p> <p>However, DEWHA expects that if any of the assumptions made through 2.3.2 change through the completion of the ERA or some other process in the future that the DFWA will implement any necessary management arrangements to address these guidelines.</p>

Table 3: The DEWHA assessment of the WATF against the requirements of the EPBC Act related to decisions made under 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 13A. A complete version of the EPBC Act can be found on the DEWHA website.

Part 13A

Section 303DC Minister may amend list	DEWHA assessment of WATF
<p>(1) Minister may, by instrument in 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 of 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>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>Under the EPBC Act, a decision to amend the list of exempt native specimens does not require a public consultation period. However, a public notice, which sets out the proposal to grant export approval to the WATF and included the DFWA 2008 Submission, was released for public comment, which closed on 18 December 2008. DEWHA considers that this has provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Jon Ford MLC advises him of the intention to declare the fishery an approved WTO under the EPBC Act.</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 WATF made under sections 303DC will be gazetted and made available on the DEWHA website.</p>
Section 303FN Approved wildlife trade operation	DEWHA assessment of WATF
<p>(2) The Minister may, by instrument published in the Gazette, declare that a specified wildlife trade operation is an approved wildlife trade</p>	

<p>operation for the purposes of this section.</p>	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is satisfied that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p> <p>(b) the operation will not be detrimental to:</p> <p>i. the survival of a taxon to which the operation relates; or</p> <p>ii. the conservation status of a taxon to which the operation relates; and</p> <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p> <p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p> <p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>The WATF is consistent with objects of Part 13A (listed after this table) as:</p> <ul style="list-style-type: none"> ▪ the fishery will not harvest any 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 WATF is unlikely to be unsustainable and threaten biodiversity within the next 3 years; and ▪ the EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens. <p>DEWHA considers that the WATF will not be detrimental to the survival or conservation status of a taxon to which it relates within the next 3 years, given the management measures currently in place, which include: benign method of harvesting (hand collection), area and seasonal closures, size limits to protect juvenile and breeding stocks and an annual catch quota.</p> <p>DEWHA considers that the WATF will not threaten any relevant ecosystem within the next 3 years, given the management measures currently in place, which include: benign method of harvesting (hand collection), area and seasonal closures, size limits to protect juvenile and breeding stocks and an annual catch quota.</p> <p>The EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.</p> <p>No other conditions are specified in relation to commercial fisheries in the EPBC Regulations 2000.</p>

<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p> <p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>DEWHA considers that the WATF will not have a significant impact on any relevant ecosystem within the next 3 years, given the management measures currently in place, which include: benign method of harvesting (hand collection), area and seasonal closures, size limits to protect juvenile and breeding stocks and an annual catch quota.</p> <p>The management arrangements that will be employed for the WATF are likely to be effective.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>The fishery will be managed under WATF's management regime made under the <i>WA Fish Resources Management Act 1994</i>.</p> <p>The <i>WA Fish Resources Management Act 1994</i> applies throughout WA state waters.</p> <p>The management arrangements that will be employed for the WATF are likely to be effective.</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The WATF is a commercial fishery.</p>
<p>Section 303FR Public consultation</p>	<p>DEWHA assessment of WATF</p>
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <p>(a) setting out the proposal to make the declaration; and</p> <p>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</p>	<p>Under the EPBC Act, a decision to amend the LENS does not require a public consultation period. However, a public notice, which set out the proposal to grant export approval to WATF and included the Submission was released for public comment which closed on</p>

(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.	18 December 2008.
(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.	A public notice, which set out the proposal to declare the WATF a WTO and included the Submission was released for public comment on 20 November 2008 and closed on 18 December 2008.
(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.	No public comments were received.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	DEWHA assessment of WATF
(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.	The precautionary principle must be considered when making a decision to include specimens on the LENS. The proposed management arrangements for the WATF are considered suitably precautionary.
(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.	

Objects of Part 13A

- (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.

Draft recommendations to Western Australia Department of Fisheries (DFWA) for the Western Australia Trochus Fishery (WATF)

The material submitted by DFWA demonstrates that the management arrangements for the WATF meet most of the requirements of the Australian Government *Guidelines for the ecologically sustainable management of fisheries - 2nd Edition*. DEWHA recognises that the harvest area restrictions, area and seasonal closures, minimum and maximum size limits to protect juvenile and breeding stocks, and annual catch quota, render it somewhat robust to fishing. As such, DEWHA considers that overall the management regime aims to ensure that fishing is conducted in a manner that does not lead to over-fishing and for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

While the fishery is relatively well managed, DEWHA has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised:

- Completion of the Ecological Risk Assessments (ERA);
- Continuation of research and stock monitoring programs;
- Need for a compliance risk assessment and compliance strategy; and
- Need for continued protection of trochus reefs, in response to illegal foreign fishing (IFF).

DEWHA is satisfied that the fishery will not be detrimental to the survival or conservation status of the taxon to which it relates in the short to medium term. Similarly, it is not likely to threaten any relevant ecosystem in the short to medium term. To contain and minimise the risks in the longer term the recommendations listed below have been made. The key challenges for this fishery will be the completion of the ERA and implementation of management responses to identified risks, implementing a long term monitoring and assessment program to ensure accurate stock estimates are maintained, conducting a compliance risk assessment to more efficiently utilise limited compliance resources, and management of illegal foreign fishing. DEWHA considers that, until it can be demonstrated that these issues have been adequately addressed, a three year Wildlife Trade Operation (WTO) declaration is appropriate.

As the fishery operates only in State waters, a Part 13 accreditation for the WATF in relation to protected species provisions under the EPBC Act is not required at this time.

Conditions and recommendations are provided in Table 4 with a brief explanation of the related issue/intent. Unless a specific time frame is provided in the condition or recommendation they must be addressed within the life of the declaration (3 years).

Note that a standard condition of a WTO is an annual reporting requirement, the details of which are provided in **Condition 3**, Table 4.

Table 4: WATF Assessment– Summary of Issues, Conditions and Recommendations May, 2009

Issue	DEWHA Condition
<p><u>General management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid and export approval continues uninterrupted, DEWHA 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 legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p>Condition 1:</p> <p>Operation of the fishery will be carried out in accordance with the WATF management regime made under the <i>WA Fish Resources Management Act 1994</i>.</p> <p>Condition 2:</p> <p>DFWA to inform DEWHA of any intended amendments to the management arrangements that may affect the criteria on which EPBC Act decisions are based.</p>
<p><u>Annual reporting</u></p> <p>Reports must be produced and presented to DEWHA annually in order for the performance of the fishery and progress in implementing the conditions and recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports are to be provided prior to the anniversary of the Wildlife Trade Operation (WTO) declaration.</p> <p>Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (the Guidelines) 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 protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing DEWHA conditions and recommendations.</p>	<p>Condition 3:</p> <p>DFWA to produce and present reports to DEWHA annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>

<p>Electronic copies of the Guidelines are available from the DEWHA website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</p>	
<p>Issue</p>	<p>DEWHA Recommendation</p>
<p><u>Ecological Risk Assessment (ERA)</u></p> <p>In the 2008/09 submission, DFWA indicate that they are yet to complete an Ecologically Sustainable Development (ESD) report for the WATF, and have advised that due to the nature and scale of the fishery there are limited resources available to undertake the ESD report at this time. DEWHA consider that an ESD report is an important component for the sustainable management of target stocks and the marine ecosystem and ideally would be completed as part of the ongoing development and refinement of the management arrangements for the fishery.</p> <p>However, at this time, limited information and resources are available on the risks associated with the WATF and the management arrangements in place to respond to risks. As such, DEWHA recommends, as part of this declaration, that DFWA undertake and finalise an Ecological Risk Assessment (ERA) for the WATF and implement subsequent management responses, as appropriate, to the identified risks, in order to begin work towards the compilation of an ESD Report.</p> <p>ERAs assess the potential impact, both direct and indirect, a fishery's activities may have on all aspects of the marine ecosystem and should form a large part of an agency's approach to fisheries management. This is a cost and time efficient way of screening activities and identifying key ecological priorities for the management of a fishery. Impacts posed by a fishery are assessed against key ecological components, including: retained species, non-retained species and the general ecosystem.</p> <p>Following the preparation of the ERA, all current management measures must be taken</p>	<p>Recommendation 1:</p> <p>DFWA to:</p> <ul style="list-style-type: none"> a) finalise an Ecological Risk Assessment (ERA) for the Western Australian Trochus Fishery; b) finalise and implement management responses, as appropriate, to the identified risks; and c) make the ERA and the management responses publicly available on the DFWA website.

<p>into account to avoid an over-estimation of the actual risks and to ascertain if further management measures are required. The management arrangements in place, or proposed, to respond to the identified risks should be detailed in the report.</p> <p>DEWHA considers the management of ecological risks critical to the ongoing sustainable management of the WATF and it is important that priority is given to this work.</p> <p>DEWHA recommends the report specify a comprehensive review period no greater than five years, with more regular review of key management components as appropriate and general review of information as it becomes available.</p> <p>DEWHA expects that the ERA report including relevant management responses, will be made publicly available on the DFWA website as part of its management documents, which allows for clear articulation and justification of management arrangements in place for the fishery.</p>	
<p><u>Research and stock monitoring program</u></p> <p>DFWA indicated that a recent fishery independent stock survey estimated a biologically sustainable harvest level of 37 tonnes for the fishery. DEWHA commends this work and recommends that DFWA aims to conduct an independent review at least every five years, to ensure the these limit reference points remain appropriately precautionary and sustainable.</p> <p>Additionally, DEWHA commends the introduction of the daily research logbook to support the stock surveys and consider its implementation and ongoing use as a key initiative to improve the ecologically sustainable management of the fishery.</p> <p>The daily research logbook also aims to improve finer-scale spatial reporting of catch</p>	<p>Recommendation 2:</p> <p>DFWA to seek to develop and implement a long term monitoring and stock assessment program that ensures the ongoing sustainability of trochus stocks related to the fishery.</p> <p>The monitoring program should be capable of identifying areas and species at risk of localised and/or serial depletion.</p>

<p>and effort to inform the management of the fishery. This finer-scale information is critical for management agencies when trying to understand and minimise risks to trochus stocks from localised and serial depletion. DEWHA are concerned that trochus stocks utilised in the fishery may be at risk from localised and serial depletion. Trochus are broadcast spawners and if spawning stocks are reduced to below a critical level, then successful recruitment may not occur.</p> <p>Should risks to trochus stocks from localised and/or serial depletion be identified, DFWA should develop mitigation measures to address and manage these concerns.</p> <p>Outside of the WATF there is no known recreational or other indigenous fishing of trochus, except for removals by illegal foreign fishers. DFWA have estimated that this level of removal (estimated to be 15-20t) is comparable with the level of harvest taken by the WATF itself. Therefore continued inclusion of accurate IFF estimates into stock assessments for the WATF is of paramount importance.</p>	
<p><u>Compliance risk assessment and strategy</u></p> <p>The completion of a compliance risk assessment for the fishery will enable DFWA to better direct available resources to further increase the effectiveness of limited enforcement and compliance resources.</p> <p>As part of the compliance risk assessment, DEWHA recommends DFWA consider: the impacts of illegal, unreported and unregulated fishing; compliance with management arrangements (eg. minimum legal size limits and fishing area closures where relevant); and, accuracy of information used to inform the management of the WATF (eg. logbook reports of catch and effort).</p> <p>DEWHA recommends that this assessment be conducted before the next review of the</p>	<p>Recommendation 3:</p> <p>DFWA to conduct a compliance risk assessment for the WATF and, as appropriate, implement an appropriate compliance strategy to address identified risks.</p>

<p>fishery in 2012, to ensure that the compliance measures utilised in the fishery are effective.</p>	
<p><u>Illegal foreign fishing (IFF)</u></p> <p>DEWHA acknowledges the past and ongoing issues relating to IFF and recommend DFWA continue to pursue, in collaboration with relevant agencies and communities, mitigation measures to address this issue and to ensure any stock assessments of trochus stocks take account of IFF.</p> <p>DEWHA commends the commencement in 2006, of the indigenous marine Program in conjunction with the Bardi Jawi indigenous community at One Arm Point in response to threats by illegal foreign fishing, and the development of an ongoing collaborative Bardi Ranger Program aimed at providing further protection to the trochus reefs from illegal foreign fishing.</p> <p>DEWHA understands that this issue is not specifically part of the management arrangements for this fishery, however it is recommended, due to this being an ongoing issue to the fishery, that DFWA pursue continued collaboration with other relevant parties to improve and maintain effective reef protection for the future.</p>	<p>Recommendation 4:</p> <p>DFWA, in collaboration with other relevant agencies and communities, to continue to pursue mitigation measures, such as the trochus reef protection programme, to address stock sustainability concerns associated with illegal foreign fishing.</p>

Acronyms

CITES	Convention of the International Trade of Endangered Species
DEWHA	Department of Environment, Water, Heritage and the Arts
DFWA	Department of Fisheries Western Australia
EPBC	Environment Protection and Biodiversity Conservation Act 1999
ERA	Ecological Risk Assessment
ESD	Ecologically Sustainable Development
WA	Western Australia
WATF	Western Australia Trochus Fishery
WTO	Wildlife Trade Operation