Australian Government

Department of Agriculture, Water and the Environment

ASSESSMENT OF THE QUEENSLAND CORAL FISHERY

October 2021

This report should be attributed as '*Assessment of the Queensland Coral Fishery October 2021*, Commonwealth of Australia 2021'.

Disclaimer

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

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EXECUTIVE SUMMARY OF THE ASSESSMENT OF THE QUEENSLAND CORAL FISHERY

On 30 July 2021, the Queensland Department of Agriculture and Fisheries (QDAF) submitted an application for the Queensland Coral Fishery to the Department of Agriculture, Water and the Environment (the department) for assessment under the Commonweath *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as an approved wildlife trade operation (WTO), against the Australian Government '*Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*'. Futher information was provided to the department on 10 August 2021. A public comment period was open from 20 August to 20 September 2021.

Fishery management arrangements

The Queensland Coral Fishery extends from the tip of Cape York to the southern border of the Great Barrier Reef. The fishery operates in Queensland and Commonwealth waters, including parts of the Great Barrier Reef Marine Park. Harvest is undertaken by hand collection only and the fishery is managed using limited entry with a quota of 200 tonne total allowable catch, split between 'specialty coral' (30 per cent) and 'other coral' (70 per cent). The fishery operates under the principle that impacts of harvesting are likely to be low due to the highely targetted and selective harvesting methods employed, the amount harvested across a broad geographic range and the degree of protection of the resource from harvesting offered by the Great Barrier Reef Marine Park Zoning Plan. An Ecological Risk Assessment (ERA) was completed for the fishery in 2013. A Harvest Strategy for the fishery was implemented for the fishery on 1 September 2021. This fishery has historically been a leader in the development and implementation of a risk assessment and management framework intended to adaptively manage coral harvest so that it is maintained within sustainable limits.

Target stocks

Species permitted to be taken in the Queensland Coral Fishery include those of the class Hydrozoa or Anthozoa. Most corals targeted by the fishery belong to the class Anthozoa and represent approximately 80 of over 400 coral species present on the Great Barrier Reef. Species for the aquarium trade include a diverse range of hard and soft corals as well as sea anemones.

Harvest of CITES listed species

The harvest of hard coral species, all of which are listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), is the predominant focus of the fishery and has been under an increased trajectory each year since 2006. Harvest is managed by way of risk assessments and a decision making framework implemented through the Queensland Coral Fishery Harvest Strategy 2021-2026 (the Harvest Strategy). Further, there are industry action plans and other initiatives implemented voluntarily through partnership with the industry. These are intended to promote ecological sustainability and respond to catastrophic events linked to global climate change to minimise impacts on stressed coral reefs.

CITES obligations are given effect domestically by the EPBC Act. The EPBC Act requires that, inter alia, an export permit for a CITES listed species may only be issued by the Minister if satisfied that the export will not be detrimental to, or contribute to trade which is detrimental to, the survival or recovery of the species, or a relevant ecosystem. This is known as a non-detriment finding (NDF).

To assist in undertaking this assessment, which includes a forensic look into harvest trends and management arrangements, the department sought expert advice from a renowned coral scientist who is heavily engaged with the management of this fishery. Expert analysis has shown:

- The fishery has grown significantly over the last decade.
- Overall harvest levels (including all components of the 200,000 kg annual quota) exceeded 100,000 kg for the first time in 2018/2019.
- Harvest levels of “specialty coral” (more susceptible to over harvest) have increased disproportionately to “other corals”, now representing >40% of the reported catch in 2019/20.
- Sustained rates of increase in reported harvest levels for individual species that are reported at a species level, are mostly in the order of 20-60% per year, though retained catch of some has increased ~200% year on year since 2006/2007
- Annual reported harvest levels of corals (by weight) had been relatively stable since 2006 but did increase quite substantially in 2018/19. Annual reported harvest levels, or retained number of pieces has increased by a much more considerable extent over the period from 2006/2007 through to 2019/2020.
- This large increases in the reported number of pieces is difficult to reconcile against moderate increases in the reported weight of coral harvested, unless there have been marked declines in size (weight) of individual coral pieces over time. However, there is no way of ascertaining if this is the case because of how the data that has been collected.

While considered an early leader in adaptive management, the management framework has not kept pace with the growth of this fishery. Informed by expert advice, and considering CITES requirements for determining whether the fishery is having a detrimental impact on the species it harvests, several significant shortfalls in the management framework were identified in the assessment of the fishery in June 2021. Given the complexity of the work required to address these matters, a short-term WTO approval was made, conditional on the introduction of:

- Species-specific reporting of harvest (or genus-specific in certain instances) by both pieces and weight; and
- Development of an implementation plan to undertake the necessary steps to address several other priority management needs.

These ongoing management needs remain of relevance to this assessment, and include::

- The absence of enforcable limits placed on the harvest of individual species, other than at the level of “specialty coral”, for which the total allowable catch is 60 tonnes, or “other coral” for which 140 tonnes may be taken;

- Significant uncertainty about the species composition of corals harvested and reported at the genus-level (which although permissible due to identification difficulties, is problematic in ensuring sustainable management of individual species);
- That the Ecological Risk Assessment (ERA) for this fishery was last reviewed in 2013 when harvest levels were significantly lower and before a series of back to back environmental disturbances (cyclones and coral bleaching events) and a lack of evidence of management considering these events' possible repercussion for the sustainability of the harvest;
- The absence of an acceptible framework to ensure accute environmental disturbances impacting the area of the fishery are responded to promptly and appropriately; and
- The lack of a framework to distinguish wild harvested corals from captive bred corals.

Impacts on Ecosystems and Protected species

The highly selective fishing methods employed by the fishery limit the risk of incidental interactions with protected species. QDAF has undertaken two ERAs for this fishery (2008 and 2013), which have identified some species to which harvest may pose elevated (albeit low to moderate) risk. Risk assessments should be living documents and reviewed or updated periodically, particularly if there have been significant changes to the risks or threats, in the case of fisheries management, external environmental changes or changes in harvest levels. The last ERA for this fishery was undertaken eight years ago, before a series of major environmental disturbances. Since the last ERA, there has also been significant and continued increases in harvest, particularly since 2018.

Public submissions

A total of 27 submissions were received as part of the public consultation process, 24 of which were from fishing industry members or representative groups, and two from environmental non-government organisations (NGO) and a further comment from a research partnership group. Industry comments raised concerns about the economic viability of the fishery should more precautionary harvest limits be introduced, particularly for the high value species within the fishery. NGO and other, comments centred around a perceived lack progress against meeting conditions of previous two approvals, the absence of a recent ERA, the absence of stock assessments, the lack of quality and timely reporting of harvest, lack of harvest limits and the impact of harvesting coral in light of recent bleaching events. The comments also raised concerns about the rapidly increasing harvest from the fishery and the perceived inability of management to effectively constrain harvest or assess its impact. QDAF declined the opportunity to respond to these public submissions citing the planned implementation of measures that would address the concerns in the NGO submissions. These matters were considered throughout the assessment of the fishery and have either been addressed by QDAF or are being addressed via conditions on the wildlife trade approvals granted in association with this amendment of the List of Exempt Native Specimens.

Conclusion

Notwithstanding the progress made by the QDAF in introducing species-specific (or genus-specific) reporting by weight and pieces, and a Harvest Strategy for this fishery during the term of the June to October WTO, the deficiencies identified through the department's assessment, informed by expert review, require comprehensive revisions to the management framework.

As QDAF has agreed to make these management revisions, the department considers a three year Wildlife Trade Operation declaration with time bound conditions appropriate to minimise the risk of continued harvest and ensure the fishery will not be detrimental to the survival or conservation status of taxa to which it relates [303FN(3.b.i.) and 303FN(3.b.ii.)] for the duration of the declaration The risks and uncertainties identified by the department, that must be addressed through conditions, as listed at Section 4, include:

- The lack of harvest limits for CITES-listed species,
- The lack of adequate mechanisms to enforce harvest limits,
- The uncertainty in relation to the species composition of coral harvest where reporting at the genus-level is permissible,
- The dated Ecological Risk Assessment for the fishery
- The need for a documented plan to respond to the impacts of acute environmental disturbances, such as coral bleaching events and cyclones, on the area of the fishery, and

On this basis and subject to conditions, the Department considers that, an approved wildlife trade operation declaration for three years, until 28 October 2024 is appropriate.

Notes:

Assessment history:

Information on previous assessments for the Queensland Coral Fishery is available on the Department's website at http://environment.gov.au/marine/fisheries/qld/coral.

1st assessment finalised June 2006 (amended in 2008) – The fishery was declared an approved Wildlife Trade Operation for 3 years. Export approval was subject to 3 conditions and 9 recommendations.

2nd assessment finalised June 2009 – The fishery was declared an approved Wildlife Trade Operation for 3 years. Export approval was subject to 4 conditions and 2 recommendations.

3rd assessment finalised June 2012 – The fishery was declared an approved Wildlife Trade Operation for 3 years. Export approval was subject to 8 conditions and 3 recommendations.

4th assessment finalised June 2015 – The fishery was declared an approved Wildlife Trade Operation for 3 years. Export approval was subject to 6 conditions and 1 recommendation.

6th assessment finalised June 2018 – The fishery was declared an approved Wildlife Trade Operation for 3 years. Export approval was subject to 5 conditions.

7th assessment finalised June 2021 – The fishery was declared an approved Wildlife Trade Operation for four months. Export approval was subject to 7 conditions.

Fishery reporting:

Queensland Department of Agriculture and Fisheries 2019-2020, 'Queensland Fisheries Summary Report' - https://www.daf.qld.gov.au/__data/assets/pdf_file/0004/1423831/queensland-fisheries-summary-report.pdf, Accessed: 26 October 2021

Key links:

Queensland Government, Business Queensland, Commercial Fisheries Profiles 'Coral Fishery' https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fisheries-profiles/commercial-harvest-fisheries/coral, Accessed: 26 October 2021

Department of Primary Industries and Fisheries 2009 'A Guide to the Queensland Marine Aquarium Fish Fishery and the Queensland Coral Fishery' – https://www.daf.qld.gov.au/__data/assets/pdf_file/0005/59837/marine-aquarium-_coral-fishery-Guide-QLD.pdf, Accessed: 26 October 2021.

Pro-vision Reef 2009 'Stewardship Action Plan' https://www.gbrmpa.gov.au/__data/assets/pdf_file/0015/4236/gbrmpa_StewardshipActionPlan2009.pdf Accessed: 26 October 2021

Queensland Department of Employment, Economic Development and Innovation 2009. Coral 'Stress Response Plant for the Coral and Marine Aquarium Fish Fisheries' https://elibrary.gbrmpa.gov.au/jspui/bitstream/11017/3028/1/2009_Coral_Stress_Response_Plan_for_fish_fisheries.pdf Accessed: 26 October 2021

Enforcing legislation:

The fishery is managed in accordance with provisions in the following Queensland legislation and regulations available at https://www.legislation.qld.gov.au/ and Commonwealth legislation available at https://www.legislation.gov.au/Details/C2017C00279 Accessed: 26 October 2021:

Queensland *Fisheries Act 1994*.

Queensland *Fisheries (General) Regulation 2019*
Queensland *Fisheries (Commercial Fisheries) Regulation 2019*
Queensland *Fisheries Declaration 2019*
Queensland *Quota Declaration 2019*
Queensland Marine Parks Act 1982.
Commonwealth *Great Barrier Reef Marine Park Act 1975*.

Harvest strategy:

Coral Fishery Harvest Strategy 2021-2026, https://www.publications.qld.gov.au/dataset/queensland-fisheries-harvest-strategies/resource/d4f2c9e8-ef2f-45c7-b0ba-d1d0fad81793 Accessed: 20 October 2021

Ecological Risk Assessment:

Roelofs A 2008 'Ecological risk assessment of the Queensland Coral Fishery, Department of Primary Industries and Fisheries, Brisbane QLD, https://www.daf.qld.gov.au/__data/assets/pdf_file/0005/76577/EcolRiskAssess-Coral-Fishery.pdf Accessed: 26 October 2021

Roelofs, A. (2018) Ecological Risk Assessment of the Queensland Coral Fishery 2013. Queensland Department of Agriculture and Fisheries, Brisbane, Australia. https://era.daf.qld.gov.au/id/eprint/7011/ Accessed: 26 October 2021

SECTION 1: ASSESSMENT SUMMARY OF THE QUEENSLAND CORAL FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION), CONSISTENT WITH THE EPBC ACT

Guidelines assessment	Meets	Partially meets	Does not meet	Details
Management regime *1 of 9 criteria is not applicable	1 of 9	6 of 9	1 of 9	The management arrangements are well documented, publicly available and transparent. Consultative processes involve a range of stakeholders but data shared with these groups is not sufficient for meaningful engagement. While the fishery has management measures in place to control harvest these do not appear to have effectively responded to significant increases in harvest of certain species. Neither is it clear how this could occur without enforceable input controls or catch limits. The fishery is making risk-based management decisions from an Ecological Risk Assessment that is 8 years old while the fishery has grown considerably in this time and the reef health has declined. Conditions around planning for the implementation of enforceable harvest limits are included in section 2 of this report.
Principle 1 (target stocks) *2 of 11 criteria are not applicable		5 of 11	4 of 11	Data collection in logbooks specifically covering all species harvested (or genera where approved) in the fishery has only been implemented in the last month, meaning there is not yet sufficient information on target species to make an informed assessment of long-term harvest trends. For those species where it is acceptable to report harvest at the genus level there is inadequate understanding of the species composition, which prevents trends in harvest being assessed. This makes monitoring and managing risks to species level difficult. No stock assessments have been conducted for this fishery and it is unclear how risk-based management can work effectively without species-specific data collection and more responsive ecological risk assessments. Conditions around improved data collection and reporting as well as an updated Ecological Risk Assessment are included in section 2 of this report.
Principle 2 (bycatch and TEPS) *8 of 12 criteria are not applicable	4 of 12			Given the highly selective hand-collection methods used by this fishery, there are negligible risks to bycatch and very low risk to protected species.
Principle 2 (ecosystem impacts)			5 of 5	Management responses are in place for target species only. There is no evidence of data being collected on the potential impact of the fishery on the

				ecosystem and environment in general that would allow management to detect or respond to impacts of the fishery on the environment. A Condition requiring a revised Ecological Risk Assessment is included in section 2 of this report.
EPBC requirements	**Meets**	**Partially meets**	**Does not meet**	**Details**
Part 12	**Meets**			This assessment considered the fishery's impact on marine bioregional areas and founds the risk to be low and acceptable
Part 13	**Meets**			This assessment considered the fishery's impact on protected species and ecological communities and founds the risk to be low and acceptable
Part 13A	**Meets**			The management of the fishery has been assessed and found to have serious shortcoming with regard to managing and monitoring the impact of the fishery on the CITES listed species and the ecosystem in which they occur. With QDAF's agreement to implementing the conditions outlined in section 2 of this report, management measures are likely to be adequate.
Part 16	**Meets**			Management arrangements were found to be moderately precautionary. With QDAF's agreement to implementing the conditions outlined in section 2 of this report, management measures are likely to be adequate.

SECTION 2: QUEENSLAND CORAL FISHERY – SUMMARY OF ISSUES REQUIRING CONDITIONS, OCTOBER 2021

Issue	Condition
General Management Export decisions relate to the management arrangements in force at the time of any decision(s) made under the EPBC Act. To ensure that decision(s) remain valid and export approval continues uninterrupted, the Department of Agriculture, Water and the Environment (the department) needs to be advised of any changes that are made to the management regime and make an assessment that new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision(s). This includes operational and legislated amendments that may affect the sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or the ecosystem.	**Condition 1** The Queensland Department of Agriculture and Fisheries must ensure that operation of the Queensland Coral Fishery is carried out in accordance with management regime specified in Queensland Department of Agriculture and Fisheries, and Great Barrier Reef Marine Park Authority issued permits, as well as in the following: • Fisheries Act 1994 (Qld) • Fisheries (General) Regulation 2019 (Qld) • Fisheries (Commercial Fisheries) Regulation 2019 (Qld) • Fisheries Declaration 2019 (Qld) • Fisheries Quota Declaration 2019 (Qld) • Marine Parks Act 2004 (Qld) • Marine Parks Regulations 2019 (Qld) • Great Barrier Reef Marine Park Act 1975 (Cth) • Great Barrier Reef Marine Park Regulations 2019 (Cth). **Condition 2** The Queensland Department of Agriculture and Fisheries must inform the Department of Agriculture, Water and the Environment of any intended material changes to the Queensland Coral Fishery's management arrangements that may affect the assessment against which *Environment Protection and Biodiversity Conservation Act 1999* decisions are made. **Condition 3** The Queensland Department of Agriculture and Fisheries must inform the Department of Agriculture, Water and the Environment of any intended changes to fisheries legislation that may affect the legislative instruments relevant to this approval.

Annual Reporting It is important the Queensland Department of Agriculture and Fisheries produce and present reports to the department on the performance of the fishery and progress in implementing the conditions described in this report and other managerial commitments. This progress will be monitored and assessed throughout the life of the export approval. An application for re-accreditation should follow Appendix B to the *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition* and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the department's conditions described in the previous assessment for the fishery. Electronic copies of the guidelines are available from the Department's website at http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries.	**Condition 4** The Queensland Department of Agriculture and Fisheries must produce and present reports on the Queensland Coral Fishery to the Department of Agriculture, Water and the Environment annually, as per Appendix B of the *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*.
Harvest Reporting Access to reliable data is crucial for assessing, monitoring, and managing the impacts of fishing on target and non-target species as well as the health of ecosystems. Recent rapid and sustained increase in harvest in the Queensland Coral Fishery (QCF) highlights the need to clearly understand the nature of the harvest. While total harvest of live corals is relatively small in relation to the total area of the reef available to the fishery, fishing pressure is not necessarily apportioned relative to the abundance of each species in the fishery area or in line with their spatial distribution. The Australian Scientific Authority for the Convention on International Trade in Endangered Species (the CITES Scientific Authority) requires specific harvest data (that include number of pieces, weight of pieces and spatial information) to meet CITES NDF information needs, in accordance with Resolution Conf. 16.7 (Rev. CoP17). The recently updated logbook for the fishery, which provides for species-specific reporting (or genus-specific reporting in some instances), represents a significant improvement in the management of the fishery and will provide critical information to support NDF determinations into the future. For certain corals (such as *Acropora sp*.) identification difficulties are recognised and CITES accepts genus-level reporting of exports. These same difficulties are recognised about operators' ability to identify individual species. However, given harvest levels within the genus are not apportioned relative to abundance nor biological ability to withstand harvest, a lack of species-specific information represents	**Condition 5** Before the commencement of the 2022–23 fishing season, the Queensland Department of Agriculture and Fisheries must undertake work to better characterise the approximate species composition of catch for species listed in Attachment A for which identification to genus-level is acceptable at export, including by: a) introducing a scientific program to independently characterise the approximate species composition of specimens of the genus *Acropora* harvested from the Queensland Coral Fishery. b) This should be representative of *Acropora sp.* harvest from all regions and habitats in which the fishery operates and be conducted at regular intervals of no greater than every 12 months. Findings must be reported to the CITES Scientific Authority as part of the annual reporting requirement under Condition 4.

a management gap that makes determination of NDFs difficult and requires a high level of precaution to be built into the management of the fishery. A scientific observer program to undertake periodic inventories and characterise the approximate species composition of catch within these genera (and more broadly) would reduce the uncertainty and allow more robust determination of acceptable harvest levels in the management of the fishery. While ideally a periodic scientific program would be undertaken to characterise species composition of catch for all genera for which species-level identification by industry is not readily achievable, it is recognised that this may not be feasible at present given taxonomic challenges and limited expertise to undertake such work. As such, Australia's CITES Scientific Authority has determined an achievable priority list for undertaking this characterisation work to address the highest risk species/genera first. The focus in the first instance needs to be on characterising the species composition of harvested *Acropora sp*. The rationale for this prioritisation is that while *Acropora sp*. are generally regarded as having characteristics such as being relatively fast growing, often recruiting in high densities, having high rates of natural variability even in the absence of fishing and being relatively short lived, these traits do not apply equally to all species in the genus. A particular concern is that several of the most highly targeted species of *Acropora* in the fishery exhibit biological parameters that may make them far more vulnerable to harvest pressure than most species in the genus, necessitating further investigation. Restrictions on data availability due to commercial-in-confidence considerations have caused delays and difficulties in undertaking meaningful assessment of this fishery as an approved WTO and attempts should be made to balance the needs for accurate assessment with those of commercial confidentiality. Where data are not able to be made available to inform NDFs, greater precaution must be applied in determining non-detrimental harvest limits. In the absence of weight data, when reviewing coral trade information, CITES and the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) use their own conversion rates based on Green and Shirley (1999) to calculate assumed coral weight where it is not otherwise specified. Industry is concerned that this may misrepresent actual weights harvested. Therefore, it is in the interests of the fishery to report weight as well as piece numbers. Records correlating weight and number of pieces harvested may also be useful if a review is undertaken by the responsible CITES technical committee to update the current conversion factors for coral.	**Recommendation 1** The Queensland Department of Agriculture and Fisheries to provide the facility for fishers in the Queensland Coral Fishery to report harvest of all species listed in Attachment A to species-level. This should be supported by guidance materials and expert review of records where fishers identify knowledge gaps.

Ambiguous categories in weight reports such as ‘other coral’ and ‘decorative coral/live rock’ are not sufficiently informative to the Australian Scientific Authority’s determination of NDFs nor are they useful for international reviews and analysis of coral in trade as they do not allow meaningful analysis of actual catch composition. The updated logbook should help reduce these reporting issues but analysis of how fishers use the logbooks as well as the independent expert verification of catch composition would assist further and should be prioritised.	
Species and Genus Specific Harvest Limits In the absence of clear stock assessments or biomass estimates underpinning the Harvest Strategy, the CITES Scientific Authority commissioned the report ‘*EXPERT ADVICE FOR THE ASSESSMENT OF AUSTRALIAN CORAL FISHERIES – QUEENSLAND CORAL FISHERY (QCF) 2006–2007 TO 2019–2020*’ (the report). The report recommends precautionary harvest limits across the fishery. Until further research is undertaken supporting alternative harvest limits, those proposed by the report are the best information available to the CITES Scientific Authority to make Non-Detriment Findings for the fishery. Individual harvest limits have been recommended for CITES-listed hard coral species (outlined in Attachment B), for which there is evidence of i) rapid but recent increases in harvest levels or ii) sustained increases in harvest levels over >10 years. Catch limits have been referenced to the period of harvest from 2016–17, 2017–18 and 2018–19 (the reference period). This was the period when more comprehensive species and genus level reporting was implemented in the fishery. Of particular concern is *Homophyllia cf. australis*. The report indicates most of the harvest reported as this species in the QCF is likely to be an unidentified species, possibly new to science and potentially very restricted in its distribution. The biology of this species makes it vulnerable to overharvest and environmental disturbance. Harvest has been increasing annually for multiple years by large amounts despite the fishery’s Environmental Risk Assessment (ERA) having identified it as being under the highest risk from harvesting. Considering documented concerns over ongoing harvest trends, the CITES Scientific Authority must take a highly precautionary approach to the level of harvest considered to be non-Detrimental to this species, and a species-specific harvest limit has been determined accordingly. Another instance that requires mention is the harvest of *Acropora sp*. having historically been reported to genus level. While the genus represents a large amount of biomass within the Great Barrier Reef (GBR), not all species are as abundant or widely distributed	**Condition 6** Before the commencement of the 2022–23 fishing season, the Queensland Department of Agriculture and Fisheries must implement annual harvest limits in the Queensland Coral Fishery: a) provided in Attachment B. These limits are to remain in place until robust data is presented to the satisfaction of the CITES Scientific Authority to underpin a revised Non-Detriment Finding. b) for all species with a catch history in the fishery during the reference period used in the Harvest Strategy (except those species of concern listed in Attachment B) and have a catch limit of 150% of the harvest level in the reference period. c) of 600 kg for all other CITES listed coral species harvested in the fishery. **Condition 7** The Queensland Department of Agriculture and Fisheries must: a) for the remainder of the 2021-22 fishing season, work with industry to limit catch within the current season to as close as practicable to the harvest limits outlined in Condition 6. b) before the commencement of the 2022–23 fishing season, inform the Department of Agriculture, Water and the Environment of what mechanism will be used to enforce the harvest limits outlined in Condition 6.

as others, and species' biological vulnerability to harvest vary, as noted above. In the absence of species-specific information, the CITES Scientific Authority must take a precautionary approach to the harvest of this genus until work has been undertaken to determine the species represented in the harvest of this genus and their relative proportion of harvest reported under this category. A genus-level harvest limit for *Acropora sp.* has been determined accordingly. The report recommends a harvest limit of 150% of the reference period should be applied for all hard corals with a catch history from the reference period (excluding those with individual harvest limits in Attachment B). The report also recommends hard coral species that do not have a catch history from the reference period should have a 600 kg harvest limit until there is sufficient harvest data to determine a more appropriate limit for these species. The specific limit of 600 kg is based on an observed threshold between 'driver' and 'non-driver' species. Analysis of harvests reported across Australian coral fisheries shows a consistent trend for 'driver' species to be harvested at much greater levels than 600 kg and 'non-driver' species to be harvested at levels lower that 600 kg. Importantly, if all species for which the 600 kg limit is to be applied were harvested to this limit, the fishery could still reach the 60,000 kg quota for specialty coral. Therefore, the 600 kg limit would not constrain the harvest in the fishery to below the quota limit. The ability of management to respond in a timely manner and in accordance with a pre-determined and documented plan, as outlined in the Harvest Strategy, is critical. This is especially the case given prior instances of species' harvests exceeding reference points applied under the Performance Measurement System have occurred with no apparent management response.	c) from the commencement of the 2022-23 fishing season, actively manage harvest within the limits specified in Condition 6.
Ongoing Management Arrangements In the absence of clear stock assessments underpinning a harvest plan, the CITES Scientific Authority must consider whether the management of the fishery can adequately identify and respond to changes in harvest that may indicate changes in abundance of target species resulting from harvest pressure or ecological disturbance. The harvest data from the QCF shows large and continued increases in harvest, particularly since 2018. The Queensland Department of Agriculture and Fisheries has undertaken two Ecological Risk Assessments (ERA) for this fishery (2008 and 2013) that have identified some species to which harvest may pose elevated (albeit low to moderate) risk. Risk assessments should be living documents and reviewed or updated periodically, particularly if there have been significant changes to the risks or threats posed to species	**Condition 8** By 30 June 2022, the Queensland Department of Agriculture and Fisheries must publish a revised Ecological Risk Assessment for the Queensland Coral Fishery. **Condition 9** The Queensland Department of Agriculture and Fisheries must, within 90 days of a disturbance event occurring in the Queensland Coral Fishery, inform the CITES Scientific Authority of any potential

harvested in the fishery, including external environmental changes and changes in harvest levels or patterns. The last ERA for this fishery was undertaken eight years ago before a series of major environmental disturbances and significant increases in harvest levels. Beyond the risk posed directly from harvest, in recent years coral assemblages on the GBR have been affected by a range of disturbances including freshwater flood plumes, cyclones and extreme thermal stress as reported in the Great Barrier Reef Outlook report 2019. In 2016 and 2017, the GBR experienced its first back-to-back coral bleaching event which caused mass mortality of corals in shallow reef habitats, particularly in the northern GBR. Severe tropical cyclones and ongoing outbreaks of crown-of-thorns starfish have caused further loss of coral cover in the central and southern areas of the reef. As a result of these cumulative impacts, average hard coral cover on the GBR has undergone a steep decline and the overall trend for coral reef habitats within the region is one of long-term decline. Global warming has deprived the reef of sufficient time for many coral communities to recover between acute events. The direct impacts of further climate change, combined with chronic stressors, is expected to further reduce reef resilience and deplete coral-associated species. Because of the increase in the frequency and intensity of disturbances, ecosystem resilience may already be compromised. The Outlook Report was published before the 2020 bleaching event, which was more widespread, and affected mainly the Southern GBR more than previous such events. The ecological impacts of this latest (2020) bleaching event will not be known for some time, partly due to inherent constraints imposed on field-based sampling due to COVID-19 in 2020. However, the combined footprint of these three latest bleaching episodes (2016, 2017, and 2020) is significant. The extent to which these events and disturbances affect the species harvested by this fishery is still unknown. Recent research (Pratchett et al., 2020) has found that many species that occur in deeper and turbid water habitats, and previously thought to be more resilient to heat stress, are in fact highly susceptible to elevated temperature and bleaching. Determining the extent to which these events have impacted ecosystem health and stock status of species targeted by the fishery is critical to determining the ongoing sustainability of harvest. The Queensland Department of Agriculture and Fisheries must ensure that such disturbances are formally considered in the management of the fishery as they happen (for example, by convening expert discussions following major environmental disturbances such as cyclones and heat waves). Without clear, transparent, and demonstrable evidence of management responses to events that affect the abundance of target species, the CITES Scientific Authority must take a highly precautionary approach to determine the circumstances under which a positive NDF might be made.	impacts these may have on the Non-Detriment Finding determinations, including management responses implemented.

It is worth acknowledging the important role the coral harvest industry has played to date in not only supporting research and providing information crucial to managing the reef but also in being stewards of the reef and developing action plans and codes of practice to help manage their industry's harvest from the reef. It is also important to acknowledge this industry has significant expertise in breeding and rearing corals which may become an important aspect of improving coral reef resilience into the future as well as a future for continued trade in coral species.	
Coral fragging The CITES Scientific Authority acknowledges that dividing and propagation (herein 'fragging'), as well as cultivation of suitable species of coral, can play a part in reducing reliance on the harvest of coral from the wild and may play an important role into the future as a way of supporting improved reef resilience. Culturing, as well as the process of fragging, presents several monitoring and enforcement challenges in the fishery. In particular, the practice makes it difficult to determine whether corals held by operators add up to an amount higher than the allowable annual harvest limits in the fishery. Some members of the coral harvest industry in Australia have expressed a desire to be recognised as captive breeders of certain species of corals. This is supported under CITES, provided the CITES Scientific Authority can be assured of provenance. The Queensland Department of Agriculture and Fisheries has clarified this process is not a separate aquaculture program but rather a part of the QCF. As such, the management of the fishery must provide a framework to support the development of this part of the fishery. Where coral from fragging operations is exported from the fishery it has the potential to cause discrepancies between logbook data and reported exports. A mechanism for assessing the potential increase in inventory from fragging is necessary to improve the reliability of harvest data. Without further information, the CITES Scientific Authority must consider exports from this fishery as wild sourced and discrepancies between logbook records and export records must be factored into the precautionary harvest levels determined to be acceptable for a positive NDF.	**Recommendation 2** Queensland Department of Agriculture and Fisheries to work with the coral harvest industry to develop a traceability framework for the QCF that supports distinguishing wild harvested corals from captive bred corals.

Attachment A

Hard coral (order Scleractinia) taxa where identification to genus level is acceptable but should be identified to species level where feasible. All other hard corals should be recorded to species

- Acropora
- Agaricia
- Alveopora
- Anacropora
- Astreopora
- Balanophyllia
- Barabattoia
- Blastomussa
- Caulastraea
- Coscinaraea
- Cyphastrea
- Dendrophyllia
- Distichopora
- Echinophyllia
- Echinopora
- Favites
- Fungia
- Galaxea
- Goniastrea
- Goniopora
- Heteropsammia
- Hydnophora
- Leptastrea
- Leptoseris
- Lobophyllia
- Montastrea
- Montipora
- Oculina
- Oxypora
- Pachyseris
- Pavona
- Pectinia
- Platygyra
- Pocillopora
- Porites
- Psammocora
- Seriatopora
- Siderastrea
- Stylaster
- Stylocoeniella
- Stylophora
- Turbinaria

Attachment B

Taxa	Harvest limit (kg)
Acropora spp.	19,500
Micromussa lordhowensis	3,715
Homophyllia cf. *australis*	1,065
Trachyphyllia geoffroyi	701
Acanthophyllia deshayesiana	600
Catalaphyllia jardinei	1,772
Fimbriaphyllia ancora	1,863
Euphyllia glabrescens	926
Duncanopsammia axifuga	966
Cycloseris cyclolites	600
Montipora spp.	1,099

SECTION 3: DETAILED ANALYSIS OF THE QUEENSLAND CORAL FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)

Guidelines criteria	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 management arrangements are documented and publicly available.** The Queensland Coral Fishery (QCF) is managed by the Queensland Department of Agriculture and Fisheries (QDAF) in conjunction with the Great Barrier Reef Marine Park Authority (GBRMPA). The management arrangements for the QCF are outlined on the QDAF website at https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fisheries-profiles/commercial-harvest-fisheries/coral. Management arrangements are specified in QDAF and GBRMPA-issued permits, as well as in publicly available legislation: the Queensland Fisheries Act 1994, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, Fisheries Quota Declaration 2019, and the Queensland Marine Parks Act 2004 and Marine Parks Regulations 2019. The Commonwealth Great Barrier Reef Marine Park Act 1975 and Great Barrier Reef Marine Park Regulations 2019 also apply to operations in the Great Barrier Reef Marine Park. Further, a harvest strategy was implemented for this fishery in September 2021. The QCF harvest strategy 2021-2026 sets out the management objectives for the fishery as well as outlining a system to help the fishery achieve its objectives and monitor its performance.

Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.	**Partially meets - Management arrangements developed through consultative process, however level of detail provided to stakeholders not sufficient.** There is a statutory process in place for public consultation and for the involvement of advisory committees in managing the fishery. A Regulatory Impact Statement (RIS) process is used as the main mechanism for ongoing consultation. The Queensland RIS guidelines can be found on the Queensland Department of Treasury website. The Queensland Sustainable Fisheries Strategy 2017-2027 (see weblink above) sets out priorities for future engagement with stakeholders through working groups which includes membership from commercial, recreational, conservation and Indigenous representatives. The harvest strategy has been prepared in cooperation with a stakeholder working group, the Marine Aquarium and Coral Fisheries Working Group. Stakeholder feedback was that the level of detail provided in working group was not sufficient and information regarding the scale of harvest and spatial distribution was not presented in a manner that was sufficiently clear and transparent to allow meaningful comment. Details of the fishery working group and communiques from working group meetings are available at https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable/fishery-working-groups/marine-aquarium-fish-and-coral-fisheries-working-group

Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.	**Partially meets – A range of expertise and public interests are involved in the relevant management committee no stock assessment has been completed.** Stock assessments have not been prepared for any species in the fishery. While not a consensus body, there is ongoing scientific research and management expertise involved in the management of the fishery through the fishery's working group. QDAF, GBRMPA and industry have collaborated to establish: • the Stewardship Action Plan (weblink above) which promotes industry adherence to operational standards and outlines a contingency plan to respond to catastrophic events linked to global climate change; • the Coral Stress Response Plan (weblink above) which outlines the strategy being adopted by this fishery to minimise impacts on coral reef systems showing signs of stress; and • The Ecological Risk Assessment (ERA), which though now dated, incorporated external expertise which included representatives from QDAF, the fishery, GBRMPA and an independent scientist. There is some stakeholder feedback that more comprehensive catch data should have been made available to inform this process. • The Harvest Strategy was developed in consultation with the fishery working group which includes, fishery managers, industry, scientists and a representative from GBRMPA.. • However, much of the information on this fishery is not made available to the working group based on commercial confidentiality issues. This significantly hampers member's ability to provide meaningful input at these meetings. One stakeholder's feedback was that the level of detail provided to the working group was not sufficient and information regarding the scale of harvest and spatial distribution was not presented in a manner that was sufficiently clear and transparent to allow meaningful comment. Details of the fishery working group and communiques from working group meetings are available at https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable/fishery-working-groups/marine-aquarium-fish-and-coral-fisheries-working-group

Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.	**Partially meets – There is a new Harvest Strategy for the fishery, however the strategy applies to species on a risk assessment basis and the latest risk assessment for this fishery was published in 2013** The recently implemented Harvest Strategy for the fishery contains a range of objectives, performance indicators and decision-making rules. These include: • Decision rules and catch triggers for species identified by the ERA as being at moderate or high risk from over harvesting, • Spatial harvest triggers limits • Decision rules regarding ecosystem impacts There have been substantial and sustained increases in harvest levels in the fishery. The number of pieces of hard corals harvested 2006/2007 to 2019/2020 increased by over 700%. Harvest levels of some species appear to be increasing at a near exponential rate and harvest levels in the fishery exceeded 100,000kg for the first time in the 2018/19 season. There is currently no stock assessment to determine the sustainability of this harvest level and management measures prior to the Harvest Strategy have failed to meaningfully analyse, explain or restrict increases in harvest. There appears to have been some confusion about which species were identified in the ERA as at elevated risk of overharvesting because the species listed have changed between the draft harvest strategy released for public consultation and the final version. The volume, location and nature of harvest has changed substantially since the 2013 ERA so that any decision frameworks based on the ERA are now significantly outdated. Data provided for this assessment appears to show several instances where increases in harvest have been in excess of reference points in the Performance Measurement System and no evidence could be found to indicate management reviews, nor have steps to constrain harvest been taken in the specified timeframes. It is therefore concerning that the Harvest Strategy contains the disclaimer: *'If the chief executive is satisfied that (1) indicators for the stock suggest it is sustainable, and that there is a low ecological risk to the stock under the current management arrangements, or (2) if resourcing requirements prohibit the ability for an assessment to be delivered in the scheduled timeframe, the chief executive may decide that a scheduled risk assessment will be delayed'*

Be capable of controlling the level of harvest in the fishery using input and/or output controls.	**Partially meets – While there are existing measures to control harvest, these are not effective in limiting harvest of key target species** The fishery is limited by high level quota categories with a TACC of 200t split between 'specialty coral' (60t) and 'other coral' (140t). While these quotas are enforceable, harvest limits of individual species identified to be at risk from overharvesting identified in ERAs or the Harvest Strategy are not enforceable under the existing fisheries management framework. It is important to note that the recent growth in the fishery has not occurred proportionally to the split in quota categories. Harvest of 'specialty coral' reported in the 2019/20 made up 40% of the total harvest for that season. The Harvest Strategy includes catch triggers for select species, but these are not enforceable limits, rather decision triggers that lead to management responses that are poorly defined. There are no reference limits for most of the species in the fishery under the Harvest Strategy such that it would only be of very limited effectiveness in limiting the growth of the fishery to a precautionary level. The fishery is operating without stock assessments for target species and relies on management analysis of catch and effort data to identify risks that may lead to unsustainable harvest. Species that have been identified as being at moderate and high risk of unsustainable harvest have continued to be harvested at substantial and increasing levels since the last assessment of this fishery. As noted, identification of risks and setting of catch triggers in the Harvest Strategy is based on outdated information with limited biological basis.. Catch triggers in the Harvest Strategy are not enforceable limits and this remains a serious concern since the last assessment of the fishery. Condition 6 and 7 will ensure there are more robust controls to limit ongoing unconstrained growth of harvest.
Contain the means of enforcing critical aspects of the management arrangements.	**Does not meet- Level of harvest of key target species cannot be effectively limited nor enforced under the existing and planned management framework** The Queensland Fisheries Act 1994 contains provisions for the enforcement of the management arrangements for the fishery. Compliance and enforcement activities are carried out by the Queensland Boating and Fisheries Patrol. The fishery is limited only by the high-level quota categories 'specialty coral' (30%) and 'other coral' (70%). There is no stock assessment for this fishery and there are significant concerns about the potential for unsustainable harvest of key target species. While there is a risk management process in place in the Harvest Strategy, it does not ultimately provide for implementation of enforceable harvest limits on key target species. Condition 6 and 7 will ensure there are more robust controls to limit ongoing unconstrained growth of harvest.

Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.	**Partially Meets – Harvest Strategy has been recently implemented but relies on inputs for an outdated ERA** The implementation in September 2021 of species-specific harvest reporting (or genus-specific in certain instances) should facilitate more meaningful review of trends in the fishery and the adequacy of management arrangements to respond to and influence/constrain these. Further, the recently implemented Harvest Strategy represent important update in the management of the fishery which had been operating under a Performance Measurement System that had not been reviewed since 2008. The Harvest Strategy relies on an ERA to identify and rate levels of risk which are then managed through decision rules. The most recent ERA for the coral fishery was completed in 2013. The scale of the fishery has increased significantly since the ERA in 2013 and there has been a worsening of reef health due to multiple bleaching evens and other environmental disturbances. The ERA must be updated and then revised on a frequent basis to capture changes in the fishery if the Harvest Strategy is to work effectively.
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.	**Partially meets – Limited capability to manage impacts on wider marine ecosystem** The fishery practices highly selective harvesting that is unlikely to cause significant harm to the wider marine environment. Impacts to GBR and wider marine environment are most likely to come from the direct effect of removing reef building coral and altering reef species composition. The most recent ERA was conducted in 2013 and may not adequately reflect changes in the scale of the fishery or external disturbances to the reef and how these factors may interact to adversely impact the wider marine environment. Condition 8 require QDAF to update the ERA for the fishery.
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 for this assessment**
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 – New logbooks include more detailed reporting, but there is still uncertainty regarding harvest reported to genus.** Updated logbooks for the fishery now provide for broad-scale species-specific reporting of harvest, which is consistent with reporting expectations for CITES-listed corals. This is a significant improvement in the management of the fishery. Accurately reported harvest allows for the building of catch history which can be used to inform management decisions making. Significant components of the fishery are still only required to be reported to genus level (e.g. *Acropora sp. Montipora sp.*). While this approach is accepted by CITES (due to the difficulty identifying species which appear very similar within the genus) it presents management challenges when it comes to determining the impact of harvesting on an individual species. While a number of these genera represent a large amount of biomass within the Great Barrier Reef (GBR), not all species are as abundant or widely distributed as others, and individual species' biological vulnerability to harvest varies. Due to the absence of species-specific information, a precautionary approach to the harvest of these genera must be implemented concurrently with a program that aims to independently verify the catch composition of species where genus level reporting will continue. This program is outlined in Condition 5 and Recommendation 1. While spatial harvest data is collected in the fishery, concerns about data confidentiality limit effective use in managing the fishery, especially for fisheries independent reviews. A balance should be found between protecting commercial confidentiality concerns and providing for sufficiently robust management of the fishery.
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.	**Does not meet – There is no stock assessment and the risk-based management is not appropriate to the scale of the fishery** Individual stock assessments for species targeted by this fishery have not been conducted. The fishery is managed by risk identification undertaken through ERAs and risk management though the decision-making framework in the Harvest Strategy. No ERA has been conducted since 2013 despite rapid and substantial increases in harvest. Over this timeframe there have been three largescale bleaching events. There is no assessment of possible reductions in the biological diversity and or changes to reproductive capacity of the resource. Conditions 6 and 7 require implementation precautionary and enforceable harvest limits across the fishery which will constrain the recent significant increase in harvest until more information is gathered to better understand the stock status of target species. Condition 5 and Recommendation 1 will help better understand which species are targeted by the fishery for species that are reported to genus level which will help identify which species should be the focus of efforts to better understand their stock structure.

1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.	**Partially meets – Understanding of the spatial structure of stocks is extremely limited, but there are spatial management triggers in place applicable to a small number of species in the Harvest Strategy.** There are knowledge gaps regarding the distribution of many coral species, and significant concerns regarding the potential distribution of one heavily targeted species (*Homophyllia cf. australis*). The Harvest Strategy contains management measures to monitor spatial distribution of harvest and restrict harvest effort if deemed appropriate. However, management responses and harvest limits appear to have been determined without a scientific assessment of the appropriateness about target species stocks and vulnerability. Further, within high the level quota categories of 'specialty' and 'other coral' there are no enforceable harvest limit for key target species if unsustainable spatial harvest trends are identified. Condition 6 and 7 require precautionary and enforceable harvest limits across the fishery which will constrain the recent significant increase in harvest until more information is gathered to better understand the targets stocks in the fishery.
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 – Recent improvements to catch reporting but no stock assessment for this fishery** There have been significant improvements to catch reporting with the current logbook in the fishery requiring species and genus level reporting.. The species composition of harvest that is reported at genus level remains an uncertainty however Condition 5 and Recommendation 1 will help address this uncertainty. There are no estimates available on recreational and Indigenous take, however they are not expected to be significant. There is also concern regarding coral that grown further after harvest. For some species larger colonies can be broken down to smaller fragments that are retained and grown in onshore facilities by some operators. There is no record of how much of the harvested coral is used in this practice or of the potential increase in weight or pieces as the coral is processed and grows, and as a result this activity will continue to present issues for validating coral harvested verses coral exported from this fishery. DAWE acknowledges this practice has the potential to reduce the reliance of the fishery on wild harvest, however further consideration must be applied to ensure traceability and transparency of harvest and onshore production. Recommendation 2 will help develop a coral traceability framework to better account for these practices.
1.1.5 There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.	**Does not meet – There is no estimate of the productivity of the fishery and risk-based management has not kept pace with changes in the fishery** The fishery does not have individual stock assessment for the target species, instead it uses risk assessment through ERAs and decision-making frameworks through the Harvest Strategy to manage risk of overharvesting the resource. The last ERA was conducted in 2013 and does not adequately capture the substantial increase in harvest since or recent acute environmental disturbances. Precautionary harvest limits are outlined in Condition 6 to minimise the potential impact of the fishery until more information a be collected on target stocks.
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.	**Does not meet – Trigger responses are not prescribed and are there is no enforceable upper limit of harvest for key target species.** The Harvest Strategy identifies trigger reference points and decision rules for some species and species groups.. Expert review of the fishery concluded that considering major increases in harvest and several acute environmental disturbances experienced by the fishery, harvest limits proposed in the Harvest Strategy are not adequately precautionary to address significant knowledge gaps surrounding stock status of several species. Within the high-level quota categories of 'specialty' and 'other coral' there are no enforceable limit on harvest for key target species. Precautionary harvest limits are outlined in Condition 6 to minimise the potential impact of the fishery until more information a be collected on target stocks.
1.1.7 There are management strategies in place capable of controlling the level of take.	**Does not meet – Limited entry but harvest limits are not enforceable.** The fishery quota in place that limits catch to 200 tonnes split between 'specialty coral' (30 per cent) and 'other coral' (70 per cent). This quota is not broken-down any further into target species, and as such there are no enforceable harvest limits for key target species. While harvest reference points have been set within the specialty coral category in the Harvest Strategy, these are not enforceable limits in their own right. The fishery has undergone rapid growth and expert advice has indicated that reference limits proposed in the Harvest Strategy are not adequately precautionary to address the risk posed by significant knowledge gaps. Precautionary and enforceable limits are required to ensure that the ongoing harvest from the fishery is not detrimental. Condition 6 and 7 require implementation of precautionary harvest limits that can be properly enforced.
1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.	**Partially Meets – The take of by-product species is believed to be low, although limited information is available.** Due to the gear used and the highly selective nature of the fishery, virtually all harvest is to some extent 'targeted', however some species may be collected when encountered in the course of searching for true target species. Information on byproduct species is limited due to ERAs and other management reviews not keeping pace with the growth of the fishery. Condition 8 will offer a timeline for an updated ERA for this fishery.
(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 – Information on byproduct species has not been updated to determine the adequacy of management actions** Due to the gear used and the highly selective nature of the fishery, virtually all harvest is to some extent 'targeted', however some species may be collected when encountered in the course of searching for true target species. Information on byproduct species is limited due to ERAs and other management reviews not keeping pace with the growth of the fishery. Condition 8 will offer a timeline for an updated ERA for this fishery.
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** Concerns exist surrounding harvest trends regarding uncertainty of the upper limits for harvest to be considered sustainable, no stocks have been identified as requiring a recovery strategy.
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.	**Not applicable** While concerns exist surrounding possible unsustainable harvest trends no stocks have been identified that require a recovery strategy.
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.	**Not applicable– This fishery is highly selective and harvests specific corals, there is no bycatch.** Due to the gear used and the highly selective nature of the fishery it is unlikely that bycatch species will be impacted. Data collection in this regard is considered to be adequate given the nature of the fishery. However, the impacts of removing a part of a colony on the remainder of that same colony have not been explored in this context.
Assessment	
2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.	**Not applicable– This fishery is highly selective and harvests specific corals, there is no bycatch.** Due to the gear used and the highly selective nature of the fishery it is unlikely that bycatch species will be impacted. The lack of a risk analysis of bycatch species is considered to be adequate. Condition 8 requiring an updated ERA is likely to help address this issue.
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.	**Not applicable– This fishery is highly selective and harvests specific corals, there is no bycatch.** Due to the gear used and the highly selective nature of the fishery it is unlikely that bycatch species will be impacted. Management responses are considered to be adequate.
2.1.4 An indicator group of bycatch species is monitored.	**Not applicable– This fishery is highly selective and harvests specific corals, there is no bycatch.** Due to the gear used and the highly selective nature of the fishery it is unlikely that bycatch species will be impacted.
2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.	**Not applicable– This fishery is highly selective and harvests specific corals, there is no bycatch.** Due to the gear used and the highly selective nature of the fishery it is unlikely that bycatch species will be impacted.
2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	**Not applicable– This fishery is highly selective and harvests specific corals, there is no bycatch.** Due to the gear used and the highly selective nature of the fishery it is unlikely that bycatch species will be impacted.

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 – Up-to-date logbooks and reliable records of interactions with endangered, threatened or protected species and threatened ecological communities.** All operators are required to report any interactions with threatened, endangered or protected species and there are no threatened ecological communities in the area of the fishery. Species of Conservation Interest logbooks are considered reliable.
Assessments	
2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.	**Meets – An ERA has been conducted and risks identified as low.** Due to the gear used and the highly selective nature of the fishery it is unlikely that there will be interactions with endangered, threatened or protected species. An updated ERA as outlined in Condition 8 should update the assessment of potential impacts of this fishery on endangered species, threatened and protected species.
2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.	**Not applicable** There are no threatened ecological communities in the area of the fishery.
Management responses	
2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.	**Meets – Mitigation strategy in place to avoid interactions with protected species.** Due to the gear used and the highly selective nature of the fishery it is unlikely that there will be interactions with endangered, threatened or protected species. Management measures are considered to be adequate.
2.2.5 There are measures in place to avoid impact on threatened ecological communities.	**Not applicable** There are no threatened ecological communities in the area of the fishery.
2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	**Meets – High chance** Due to the gear used and the highly selective nature of the fishery it is unlikely that there will be interactions with endangered, threatened or protected species. Management measures are considered to be adequate. Condition 8 requiring an updated ERA will help manage the risk of impacts to threatened species.
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 fishery's impact on the ecosystem and environment generally.	**Does not meet – ERAs have identified requirements for more data collections but limited evidence of this occurring.** While the QCF is a highly selective fishery, there is no program collecting information on the ecosystems that support the fishery. Industry and researchers have been involved in a working group which has contributed to the 2013 ERAs and the Harvest Strategy assisting in the identification potential impacts on the environment. Concerns have been raised by working group participants that the management responses to risks identified during the 2008 and 2013 ERAs do not lead to research or the generation of data to allow better understanding of the impact of the fishery on the larger reef ecosystem. An updated ERA for this fishery as required under Condition 8 should consider what data collection would be necessary to better understand the impact of the fishery on the ecosystem and environment generally.
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	**Does not meet – Risk analysis does not consider growth or changes to the nature of the fishery.** An ERA of the fishery was completed in 2013 but this assessment focussed on target species and not did not consider the impacts of this fishery on the ecosystem. The working group, containing members of the industry and researchers was involved in the development of the ERAs for this fishery as well as the Harvest Strategy however these have not led to new research or collection of data on the potential ecological impact of the fishery. An ERA has not been conducted for the fishery since 2013 despite very large increases in the harvest of the fishery and several large-scale bleaching events and other environmental disturbances leading to a general decline in the health of the ecosystem. Condition 8 requires an updated ERA for the fishery which may lead to an improved risk assessment.
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.	**Does not meet – management responses are in place but there is not assessment of ecosystem risk without an updated ERA** The Harvest Strategy includes decision rules around how to respond to ecosystem impacts. The Harvest Strategy states that risks are identified by the ERA. The most recent ERA only considered risk the target species, not the wider ecosystem. The Harvest Strategy is extremely limited in its capacity to guide management response to ecosystem impacts even if there were an updated ERA considering these aspects. Risk based management actions are aimed at target species and do not adequately consider how to detect or respond to the fishery impacting the ecosystem and environment through the targeted removal of selected species. The quality of data on harvest operations and the lack of an up-to-date ERA for the fishery means that managers may not have sufficient means to assess whether damage to the ecosystem is occurring as a result of the fishery. The Harvest Strategy does include a provision from management to respond to a reef event if it is identified under GBRMPA Reef Health Incident Response Plan. Condition 8 and 9 requires an updated ERA and formalisation of the response to large scale disturbance events.
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.	**Does not meet – decision rules and management response can only function once the ERA has been updated.** There are no ecosystem indicators used in the management of the fishery, rather risk of ecosystem impacts would be assessed by an ERA. The most recent ERA only considered the direct risk of harvesting on target species and does not assess ecosystem impacts. Decisions rules and management responses outlined in the Harvest Strategy do not function without an update to the ERA. An update to the ERA is required under Condition 8 and the updated ERA should consider ways to measure, monitor and respond to impacts of the fishery on the environment.
2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	**Does not meet – Low chance** While the scale of the fishery has historically been considered small and low risk, significant annual growth and declining ecosystem health requires large changes to the management framework. Condition 8 requires an updated ERA. The most likely impacts from the fishery will come from the direct removal of reef building corals. Precautionary harvest limits outlined in Conditions 6 may further reduce the risk of significant damage to the wider marine ecosystem.

SECTION 4: ASSESSMENT OF THE QUEENSLAND CORAL FISHERY AGAINST THE REQUIREMENTS OF THE EPBC ACT

The table below is not a complete or exact representation of the EPBC Act. It is intended to show that the relevant sections and components of the EPBC Act have been taken into account in the formulation of advice on the fishery in relation to decisions under Part 13 and Part 13A.

Part 12 – Identifying and monitoring biodiversity and making bioregional plans

Section 176 Bioregional Plans	Comment
(5) Minister must have regard to relevant bioregional plans	**Meets.** The fishery operates in the Great Barrier Reef Marine Park and in a small area of both Coral Sea and Temperate East Marine regions. There is no bioregional plan currently in place for the Great Barrier Reef Marine Park or the Coral Sea Marine Region. The Marine bioregional plan for the Temperate East Marine Region 2012 has been considered in preparing advice in relation to decisions under section 303DC and section 303FN. There is a very small area of the fishery that overlaps with this bioregions and fishing practices are highly targeted and selective in nature. An action taken by an individual fisher, acting in accordance with the management regime for the fishery, is unlikely to have a significant impact on the key ecological features, biologically important areas or other matters identified in the Temperate East Marine Bioregional Plan. The assessment considered the possible ecological impacts of the operation of the fishery on the Great Barrier Reef Marine Park, the World Heritage values of the Great Barrier Reef World Heritage Area and the ecological character of the Great Sandy Strait, Shoalwater and Corio Bays and Bowling Green Bay Ramsar Sites. We consider that an action taken by an individual fisher, acting in accordance with the management regime and the conditions required under this approval for the fishery, would not be expected to have a significant ecological impact on the Great Barrier Reef Marine Park, the World Heritage values of the Great Barrier Reef World Heritage Area or the ecological character of a Wetland of International Importance in the short term While there is no evidence to suggest any systematic change to species diversity or richness has been directly caused by the fishery, there are concerns that large increases in harvest levels combined with shortcoming in management reviews and responses need to be addressed to ensure that the fishery does not exacerbate the declining health of the reef ecosystem as a result of climate change.

	Confidence in the performance of the fishery to manage potential impacts to bioregions within the fishery area could be improved with strengthened monitoring and enforcement measures outlined in the conditions of this assessment

Part 13 – Species and communities

Accreditable plan, regime or policy (Division 1, Division 2, Division 3, Division 4)	Comment
s. 208A (1) (a-e) , s.222A (1) (a-e), s.245 (1) (a-e), s.265 (1) (a-e) Does the fishery have an accreditable plan of management, regime or policy?	**Meets- There is an accreditable management regime in place** The management arrangements for the fishery are specified in QDAF and GBRMPA-issued permits, as well as in publicly available legislation: the Queensland Fisheries Act 1994, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, Fisheries Quota Declaration 2019, and the Queensland Marine Parks Act 2004 and Marine Parks Regulations 2019. The Commonwealth Great Barrier Reef Marine Park Act 1975 and Great Barrier Reef Marine Park Regulations 2019 also apply to operations in the area of the Great Barrier Reef Marine Park.
Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes	**Comment**
(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** An Ecological Risk Assessment was conducted for this fishery in 2013. While there was no detailed assessment of risk to listed threatened species, QDAF reported that the risk was considered and determined to be low. No interactions with listed threatened species have been reported by fishers operating in this fishery. The fishing method, harvesting select corals by hand, means that the risk to listed threatened species is low.
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?	**Meets - Low risk due to fishing method** No. No interactions have been historically reported and the risk to threatened species is considered low due to the fishing method employed (hand collection).
Division 2 Migratory species, Section 222A Minister may accredit plans or regimes	**Comment**

(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing?	**Meets** Yes, the management regime requires that all reasonable steps are taken to avoid interactions through gear limitations (hand collection) and any interactions are reported to the Department.
(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. No interactions with listed threatened species have been reported by fishers operating in this fishery. The fishing method, harvesting select corals by hand, means that the risk to listed migratory species is low.
Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes	**Comment**
(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 requires that all reasonable steps are taken to avoid interactions through gear limitations (hand collection) and any interactions are reported to the department.
(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. No interactions with listed threatened species have been reported by fishers operating in this fishery. The fishing method, harvesting select corals by hand, means that the risk cetaceans is low.
Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes	**Comment**
(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 requires that all reasonable steps are taken to avoid interactions through gear limitations (hand collection) and any interactions are reported to the Department.
(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. No interactions with listed threatened species have been reported by fishers operating in this fishery. The fishing method, harvesting select corals by hand, means that the risk to listed marine species is low.
Section 303AA Conditions relating to accreditation of plans, regimes and policies	**Comment**

(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The department recommends that the management regime for the QCF be accredited under sections 208A, 222A, 245 and 265. The Department considers that no conditions are required for the accreditation of the management regime for the QCF under Part 13.
(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. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	

Part 13A – International movement of wildlife specimens

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.	The management arrangements for the QCF have been assessed as generally consistent with the general guidance provided in the objects of Part 13A as: • the fishery has been assessed as meeting the Non-Detriment Finding requirements for species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) for the three-year term of accreditation, subject to conditions. • there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way • the operation of the QCF is unlikely to be unsustainable and threaten biodiversity within the three-years, and • the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.
Section 303 CG Minister may issue permits (CITES species)	**Comment**
(3) The Minister must not issue a permit unless the Minister is satisfied that: (a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to: (i) the survival of any taxon to which the specimen belongs; or	This fishery targets CITES listed coral species for harvest and export. Concerns regarding the potential detrimental impact of this fishery on CITES listed species have prompted conditions on this fishery to be put in place. Only in the context of the three-year export accreditation and with the implementation of these conditions does the department consider the risk to CITES listed coral species

	sufficiently low to consider the fishery not to be detrimental to the survival of these species. Regular updates on progress toward these conditions and catch figures and trends is vital to monitor the status of CITES listed specimens harvested by the fishery
(ii) the recovery in nature of any taxon to which the specimen belongs; or	Recent bleaching events have affected large areas of the reef and while the harvesting operations may impact the recovery of CITES listed corals, conditions have been set including the requirement to undertake an updated Ecological Risk Assessment as well as detailed reporting of management responses to any future environmental disturbances. These conditions, in concert with precautionary harvest limits are likely to mitigate the risk of harvesting operations being unduly detrimental to the recovery of CITES listed coral species in the wild.
(iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and	Recognising the nature of harvest and gear used in the fishery (hand collection), the potential for the fishery to impact unacceptably and unsustainably on relevant ecosystems is considered relatively low. The species targeted by this fishery, reef building stony coral play a vital role in the ecosystem. The management and monitoring of the potential impact of harvesting these species on the ecosystem was assessed as being inadequate Only in the context of the three year export accreditation and with the implementation of conditions outlined in Section 2 of this assessment, does the department consider the risk to CITES listed coral species sufficiently low to consider the fishery not to be detrimental to the ecosystem on which these species rely.
Section 303DC Minister may amend list (non-CITES species)	**Comment**
(1) The Minister may, by legislative instrument, amend the list referred to in section 303DB [list of exempt native specimens] 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; or (b) correcting an inaccuracy or updating the name of a species.	The department recommends that specimens that are or are derived from fish or invertebrates harvested in the QCF, as defined in the management plan/regime in force under the Fisheries Act 1994 (Queensland) and Fisheries Regulations 2019 (Queensland), but not including a) specimens that belong to taxa listed under section 209 of the EPBC Act (Australia's List of Migratory Species), or b) specimens that belong to taxa listed under section 248 of the EPBC Act (Australia's List of Marine Species), or c) specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or

	d) 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 October 2024, while the QCF is subject to a declaration as an approved wildlife trade operation.
(1A) In deciding to amend the LENS, the Minister must rely primarily on outcomes an assessment under Part 10, Divisions 1 or 2	**Not applicable** There has been no request or agreement to assess the fishery under Part 10 Division 1, and the fishery is not managed by the Commonwealth, so Part 10, Division 2 does not apply.
(1C) The above does not limit matters that may be considered when deciding to amend LENS.	**Not applicable** Although there is no strategic assessment under Part 10 of the EPBC Act, the Department considers its assessment has taken into account all matters relevant to making an informed decision to amend the list of exempt native specimens to include product taken in this fishery.
(3) Before amending the LENS, the 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.	**Meets** The submission from the Queensland Department of Agriculture and Fisheries was made available on the Department's website from 20 August 2021 – 20 September 2021. 27 comments were received.
(5) A copy of an instrument made under section 303DC is to be made available for inspection on the internet.	Yes, the instrument made under section 303DC(1)(a) for the fishery will be registered on the Federal Register of Legislation, and a link to the instrument made available through the Department's website. Under subsection 56(1) of the *Legislation Act 2003* (CTH), registration on the FRL meets the requirements for gazettal.
Section 303FN Approved wildlife trade operation	**Comment**
(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is **satisfied** that: (a) the operation is consistent with the objects of Part 13A of the Act; and (b) the operation will not be detrimental to: (i) the survival of a taxon to which the operation relates; or	**Meets** The fishery is consistent with Objects of 13A – see above assessment against the Guidelines. The fishery is consistent with Objects of 13A and unlikely to be detrimental to the survival or conservation status of a taxon to which it relates, nor will it threaten

(ii) the conservation status of a taxon to which the operation relates; and (ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and	any relevant ecosystem, within the next **three years**, given the management measures in place and agreed conditions in Section 4. There are however no effective harvest limits. The ERA for this fishery has not been updated in eight years and it does not effectively consider the impacts of fishing on the environment or ecosystem.
(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	**Not applicable** The Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify corals class of animal in relation to the welfare of live specimens.
(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.	**Not applicable** No other conditions are specified in relation to commercial fisheries in the EPBC Regulations.
(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have **regard** to: (a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and	**Meets – WTO subject to conditions** The management of the fishery has been assessed to have serious shortcomings with regard to managing and monitoring the impact of the fishery on the ecosystem. Given the management measures outlined in the conditions and those currently in place, which include the arrangements described above at s303FN 3(b), the fishery is unlikely to have a significant impact on the ecosystem over the course of a three-year WTO.
(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).	**Meets** This assessment has raised concerns regarding the management arrangements for this fishery. When operating in accordance with the conditions outlined in Section 2, the management arrangements are likely to be acceptable in the context of a three-year WTO.
(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have **regard** to: (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	**Meets.** The fishery will be managed under the Queensland Fisheries Act 1994, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, Fisheries Quota Declaration 2019, and the Queensland Marine Parks Act 2004 and Marine Parks Regulations 2019. The Commonwealth Great Barrier Reef Marine Park Act 1975 and Great Barrier Reef

(b) whether the legislation applies throughout the State or Territory concerned; and (c) whether, in the opinion of the Minister, the legislation is effective.	Marine Park Regulations 2019 also apply to operations in the Great Barrier Reef Marine Park. The Queensland Fisheries Act 1994 applies throughout all Queensland waters. The Department considers that the legislation is likely to be effective.
(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, an only if, the operation is an operation for the taking of specimens and: (a) the operation is a commercial fishery.	**Meets.** The QCF is a commercial fishery.
(10A) In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10. (10B) Subsection (10A) does not limit the matters that may be taken into account in deciding whether to declare that a fishery is an approved wildlife trade operation for the purposes of this section.	Although there is no strategic assessment under Part 10 of the EPBC Act, the Department considers its assessment has taken into account all matters relevant to making an informed decision to amend the list of exempt native specimens to include product taken in this fishery. **Not applicable.** There has been no request or agreement to assess the fishery under Part 10 Division 1, and the fishery is not managed by the Commonwealth, so Part 10 Division 2 does not apply.
Section 303FR Public consultation	**Comment**
(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice: (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. (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.	**Meets** A public notice, which set out the proposal to declare the QCF an approved Wildlife Trade Operation and included the application from the Queensland Department of Agriculture and Fisheries, was released for public comment on 20 August 2021 – 20 September 2021. 27 comments were received
(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to	The 27 public comments were received on the submission, included at Attachment C of the brief.

make the declaration that were given in response to the invitation in the notice.	24 of the comments received were from coral harvesters in the fishery and associated industry. They were largely expressions of support for the continued operation of the fishery, and support for the existing management framework. A number raised concerns about the financial implications of proposed harvest limits as well as counter-proposing different harvest limits. There were three public comments from NGOs which expressed concern about the perceived lack progress against meeting conditions of previous two approvals, the absence of a recent ERA, the absence of stock assessments, the lack of quality and timely reporting of harvest, lack of harvest limits and the impact of harvesting coral in light of recent bleaching events. The comments also raised concerns about the rapidly increasing harvest from the fishery and the perceived inability of management to effectively constrain harvest or assess its impact. QDAF declined the opportunity to respond to these public submissions citing the planned implementation of measures that would address the concerns in the NGO submissions. These matters were considered throughout the assessment of the fishery and have either been addressed by QDAF or are being addressed via conditions 5, 6, 7, 8 and 9 on the wildlife trade approvals granted in association with this amendment of the List of Exempt Native Specimens (Section 4).
Section 303FT Additional provisions relating to declarations	**Comments**
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration as an approved WTO for the QCF will be made under section 303FN.
(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of declaration is to specify the period, circumstances or condition.	The standard conditions applied to commercial fishery WTO include: • operation in accordance with the management regime • notifying the Department of changes to the management regime, and • annual reporting in accordance with the requirements of the Australian Government Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition. The Wildlife Trade Operation instrument for the QCF specifies the standard and any additional conditions applied, over the specified period of three years to 31 October 2024. Further conditions specific to this WTO are outlined in Section 2 of this assessment and require reporting prior to the standard submission of annual reports.

(8) A condition may relate to reporting or monitoring.	In addition to a Condition requiring annual reporting: **Condition 5** requires that before the commencement of the 2022–23 fishing season, the Queensland Department of Agriculture and Fisheries undertakes work to better characterise the approximate species composition of catch for species listed in Attachment A for which identification to genus-level is acceptable at export, including by: a) introducing a scientific program to independently characterise the approximate species composition of specimens of the genus *Acropora* harvested from the Queensland Coral Fishery. This should be representative of *Acropora sp.* harvest from all regions and habitats in which the fishery operates and be conducted at regular intervals of no greater than every 12 months. Findings must be reported to the CITES Scientific Authority as part of the annual reporting requirement under Condition 4. **Condition 7** requires the Queensland Department of Agriculture and Fisheries to: a) for the remainder of the 2021-22 fishing season, work with industry to limit catch within the current season to as close as practicable to the harvest limits outlined in Condition 6. b) before the commencement of the 2022–23 fishing season, inform the Department of Agriculture, Water and the Environment of what mechanism will be used to enforce the harvest limits outlined in Condition 6. c) from the commencement of the 2022-23 fishing season, actively manage harvest within the limits specified in Condition 6. **Condition 9** requires the Queensland Department of Agriculture and Fisheries to, within 90 days of a disturbance event occurring in the Queensland Coral Fishery, inform the CITES Scientific Authority of any potential impacts these may have on the Non-Detriment Finding determinations, including management responses implemented. a)

(9)	The Minister must, by instrument published in the *Gazette*, revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	

Part 16 – Precautionary principle and other considerations in making decisions

Section 391 Minister must consider precautionary principle in making decisions		Comment
(1)	Minister must take account of the precautionary principle in making a decision, to the extent that the decision is consistent with other provisions under this Act.	**Partially meets.** Given the conditions being included in the approval requiring QDAF to implement precautionary management measures to the fishery and QDAF's commitment to meet them, precautionary measures are considered to be in place to prevent serious or irreversible environmental damage by this fishery.
(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.	

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