



# **Draft Fishery Improvement Plan Auckland Island Arrow Squid Trawl Fishery (SQU6T)**

**Version 2: July 2016**

Version 1: May 2015

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## Overview

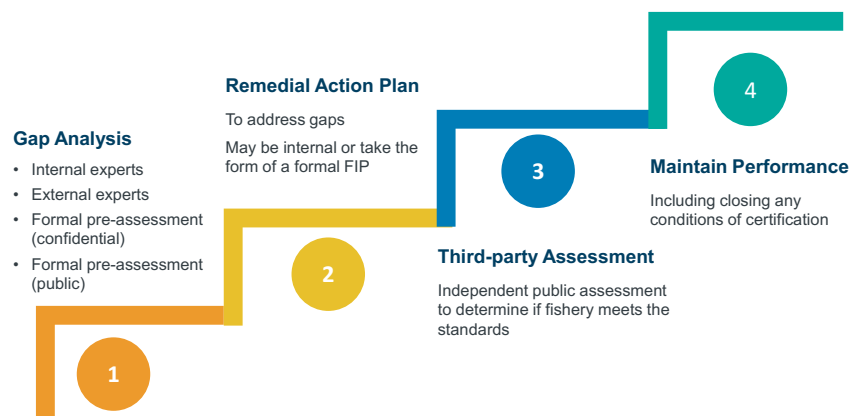
Deepwater Group (DWG) and the Ministry for Primary Industries (MPI) are committed to the ongoing sustainable management of New Zealand’s deepwater fisheries. To this end we have jointly embarked on a Fisheries Certification Programme (FCP) with the objective of achieving independent certification of New Zealand’s key deepwater fisheries (Figure 1). Our FCP is a four-staged work programme and a summary of this process to date can be seen on our [website](#). As part of this programme, two key squid fisheries are in formal Fishery Improvement Plans (FIP). These are: New Zealand’s Auckland Island Squid Trawl Fishery (SQU6T) and New Zealand EEZ Squid Trawl Fishery (SQU1T).

This FIP for SQU6T was provided to MSC Stakeholders for their consideration in June and July 2015. DWG have developed this FIP using tools and templates provided by MSC to establish a public, transparent, inclusive and stepwise approach towards MSC certification.

The objective of this FIP is to ensure the performance of this fishery meets the MSC Fisheries Standard and subsequently achieves MSC certification. This FIP provides external observers the ability to monitor fisheries improvement, to track progress, and to assess fisheries performance against the MSC Fisheries Standard.









The following sections provide further detail on SQU6T FIP including a Gap Analysis and Remedial Action Plan.

SQU6T is currently progressing through Stage 2 Phase 2 FIP (see Figure 1 and Table 1). This involves remedial management actions and monitoring progress according to a public, time-bound FIP. This FIP will be updated and made available on our [website](#) along with all supporting documentation.



**Figure 1** Deepwater Group’s Fisheries Certification Programme Stages

**Table 1** Timelines and milestones for the Fisheries Certification Programme for SQU6T

Fisheries Certification Stage	Deliverables and Outcomes	Action Lead	Timeline	Progress
Gap Analysis  	<b>Phase 1 – Fishery Evaluations:</b> Completed on the ‘Fishsource’ template. Provided the Sustainable Fisheries Partnership (SFP) with current information, for evaluation and for SFP to post to their FishSource™ website. Published relevant documents on the DWG website.	DWG & MPI	Jul-Aug 2012	Completed 
	<b>Phase 2 – Fishery Gap Analysis:</b> Assessed SQU6T against MSC Fisheries Standard to identify potential non-conformities and information gaps.	DWG & MPI	Aug 2012	Completed 
	<b>Phase 3 – MSC Confidential Pre-assessments:</b> In September 2008 contracted Conformity Assessment Body (CAB) undertook a high level confidential pre-assessment of SQU6T against the MSC Fisheries Standard. Updated 2009 pre-assessment findings July 2012. The performance of this fishery was reviewed against the MSC Fisheries Standard by DWG and MPI in October 2014 and in April 2015.	CAB & DWG	Sept 2008 July 2012 Oct 2014 April 2015	Completed 
Remedial Action Plan  	<b>Phase 1 – Fishery Improvement Analysis:</b> Identified the reasons why the CAB pre-assessment identified certain Performance Indicators as unlikely to meet the MSC Fisheries Standard. Identified remedial management actions. Held consultation meeting with MSC Stakeholders.	DWG & MPI	Oct 2014 – April 2015	Completed 
	<b>Phase 2 – Fishery Improvement Plan:</b> Implemented remedial management actions within an agreed and time-bound plan using the MSC Monitoring and Benchmarking FIP Template. Once finalised, posted with SFP for public viewing.	DWG & MPI	Oct 2015	Remedial Actions In process 
Third Party Assessment  	<b>Phase 1 – MSC Assessment:</b> Formal assessment of the SQU6T fishery against the MSC Fisheries standard.	CAB, DWG & MPI	Aug 2018	
	<b>Phase 2 – MSC Certification:</b> Achieved certification of the SQU6T fishery against the MSC Fisheries Standard.	DWG & MPI	Dec 2019	

## Gap Analysis



The first three phases have been completed:

- Phase 1 Fishery Evaluations
- Phase 2 Fishery Gap Analys
- Phase 3 MSC Confidential Pre-assessments:

This version of the FIP addresses the outcomes of the pre-assessments and the reviews of these in 2014 and 2015.

### **Phase 3: MSC Confidential Pre-assessment**

In October 2008, Moody Marine Ltd (now Intertek Fisheries Certification) undertook a high level confidential pre-assessment of the SQU6T squid trawl fishery against the MSC Fisheries Standard.

Subsequent reviews of this pre-assessment were undertaken (October 2014 and April 2015) and the fishery was rated for each Performance Indicator (PI) and a detailed rationale was provided. The pre-assessment and reviews identified areas of non-conformity to provide an indication of the work required for the fishery to meet the MSC SG80 and SG60 Certification Requirements.

The compiled outcomes from Intertek Fisheries Certification Ltd's confidential pre-assessment and subsequent October 2014 and April 2015 reviews are summarised in Table 2. This is a snapshot of the fishery and results for each PI are categorised as:

- Red = likely to score below 60
  - Orange = likely to score between 60 & 80
  - Green = likely to score above 80.
  - Green = likely to score above 80.
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**Table 2** SQU6T 2013 pre-assessment results

MSC Component	MSC Performance Indicator	MSC Performance Indicator	Outcome				
Outcome	1.1.1	<b>Stock Status:</b> Stock at a level which maintains high productivity	Fail				
	1.1.2	<b>Reference Points:</b> Appropriate limits and reference points for the stock	Fail				
	1.1.3	<b>Stock Rebuilding:</b> Where stock depleted - there is evidence of rebuilding	Fail				
Management	1.2.1	<b>Harvest Strategy:</b> Precautionary and robust harvest strategy in place	Fail				
	1.2.2	<b>Harvest Control Rules &amp; Tools:</b> Well defined harvest control rules in place	Fail				
	1.2.3	<b>Information &amp; Monitoring:</b> Relevant Information collected to support harvest strategy	Condition				
	1.2.4	<b>Assessment of Stock Status:</b> Assessment of stock status is adequate	Fail				
	<b>P1 ALL</b>	<b>Sustainability of Exploited Stock</b>	Fail				
Retained Species	2.1.1	<b>Retained Species Outcome:</b> Does not cause serious or irreversible harm to retained species	Pass				
	2.1.2	<b>Retained Species Management:</b> Strategy in place for managing retained species	Pass				
	2.1.3	<b>Retained Species Information:</b> Relevant information to help manage retained species	Pass				
Bycatch species	2.2.1	<b>Bycatch Species Outcome:</b> Does not cause serious or irreversible harm to bycatch species	Pass				
	2.2.2	<b>Bycatch Species Management:</b> Strategy in place for managing bycatch species	Pass				
	2.2.3	<b>Bycatch Species Information:</b> Relevant information to help manage bycatch species	Condition				
ETP species	2.3.1	<b>ETP Species Outcome:</b> Meets national and international requirements for ETPs protection	Condition				
	2.3.2	<b>ETP Species Management:</b> Precautionary management strategies in place	Pass				
	2.3.3	<b>ETP Species Information:</b> Relevant information to support management of impacts on ETPs	Pass				
Habitats	2.4.1	<b>Habitats Outcome:</b> Does not cause serious or irreversible harm to habitat structure	Pass				
	2.4.2	<b>Habitats Management:</b> Information is adequate to determine risk to habitat types	Pass				
	2.4.3	<b>Habitats Information:</b> Information adequate to determine risk to habitats	Pass				
Ecosystem	2.5.1	<b>Ecosystem Outcome:</b> Does not cause serious or irreversible harm to ecosystem	Pass				
	2.5.2	<b>Ecosystem Management:</b> Measures are in place to mitigate risk to ecosystem	Pass				
	2.5.3	<b>Ecosystem Information:</b> Adequate knowledge of impacts of fishery on the ecosystem	Pass				
	<b>P2 ALL</b>	<b>Maintenance of Ecosystem</b>	Pass				
Governance and Policy	3.1.1	<b>Legal/Customary Framework:</b> Management system exists with legal/customary framework	Pass				
	3.1.2	<b>Consultation, Roles &amp; Responsibilities:</b> Management system has clear processes	Pass				
	3.1.3	<b>Long Term Objectives:</b> Management policy contains clear long-term objectives	Pass				
	3.1.4	<b>Incentives for Sustainable Fishing:</b> Management system has sustainability incentives	Pass				
Fishery specific management system	3.2.1	<b>Fishery Specific Objectives:</b> Fishery has clear and specific outcome objectives	Condition				
	3.2.2	<b>Decision Making Processes:</b> Management system includes effective decision making	Condition				
	3.2.3	<b>Compliance &amp; Enforcement:</b> Monitoring, control and surveillance mechanisms in place	Pass				
	3.2.4	<b>Research Plan:</b> Research plan that addresses management needs are in place	Pass				
	3.2.5	<b>Management Performance Evaluation:</b> Performance Evaluation processes in place	Pass				
	<b>P3 ALL</b>	<b>Effective Management System</b>	Pass				
<b>Key:</b>	Indicative Assessment Scores	>80 (Pass)	60-80 (Condition)	<60 (Fail)	Indicative Aggregate Scores	Pass	Fail

## Remedial Action Plan



There are two phases to the Remedial Action Plan:

- Phase 1 Fishery Improvement Analysis
- Phase 2 Fishery Improvement Plan.

### Phase 1 Fishery Improvement Analysis

The performance of SQU6T has been considered against the MSC Fisheries Standard to identify non-conformities and information gaps against the MSC Performance Indicators (SG60 and SG80) (Appendix 1).

### Phase 2 Fishery Improvement Plan

This involves implementing the remedial management actions and monitoring progress according to a public, time-bound FIP.

Table 3 gives management actions to remedy identified gaps in Phase 1 of the Remedial Action Plan.

Table 4 presents timelines for each of the remedial management actions.

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## 2016 Progress Update

Refer to Table 5 for an update on progress made to July 2016 towards completing remedial management actions.

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**Table 3** Remedial management actions and links to MSC Performance Indicators

ACTIONS	ACTION LEAD & PARTNERS	Links to MSC Performance Indicators											
		P1 Target stocks							P2 Ecosystem Components		P3 Management System		
		1.1.1	1.1.2	1.1.3	1.2.1	1.2.2	1.2.3	1.2.4	2.2.3	2.3.1	3.2.1	3.2.2	
<b>1. Stock assessment</b>													
1.1	Develop and update stock assessment methodology.	DWG & MPI											
1.2	Acceptance of stock assessment methods by MPI.	DWG & MPI											
1.3	Develop and test near-real time collections.	DWG & MPI											
1.4	Undertake annual in-season stock assessments.	DWG & MPI											
1.5	Conduct and review MSE, HS, and HCR.	DWG & MPI											
1.6	Implement HS and HCR.	DWG & MPI											
1.7	Undertake near-real time stock assessments.	DWG & MPI											
1.8	Review data provision, assessment and management processes.	DWG & MPI											
<b>2. Habitats and ecosystems</b>													
2.1	Analyse fish bycatch to identify minor and major species.	DWG & MPI											
2.2	Review and respond to stock status of main bycatch species.	DWG & MPI											
2.3	Review and report on impacts of the fishery on ETP species.	DWG & MPI											
<b>3. Management System</b>													
3.1	Update fisheries management planning documentation.	DWG & MPI											
3.2	Develop and implement decision making processes.	DWG & MPI											

Notes: DWG (Deepwater Grup Ltd.) MPI (Ministry for Primary Industries for New Zealand)

**Table 4** Timelines for each of the remedial management actions as revised July 2016

		Progress (see key below)									
		2015		2016		2017		2018		2019	
		H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
<b>MSC Principle 1: Stock Status</b>											
1.1	Develop and update stock assessment methodology.					In-progress	Planned completion date				
1.2	Acceptance of stock assessment methods by MPI.							Planned completion date			
1.3	Develop and test near-real time collections.					In-progress	Planned completion date				
1.4	Undertake annual in-season stock assessments.					In-progress	Planned completion date				
1.5	Conduct and review MSE, HS, and HCR.					In-progress	Planned completion date				
1.6	Implement HS and HCR.					In-progress	Planned completion date				
1.7	Undertake near-real time stock assessments.							In-progress	Planned completion date		
1.8	Review data provision, assessment and management processes.									In-progress	Planned completion date
<b>MSC Principle 2: Ecosystem Management</b>											
2.1	Analyse fish bycatch to identify minor and major species.					In-progress	Planned completion date				
2.2	Review and respond to stock status of main bycatch species.							In-progress	Planned completion date		
2.3	Review and report on impacts of the fishery on ETP species.							In-progress	Planned completion date		
<b>MSC Principle 3: Management System</b>											
3.1	Update fisheries management planning documentation.									In-progress	Planned completion date
3.2	Develop and implement decision making processes.									In-progress	Planned completion date



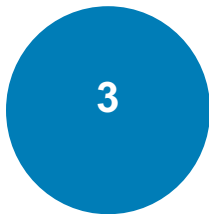


**Table 5** 2016 update on remedial management actions

MSC Principle 1: Stock Status		Progress Update 2016
1.1	Develop and update stock assessment methodology.	<p><b>Stage 1</b> has been completed. A stock assessment has been trialed and results are published: McGregor &amp; Large (2016) (<a href="http://www.mpi.govt.nz/document-vault/12822">http://www.mpi.govt.nz/document-vault/12822</a>) and McGregor &amp; Tingley (2016) (<a href="http://www.mpi.govt.nz/document-vault/12174">http://www.mpi.govt.nz/document-vault/12174</a>)</p> <p><b>Stage 2</b> has commenced using different techniques and is scheduled to be completed in late 2017.</p>
1.2	Acceptance of stock assessment methods by MPI.	<p>The stock assessment method was accepted in early 2015 but the stock assessment was not successful.</p> <p>New methods are being trialed and are scheduled to be completed in late 2017.</p>
1.3	Develop and test near-real time collections.	<p>Harvest strategies and control rules will be undertaken once there is an acceptable working stock assessment. Timelines have been changed to align with Stage 2 of the stock assessment development.</p>
1.4	Undertake annual in-season stock assessments.	
1.5	Conduct and review MSE, HS, and HCR.	
1.6	Implement HS and HCR.	
1.7	Undertake near-real time stock assessments.	
1.8	Review data provision, assessment and management processes.	
MSC Principle 2: Ecosystem Management		Progress Update 2016
2.1	Analyse fish bycatch to identify minor and major species.	<p>Fish and invertebrate bycatch and discards are reviewed every five years by MPI. The last review was completed in 2013 see Anderson (2013) (<a href="http://www.mpi.govt.nz/document-vault/4295">http://www.mpi.govt.nz/document-vault/4295</a>)</p> <p>The update of this is expected mid-2017.</p>
2.2	Review and respond to stock status of main bycatch species.	<p>Actions are scheduled commence once Action 2.1 is completed.</p>
2.3	Review and report on impacts of the fishery on ETP species.	
MSC Principle 3: Management System		Progress Update 2016
3.1	Update fisheries management planning documentation.	<p>Actions are scheduled commence once a stock assessment is completed - scheduled to be completed early 2018.</p>
3.2	Develop and implement decision making processes.	

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### Third-party Assessment



#### MSC Assessment

Stage 3 of the SQU6T FCP requires the submission of this fishery for full MSC Assessment by an accredited MSC Conformity Assessment Body against the MSC Fisheries Standard. It is anticipated that the SQU6T fishery will be ready for full MSC assessment in mid-2018.

#### MSC Certification

Certification of the SQU6T squid trawl fishery against the MSC Standard is achieved, the report is published and appropriate certificate(s) granted. Any Conditions of Certification laid out in the certification report will be addressed by managers within the agreed timeframes. It is anticipated that the SQU6T fishery will complete the full MSC assessment process by December 2019.

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## Appendix 1

### New Zealand's Auckland Island (SQU 6T) Squid Trawl Fishery Improvement Analysis (Actions are referenced to Tables 3 and 4)

PI 1.1.1 – The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing		
<b>MSC SG80 Certification Requirements</b>	a) It is highly likely that the stock is above the point where recruitment would be impaired. b) The stock is at or fluctuating around its target reference point.	
<b>Gap Analysis Findings</b>	The Gap Analysis found that: <ul style="list-style-type: none"> <li>• There is currently no assessment for the SQU6T stock.</li> <li>• There are currently no stock specific limit or target reference points defined for the SQU6T stock.</li> <li>• Therefore, it is currently not possible to demonstrate that it is <u>highly likely</u> that the stock is above the point where recruitment would be impaired (i.e. above the limit reference point) or that the stock is at or fluctuating around its target reference point.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>• Develop and implement an assessment approach that will inform on the status of the SQU6T stock relative to appropriate limit and target reference points.</li> <li>• Demonstrate, using an appropriate and accepted stock assessment methodology, that the stock status is either at or above an appropriate target reference points or it is highly likely that the stock is above the point where recruitment would be impaired.</li> </ul>	<b>Actions 1.1-1.4 &amp; 1.7-1.8</b>

PI 1.1.2 – Limit and target reference points are appropriate for the stock		
<b>MSC SG80 Certification Requirements</b>	<ul style="list-style-type: none"> <li>a) Reference points are appropriate for the stock and can be estimated</li> <li>b) The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity</li> <li>c) The target reference point is such that the stock is maintained at a level consistent with <math>B_{MSY}</math> or some measure or surrogate with similar intent or outcome</li> <li>d) For key low trophic level species, the target reference point takes into account the ecological role of the stock.</li> </ul>	
<b>Gap Analysis Findings</b>	<p>The Gap Analysis found that:</p> <ul style="list-style-type: none"> <li>• There are currently no defined target reference point</li> <li>• There is currently no limit reference point that is set above the level at which there is an appreciable risk of impairing reproductive capacity</li> <li>• It is currently not possible to ascertain the appropriateness of any specific SQU6T target or limit reference points without the implementation of an assessment of annual stock status</li> <li>• Generic reference points exist in relation to a small number of other squid fisheries</li> <li>• This stock is not considered low trophic species.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>• Use the stock assessment methodology developed to address PIs 1.1.1 and 1.2.4, to inform on appropriate reference points for the SQU6T stock</li> <li>• Formalise a rationale to define appropriate reference points for the SQU6T stock in relation to the SG 80 requirements of PI 1.1.2.</li> </ul>	<b>Action 1.4</b>

**PI 1.1.3 – Where the stock is depleted, there is evidence of stock rebuilding within a specified timeframe**

<p><b>MSC SG80 Certification Requirements</b></p>	<p>a) A rebuilding timeframe is specified for the depleted stock that is the shorter of 20 years or 2 times its generation time. For cases where 2 generations is less than 5 years, the rebuilding timeframe is up to 5 years.</p> <p>b) There is evidence that the rebuilding strategies are rebuilding stocks, or it is highly likely based on simulation modelling or previous performance that they will be able to rebuild the stock within the specified timeframe.</p>	
<p><b>Gap Analysis Findings</b></p>	<p>The Gap Analysis found that:</p> <ul style="list-style-type: none"> <li>• There is currently no evidence that this stock has ever been depleted.</li> <li>• As this is essentially an annual stock, should rebuilding be necessary at any point, effective rebuilding would require rapid implementation of a rebuilding plan.</li> <li>• There is no formal harvest strategy which provides for rebuild consistent with the biology of this species.</li> <li>• Any defined rebuilding timeframe should be consistent with the essentially annual population dynamics of the stock.</li> <li>• Recruitment in invertebrate stocks is usually substantially driven by environmental factors.</li> </ul>	
<p><b>Responses</b></p>	<ul style="list-style-type: none"> <li>• Develop and formalise a rebuilding plan for the SQU6T stock which would be applicable should the stock become depleted.</li> <li>• Define the target and time-frame for rebuilding appropriate to the biology and population dynamics of the species.</li> <li>• Use the stock assessment methodology developed to address PIs 1.1.1 and 1.2.4, to run simulations to support the development and testing of the rebuilding plan.</li> </ul>	<p><b>Action 1.5</b></p>

PI 1.2.1 – There is a robust and precautionary harvest strategy in place		
<b>MSC SG80 Certification Requirements</b>	<ul style="list-style-type: none"> <li>a) The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.</li> <li>b) The harvest strategy may not have been fully tested but monitoring is in place and evidence exists that it is achieving its objectives.</li> </ul>	
<b>Gap Analysis Findings</b>	<p>The Gap Analysis found that:</p> <ul style="list-style-type: none"> <li>• There is no formal harvest strategy which is “responsive to the state of the stock” and demonstrates that the harvest strategy elements successfully “work together towards achieving management objectives reflected in the target and limit reference points.”</li> <li>• With no harvest strategy, no evidence of achievement of harvest strategy objectives exists.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>• Conduct a Management Strategy Evaluation to define appropriate harvest strategy and harvest control rules. Review the BOE3A harvest strategy and harvest control rules to align with Management Strategy Evaluation.</li> <li>• Implement harvest strategy and harvest control rules through a Management Procedure.</li> </ul>	<b>Actions 1.5 - 1.6</b>
PI 1.2.2 – There are well defined and effective harvest control rules in place		
<b>MSC SG80 Certification Requirements</b>	<ul style="list-style-type: none"> <li>(a) Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.</li> <li>(b) The selection of the harvest control rules takes into account the main uncertainties.</li> <li>(c) Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</li> </ul>	
<b>Gap Analysis Findings</b>	<p>The Gap Analysis found that:</p> <ul style="list-style-type: none"> <li>• Neither a harvest strategy nor defined harvest control rules(HCRs) (consistent with the harvest strategy that would ensure that the exploitation rate is reduced as limit reference points are approached) are in place.</li> <li>• There is no formal documentation of the main uncertainties that the HCRs need to address.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>• Develop, formalise, test and implement “well defined” HCRs that “are consistent with the harvest strategy and ensure that these will reduce the exploitation rate as limit reference points are approached.”</li> <li>• The HCR will demonstrably address the main uncertainties relating to the fishery, its assessment and management.</li> </ul>	<b>Actions 1.4-1.7</b>

PI 1.2.3 – Information and Monitoring	
	<ul style="list-style-type: none"> <li>(a) Sufficient relevant information related to stock structure, stock productivity and fleet composition is available to</li> </ul>

<b>MSC SG80 Certification Requirements</b>	<p>support the harvest strategy.</p> <p>(b) Stock abundance and fishery removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.</p> <p>(c) There is good information on all other fishery removals from the stock.</p>	
<b>Gap Analysis Findings</b>	<p>The Gap Analysis found that:</p> <ul style="list-style-type: none"> <li>The fishery has no shortage of "sufficient relevant information related to stock structure, stock productivity and fleet composition"</li> <li>The timescales for collecting and handling of some of the fishery data collection will not support in-season (near-real time) stock assessments</li> <li>With no Harvest Strategy or HCRs, the adequacy of the information to adequately support and monitor the stock, the fishery in relation to the HCRs cannot be evaluated</li> <li>There is good information on all other fishery removals from the stock through the quota management and monitoring, control and surveillance (MCS) systems.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>Develop, test and implement protocols to collect and handle those fishery data necessary for near-real time, in-season stock assessments in a timely manner</li> <li>Available information and indicators, and on-going information collection programme, should be reviewed following development of the Harvest Strategy and HCRs. This is to ensure both will be adequately monitored and supported by the information that will continue to be collected from the fishery</li> <li>Any deficits found in the type, quality or quantity of information to support the Harvest Strategy and HCRs will be addressed.</li> </ul>	<b>Actions 1.3 &amp; 1.8</b>
<b>PI 1.2.4 – Assessment of Stock Status</b>		
<b>MSC SG80 Certification Requirements</b>	<p>a) The assessment is appropriate for the stock and for the harvest control rule</p> <p>b) The assessment takes uncertainty into account</p> <p>c) The assessment of stock status is subject to peer review.</p>	
<b>Gap Analysis Findings</b>	<p>The Gap Analysis found the following:</p> <ul style="list-style-type: none"> <li>There is currently no assessment for the SQU6T stock.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>Develop and implement an assessment approach that is appropriate for the stock and for the HCR and will inform on the status of the SQU6T stock relative to appropriate biological and management reference points</li> <li>Characterise the nature and relative scale of assessment uncertainties and ensure that the assessment takes the principal uncertainties into account in an appropriate way.</li> </ul>	<b>Actions 1.1-1.3 &amp; 1.7-1.8</b>

**PI 2.2.3 – Information on the nature and amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch**

<p><b>MSC SG80 Certification Requirements</b></p>	<ul style="list-style-type: none"> <li>a) Qualitative information and some quantitative information are available on the amount of main bycatch species affected by the fishery.</li> <li>b) Information is sufficient to estimate outcome status with respect to biologically based limits.</li> <li>c) Information is adequate to support a partial strategy to manage main bycatch species.</li> <li>d) Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).</li> </ul>	
<p><b>Gap Analysis Findings</b></p>	<p>The Gap Analysis found that:</p> <ul style="list-style-type: none"> <li>• For a few bycatch species, defining whether they are main or minor was problematic.</li> <li>• Information to score stock status for some main bycatch species is lacking.</li> <li>• There are on-going improvements in the monitoring and reporting of bycatch, driven in part by the NPOA Sharks 2014, improvements in modelling bycatch quantities and through the development of risk assessment approaches for bycatch species.</li> </ul>	
<p><b>Responses</b></p>	<ul style="list-style-type: none"> <li>• Prepare analyses of fishery data quantitatively or semi-quantitatively to enable main and minor by-catch species to be clearly distinguished based on percentage catch by weight from the fishery and for the total catch of the species or stock and on the vulnerability of the species concerned.</li> <li>• Draw together other relevant quantitative, semi-quantitative and qualitative information (including from observer data and scientific surveys) that inform on the stock status of main by-catch species.</li> <li>• Should evidence be found that any main by-catch stock is depleted, collate evidence that shows whether the fishery is likely to hinder the recovery and rebuilding of the stock and, where necessary, develop and implement a partial strategy that may include mitigation measures, to ensure that recovery and rebuilding is not hindered by the fishery.</li> </ul>	<p><b>Actions 2.1 &amp; 2.2</b></p>

**PI 2.3.1 – The fishery meets national and international requirements for protection of ETP species. The fishery does not pose a risk of serious or irreversible harm to ETP species and does not hinder recovery of ETP species**

<p><b>MSC SG80 Certification</b></p>	<ul style="list-style-type: none"> <li>a) The effects of the fishery are known and are highly likely to be within limits of national and international requirements for protection of ETP species</li> </ul>
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<b>Requirements</b>	b) Direct effects are highly unlikely to create unacceptable impacts to ETP species c) Indirect effects have been considered and are thought to be unlikely to create unacceptable impacts.	
<b>Gap Analysis Findings</b>	The Gap Analysis found that: <ul style="list-style-type: none"> <li>• There appeared to be an increase in the incidental captures of seabirds over recent years</li> <li>• Captures of basking sharks occur sporadically but have been notable recently</li> <li>• While mortalities associated with these interactions were within both national and international requirements, it is less clear that they are highly unlikely to create unacceptable impacts to the species concerned.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>• To review the available information and present the best scientific evidence with respect to the level of impacts on the likelihood of unacceptable impacts of the fishery on the affected ETP species.</li> </ul>	<b>Action 2.3</b>
<b>PI 3.2.1 – The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC’s Principles 1 and 2</b>		
<b>MSC SG80 Certification Requirements</b>	a) Short and long term objectives, which are consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are explicit within the fishery’s management system.	
<b>Gap Analysis Findings</b>	The Gap Analysis found that: <ul style="list-style-type: none"> <li>• While there are general fishery objectives within the Fish Plan, the detailed fishery specific objectives that match the harvest strategy and HCRs have not been documented.</li> </ul>	
<b>Responses</b>	<ul style="list-style-type: none"> <li>• Update the fisheries management planning documentation to clearly express the short- and long-term objectives for this fishery such that they are consistent with the HS and HCRs developed to address the needs of MSC Principle 1.</li> </ul>	<b>Action 3.1</b>

**PI 3.2.2 – The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives and has an appropriate approach to actual disputes in the fishery under assessment.**

<p><b>MSC SG80 Certification Requirements</b></p>	<ul style="list-style-type: none"> <li>a) There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.</li> <li>b) Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.</li> <li>c) Decision-making processes use the precautionary approach and are based on best available information.</li> <li>d) Information on fishery performance and management action is available on request, and explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring evaluation and review activity.</li> <li>e) The management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges.</li> </ul>	
<p><b>Findings from Gap Analysis</b></p>	<p>The Gap Analysis found that:</p> <ul style="list-style-type: none"> <li>• Appropriate decision making processes for managing in-season assessments and implementing necessary in-season management have not been agreed and formalised.</li> </ul>	
<p><b>Proposals for Fisheries Improvement</b></p>	<ul style="list-style-type: none"> <li>• To develop, agree, document and implement clear decision making processes that will enable successful implementation of in-season stock assessment and management for this fishery.</li> <li>• To ensure that, as appropriate, this implementation also addresses serious and important issues (b), meets precautionary decision making objectives (c), is available to those interested (d) and supports the existing approach to compliance with judicial decisions (e) above.</li> </ul>	<p><b>Action 3.2</b></p>