

# **SCOTIA-FUNDY HADDOCK FISHERY**

## **2011 MSC Surveillance Visit Report**

Certificate Number: F-SCS-0026



SCIENTIFIC CERTIFICATION SYSTEMS

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**General Information**

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Surveillance Team	SCS	Ms. Adrienne Vincent (lead, P1 and P2) Mr. Eric Dunne (P3)
Surveillance Stage	1 <sup>st</sup> Annual Surveillance	
Methodologies	MSC Accreditation Manual Issue 5.1, MSC Fisheries Certification Methodology (FCM) Version 6.1 MSC Fisheries Assessment Manual (FAM) Version 2.1	

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## List of Acronyms

B <sub>MSY</sub>	Biomass calculated for Maximum Sustainable Yield
DFO	Fisheries and Oceans Canada
ETP	Endangered, Threatened or Protected
FAM	Fisheries Assessment Methodology
FCM	Fisheries Certification Methodology
FLIM	Fishing Mortality Limit Reference Point
GEAC	Groundfish Enterprise Allocation Council
GN	Gill Net
GOMAC	Gulf of Maine Advisory Committee
HL	Hand Line
ISO	International Standard Organization
LL	Long Line
MSC	Marine Stewardship Council
NAFO	Northwest Atlantic Fisheries Organization
OTB	Otter Trawl, Bottom
P1, P2, P3	The three guiding Principles of the MSC
PI	Performance Indicator
SARA	Species At Risk Act
SCS	Scientific Certification Systems
SSB	Spawning Stock Biomass
SSR	Special Science Report
TAC	Total Allowable Catch
TMGC	Transboundary Management Guidance Committee
ULR	Upper Limit Reference Point
4X5Y and 5Zjm	NAFO statistical areas

## Executive Summary

*Table 1: Summary of Performance Indicators with conditions*

<b>Indicator</b>	<b>Status of Condition/Non-Conformance</b>
Condition 1 1.2.2 All Gear Types NAFO Area 4X5Y	Open and ahead of target
Condition 2 1.2.2 All Gear Types NAFO Area 5Zjm	Open and on target
Condition 3 2.1.1 Gears OTB & LL NAFO Area 4X5Y	Open and on target
Condition 4 2.2.1 Gears OTB and LL in NAFO Area 4X5Y, Gear LL in NAFO Area 5Zjm	Open and on target
Condition 5 2.2.3 Gears OTB and LL in NAFO Area 4X5Y	Open and on target
Condition 6 2.4.1 and 2.4.2 Gear OTB NAFO Area 4X5Y	Open and on target
Condition 7 3.2.1 All Gear Types NAFO Areas 4X5Y and 5Zjm	Open and on target in area 5Zjm. Open and ahead of target in area 4X5Y.
Condition 8 3.2.5 All Gear Types NAFO Areas 4X5Y and 5Zjm	Open and behind target

### General background about the fishery certification

The fishery was first certified as a source of sustainable seafood on 22<sup>nd</sup> October, 2010. The fishery is divided into eight units of certification with four gear types and two areas. This report discusses the findings from the first surveillance audit. Tables with the original rationale, conditions, client action plans, and current progress toward conditions may be found below. Eight conditions were placed on the Scotia-Fundy Haddock fishery certification which must be closed within timeframes specified in the conditions.

## **Assessment Overview**

### **Methodology**

The surveillance audit was carried out in accordance with the Marine Stewardship Council (MSC) Fisheries Certification Methodology (FCM) Version 6.1. If a fishery fails the surveillance audit, and cannot address identified deficiencies in a reasonable period of time, then the use of the certificate and the MSC logo will be revoked by the certifier.

The issues for the certifier are whether the fishery has sufficiently acted on the required conditions set forth in the original certification report, and whether a random check on the performance of the fishery verifies continued compliance with the MSC standards.

The annual surveillance audit process is comprised of four general parts:

1. The certification body provides questions around areas of inquiry to determine if the fishery is maintaining the level of management observed during the original certification. In addition, the surveillance team requires that the client provide evidence that the fishery management system has taken the necessary actions to meet all conditions placed on the fishery during the initial certification assessment or any previous surveillance audits.
2. The surveillance/assessment team meets with the client fishery to allow the client to present the information gathered to answer the questions asked by the surveillance team. The surveillance team can then ask questions about the information provided to ensure its full understanding of how well the fishery management system is functioning and if the fishery management system is continuing to meet the MSC standards.
3. The surveillance team presents its findings to the client fishery at the end of the site visit. The results outline the assessment team's understanding of the information presented and its conclusion regarding the fishery management system's continued compliance with MSC standards. Where indicated, the surveillance team may provide the client fishery with additional time to supplement the information provided if the surveillance team finds that there are still issues requiring clarification.
4. Where appropriate, the client fishery submits final information to the surveillance/assessment team for consideration in the surveillance findings and report. The surveillance team then reviews the final information and submits a final report to the client fishery and the MSC for posting on the MSC website. If there are continued compliance concerns, these are presented as non-conformances that require further action and audits as specified in the surveillance report.

### **Surveillance Team**

In accordance with MSC methodology and guidance SCS chose team members with combined comparable and equivalent experience to the original assessment team. The original assessment team, contracted by another Certification Body, were not available for this surveillance audit.

**Team Leader and Assessor of MSC Principles 1 and 2:**      **Ms. Adrienne Vincent**  
**Assessor MSC Principle 3:**    **Mr. Eric Dunne**

### **Adrienne Vincent, Scientific Certification Systems (SCS), Lead Auditor**

Adrienne is a marine biologist that has worked closely with finfish species of commercial importance including California halibut (*Paralichthys californicus*). After completing her B.Sc. in biology from the University of Oregon she completed an e.M.B. with the Oregon Institute of Marine Biology where she focused on marine species management, estuarine trophic relationships, and plankton distribution based on real time oceanographic conditions. Adrienne thereafter joined the State Managed Finfish Project with the California Department of Fish and Game where she worked on stock assessment and management issues. Vincent managed the hook-and-line and trawl fishery independent sampling (indices of abundance) and by-catch rate surveys as well as halibut movement and age structure studies. Since with SCS, she has been involved with the MSC certification of Scotian Shelf shrimp, US north Pacific halibut and US north Pacific sablefish and is a certified lead auditor under the International Standard Organization (ISO) 90011:2008 certification requirement.

### **Eric B Dunne, Independent Fisheries Management Consultant**

Eric has over 45 years experience in economic, policy and operations analyses and executive management of the full range of fishery management activities and functions. Since 1995, he has been a fishery consultant based in St. John's, Newfoundland, Canada, specializing in comprehensive analysis of all aspects of fisheries management activities and issues. He previously served for 15 years as Regional Director-General, Newfoundland Region, Fisheries and Oceans Canada. In that role he acquired extensive senior executive management experience in the intricacies of regional, national and international fishery resource management. This included regional executive management responsibilities for the complete range of functions and responsibilities exercised by a full-fledged and mature national fisheries management authority. These functions and responsibilities included scientific research and biological assessment of all species groups; habitat, ecosystem and by-catch assessment, management and control; overall fisheries monitoring, control and surveillance operations and implementation of Canada's Oceans Policy with particular emphasis on ecosystem and precautionary management. A primary function was the development, implementation and monitoring of fishery management plans including the associated interpretation and operationalization of scientific, biological, ecosystem and economic advice.

With an educational background in the economics of fishing, he had previously held senior positions in the Department's economics and policy development functions. He

later gained experience in the area of fisheries innovation and technology development. As well, he has lectured on fisheries management and fisheries economics in the Masters of Marine Studies Program at Memorial University of Newfoundland and Labrador.

Most recently he has become fully versed in the overall MSC assessment process. In this context, he has been involved in both pre-assessments and full assessments of a variety of finfish, pelagic and shellfish fisheries in localities from the sub-Arctic areas of the Northwest Atlantic to the Gulf of Mexico.

### **Surveillance Meeting**

The surveillance audit for 2011 comprised:

1. An invitation announcement was posted to the MSC website requesting that stakeholders contact SCS with any new information or concerns about the Canada Scotia-Fundy haddock fishery on 18 August, 2011. Stakeholders identified in the original assessment were contacted individually.
2. The GEAC were provided with a desk audit by SCS with a table identifying milestones by annual audit that the fishery is expected to achieve. Documents were requested to support closing conditions.
3. An Audit Plan was provided to the client, management and scientists before the meeting. An orientation for the Assessment Team was conducted. The opening meeting with the client included an exchange of information relevant to the surveillance audit.
4. A second request for stakeholder input was sent via email to identified stakeholders from the previous audit. SCS was available on October 4<sup>th</sup> for meetings with stakeholders in Dartmouth, Nova Scotia Canada. No stakeholders came forward in-person or via email to provide new comment for this fishery.
5. A meeting took place on the 5<sup>th</sup> of October with SCS, the Groundfish Enterprise Allocation Council and fishery management personnel at the Bedford Institute of Oceanography. The discussions focused on the ongoing activities associated with the Conditions placed on the fishery and updates in the fishery since 2010.
6. Necessary documents were presented by the client to SCS prior, during the meeting in Dartmouth, Nova Scotia, Canada, and subsequently by email after the 5<sup>th</sup> October meeting.

*Table 2: 1<sup>st</sup> Annual Assessment Meeting Attendees and Organizations*

<b>1<sup>st</sup> Annual Assessment Meeting Attendees</b>	<b>Organization</b>	<b>Role</b>
Adrienne Vincent	SCS	Team Leader, P1, P2
Eric Dunne	SCS	Surveillance Team, P3
Mark Showell, Population Ecology	DFO	Scientific Research Stock status
Tara McIntyre, Population Ecology	DFO	Scientific Research Stock status
Lou Van Eeckhaute, SABS	DFO	Scientific Research Ecosystem
Scott Coffen-Smout, Ecosystems	DFO	Ecosystem Management
Verna Docherty	DFO	Groundfish Advisor, Fisheries Management
Bryan Wood, C&P	DFO	Fisheries Management
Chris Annand, Resource and Fisheries Management	DFO	Fisheries Management
Wendy Williams, Policy and Economics	DFO	Management
Mr. Bruce Chapman, Executive Director	GEAC	Client Representative

## **Summary of the Fishery**

### **General discussion**

This is the 1<sup>st</sup> Annual Surveillance Report 2011 prepared by SCS to meet the requirements of the MSC for annual audits of certified fisheries.

The sections below provide the general information about the status of the stock, the ecosystem impacts from fishing, and management arrangements for this reporting period.

### **Principle 1 - Stock Status and Harvest Strategy**

Haddock (*Melanogrammus aeglefinus*) are a cod-like fish and are primarily caught commercially by bottom otter trawl and bottom long-line gear in Atlantic Canada. The fishery in 4X5Y is in Canadian waters and DFO completes the stock assessment and determines the TAC. Area 5Zjm includes the Canadian portion of NAFO statistical area 5Z and the haddock stock there is assessed by the Transboundary Resources Assessment Committee (TRAC) which has both US and Canadian members. See figure 1.

**Area 4X5Y haddock**

Long-term averages of landings are 18,000t in area 4X5Y but have averaged 7,000mt in the last decade (DFO, 2010). DFO conducts two surveys applicable to this fishery: a summer research vessel (RV) trawl survey where the weight per tow of haddock is recorded as well as a joint industry/DFO survey known as the ITQ survey. When estimating biomass, the Scotian Shelf estimates are treated separately from the Bay of Fundy haddock because it is believed that the Bay of Fundy haddock have a faster growth rate. There is some seasonal migration within the stock area, but little genetic exchange between the stocks occurs. Spawning occurs in April/May. Haddock in the Bay of Fundy experience 50% age at first maturity of 4 years. The long-term average of the Spawning Stock Biomass (SSB), Age 4+ is 39,317mt. In the 2010 assessment, a Sissenwine-Shepherd production model was used as an illustrative tool to calculate candidate biological reference points. The SSB-MSY was 42,000mt and the fishing mortality to produce maximum sustainable yield (FMSY) was at 0.32 (DFO, 2010 and DFO, 2011).

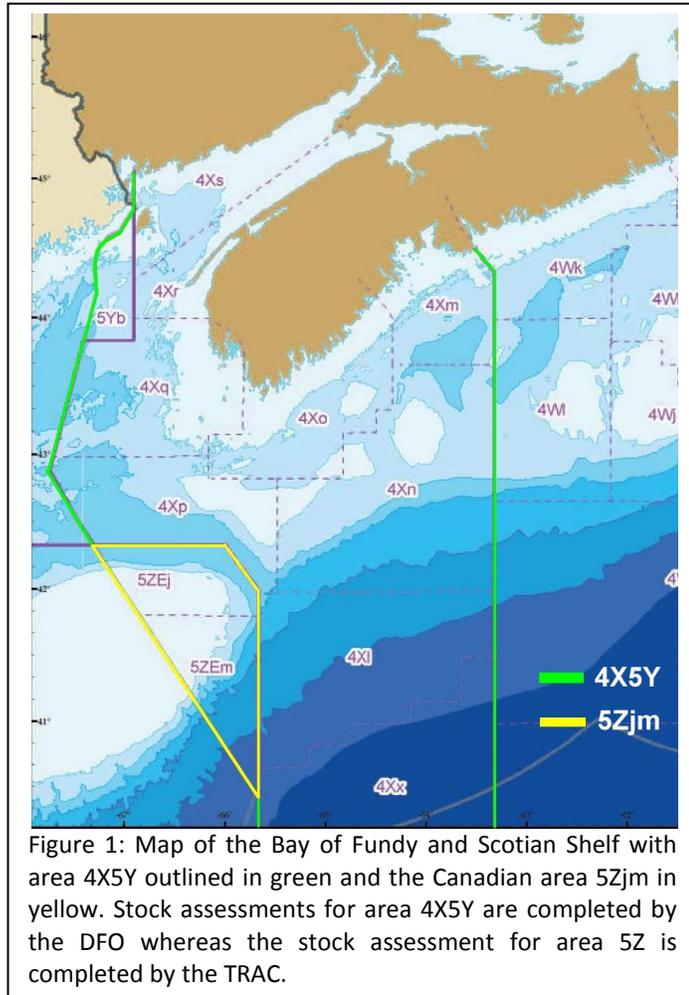


Figure 1: Map of the Bay of Fundy and Scotian Shelf with area 4X5Y outlined in green and the Canadian area 5Zjm in yellow. Stock assessments for area 4X5Y are completed by the DFO whereas the stock assessment for area 5Z is completed by the TRAC.

The default approach within DFO’s precautionary approach framework for identifying biological reference points is based on SSB-MSY. The lower reference point (LRP) is 40% SSB-MSY and the Upper Stock Reference point (USR) is 80% SSB-MSY. The model was run at harvesting projections of 7,000mt for three years. Estimated SSB dropped below the candidate USR, but not the LRP in the 2010 and 2011 simulations. Levels of uncertainty were admittedly high in these estimates, however, with reference points being “easily 40% higher or lower in the 10<sup>th</sup> and 90<sup>th</sup> percentiles (DFO, 2010).”

A stock assessment for haddock in area 4X5Y is planned for fall of 2011. During the June 8, 2011 SFGAC meeting candidate reference points for the 4X5Y stock were circulated, discussed. These candidates will be reviewed during the stock assessment.

**Area 5Z haddock**

Since 1969 the Canadian portion of the haddock landings in area 5Zjm has ranged from a low of 500 mt to a high of 17,600mt (in 2009) with a long term average being 5,500mt. Recently there have been two very large recruitment pulses with age one recruits estimated to be 304.4 million in 2004 and 557.1 million in 2011. This is much higher than the average of 9 million since 1990. Age 1 recruits are expected to start entering the fishery four years later (TRAC, 2011). Over the whole of the 5Z area, stock status is evaluated using an age structured analytical assessment that incorporates both size and age sample data. Sample collections from three surveys are incorporated: the National Marine Fisheries Service (NMFS) Spring, NMFS fall and DFO trawl surveys. In 2009, adult biomass reached a record high and was estimated to be 162,800mt. Adult biomass has since declined to 93,400mt in 2011 as the 2004 age +1 recruitment biomass diminishes. The TAC, however, was responsive to the decrease in adult biomass and was decreased from 30,000mt (for all of 5Z) in 2009 to 22,000mt in 2011. The fishery expects the exceptional age +1 recruitment cohort from this year to start entering the fishery by 2015 (TRAC, 2011).

The Transboundary Management Guidance Committee (TMGC) has established a fishing mortality reference point (FREF) of 0.26. When the stock status decreases, the fishing mortality (F) is also decreased to promote rebuilding of the stock. It has been determined that haddock have declined in size at age. Fishing mortality due to fishing has been modified to account for the growth rate decrease. The DFO survey found that the weight at length has also decreased since about 2001 (TRAC, 2011).

*Table 3: 2010 & 2011 Preliminary Quota year landings of Haddock in 4X5Y and 5Zjm by gear type. Landings are in metric tonnes. Area 5Zjm TAC is by calendar year and 4X5Y TAC from April 1<sup>st</sup> to March 31<sup>st</sup>. The total TAC in area 5Zjm was 29,600mt in 2010 and 22,000 in 2011. The combined total catch of US and Canada in area 5Zjm was 18,794mt in 2010. Below is the Canadian quota. Data provided by DFO in October 2011 and from TRAC 2011 Status Report. LL=Long Line, OTB=Otter Bottom Trawl.*

<b>Area</b>	<b>Gear Type</b>	<b>2010/11 Landings mt</b>	<b>2011/12 Landings mt</b>
4X5Y	LL	1,287	482
4X5Y	OTB	4,079	990
4X5Y	Gill net	4	3
4X5Y	Hand line	0	0
<b>TOTAL</b>		<b>5,370</b>	<b>1,475*</b>
<b>4X5Y TAC</b>		<b>6,000</b>	<b>6,000</b>

<b>Area</b>	<b>Gear Type</b>	<b>2010 Landings mt</b>	<b>2011 Landings mt</b>
5Zjm	LL	2,300	1,313
5Zjm	OTB	14,129	8,498
5Zjm	Gill net	2	1
5Zjm	Hand line	0	0
<b>TOTAL</b>		<b>16,431</b>	<b>9,812*</b>
<b>Canadian 5Zjm TAC</b>		<b>17,612</b>	<b>12,540</b>

\* From April 1<sup>st</sup> to October 2011

Table 4: Catch data specific to the Unit of Certification (UoC). The GEAC consists of vessels in the >100ft sector, many of which are also haddock quota holders in the mobile gear <65' sector. It should also be noted that not all GEAC members are haddock quota holders because they are non-fisher companies.

	<b>Year</b>	<b>4X5Y</b>	<b>5Zjm</b>
<b>Total TAC for the Fishery</b>	2009/10	6,000 mt	17,612 mt
<b>UoC share</b>	2009/10	6,000 mt	17,612 mt
<b>GEAC TAC share</b>	2009/10	1,000 mt	6,000 mt
<b>GEAC green weight take</b>	2009/10	685 mt	3,812 mt
<b>GEAC TAC share</b>	2010/11	1,000 mt	6,000 mt
<b>GEAC green weight take</b>	2010/11	750 mt	5190 mt

Source: GEAC

## **Principle 2 – Ecosystem impacts from fishing Non-Target Species (Retained, Bycatch and ETP)**

The impact of a fishery on the ecosystem has many components. In the MSC process consideration is given to the interactions with the living organisms and the substrate as well as the over-all cumulative impacts on the ecosystem. The MSC process considers organisms that are most likely to be affected by the fishery, these are retained and discarded organisms that constitute 5% or more of the catch as well as those that are listed as being endangered, threatened or protected by national or international law. In the original fishery assessment (Moody Marine, 2010) several species were considered. Some species fall into more than one category. Of the species considered in the assessment, cod, skates and white hake have conditions associated with them and are discussed in the conclusions section of this report.

Table 5: Non-Target species considered in the 2010 fishery assessment by area, gear type and which MSC Performance Indicator (PI) set they were considered under in the 2010 assessment (Moody Marine, 2010). Gear types include Long Line (LL), Bottom Otter Trawl (OTB), Gill net (GN) and Hand Line (HL). PI sets include Retained (R), Bycatch (B) and Endangered, Threatened or Protected (ETP).

<b>Species</b>	<b>Area by NAFO designation</b>	<b>Gear Type</b>	<b>Performance Indicator set</b>
Pollock	4X5Y	OTB	R
Cod	4X5Y, 5Zjm	LL, OTB	R
Dogfish	4X5Y	LL, OTB	R, B
Cusk	4X5Y, 5Zjm	LL	R, B
Atlantic halibut	4X5Y	LL	R
White hake	4X5Y	LL	R
Yellowtail flounder	5Zjm	OTB	R
Skates	4X5Y, 5Zjm	LL, OTB	B
Northern wolffish	na	LL, OTB	ETP
Spotted wolffish	na	LL, OTB	ETP
North Atlantic right whale	na	GN	ETP
Harbour porpoises	na	GN	ETP
Leatherback turtle	na	LL, GN	ETP

According to the regional bycatch action plan, a multisector proposal was funded through SARA to develop a more comprehensive data set to address the knowledge gaps in selected fisheries. Data collection for the groundfish sector began on April 1, 2010. The document outlines several bycatch measures that are currently in place (not all are applicable to the haddock fishery, but are included here for completeness):

- *Bycatch issues in small mesh fisheries such as shrimp and silver hake have been reduced significantly with the use of technological advances such as the Nordmore grate and the small mesh gear line.*
- *Regulation 93 (3) institutes mandatory landing provisions for groundfish*
- *Bilateral agreements with the US (Georges Bank) requiring the accounting for all removals resulted in earlier actions to address bycatch in the scallop and groundfish fisheries through: a groundfish bycatch reserve to account for scallop bycatch of cod, haddock and yellowtail; closed cod and yellowtail spawning areas to reduce bycatch; increased observer coverage in both fleets allowing for discards to be estimated and accounted for; the use of horizontal separator trawls to reduce the harvest of cod in groundfish bottom trawl fisheries; use of cod /haddock catch ratios to determine cod discards by groundfish fleets*
- *Inshore lobster areas closed to scallop drag activity during molting seasons, bio-degradable panels escape vents in traps to allow for escape of small animals and to prevent ghost fishing*
- *Right whale mitigation plan to prevent entanglement with trap gear*
- *Quota/fleet transfers to balance quota shortfalls and prevent discards (ITQ, community management, fleet transfer pilot)*
- *Small fish protocols*
- *Action plans for addressing MSC ecosystem conditions underway in various fisheries.*
- *Discard estimates calculated for pelagic LL fleet and accounted for in management of swordfish and bluefin tuna*
- *Safe handling techniques training for released species (i.e. turtles)*
- *Pelagic LL code of conduct*
- *Mesh/hook size , DMP , VMS*

In addition, any species that is SARA listed as threatened or endangered must be released in a manner that does the least harm. A SARA interaction logbook must also be prepared and any incidents recorded.

### ***Habitat and the Ecosystem***

Habitat impacts from fishing are also considered in MSC fisheries assessments. NAFO sub-areas 4X5Y and 5Zjm have several important fishing banks. Area 4X5Y includes Browns Bank, a highly productive plateau with depths from <50 to 100m and varied substrate type from bedrock to gravel. Other fishing grounds in 4X5Y include the Roseway, Baccaro and LaHave Banks with limited availability for trawl effort due to boulders and gravel substrate. The Northeast Channel separates Browns Bank from Georges Bank in 5Zjm. The northern area of Georges Bank has more suitable habitat for

haddock, with sediment ranging from sand to gravel. The Bay of Fundy is in the west and is characterized by high-energy tidal zones. Mapping of bottom trawl effort integrated with substrate features to determine fishing impacts of the fishery are ongoing and are being developed in Area 4X5Y. Gavaris and Black, 2004 provided rough estimates for Georges Bank using log records and at-sea observer reports. Foot gear was estimated to have impacted less than 10% of the substrate while bridles and warps were estimated to have impacted 30% of the area (DFO Map, Sept. 2011).

The DFO is a forerunner in the development of the Ecosystem Based approach to Management and has been one of the first agencies to attempt to define and implement such an approach. The Maritimes Region has developed a framework by which the ecosystem approach is implemented. The DFO aims to take an integrated management approach to ocean uses that include stakeholder participation from all sectors of the Canadian community. The Maritimes region is varied between three regions including the Eastern Scotian Shelf, the Western Scotian Shelf/Bay of Fundy and Grand Bank/Gulf of Maine. Anthropogenic uses of these areas have persisted with fishing being an important source of disturbance. Priority has been given to managing fisheries and bycatch levels although habitat disturbance work is ongoing. Work to define several important ecosystem attributes in addition to fishery specific ones is ongoing and includes identifying Ecologically or Biologically Sensitive Areas (EBSA), Ecologically or Biologically Sensitive Species (EBSS) and identifying depleted species and degraded areas.

Several strategies have been identified to obtain DFO's objectives as outlined in the "Ecosystem Approach to Management" for the Maritimes Region (DFO, 2011a):

**Productivity**

- *Keep fishing mortality moderate*
- *Promote positive biomass change when biomass is low*
- *Manage discards for all harvested species*
- *Allow sufficient escapement from exploitation of spawning biomass*
- *Limit disturbing activity in spawning areas/seasons*
- *Control alteration of nutrient concentrations by algae affecting primary production at the base of the food chain*

**Biodiversity**

- *Control incidental mortality for all non-harvested species*
- *Minimize unintended transmission of invasive species*
- *Distribute population component mortality in relation to component biomass*

**Habitat**

- *Manage area disturbed of bottom habitat*
- *Limit introduction of pollutants in habitat*
- *Minimize death from structures/equipment/lost gear*
- *Control noise and light disturbance.*

### Principle 3 – Management and Regulation

Apart from the progress to be discussed below on Conditions 7 and 8, no major (or any) changes in management staff, regulations or enforcement status or issues have occurred. Neither the process for stock assessment nor the process of advice has changed. This is essentially confirmed in the letter of September 27, 2011 (See Appendix 3) from the Regional Director General of the Maritimes Region to the Executive Director of GEAC and again in discussions with Fisheries Management staff on 5 October 2011.

The 4X5Y TAC was reduced to 6,000 mt from 7,000 mt in 2010 and was unchanged in 2011 (4X5Y Haddock Appendix to Groundfish IFMP). The catch in 2010 was 825 mt below the TAC and in 2009, the shortfall was 1,169mt. The Canadian quota for 5Zjm was 17,612 mt in 2010, down from 18,900 mt in 2009. The 2009 catch was 1,305 mt below quota and the 2010 under-run was 1,005mt. (All catch data are from the DFO Quota Reports on the departmental website and the TRAC 2011 Stock Status Report.)

### Progress toward Closing Conditions

#### *Current Status of Previously Raised Conditions*

<b>Condition 1: All Gear Types 4X5Y: There are well defined and effective harvest control rules in place</b>	
<b>PI</b>	1.2.2
<b>Rationale from the 2010 Assessment</b>	The assessment team concluded that although it seems clear from management and assessment documents that $F$ has been maintained at or below $F_{0.1}$ , specific rules for adjusting $F$ in response to changes in stock status are not well defined. Furthermore, there is a lack of well-defined harvest control rules for years in which quantitative stock assessments are not done (e.g., 2006-2008). While evidence exists that quotas can be reduced in response to changes in survey indices, it is not certain that these adjustments will be consistent and transparent when such situations arise in the future.
<b>Condition</b>	The client is required to ensure that well defined and effective 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.
<b>Client Action Plan</b>	This will be achieved by the following: <ul style="list-style-type: none"> <li>• GEAC will collaborate with the Scotia-Fundy Region of Fisheries &amp; Oceans Canada (DFO), and other industry organizations through the Scotia-Fundy Groundfish Advisory Committee (SFGAC) to translate implicit reference points and/or harvest control rules into explicit ones, while enabling scope for the exercise of judgment relative to circumstance. DFO's Precautionary Approach (PA) Framework will be utilized for this purpose, providing a limit and upper stock reference, and a fishing mortality strategy will be linked to quantitative assessment outputs and/or research vessel biomass indices, and be designed to promote an agreed direction and trajectory of the spawning stock biomass, taking into account stock status, risk factors, projected outcomes and socio-economic objectives. This process may or may not include simulation of results, and if not would include references that the chosen approach has worked elsewhere with stocks of similar attributes, e.g. life history.</li> <li>• By the second annual audit there will be documented evidence that the options for well-defined reference points and harvest control rules have been outlined and discussed with stakeholders.</li> </ul>

	<ul style="list-style-type: none"> <li>• By the third annual audit there will be documented evidence that the reference points and harvest control rules have been adopted.</li> <li>• By the fourth annual audit there will be documented evidence that the adopted harvest control rules have been implemented i.e. forms the basis of TAC-setting and other relevant management advice.</li> </ul>
<p><b>Progress toward closing condition</b></p>	<p>Candidate reference points have been developed for the fishery and are included in the haddock summary section of the IFMP signed off by the director of resource management for the Maritimes Region in October 2011. An additional assessment will be undertaken in Fall of 2011 that will evaluate the suitability of the reference points. <math>B_{MSY}</math> was calculated at the November 2010 stock assessment to be 42,000mt. The TAC is set using a harvest control rule that is dependant on the Spawning Stock Biomass (SSB) relative to <math>B_{MSY}</math>. Applying the Precautionary Approach, the Upper Stock Reference point (USR) is 80% of the calculated BMSY. The TAC is set with neutral (50%) probability of exceeding the Fishing Mortality Target Reference Point (<math>F_{REF}</math>) of 0.25 when the stock is above the USR. The candidate USR is 33,600mt. When the SSB is above <math>B_{MSY}</math>, the TAC may be set with a low (&lt;25%) probability of exceeding the Fishing Mortality Limit Reference Point (<math>F_{LIM}</math>) of 0.32. The Limit Reference Point is 40% of <math>B_{MSY}</math> or 16,800mt.</p> <p>Further, the IFMP states that the TAC should be set to mitigate biomass declines and where possible promote increases in SSB over a three year period when the stock is below the USR. Management response will depend on the trajectory of SSB which will be monitored by incoming recruitment indicators. If the SSB is below the LRP, a rebuilding strategy will be implemented to increase the SSB. Rebuilding to at least the LRP should take place within 1.5 to 2 generations with a high degree of probability of success (&gt;75%).</p> <p>In the June 8, 2011 meeting with DFO and stakeholders the reference points were tabled and discussed. These actions are in advance of the condition requirement for the second surveillance audit.</p>
<p><b>Condition Status</b></p>	<p>Open and ahead of target.</p>

<b>Condition 2: All Gear Types 5Zjm: There are well defined and effective harvest control rules in place</b>	
<b>PI</b>	1.2.2
<b>Rationale from 2010 Assessment</b>	The assessment team concluded that, as shown by interviews during the site visit, the harvest control rules used for 5Zjm haddock in the past have been generally understood by science, management, and stakeholders involved in the assessment process. Despite this general understanding, the specific harvest control rule is not "well defined". The realized relationship between SSB and <i>F</i> between 1998 and 2006 demonstrates that the harvest control rule is responsive to changes in stock status; however, observed changes in fishing mortality were generated during a period in which stock size was increasing away from the LRP. Therefore, one cannot judge whether the harvest control rule ensures that exploitation will be reduced when biomass declines in the future toward the LRP. The harvest control rule has not been designed and tested to take known uncertainties explicitly into account.
<b>Condition</b>	The client is required to ensure formal definition of a set of well-defined pre-agreed rules or actions used for determining a management action in response to changes in indicators of stock status with respect to reference points for the 5Zjm haddock fishery.
<b>Client Action Plan</b>	<p>This will be achieved by the following:</p> <ul style="list-style-type: none"> <li>• Reflecting the fact that this is a trans-boundary stock for which TAC-setting is a cooperative process between Canada and the USA, who have differing legislative frameworks and processes, the action plan is applicable to mechanisms that function within the jurisdiction of Canada, principally the Gulf of Maine Advisory Committee (GOMAC), which is a DFO/industry consultative body that provides recommendations to the Minister of Fisheries &amp; Oceans Canada. Once established, positions advanced by Canadian representatives at various international consultative mechanisms are to be consistent with explicit approaches adopted by GOMAC, subject only to legislated Ministerial discretion. Such approaches and positions may or may not be available to the public, but shall be available for audit by the certifying body in any event.</li> <li>• GEAC will collaborate with other stakeholders on the GOMAC to translate implicit reference points and/or harvest control rules into explicit ones, while enabling scope for the exercise of judgment relative to circumstance. DFO's Precautionary Approach (PA) Framework may be utilized, or, the harvest strategy adopted will be consistent with this PA framework. The fishing mortality strategy will be linked to quantitative assessment outputs and/or research vessel biomass indices, and be designed to promote an agreed direction and trajectory of the spawning stock biomass, taking into account stock status, risk factors, projected outcomes and socio-economic objectives. This process may or may not include simulation of results, and if not would include references that the chosen approach has worked elsewhere with stocks of similar attributes, e.g. life history.</li> <li>• By the second annual audit there will be documented evidence that options for well-defined limit reference points and harvest control rules have been outlined and discussed with stakeholders through the Gulf of Maine Advisory Committee (GOMAC).</li> <li>• By the third annual audit there will be documented evidence that GOMAC has established reference points and harvest control rules to guide Canadian representatives in their future discussions on TAC-setting with their counterparts in the USA.</li> <li>• By the fourth annual audit there is documented evidence that Canadian representatives have advanced positions that are consistent with the harvest control rules that have been adopted by GOMAC.</li> </ul>

<b>Progress Toward Closing Condition</b>	The GOMAC met on 27 October 2011 (after the onsite meeting) to discuss harvest control rules and reference points for this fishery. Objectives were determined and provided to the assessment team. Meeting minute notes will be disseminated to the surveillance audit team before the next surveillance audit. It is anticipated that the reference points and harvest control rules will follow the other groundfish harvest control rule template (see Appendix 2), which are based on the current SSB-MSY of the fishery. Once finalized, the reference points will be included in a summary appendix of the Groundfish IFMP similar to the haddock fishery in 4X5Y. This condition stipulates that there be evidence that the reference points are outlined and discussed by the second annual surveillance audit. The surveillance team finds that the fishery is on-target for this condition and that the current harvest control rule was responsive to the decreased SSB in 2011 whereby the Canadian TAC was decreased from 17,612mt in 2010 to 12,540mt in 2011.
<b>Status of Condition</b>	Open and on target.

<b>Condition 3. Areas 4X5Y (OTB &amp; LL) Main retained species are <i>highly likely</i> to be within biologically-based limits, or if outside the limits there is a partial strategy of demonstrably effective management measures in place such that the fishery does not hinder recovery and rebuilding</b>	
<b>PI</b>	2.1.1
<b>Rationale from the 2010 Assessment</b>	<p>The assessment team concluded that:</p> <p><b>Cod 4X5Y: Cod.</b> The annual average retained catch of cod by otter trawlers targeting haddock in 4X for the period 2002 to 2008 was 2,002 mt. The annual average retained catch of cod by bottom long liners targeting haddock in 4X5Y for the period 2002 to 2008 was 1,731 mt. 4X biomass indices from surveys have remained low since 2000 when a rebuilding strategy was initiated. SSB at the beginning of 2008 was 9,000 mt; the lowest level in a time-series that started in 1948. Recruitment for the 2006 and 2007 year classes was below average, but about twice the abundance of the very low 2003 and 2004 year classes. While research vessel survey results increased by about 360% between 2008 and 2009, in historic terms biomass remains low and conclusions cannot depend on the results of one year. Total landings remained near 3,900 mt (i.e. &lt; 5,000 mt TAC) from 2005 to 2008. The TAC for 2009 was reduced to 3,000 mt, and preliminary data indicates that the catch (directed cod fishery plus by-catch in other fisheries) totaled about 2,591 mt. The first scoring issue for SG60 is met, however whilst there a partial strategy in place that might be expected to ensure that the fishery does not hinder recovery and rebuilding of cod, it cannot yet be shown to be demonstrably effective and therefore the scoring issue for SG80 is not met.</p> <p><b>White hake 4X5Y.</b> The annual average retained catch of white hake by bottom long liners targeting haddock in 4X5Y for the period 2002 to 2008 was 521 mt. In 4X5Y, there has been a general decrease in the abundance of white hake since the early 1990s. Fishing mortality is relatively low in all areas since the introduction of catch limits in 1996. Total mortality on the Scotian Shelf is high and its causes are unknown. Total mortality of white hake in the Bay of Fundy is variable without trend. The SAR 2010 (as reported by GEAC in January, 2010) observes that white hake in 4VWX were distributed throughout the survey area, with the largest catches in the Gulf of Maine (4Xpq), the Bay of Fundy, and in 4Vn. Biomass indices have risen for the last two years in all regions. In 4X East, abundance indices were above average for most lengths below 58cm in 2009, but below average for larger fish. This is similar to what was seen in 2008. White hake abundance indices in 4X West were near average for most lengths in both 2008 and 2009. The second scoring issue for SG60 is met, however whilst there a partial strategy in place</p>

	that might be expected to ensure that the fishery does not hinder recovery and rebuilding of white hake, it cannot yet be shown to be demonstrably effective and therefore the scoring issue for SG80 is not met.
<b>Condition</b>	The client is required to ensure that the main retained species are highly likely to be within biologically-based limits, or if outside the limits there is a partial strategy of demonstrably effective management measures in place such that the fisheries do not hinder recovery and rebuilding. The outcome above should be achieved within 4 years of certification
<b>Client Action Plan</b>	This will be achieved by the following: <ul style="list-style-type: none"> <li>• GEAC will collaborate with the Scotia-Fundy Region of Fisheries &amp; Oceans Canada (DFO), and other industry organizations through the Scotia-Fundy Groundfish Advisory Committee (SFGAC) to articulate a “recovery plan” for each of cod and white hake in 4X5Y. This may include the translation of implicit reference points and/or harvest control rules into explicit ones, while enabling scope for the exercise of judgment relative to circumstance. DFO’s Precautionary Approach (PA) Framework may be utilized, or, the harvest strategy adopted will be consistent with this PA framework. The fishing mortality strategy will be linked to quantitative assessment outputs and/or research vessel biomass indices as the case may be, and be designed to promote an agreed direction and/or trajectory of the spawning stock biomass, taking into account stock status, projected outcomes and socio-economic objectives. This process may or may not include simulation of results, and if not would include references that the chosen approach has worked elsewhere with stocks of similar attributes, e.g. life history.</li> <li>• By the second annual audit there is documented evidence that recovery milestones and management options for cod and white hake in 4X5Y have been outlined and discussed at the SFGAC.</li> <li>• By the third annual audit there is documented evidence that the agreed catch and/or by-catch targets for cod by the OT and LL gear and white hake by LL gear have been defined by DFO.</li> </ul> <p>By the fourth annual audit there is documented evidence that recovery plans for cod and white hake in 4X5Y, and for the control or reduction in fishing mortality are being implemented as planned.</p>
<b>Progress Toward Closing Condition</b>	Outlined in the IFMP are tactics to mitigate the effects of the fishery on bycatch including white hake and cod. White hake and cod must be retained and their take is accounted for by being deducted from the available TAC for each species. There are also bycatch limits and fleet bycatch limits. In addition, the Maritimes Region has a working paper that outlines other strategies to reduce impacts on bycatch (see non-target section above). The Scotia-Fundy Groundfish Advisory Committee has reviewed short and long-term objectives, biological reference points and associated harvest control rules for the 4X5Y cod stock and accepted these at a September 2011 meeting. By the second surveillance audit the SFGAC will be expected to provide recovery milestones and management options for cod and white hake in area 4X5Y to remain on target for closing this condition.
<b>Status of Condition</b>	Open and on target.

<b>Condition 4. Area 4X5Y (OTB &amp; LL) &amp; 5Zjm (LL). Main by-catch species are highly likely to be within biologically based limits or if outside such limits there is a partial strategy of demonstrably effective mitigation measures in place such that the fishery does not hinder recovery and rebuilding.</b>	
<b>PI</b>	2.2.1
<b>Rationale from the 2010 Assessment</b>	<p>The assessment team concluded that:</p> <ul style="list-style-type: none"> <li>• The annual average discarded catch of skate by otter trawlers targeting haddock in 4X5Y in 2002 - 2008 was 197 mt (114 mt in 2008) - 1.1 % of the haddock catch. The annual average discarded catch of skate by bottom long liners targeting haddock in 4X5Y in 2002 - 2008 was 274 mt (224 mt in 2008) - 4.4 % of the haddock catch. The annual average discarded catch of skate by bottom long liners targeting haddock in 5Zjm in 2002 - 2008 was 114 mt (118 mt in 2008), or 4.0 % (over the period) of the haddock catch.</li> <li>• Abundance of thorny skate (<i>Amblyraja radiata</i>), the most common of the Scotian Shelf skates, has stabilised after decreases from the highs of the 1980s. Barndoor skate is considered by IUCN to be 'threatened'. There was a decline in the survey indices in the mid-1960s to early 1970s, likely caused by the high fishing effort of the distant water fleet on Georges Bank, followed by a period of low to zero catches. In 1985, consistent catches of barndoor skate started and observed increases in survey indices have continued. A COSEWIC assessment for the species in 2005 concluded that populations within the combined 4X and 5Ze areas were of "special concern", although stable.</li> </ul>
<b>Condition</b>	<p>The client is required to ensure that the by-catch of skates are highly likely to be within biologically based limits or if outside such limits there is a partial strategy of demonstrably effective mitigation measures in place such that the fishery does not hinder recovery and rebuilding.</p> <p>The outcome above should be achieved within 4 years of certification</p>
<b>Client Action Plan</b>	<p>This will be achieved by the following:</p> <ul style="list-style-type: none"> <li>• GEAC will collaborate with the Scotia-Fundy Region of Fisheries &amp; Oceans Canada (DFO), and other industry organizations through the Scotia-Fundy Groundfish Advisory Committee (SFGAC) towards the development and adoption of a suite of management measures specific to skate in 4X5Y and 5Ze, designed to avoid hindering the recovery and rebuilding of skate populations.</li> <li>• By the first annual audit, specific abundance indices for skate by species and area will be adopted for monitoring by DFO, the results of which shall be considered by the SFGAC annually.</li> <li>• By the second annual audit, a plan to identify discards by species and area will be tabled at the SFGAC and adopted.</li> <li>• By the second annual audit: (a) a best practices handling and live release protocol will be adopted, (b) a move-away protocol will be adopted, and (c) management measures to control or to reduce bycatch of skates in the directed haddock fishery (&gt;50% haddock in a trip) will be adopted to achieve or continue improvement in the abundance indices for skate.</li> <li>• By the third annual audit there will be documented evidence that the adopted management measures are being implemented.</li> <li>• By the fourth annual audit a review of the effectiveness of the respective management measures will be completed, including an evaluation of the likely impact of the various sources of recent fishing mortality on the stock condition of skate.</li> </ul>
<b>Progress Toward</b>	By the first surveillance audit, the fisheries were required to develop indices of abundance for skate species by area. Indices of abundance are monitored during the DFO fishery independent

<b>Closing Condition 4</b>	trawl survey. The SFGAC develops the terms of reference based on the results of the survey and input from stakeholders including DFO, industry, aboriginal, provincial government, recreational and NGO representatives in public meetings. The trawl surveys are also being considered for use in developing indices for cusk, white hake, and monkfish. The DFO will provide this information in Science Special Response reports. The indices will be used to develop responsive management measures.
<b>Status of Condition 4</b>	Open and on target.

<b>Condition 5. Area 4X5Y (OTB &amp; LL). Qualitative information and some quantitative information are available on the amount of main by-catch species affected by the fishery.</b>	
<b>PI</b>	2.2.3
<b>Rationale from the 2010 Assessment</b>	The assessment team found there is no direct recording of the quantity of discards in logbooks. The only source of information is through independent observer coverage. While observer coverage is high on the OTB fishery (26%) and BLL (8.9%) in 5Zjm, it is lower in 4X5Y (2.1% and 0.4% for OTB and BLL respectively) and this leads to uncertainty about the level of discards. Accordingly the 4X5Y otter trawl and 4X5Y bottom long line do not meet the fourth issue of SG80 and achieve a score of 75 for this PI.
<b>Condition 5</b>	The client is required to ensure that sufficient data continue to be collected to detect any increase in risk to main by-catch species.
<b>Client Action Plan for Condition 5</b>	This will be achieved by the following: <ul style="list-style-type: none"> <li>• By the first annual audit, DFO and GEAC will (a) evaluate the risk to main bycatch/discard species associated with haddock fished in 4X5Y, (b) identify options to improve the information base and estimates of discards, and (c) table these products for consideration by the SFGAC.</li> <li>• By the second annual audit, mechanisms to improve data collection and estimations of discards by the OTB and LL in 4X5Y fisheries will be adopted.</li> <li>• By the fourth annual audit there will be documented evidence that the adopted data collection and discard estimation mechanisms have been implemented.</li> </ul>
<b>Progress Toward Closing Condition 5</b>	DFO Maritimes Region has a bycatch policy and action plan. Based on a report on the discards from commercial fisheries (Garvis et al, 2010), bycatch species that were determined at risk from the groundfish fishery were identified. White hake and cod have a mandatory retention rule, a quota cap (limit) and either mandatory release when the quota cap is reached (white hake) or complete closure of the groundfish fishery for affected participants (cod). Skates, spiny dogfish and sculpins are permitted discards. Also addressed in the bycatch plan, are other species of shark with bycatch management measures. All sharks are permitted to be retained by the longline fleet (<65') but count against the appropriate shark TAC (e.g. porbeagle shark). There is a limited retention of 10% or 500kg per trip for all sharks combined. Where biologically based limits are not developed or a TAC is not allocated for a species, fishing mortality is kept within historic levels for the fleet. <p>Information surrounding fishing impacts to bycatch is moving forward. Although not finalized, a stock assessment model is currently in development for the transboundary spiny dogfish population. Bycatch reports for white hake, cusk, monkfish, skate species and sculpins are included in the Special Science Reports (SSR). In surveys, skates are identified to species (except where &lt;35cm TL when little and winter skates are virtually indistinguishable). Observer coverage has increased in area 4X5Y by 700 additional sea-days and is 25% in area</p>

	5Zjm. Results from the surveys, including the feasibility of maintaining at-sea observer coverage rates, will be discussed at the January SFGAC meeting. Additional studies are also currently being conducted on post-release survival rates for bycatch which will improve impact assessments for bycatch species.
<b>Status of Condition 5</b>	Open and on target.

<b>Condition 6. Area 4X5Y (OTB). The fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm; and there is some evidence that the partial strategy is being implemented successfully.</b>	
<b>PI</b>	2.4.1, 2.4.2
<b>Rationale from the 2010 Assessment</b>	<p>2.4.1: The assessment team concluded that mobile bottom-contact fishing gears do have impacts on benthic populations, communities, and habitats. The effects are not uniform, but depend on at least (i) the specific features of the seafloor habitats, including the natural disturbance regime, (ii) the species present, (iii) the type of gear used, the methods and timing of deployment of the gear, and the frequency with which a site is impacted by specific gears; and (iv) the history of human activities, especially past fishing, in the area of concern. The area trawled by Canadian groundfish bottom trawl fishery on Georges Bank was estimated using fishing log records and information captured by observers at sea In 2001 and 2002, a rough estimate was the footgear disturbed less than 10% of the bottom while the bridles and warp swept less than 30%. The doors impacted less than 1% of the bottom. This information was based upon logbook data but has the potential for being updated and expanded to Area 4X using VMS data. Similar figures for Area 4X5Y have not been prepared, although the raw data (via VMS, logbook and observer sources) are available. The UoC meets the single issue of SG60 as there is evidence that the fishery is unlikely to reduce habitat structure and function as these areas have been fished for many years without serious or irreversible harm. Accordingly a score of 60 is allocated.</p> <p>2.4.2: A policy and process exists for ‘managing the impacts of fishing on sensitive benthic areas’, but it has yet to be implemented. Two pilot projects have been initiated to test this approach – one on Georges Bank and the second in coastal areas of 4X and the results will be used to fine-tune the approach for the wider roll-out of the strategy. Protected areas have been developed to protect the Gully (a 2,364 square kilometre area protecting the large canyon feature and associated habitats of the Gully, near Sable Island) as well as coral (the Northeast Channel Coral Conservation Area: a 424 km<sup>2</sup> area protecting deep water coral concentrations adjacent to Georges Bank). In the case of both the 4X5Y and 5Zjm otter trawl fisheries, these UoCs meets the first issue of SG80 as there is a partial strategy in place. However, this is a work in progress and accordingly it is considered that the UoC only meets the second issue of SG60. Accordingly a score of 70 is allocated.</p>
<b>Condition</b>	<p>The client is required to provide evidence to show that the otter trawl fishery in 4X5Y is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.</p> <p>The client is also required to demonstrate an active participation in rolling out DFO’s ‘Policy for Managing the Impacts of Fishing on Sensitive Benthic Areas’, e.g. participating where required in the risk analysis process, the determination of management measures and their subsequent implementation.</p>

<p><b>Client Action Plan</b></p>	<p>This will be achieved by the following:</p> <ul style="list-style-type: none"> <li>• GEAC will collaborate with the Scotia-Fundy Region of Fisheries &amp; Oceans Canada (DFO), and other industry organizations through the Scotia-Fundy Groundfish Advisory Committee (SFGAC) towards development of a program (a) to enhance the collection of information, and (b) to conduct an evaluation of the impact of otter trawl fishing for haddock in 4X5Y, at a minimum to the extent completed for 5Zjm. A project team will be assembled this purpose, which more generally will also ensure implementation of DFO’s Policy with respect to Sensitive Benthic Areas as it applies to the conduct of haddock fishing.</li> <li>• By the first annual audit there will documented evidence that a plan for the assembly of available information and a program for evaluation has been developed by the “project team”, and data collection and assembly for this purpose has commenced.</li> <li>• By the third annual audit there will documented evidence showing the information that has been assembled and the results of analysis to date.</li> <li>• By the fourth annual audit there will be documented evidence that at least a provisional evaluation has been completed, and mitigation measures have been identified and are being implemented as appropriate for this fishing activity.</li> </ul>
<p><b>Progress Toward Closing Condition 6</b></p>	<p>The assessment team was provided with the methodology that will be used to determine the fishery’s impact on the habitat. This methodology was developed by a consultant engaged by GEAC and approved by the GEAC/DFO project team. DFO has recently contracted an analysis of fishing effort that in part utilizes the methods of Breeze and Horsman (2005) and updated the results to 2009. The consultant's characterization of otter trawl fishing activity for haddock in 4X5Y would follow this method; with estimation of the area potentially affected by each bottom trawl utilizing the same calculation as Gavaris and Black (2004). The map results would provide a visual characterization of the spatial and temporal patterns of fishing activity. The total area fished in each grid cell would be summarized and tabulated. This would allow the areas to be assessed in relation to the available data on habitat types and sensitive habitat types.</p>
<p><b>Status of Condition 6</b></p>	<p>Open and on target.</p>

<p><b>Condition 7. Area 4X5Y (All Gear Types); Area 5Zjm (All gear types). 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></p>	
<p><b>PI</b></p>	<p>3.2.1</p>
<p><b>Rationale from the 2010 Assessment</b></p>	<p>The assessment team concluded that while the Groundfish Management Plan (2002 – 2007) was based on three objectives, this plan has not been up dated since 2007. It does not provide defined and measurable short and long term objectives. It is largely descriptive of the situation and how various issues may be addressed, without presenting specific measures designed to meet the objectives. There is not a statement of the policy and related objectives in relation to the individual fleet segments and gear types. Currently, short and long term objectives consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2 are not explicit within the fishery’s management system (SG80). However the UoC meets the single issue of SG60 with objectives implicit within the fishery management system (as contained in policy documents including the FMP 2001-2007</p>

<b>Condition 7</b>	The client is required to ensure that clear long term objectives consistent with MSC Principles and Criteria and the precautionary approach are explicit within the fishery management system for Canada Scotia Fundy haddock fishery.
<b>Client Action Plan for Condition 7</b>	<p>This will be achieved by the following:</p> <ul style="list-style-type: none"> <li>• GEAC will collaborate with the Scotia-Fundy Region of Fisheries &amp; Oceans Canada (DFO), and other industry organizations through the Scotia-Fundy Groundfish Advisory Committee (SFGAC) and through the Gulf of Maine Advisory Committee (GOMAC) towards the updating and/or development and adoption of clear long-term objectives that are explicitly applicable to haddock fishing in 4X5Y and 5Zjm.</li> <li>• By the first annual audit there will be documented evidence that drafts of long-term objectives explicitly applicable to haddock fishing have been tabled for discussion at SFGAC and GOMAC.</li> <li>• By the second annual audit, there will be documented evidence that long-term objectives explicitly applicable to haddock fishing have been adopted by DFO.</li> <li>• By the fourth annual audit, there will be documented evidence that measures consistent with the adopted long-term objectives are being implemented.</li> </ul>
<b>Progress Toward Closing Condition 7</b>	<p>The audit team was given two relevant documents for area 4X5Y in this instance: Minutes of the June 8 2011 SFGAC meeting and a signed (October 4 2011) copy of the 4X5Y Haddock Integrated Fishery Management Plan (IFMP). The SFGAC June 8 2011 Minutes on p. 2 show that <i>“DFO circulated a copy of the generic groundfish objectives that have been refined following the past two SFGAC meetings (attached). These objectives outline the general approach, including risk tolerances, for major stocks with clear objectives for the healthy, cautious and critical zone. Comments at this meeting on the objectives were minor and for clarification only. These objectives received endorsement from the SFGAC at this meeting.”</i></p> <p>These generic objectives will apply to all managed groundfish stocks and appear in the 4X5Y Haddock IFMP.</p> <p>A similar set of objectives for the 5Zjm haddock fishery were presented to the GOMAC meeting (Oct 27 2011). GOMAC adopted these same objective to guide Canadian negotiations with the US on TAC and other management measures for 5Zjm haddock.</p> <p>These objectives will be incorporated into a 5Zjm Haddock IFMP which will be similar, or identical, to the 4X5Y Haddock IFMP which was given to the Audit Team at the October 5 2011 audit meeting.</p> <p>In so far as the Year 1 milestone on Condition 7 is concerned, the drafts of long-term objectives explicitly applicable to haddock fishing have been tabled, discussed and accepted both by SFGAC and GOMAC. The tabled and accepted objectives are those contained in the attachment to the June 8 SFGAC minutes and re-iterated in the 4X5Y (and 5Zjm once published) Haddock IFMPs. They are indeed long-term in nature, have been endorsed by the SFGAC and GOMAC. These have been developed by the Maritimes Region of DFO and therefore, in essence, adopted by DFO. In that respect, the Year 1 and Year 2 Condition 7 requirements can be viewed as having been met.</p>

	<p>The Maritimes Region has taken the approach of developing generic objectives for groundfish management which are long-term in nature and equally applicable to each managed groundfish stock. The application to each such fishery will be accomplished by the use of selected strategies and tactics the scope of which will vary according to the circumstances of individual fisheries. Both of these are contained in the October 4 2011 4X5Y Haddock IFMP. The generic groundfish objectives are in Section 4.1 and the applicable strategies and tactics are shown in Table 1 of Section 4.2.</p> <p>The latter incorporates the candidate PA reference points for 4X5Y haddock, which will add context to the application of the various Strategies and Tactics outlined in Table 1 to achieve the Generic Groundfish Objectives for the fishery on this haddock stock.</p> <p>The candidate reference points for 4X5Y haddock were presented at the November 2009 RAP session and will be reviewed during the RAP sessions in the Fall of 2011. This will include an evaluation of the stock status against these reference points. In that context, some of the Year 2 requirements of Condition 1 are already being acted upon.</p> <p>The Audit Team has been advised that a similar IFMP for 5Zjm haddock will be prepared with the generic groundfish management objectives that have been accepted by GOMAC.</p>
<b>Status of Condition 7</b>	At time of writing, ahead of the Year 1 Target for 4X5Y and on target for 5Zjm at Year 1.

<b>Condition 8. Area 4X5Y (All Gear Types); Area 5Zjm (All gear types). The fishery has in place mechanisms to evaluate key parts of the management system and is subject to regular internal and occasional external review.</b>	
<b>PI</b>	3.2.5
<b>Rationale in the 2010 Assessment</b>	<p>The assessment team concluded that a review of the 2002 – 2007 IFMP as required by Section 7 of that plan was only carried out after the first year. While CHPs are informally reviewed on an annual basis, to a large part they remain unchanged. There are examples of evaluation of management policies with the Audit and Evaluation Directorate of the DFO e.g. the 2007 review of the Aboriginal Fisheries Strategy. In 2002 there was an external audit of the DMP. This was up-dated in 2005 and 2006. The new audit check list once implemented would provide the mechanism to evaluate all parts of the management system. Accordingly, each UoC meets the single issue of SG60 as mechanisms are in place to evaluate some parts of the management system and the fishery is subject to occasional internal review. As there is regular internal review of one part of the management system (CHPs) and there has been occasional external review, each UoC meets part of the single issue of SG80. Accordingly, a score of 70 is allotted for this PI.</p>
<b>Condition 8</b>	The client is required to ensure that the fishery has in place mechanisms to evaluate key parts of the management system and is subject to regular and occasional external review.
<b>Client Action Plan for Condition 8</b>	<p>To achieve this outcome:</p> <ul style="list-style-type: none"> <li>• GEAC will collaborate with the Scotia-Fundy Region of Fisheries &amp; Oceans Canada (DFO) towards the development of an updated Integrated Fisheries Management Plan, applying the model developed for use for all major Canadian commercial fisheries. This plan will include biennial internal and occasional external reviews of haddock fishing in 4X5Y and</li> </ul>

	<p>5Zjm. By the first annual audit, this plan will be adopted by DFO.</p> <ul style="list-style-type: none"> <li>• By the third annual audit, the results of a DFO internal review will be available to the audit team.</li> <li>• By the fourth annual audit, as a supplement to the on-going external reviews through TRAC and TMGC, the results of the internal review of the management system for haddock fishing in 5Zjm have been tabled for discussion by GOMAC, with documented evidence of resulting actions taken (if required).</li> <li>• By the fourth annual audit, the results of the internal review of the management system for haddock fishing in 4X5Y have been tabled for discussion by SFGAC, the principal advisory committee that is open to the public, with documented evidence of resulting actions taken (if any).</li> </ul>
<p><b>Progress Toward Closing Condition 8</b></p>	<p>A signed copy of the 4X5Y Haddock IFMP was given to the Audit Team on October 5, 2011. (The audit team was also advised that a mirror document for 5Zjm haddock will be prepared in due course.) Section 6 of 4X5Y haddock IFMP contains an outline of a Performance Review approach. It proposes that through RAP an <i>“evaluation of many of the strategies and tactics can be conducted to determine whether they are appropriate to meet our overall objectives related to productivity, biodiversity and habitat”</i>, with a caveat that appropriate information must be collected to conduct this evaluation. It also proposes that the overall groundfish consultative process be used to evaluate whether various catch monitoring tools are <i>“efficient to provide information to achieve our objectives and whether the tools are being used satisfactorily”</i>.</p> <p>This appears to imply that evaluation of performance against the Productivity, Biodiversity and Habitat strategies will be conducted in the RAP and that the other fishery management consultation arrangements will be used to evaluate progress on the Culture and Sustenance and Prosperity strategies. It appears that the timing of haddock RAPs are undecided at this time and may not meet the bi-ennial internal review requirement. However, in so far as the RAP involves non-departmental and non-fishing industry participants, it may be taken as meeting the requirement for occasional external review. A similar statement would apply to SFGAC in the case of any performance review that might be discussed at meetings of that committee.</p> <p>The final section of the 4X5Y Haddock IFMP contains a Section 7 on Plan Enhancement where three areas for improvement are identified: incorporating all catches in the stock assessment, improving at-sea data collection and evaluating candidate reference points and associated harvest control rules.</p> <p>No timelines are indicated for review of the IFMP. There is no reference in the 4X5Y Haddock IFMP to other occasional external reviews, nor are any such additional reviews specifically required by the wording of Condition 8 for years three and four. However, various attendees at the October 5 Audit meeting pointed out that RAP and SFGAC are forms of external review in that non-departmental and non-fishing industry representatives take part. Also, there are occasional reviews of parts of the Department’s fishery management activities by various agencies such as the Auditor General of Canada and the Fisheries Standing Committees of both the Canadian House of Commons and the Senate. However, these are not initiated or scheduled by the Department. The usefulness of the internal Audit Checklist was also pointed out. This is an internal data gathering mechanism on the status of</p>

	<p>fishery management arrangements by fishery in a format similar to that of the MSC Principles. However, it is not a public document when completed but is a reporting mechanism to the Treasury Board.</p> <p>As presently worded, neither Section 6 nor Section 7 of the 4X5Y Haddock IFMP fully meets the requirements of Condition 8 at Year 1 (The audit team understands that a similar set of provisions for evaluations will appear in the 5Zjm Haddock IFMP when it is finalized). The pace or frequency of the proposed evaluations is not clear; nor is it clear how the Culture and Sustenance and Prosperity strategies themselves will be subject to review. These points should be clarified.</p>
<b>Status of Condition 8</b>	Pending the clarifications outlined above the status of this condition will be open and behind target.
<b>Non-Conformity for Condition 8</b>	<b>Minor.</b> The IFMP internal review schedule will need to be defined and documented by the next surveillance audit. If not addressed by the next surveillance audit, the non-conformity will be elevated to a major non-conformity which carries a maximum penalty of certificate suspension.

<b>Recommendation from the 2010 Assessment</b>	Given the importance of the CHPs to the management of the groundfish fishery, and in the interests of greater transparency, it is recommended that the preparation of CHPs includes review by a wide range of stakeholders in addition to fishermen and their representative groups (PI 3.2.2).
<b>Status</b>	DFO considers CHPs to be the annual fishing plans developed by industry that outline how they intend to fish their specific allocation of quota and are therefore not subject to non-industry input. However, IFMPs, which lay out the management strategies for the fishery, can be available for input by non-fishing industry groups.

### Recommendation

SCS recommends the continued certification of the Scotia-Fundy Haddock Fishery as a source of sustainable seafood under the principles and criteria of the Marine Stewardship Council.

### Use of the MSC blue eco-label

GEAC is not currently using the blue eco-label. The client representative was informed during the opening meeting that if GEAC were to use the label in the future, that a valid signed logo-licensing agreement would need to be in place.

## References

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- DFO Map. 2011 September. Marine Areas Managed by Fisheries and Oceans Canada that Benefit Benthic Environments. Available at: [http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/images/benthicprot\\_map1.jpg](http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/images/benthicprot_map1.jpg)
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- Moody Marine Ltd. 2010. Public Certification Report. The Canada Scotia-Fundy Fishery for Haddock (*Melanogrammus aeglefinus*) in NAFO Sea Areas 5jm, 4X5Y. 241p. available at: [http://www.msc.org/track-a-fishery/certified/north-west-atlantic/canadian\\_scotia\\_fundy\\_haddock/assessment-downloads](http://www.msc.org/track-a-fishery/certified/north-west-atlantic/canadian_scotia_fundy_haddock/assessment-downloads)
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### Appendix 1: Condition Schedule by Surveillance Audit

Provided for reference for this and subsequent surveillance audits:

Surveillance Audit 1	Condition 4	4X5Y ([ <i>Otter Trawl Bottom</i> ] (OTB) and [ <i>Long Line</i> ] (LL)) and 5Zjm (LL) By the first annual audit, specific abundance indices for skate by species and area will be adopted for monitoring by DFO, the results of which shall be considered by the [ <i>Scotia-Fundy Groundfish Allocation Council</i> ] SFGAC annually.
	Condition 5	4X5Y OTB and LL: By the first annual audit, DFO and GEAC will (a) evaluate the risk to main bycatch/discard species associated with haddock fished in 4X5Y, (b) identify options to improve the information base and estimates of discards, and (c) table these products for consideration by the SFGAC.
	Condition 6	Habitat Area 4X5Y: By the first annual audit there will documented evidence that a plan for the assembly of available information and a program for evaluation has been developed by the “project team”, and data collection and assembly for this purpose has commenced.
	Condition 7	All areas all gears: By the first annual audit there will be documented evidence that drafts of long-term objectives explicitly applicable to haddock fishing have been tabled for discussion at SFGAC and [ <i>Gulf of Main Advisory Committee</i> ] GOMAC.
	Condition 8	GEAC will collaborate with the Scotia-Fundy Region of Fisheries & Oceans Canada (DFO) towards the development of an updated Integrated Fisheries Management Plan, applying the model developed for use for all major Canadian commercial fisheries. This plan will include biennial internal and occasional external reviews of haddock fishing in 4X5Y and 5Zjm. By the first annual audit, this plan will be adopted by DFO.

Surveillance Audit 2	Condition 1	4X5Y All Gear Types: By the second annual audit there will be documented evidence that the options for well-defined reference points and harvest control rules have been outlined and discussed with stakeholders.
	Condition 2	5Zjm All Gear Types: By the second annual audit there will be documented evidence that options for well-defined limit reference points and harvest control rules have been outlined and discussed with stakeholders through the Gulf of Maine Advisory Committee (GOMAC).
	Condition 3	By the second annual audit there is documented evidence that recovery milestones and management options for cod and white hake in 4X5Y have been

		outlined and discussed at the SFGAC.
	Condition 4	4X5Y (OTB and LL) and 5Zjm (LL): By the second annual audit: (a) a best practices handling and live release protocol will be adopted, (b) a move-away protocol will be adopted, and (c) management measures to control or to reduce bycatch of skates in the directed haddock fishery (>50% haddock in a trip) will be adopted to achieve or continue improvement in the abundance indices for skate.
	Condition 5	By the second annual audit, mechanisms to improve data collection and estimations of discards by the OTB and LL in 4X5Y fisheries will be adopted.
	Condition 7	All areas all gears: By the second annual audit, there will be documented evidence that long-term objectives explicitly applicable to haddock fishing have been adopted by DFO.

Surveillance Audit 3	Condition 1	4X5Y All Gear Types: By the third annual audit there will be documented evidence that the reference points and harvest control rules have been adopted.
	Condition 2	5Zjm All Gear Types: By the third annual audit there will be documented evidence that GOMAC has established reference points and harvest control rules to guide Canadian representatives in their future discussions on TAC-setting with their counterparts in the USA.
	Condition 3	By the third annual audit there is documented evidence that the agreed catch and/or by-catch targets for cod by the OT and LL gear and white hake by LL gear have been defined by DFO.
	Condition 4	4X5Y (OTB and LL) and 5Zjm (LL): By the third annual audit there will be documented evidence that the adopted management measures are being implemented.
	Condition 6	4X5Y Habitat: By the third annual audit there will be documented evidence showing the information (mapping effort/substrate) that has been assembled and the results of analysis to date.
	Condition 8	By the third annual audit, the results of a DFO internal review will be available to the audit team.

Surveillance Audit 4	Condition 1	4X5Y All Gear Types: By the fourth annual audit there will be documented evidence that the adopted harvest control rules have been implemented i.e. forms the basis of [ <i>Total Allowable Catch</i> ] TAC-setting and other relevant management advice.
	Condition 2	5Zjm All Gear Types: By the fourth annual audit there is documented evidence that Canadian representatives

		have advanced positions that are consistent with the harvest control rules that have been adopted by GOMAC.
	Condition 3	By the fourth annual audit there is documented evidence that recovery plans for cod and white hake in 4X5Y, and for the control or reduction in fishing mortality are being implemented as planned.
	Condition 4	4X5Y (OTB and LL) and 5Zjm (LL): By the fourth annual audit a review of the effectiveness of the respective management measures will be completed, including an evaluation of the likely impact of the various sources of recent fishing mortality on the stock condition of skate.
	Condition 5	By the fourth annual audit there will be documented evidence that the adopted data collection and discard estimation mechanisms have been implemented.
	Condition 6	4X5Y Habitats: By the fourth annual audit there will be documented evidence that at least a provisional evaluation has been completed, and mitigation measures have been identified and are being implemented as appropriate for this fishing activity.
	Condition 7	By the fourth annual audit, there will be documented evidence that measures consistent with the adopted long-term objectives are being implemented.
	Condition 8	By the fourth annual audit, as a supplement to the on-going external reviews through TRAC and TMGC, the results of the internal review of the management system for haddock fishing in 5Zjm have been tabled for discussion by GOMAC, with documented evidence of resulting actions taken (if required). By the fourth annual audit, the results of the internal review of the management system for haddock fishing in 4X5Y have been tabled for discussion by SFGAC, the principal advisory committee that is open to the public, with documented evidence of resulting actions taken (if any).

## Appendix 2: 5Zjm Haddock Objectives

### Discussion Document: NAFO 5Zjm Haddock Objectives

The purpose of this document is to set out the objectives and associated strategies, tactics and reference points for the 5Zjm Haddock stock that will be incorporated in the Integrated Fishery Management Plan (IFMP) for groundfish.

Considering that 5Zjm Haddock is included in the US-Canada Transboundary Resource Sharing Understanding, it is recognized that TAC-setting is a collaborative process. As such, these objectives, strategies and reference points apply explicitly to the management of the stock within Canada. They may also be used to guide Canadian members during negotiations at the Transboundary Management Guidance Committee (TMGC), who will advance positions consistent with these objectives. However, it is acknowledged that, as with any international body, differing legislative frameworks may prevent the perfect implementation of the domestic strategies advanced by one country.

### Objectives

There are five overarching objectives that guide fisheries management planning in the Maritimes Region. They are guided by the principle that the fishery is a common property resource to be managed for the benefit of all Canadians, consistent with conservation objectives, the constitutional protection afforded Aboriginal and treaty rights, and the relative contributions that various uses of the resource make to Canadian society, including socio-economic benefits to communities.

#### Conservation objectives

1. *Productivity*: Do not cause unacceptable reduction in productivity so that components can play their role in the functioning of the ecosystem.
2. *Biodiversity*: Do not cause unacceptable reduction in biodiversity in order to preserve the structure and natural resilience of the ecosystem.
3. *Habitat*: Do not cause unacceptable modification to habitat in order to safeguard both physical and chemical properties of the ecosystem.

#### Social, cultural and economic objectives

4. *Culture and Sustenance*: Respect Aboriginal and treaty rights to fish.
5. *Prosperity*: Create the circumstances for economically prosperous fisheries.

The conservation objectives are those from the Maritimes Region's framework for an ecosystem approach to management (EAM framework). They require consideration of the impact of the fishery not only on the target species but also on non-target species and habitat.

The social, cultural and economic objectives reflect the Aboriginal right to fish for food, social and ceremonial purposes. They also recognize the economic contribution that the fishing industry makes to Canadian businesses and many coastal communities. Ultimately, the economic viability of fisheries depends on the industry itself. However, the Department is committed to managing the fisheries in a manner that helps its members be economically successful while using the ocean’s resources in an environmentally sustainable manner.

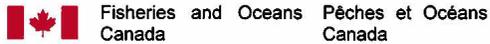
### Strategies and Tactics

This section presents the strategies and tactics being used in this fishery to achieve the objectives outlined above. Reference points explicitly applicable to the 5Zjm Haddock stock are yet to be developed, with the exception of the fishing mortality target reference. The fishing mortality target reference ( $F_{REF}$ ) of 0.26 was established by TMGC in 2003.

STRATEGIES	TACTICS
<b>Productivity</b>	
<p>Keep fishing mortality of 5Zjm Haddock moderate by using the following references and risk tolerances:</p> <ul style="list-style-type: none"> <li>• The TAC should be set with a neutral (50%) probability of exceeding the fishing mortality target reference (<math>F_{REF}</math>) when it is above the upper stock reference (USR).</li> <li>• The TAC should be set to mitigate declines and, when possible, promote positive change in spawning stock biomass (SSB) over a three-year period when it is below the upper stock reference (USR). A harvest strategy of <math>F_{REF}</math> is acceptable when the stock is in the Cautious Zone, so long as the first criterion is met; however, it is required that fishing mortality will decline as the stock progresses lower into the Cautious Zone. The management response will vary depending on the location of the stock within the Cautious Zone, whether the stock is increasing or decreasing, whether the trajectory (growth or decline) is projected to continue, and indications of incoming recruitment to the SSB, for example.</li> <li>• When the SSB is below the limit reference point (LRP), the harvest strategy is to be results-driven rather than based on a predetermined harvest rate. Rebuilding to a level above the LRP should be achieved in a reasonable timeframe (1.5 to 2 generations) with a high degree of probability (greater than 75%). The TAC (if appropriate) should be set with a very low (less than 5%) risk of biomass decline.</li> </ul>	<ul style="list-style-type: none"> <li>• Total Allowable Catch</li> </ul>
<p>Keep fishing mortality of cusk, white hake, Atlantic wolffish and monkfish moderate and within biologically-based limits or, where biologically-based limits are not</p>	<ul style="list-style-type: none"> <li>• Bycatch limits</li> <li>• Fleet bycatch caps</li> </ul>

<b>STRATEGIES</b>	<b>TACTICS</b>
available, within historic levels for the fleet.	
Keep fishing mortality of skates and sculpins moderate and within biologically-based limits or, where biologically-based limits are not available, within historic levels for the fleet.	<ul style="list-style-type: none"> <li>• Bycatch limits</li> <li>• Permitted release</li> </ul>
Keep fishing mortality of all sharks moderate and within biologically-based limits or, where biologically-based limits are not available, within historic levels for the fleet.	<ul style="list-style-type: none"> <li>• Retention limits</li> </ul>
For all groundfish species not listed above and for which there is no TAC allocated, keep fishing mortality moderate and within biologically-based limits or, where biologically-based limits are not available, within historic levels for the fleet.	<ul style="list-style-type: none"> <li>• Bycatch limits</li> </ul>
<b>Biodiversity</b>	
Control unintended incidental mortality for all non-groundfish species.	Mandatory release
Control unintended incidental mortality for spotted wolffish, Northern wolffish and North Atlantic right whale.	Mandatory release
<b>Habitat</b>	
Manage area disturbed of habitat.	<ul style="list-style-type: none"> <li>• Coral conservation area</li> </ul>
<b>Culture and Sustenance</b>	
Provide access for food, social and ceremonial purposes.	<ul style="list-style-type: none"> <li>• Annual negotiations of food, social and ceremonial licences.</li> </ul>
<b>Prosperity</b>	
Limit inflexibility in policy and licensing among individual enterprises/licence holders.	<ul style="list-style-type: none"> <li>• Exempted fleet licences</li> <li>• Substitute operators/ Designated operators</li> <li>• Harvest benefit combining</li> <li>• ITQ quota pools</li> </ul>
Minimize instability in access to resources and allocations.	<ul style="list-style-type: none"> <li>• Fleet shares</li> <li>• Individual quotas, enterprise allocations and community quotas</li> </ul>
Limit inability for self-adjustment to overcapacity relative to resource availability.	<ul style="list-style-type: none"> <li>• Quota transferability</li> <li>• Harvest benefit combining</li> </ul>
Support certification for sustainability.	

### Appendix 3: Letter from the Regional Director



PO Box 1035  
Dartmouth, Nova Scotia  
B2Y 4T3

SEP 27 2011

Groundfish Enterprise Allocation Council  
Attn: Mr. Bruce Chapman  
1362 Revell Drive,  
Manotick, ON K4M 1K8

Re: MSC Scotia Fundy Haddock 1st Annual Audit

Dear Mr. Chapman,

As you are aware, the Marine Stewardship Council's (MSC's) 1<sup>st</sup> Annual Audit for the Scotia Fundy Haddock fishery is scheduled for October 5, 2011. The audit is to assess progress made against the eight conditions of its certification and will also examine if there have been any significant changes to the fishery or the way it has been managed. It is on this latter point that I wish to provide Fisheries and Oceans Canada's (DFO's) position.

With respect to assessment of the resource, the process has not changed; stock status advice continues to be reported in the appropriate series (DFO's Science Advisory Reports or Transboundary Resources Assessment Committee (TRAC) Status Reports). Management documents have been updated as necessary, outlining objectives for the fishery and establishing a precautionary approach framework against which management advice is provided. Licence conditions, data collection, governance arrangements and consultative processes remain the same. Regarding compliance, again, there have been no material changes nor have any concerns been noted.

To conclude, I would like to confirm that there have been no material changes to the assessment of the resource, the management environment in which the fishery operates, or with compliance that would affect the status of its certification and conditions.

I want to take this opportunity to applaud your organization's commitment to sustainability and wish you all the best with the upcoming surveillance audit.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Faith G. Scattolon".

Faith G. Scattolon  
Regional Director-General  
Maritimes Region