First Annual Surveillance Report
Clearwater Seafoods Banquereau and Grand Bank Arctic Surf Clam Fisheries

Certificate No.: MML-F-125

Intertek Moody Marine
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1.0 GENERAL INFORMATION

Scope against which the surveillance is undertaken: MSC Principles and Criteria for Sustainable Fishing as applied to the Clearwater Seafoods Banquereau and Grand Bank Arctic Surf Clam Fishery

Species: Arctic surf clam (*Mactromeris polynyma*)

Area: Banquereau, Scotian Shelf and Grand Bank, Canada, Atlantic Canadian EEZ waters

Method of capture: Hydraulic clam dredge

Date of Surveillance Visit:	**28th – 30th May, 2013**			
Initial Certification	**Date: July 17th 2012**		**Certificate Ref: MML-F-125**	
Surveillance stage	**1st**	**2nd**	**3rd**	**4th**
Surveillance team:	**Lead Assessor:** Paul Knapman **Assessor(s):** Andy Brand, John Angel			
Company Name: **Address:**	Clearwater Seafoods Limited Partnership 757 Bedford Highway Bedford Nova Scotia B4A 3Z7 Canada			
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2. SUMMARY

This report contains the findings of the first annual surveillance audit of this fishery. The fishery is following an "option 2" remote surveillance schedule (see Appendix 3).

Progress against the commitments made in the Client Action Plan have been evaluated by the audit team and reported as being, "on target", "ahead of target" or "behind target" with rationales set out in the "Observations" and "Conclusions" sections below. Where the requirements of a condition are met, the Performance Indicator (PI) is re-scored and the condition is closed.

The conditions, their related performance indicators and scoring indicators are provided in this report along with the scoring rationale taken from the original assessment reports, which can found at:

http://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/clearwater-seafoods-banquereau-and-grand-bank-arctic-surf-clam/assessment-downloads-1/82531Banquereau_surfclam_main_assessment_V5_PCR_2012-7-17_Final-5b1-5d.pdf

http://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/clearwater-seafoods-banquereau-and-grand-bank-arctic-surf-clam/assessment-downloads-1/82531Grand_Bank_surfclam_main_assessment_V5_PCR_2012-7-17_Final-5b1-5d.pdf

Stakeholder notification advising of the first surveillance audit site visit was posted on the MSC website on 14th May 2013 (See Appendix 2) and sent directly to known stakeholders.

The World Wildlife Fund (WWF) submitted written evidence, which is attached to this report in Appendix 1 along with the audit team's comments.

The surveillance audit team consisted of Andy Brand, John Angel and Paul Knapman (Lead Auditor). The site visit meetings were conducted by Paul Knapman and Andy Brand. John Angel reviewed the information that was gathered during the site visit and contributed remotely to the report.

Table 1: Summary of progress against Conditions.

Condition No.	Progress Evaluation	Status
1	Completed	Closed
2	On Target	Open
3	Completed	Closed

The overall conclusion is that progress toward meeting the conditions is considered to be on target, and MSC Certification should continue. Based on the results of the risk analysis conducted, in compliance with Section 27.22 of the MSC CR v1.3, the fishery will continue be follow an "option 2" remote surveillance schedule. Next year's annual audit will be an off-site surveillance audit.

Information Sources

Meetings
(NB all stakeholder from the full assessment were contacted prior to the surveillance audit taking place)

Table 2: Meetings conducted as part of the first surveillance audit for the Banquereau and Grand Bank Arctic Surf Clam Fishery.

Name	Position/Title	Date
Paul Knapman	Lead Auditor	28th May 2013
Andy Brand	Team Member	
Christine Penney	Clearwater	
Catherine Boyd	Clearwater	
Carl Mac Donald	DFO	
Peter Hurley	DFO	
Scott Coffen-Smout	DFO	
Jennifer Ford	DFO	
Stefan Leslie	DFO	
Paul Knapman	Lead Auditor	29th May 2013
Andy Brand	Team Member	
Daniela Diz	WWF	
Rachel Wang	WWF	

References

DFO 2007. Assessment of the Ocean Quahog (*Arctica islandica*) Stocks on Sable Bank and St. Mary's Bay, and the Arctic Surfclam (*Mactromeris polynyma*) Stock on Banquereau. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2007/034.

DFO 2011. Offshore Clams Integrated Fishery Management Plan, Maritimes and Newfoundland Regions. Fisheries and Oceans Canada, May 2011, 42 pp.

DFO 2012. Reference points consistent with the precautionary approach for a variety of stocks in Maritimes region. Canadian Science Advisory Secretariat, Science Advisory Report 20212/035

DFO 2013. Offshore surfclam science monitoring program. Unpublished report, 9 pp.

Roddick, D. 2013. Precautionary Approach Reference Points for Arctic Surfclams (*Mactromeris polynyma*). DFO Can. Sci. Advis. Sec. Res. Doc. 2013/007. iv + 11 p.

NB References in the rationales below may not appear in the list above and so should be checked back to the original Public Certification Report

Standards and Guidelines Used
1. MSC Principles and Criteria for Sustainable Fishing
2. MSC Certification Requirements v1.3
3. MSC Guidance to Certification Requirements, v. 1.3

3. RESULTS, CONCLUSIONS AND RECOMMENDATIONS

Stock status and Catch Data	
Update on Stock Status	The audit team were provided with a document setting out the current status and future plans for assessing this fishery (DFO, 2013). As part of a package of changes announced in October of 2012, DFO adopted a multi-year approach to fisheries management for fisheries, like the Arctic surfclam, where the stock status does not vary much from year to year (DFO, 2012). Such fisheries were deemed not to need annual science assessments or management measures, although DFO will continue to monitor the fishery so that changes in stock status can be detected and appropriate actions initiated. The Arctic surfclam resource on both Banquereau Bank and Grand Bank have adopted Precautionary Approach (PA) reference points (Roddick, 2013) and are currently in the healthy zone, above their target biomass. Given the biology of the species, the large number of year classes present in the population, and the current conservative approach to harvesting, it is anticipated that formal assessments will only be required approximately every 10 years. During the intervening period, fishery indicators with established triggers will be monitored to determine if changes in stock status may be occurring. The Annual Monitoring Program for Arctic surfclam will use three indicators to monitor the fishery: catch per unit effort (CPUE); the spatial extent or footprint of the fishery; and the abundance of older/larger clams in the catch. 1). CPUE is a commonly used indicator of biomass status. CPUE was examined during the 2007 Framework meeting and it was determined that it was not a good indicator of stock status due to the sedentary nature of surfclams and the ability of the fleet to move around to maintain a high CPUE (DFO, 2007). Improvements have been made since then, but the spatial distribution of effort shows that the fleet still moves around to maintain catch rates. Although a fisheries dependent index that is influenced by harvest strategies of the fleet, CPUE can provide an indication of material changes in the stock status between surveys if interpreted appropriately. CPUE, as g/m^2 is calculated from electronic logbook data provided by industry directly to DFO Science. CPUE has been high since 2008, mainly due to a recruitment pulse entering the fishery, but some of the increase would be due to technological and knowledge improvements over time (i.e. use of multi-beam maps of Banquereau and greater sharing of information between vessels). In 2012 CPUE declined from the peak in 2011. A trigger level has been established for the CPUE indicator at the recent low point in CPUE: 70 g/m^2 in 2001 for Banquereau Bank and 50 g/m^2 in 2002 for Grand Bank. These levels were considered to indicate stocks that did not need management intervention to remain commercially viable. CPUE increased from these low points with no intervention, but as low points in the time series, they will be used in the future as a trigger to indicate a material change in the fishery and prompt a closer review of stock status. 2). The Spatial Extent of the Fishery Footprint is the second indicator that will be monitored on an annual basis. The footprint is calculated as the sum of the area dredged calculated from logbook data using the number of tows, tow time, speed and dredge width. This does not include any adjustment for overlapping tow tracks. As clam densities decline, effort in the fishery is increased to maintain

landings and more searching for patches of higher density occurs. The historic high for the footprint of the fishery on Banquereau Bank was 253 km^2 in 1999, almost double the average footprint for the last three years when there have been only two vessels active, but CPUE has been high and landings near the TAC. Grand Bank has had very little effort in recent years, and so the high point was 128 km^2 in 1995. These peaks in fishery footprint have been established as trigger levels for the monitoring program. These high levels were considered to indicate a stock status that did not require management intervention and will, in future, act as trigger levels which, if exceeded, will initiate closer scrutiny of stock status. For example, if the footprint on Banquereau Bank reaches 253 km^2, the geographic extent of the footprint would be examined to see if effort has expanded out from core productive areas and if fishing is occurring in lower density areas.

3). The size composition of the stock (notably the abundance of older clams) is the third indicator. The stock is determined to currently be in the healthy zone, lightly exploited, with the catch containing a large number of age-classes, Typically a decrease in the proportion of older clams is expected as the age structure adjusts to increased mortality due to fishing. The growth of Arctic surfclams levels off after age 35 and so any length grouping over 100 mm can contain clams from 10 to 80 years old. The selection of a size representing older clams therefore becomes an arbitrary grouping and will contain some younger clams. From the catch length frequency distribution, a size of 120 mm was selected as representing an appropriate number indicating the upper tail of the size distribution. The historic low for the percentage of clams over 120 mm is 1.71% in 2005. Grand Bank has a lower growth rate, and so the size representing older clams was set at 105 mm for this area. Sample sizes are smaller than for Banquereau but the low was 0.76% in 2006. Once again, the historic low was during a period when the stock was considered to be in a state that did not require management intervention. For Grand Bank only a small area of the bank has been fished, so this trigger, if exceeded, would result in a closer examination of stock status. Since there are recruitment "patches" of surfclams, the fishery has some ability to fish for certain size ranges by concentrating on appropriate "patches" of certain age classes. This means that a change in the preferred market size could change the spatial distribution of effort and the size distribution of the catch without a change in population size/age structure. The percentage of older clams is also expected to decrease as the fishery develops and the population age structure adjusts to the increased mortality due to fishing. Taking these effects into account the trigger has been established at <1% of the catch above 120 mm for Banquereau and <0.5% above 105 mm for Grand Bank.

If any of these indicators reach threshold levels, this will trigger a closer examination of the data and a decision will be made whether changes in management measures are required or whether a stock survey and subsequent assessment or some other action is required.

Total TAC in most recent fishing year (2012)

	2012	2013
Grand Bank	14,756 tonnes	14,756 tonnes
Banquereau Bank	24,000 tonnes	24,000 tonnes[1]

[1]Interim

UoC share of TAC	100%
Client share of TAC	100%
Green Weight[1] of catch taken by client group	2011 2012 Grand Bank 76 0 Banquereau 22,195 21,995

Condition 1	The client is required to demonstrate by the 2nd annual audit that: • The management system includes a limit reference point that is appropriate for the stock and can be estimated. • The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity. Milestones in achieving this goal are: **Year 1 (First surveillance audit)** Work with relevant scientists to undertake a review of potential limit reference points.
PI 1.1.2	Limit and target reference points are appropriate for the stock**.**
SG 60	• Generic limit and target reference points are based on justifiable and reasonable practice appropriate for the species category
SG 80	• Reference points are appropriate for the stock and can be estimated • The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity • The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome • For low trophic level species, the target reference point takes into account the ecological role of the stock
SG 100	• Reference points are appropriate for the stock and can be estimated • The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity following consideration of relevant precautionary issues • The target reference point is such that the stock is maintained at a level consistent with BMSY or some measure or surrogate with similar intent or outcome, or a higher level, and takes into account relevant precautionary issues such as the ecological role of the stock with a high degree of certainty.
Score	70
Scoring rationale	Although there are no analytically determined reference points for this fishery, the management strategy aims to maintain the biomass at the level of B_{MCY}, which is higher than the MSC default target of $0.4B_0$, and is thus an acceptable surrogate target reference point that meets both the third and fourth issues of SG 80. With biomass maintained at or around the virgin biomass level and a very low exploitation rate, no limit reference point

[1] The weight of a catch prior to processing

	has been defined or is implicit within the management strategy, so while the fishery has clearly remained above the MSC default value for an implicit limit reference point of ½ B_{MSY} or 20% of B_0, the lack of any stated threshold at which management action would be taken means that the fishery does not meet the first and second issues of SG 80. The score of 70 requires that a Condition is set.
Client Action Plan	The Client, in conjunction with DFO will, by the 2nd annual audit, identify appropriate limit reference points for the stock that ensure that there is no appreciable risk of impairing reproductive capacity. Progress of this initiative will be presented at the first annual audit.
Client Progress	A DFO regional advisory process (RAP) was held in February 2012 and focused on reference points across a number of Atlantic Canadian fisheries, including Arctic Surf Clam for both Grand Bank and Banquereau Bank (http://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2012/2012_035-eng.html). This process both established Limit Reference points and formalized the Target Reference points (Upper Stock Reference, USR) for surf clam stocks on both Banquereau and Grand Banks (DFO, 2012). These reference points will be incorporated into the Integrated Fisheries Management Plan. Using fishable biomass per recruit and estimated average recruitment, the B_{MSY} proxy for Banquereau Arctic surfclam was proposed as 1,015,059 t. Using the default 80% and 40% of the B_{MSY} proxy, the USR for Banquereau was proposed as 812,047t and the LRP as 406,024t. Using fishable biomass per recruit and estimated average recruitment, the B_{MSY} proxy for Grand Bank Arctic surfclam was proposed as 703,065t. Using the default 80% and 40% of the B_{MSY} proxy, the USR was proposed as 562,452t and the LRP as 281,226t. Currently both stocks are in the healthy zone, above their target biomasses.
Observations	As part of a general commitment to use the Precautionary Approach in the management of Canadian fish stocks, a regional Science Advisory Meeting in February 2012 proposed limit and upper stock reference points for a number of Maritime Region stocks, including the Banquereau and Grand Bank Arctic surfclam stocks. These have subsequently been approved and will be incorporated into the IFMP.
Conclusion	With the approval of a limit reference point for the surfclam fishery on Banquereau and Grand Bank at the RAP the fishery has complied with the requirements of Condition 1, in line with the Client Action Plan, and can be re-scored. The estimation of reference points uses historic average recruitment and a Biomass per Recruit analysis to estimate B_0 and B_{MSY}. However, this is a relatively recent fishery, has operated with a very low exploitation rate and stock biomass is considered to still be near the virgin biomass level. There is, therefore, no historic range of stock biomass in order to fit models so the default values for the Target or Upper Stock Reference (USR) and the Limit Reference Point (LRP) of USR= 80% B_{MSY} and LRP= B_{MSY} are recommended. The fishery now complies with all the requirements of the SG 80 scoring issues but further modelling is needed to test the robustness of the system in order to achieve the SG100 level. Based on this rationale P.I. 1.1.2 has been re-scored at 80 and Condition 1 can be closed.

Condition 2	The client is required to demonstrate by the 2nd annual audit that: • 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.

	• The selection of the harvest control rules takes into account the main uncertainties. Milestones in achieving this goal are: **Year 1 (First surveillance audit)** Work with relevant scientists to undertake a review of potential harvest control rules.
PI 1.2.2	There are well defined and effective harvest control rules in place
SG 60	• Generally understood harvest control rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached • There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation
SG 80	• 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 • The selection of the harvest control rules takes into account the main uncertainties • Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules
SG 100	• 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 • The design of the harvest control rules take into account a wide range of uncertainties • Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules
Score	70
Rationale	This fishery is managed on a very precautionary basis, with a low annual exploitation rate and a conservatively set TAC, the uptake of which is closely monitored, so that the stocks are still at, or around, the virgin biomass level after 25 years of fishing. However, there are no analytically determined reference points and there are no well-defined harvest control rules stating under what circumstances action would be triggered to ensure that the exploitation rate is reduced as limit reference points are approached. The fishery does not, therefore, meet the 1st and 2nd of the SC80 scoring issues, although the tools in use (limited licences, conservative TAC) are appropriate and have been effective in maintaining a low exploitation rate so that the 3rd SG80 scoring element is met. The score of 70 requires that a Condition is set.
Client Action Plan	The Client, in conjunction with DFO, will establish decision rules appropriate to manage the stock that are consistent with the harvest strategy and consider the main uncertainties. An update of this work will be provided at the first surveillance audit.
Client Progress	In line with the move to a multi-year approach for the Arctic surfclam fishery, harvest control rules for this fishery are being developed using a blended approach. Formal biomass based reference points have been established (DFO, 2012). The IFMP establishes the harvest strategy associated with the healthy zone at a fishing mortality target of Maximum Constant Yield (MCY) of the harvestable biomass (fishable biomass >75g/m^2), intended to optimize yield and not expose the resource to risk of overexploitation (DFO, 2011). The harvest control rules for the cautious and critical zones have been considered and the strategy has been described in the Research Document (Roddick, 2013), but not yet formally adopted in the IFMP. Work will

	continue to formally adopt Harvest Control rules for the cautious and critical zones in the next year. Given the healthy state of the surf clam population, the population dynamics of surf clam and the current exploitation strategy, changes in the surf clam population are expected to occur gradually. A multi-year management approach is being applied meaning surveys are expected to take place approximately every ten years, with biomass measured relative to the reference levels during formal assessments. In the interim, an annual monitoring program has been established to monitor changes in the stock, which includes a number of fishery monitoring indicators (e.g. CPUE, swept area and size structure of the catch). The offshore Arctic Surf Clam IFMP identifies and provides scientific evidence for the TAC setting mechanism.
Observations	Following the introduction of the multi-year approach to the assessment and management of a number of Canadian fisheries, including the Arctic surfclam, formal biomass based reference points have been established (DFO, 2012) and work is now in progress to put in place well-defined harvest control rules consistent with the harvest strategy. Although the harvest control rules for this fishery have not been finalized, the strategy will be a blended approach that incorporates the biomass indicator and a number of fishery monitoring indicators. A combination of these indicators will form the basis of the information that will guide harvest control rules. Work on this is being undertaken by DFO and Clearwater, coordinated through the Offshore Clam Management Board, and the minutes of the OCMB meeting held on 5th April 2013 was provided to the audit team (OCMB, 2013) to confirm that progress is being made
Conclusion	Progress toward meeting this condition is on target.

Condition 3	The client is required to demonstrate by the 2nd annual audit that the management system includes: • Consultation processes that regularly seek and accept relevant information, including local knowledge. • Consideration of the information obtained. • Opportunity for all interested and affected parties to be involved. Milestones in achieving this goal are: **Year 1 (First surveillance audit)** • Provide evidence of seeking and accepting relevant information through established consultation processes. • Provide evidence of providing opportunity for interested and affected parties to be involved.
PI 3.1.2	The management system has effective consultation processes that are open to interested and affected parties. The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties
SG 60	• Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are generally understood • The management system includes consultation processes that obtain relevant information from the main affected parties, including local knowledge, to inform the management system

SG 80	• Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction. • The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained
SG 100	• Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction. • The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information and explains how it is used or not used • The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.
Score	65
Rationale	Interested parties have been identified in the advisory process. The functions, structure, purpose and administration of the advisory committee are clearly outlined in the IFMP and well understood. The management system considers all information presented during the consultative process on key elements of the management of the stocks. While the advisory committee process is open to the public and does provide an opportunity for all interested parties to participate, there is no indication that potential interested parties are made aware of meetings. Similarly, minutes of meetings are circulated to committee members but no indication of wider distribution to parties that may be interested in the deliberations of the advisory committee. All the scoring issues of SG 60 are met, as is the first of scoring issue of SG 80. However, as the OCAC has not met on a regular basis (including gaps of several years), it cannot be said that the process regularly seeks and accepts relevant information or that the process provides the opportunity for all interested and affected parties to be involved, as required by the second SG 80 scoring issue. Nor is there evidence that potential interested parties are aware of advisory meetings being held or of the results of such meetings. A score of 65 is therefore awarded and a condition set.
Client Action Plan	The Client, in conjunction with DFO will hold regular OCAC meetings so that relevant information can be obtained, considered, and where appropriate, incorporated into fisheries management. OCAC meetings will be open to the public so that interested and affected parties have an opportunity to be involved. Evidence of this will be provided via OCAC meeting minutes at the first and second year surveillance audits.
Client Progress	While past meetings of the Offshore Clam Management Board and Offshore Clam Advisory Committee were held irregularly, in recent years meetings of these groups have been held annually. Those interested parties who have expressed interest in participating in the Advisory Committee meetings have been notified of meetings and participation has been welcomed. In addition, DFO continues to host meetings of the ENGO Forum, where ENGOs have the opportunity to be informed on upcoming advisory processes for specific fisheries. The information package provided to the audit team included the following supporting documentation: • 2013-04-04 Invite to OCAC meeting 2

	• Offshore Clam Advisory Committee Minutes April 5 2013 (final) • OCMB Meeting (2013-04-05) minutes FINAL • ENGO Forum Documents (3 RoD and Signed Terms of Reference)
Observations	From the discussions and the written evidence provided it would appear that the Offshore Clam Management Board and the Offshore Clam Advisory Committee have now held regular annual meetings for the past five years, that notification of meetings and the dissemination of meeting outputs to interested parties is now conducted and that the participation of interested and affected parties has been encouraged, for example, by the Chair asking if there were any further items to be added to the agenda. The ENGO Forum is another example. While there is little evidence of participation by interested parties that may be more a feature of the restricted nature of the fishery, rather than any unwillingness by the management to encourage wider participation in the discussions.
Conclusion	The Offshore Clam Advisory Committee now meets on a regular basis and proper notification of meetings is given. All interested parties now have the opportunity to be involved and all presented information is considered. The fishery complies with all the requirements of the SG 80 scoring issues and P.I. 3.1.2 has been re-scored at 80. Condition 3 can be closed.

Any complaints against the certified operation; recorded, reviewed and action taken
There were no reported incidents of any complaints against Clearwater Seafoods Limited Partnership relating to the scope of MSC certification since the initial certification

Any relevant changes to legislation or regulation
There were not reported changes to legislation or regulation.

Any relevant changes to management regime
After an intensive period of full assessments on both Banquereau and Grand Bank the clam fishery is being placed into DFO's new Multi-Year Approach to Fisheries Management. Formal stock assessments are expected to be done on a ten year cycle, with an Annual Monitoring program established to monitor changes in the stock that may indicate a material change in the status and if additional management action is required. A full description of the Monitoring Program and report on the 2012 indicators was made available (DFO,2013)

Overall Conclusions
Overall, progress toward meeting the conditions is considered to be on target, and MSC Certification should continue. Based on the results of the risk analysis conducted, in compliance with Section 27.22 of the MSC CR v1.3, the fishery will continue be follow an "option 2" remote surveillance schedule. Next year's annual audit will be an off-site surveillance audit.

Appendix 1:

WWF for a living planet®

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Re: WWF-Canada's input to the Intertek Moody Marine Annual Surveillance Audit of the Clearwater Seafoods Grand Bank Arctic Surf Clam Fisheries

WWF-Canada appreciates the opportunity to provide comments on the Annual Surveillance Audit of the MSC certified Arctic Surf Clam fisheries conducted by Clearwater Seafoods on the Banquereau and Grand Bank. WWF is committed to working with national and international management authorities, including DFO and NAFO, and industry leaders such as Clearwater Seafoods to catalyze the transition to sustainable seafood and smart oceans management. WWF priorities for the Northwest Atlantic have focused on habitat protection and ecosystem rebuilding on the Grand Banks, and as such WWF has been engaged as a stakeholder throughout the assessment process.

We would like to reinstate WWF's position expressed in the letter to Intertek Moody Marine from 25 May 2012 (Re: Comments to the Public Comment Draft Reports for the Grand Bank and Banquereau Arctic surf clam fishery assessments), and call attention to a new development in the Grand Bank area. During the Northwest Atlantic Fisheries Organization (NAFO) Annual Meeting in September 2012, the Fisheries Commission officially designated the Southeast Shoal (Div. 3N) and Grand Bank's canyons and canyon heads (Div. 3N; Div. 3MN; and Div. 3O) as VME indicator elements (2013 NAFO Conservation and Enforcement Measures, NAFO/FC Doc. 13.1, Annex I. E, Part VII), as demonstrated in the map below (Fig. 1).

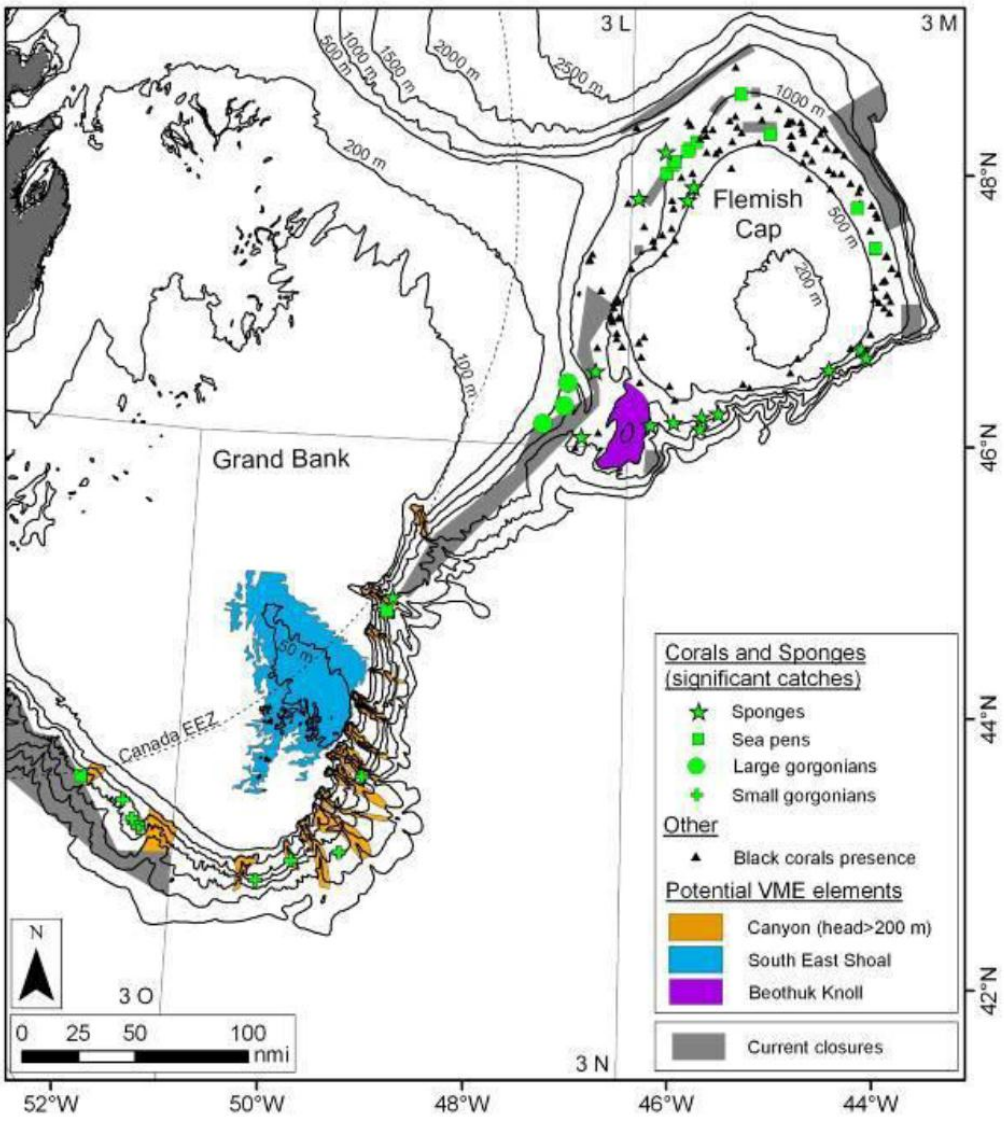

Figure 1: Map of proposed VME indicator elements submitted to the NAFO Fisheries Commission from the NAFO Scientific Council (NAFO SCS Doc. 12/19, at 49). These proposed areas were approved by the Fisheries Commission in September 2012 (from NAFO, NAFO/FC Doc. 13.1)

Apart from species of corals and sponges, NAFO's Fisheries Commission also incorporated new benthic species to the VME indicator species list, such as tube-dwelling anemones (*Pachycerianthus borealis*), erect bryozoans (*Eucratea loricata*), sea lilies (crinoids such as *Trichometra cubensis, conocrinus lofotensis and Gephyrocrinus grimaldii*), and sea squirts (*Boltenia ovifera* and *Halocynthia aurantium*) (2013 NAFO Conservation and Enforcement Measures, NAFO/FC Doc. 13.1, Annex I. E, Part VI).

Figure 2: Reteporiform bryozoan. Tail of the Grand Banks of Newfoundland, (NAFO 3N Div.). Photo courtesy of IEO. Note the other species associated with it.(from NAFO SCS Doc. 11/ 22, at 25). This species forms a tall, dense clump, commonly around 10 cm, but up to 25 cm tall, buff or light-brown, resembling a miniature poplar tree (Ryland and Hayward 1991).

With respect to the presence of bryozoans beds in the NAFO Regulatory Area, NAFO's scientific council report noted that:

"Spanish/EU groundfish survey bycatch data revealed that in some areas of the NRA (Tail of the Grand Banks of Newfoundland) it is common to find the erect bryozoan *Eucratea loricata* together with others bryozoans including some with reteporiform shape. The catches found in 2007 ranged from 0.001 to 1.45 kg per 30 minute

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research trawl. All the catches were shallower than 100 m depth. The catches found do not seem to be representative of bryozoan beds, but in order to make a complete assessment more research in the area with visual ground truthing is required."

Figure 3: *Eucratea loricata*. Tail of the Grand Banks of Newfoundland, (NAFO 3N Div.). Photo courtesy of IEO. (NAFO, NAFO SCS Doc. 11/ 22, at 26).

With respect to sea squirts, NAFO Scientific Council noted the following:

"Two species of large sea squirt were identified from the data sources (Table 1.2.2.1.3.1). Spanish/EU groundfish survey bycatch data (2007-2010) revealed fifty records of *Boltenia ovifera* from the "tail" of the Grand Banks between 50 and 320 m depth. More than 75 % of the catches were lower than 1 kg and 10 individuals; however a catch of 4.55 kg (65 individuals, Figure 1.2.2.1.3.2) was recorded at 200 m depth. The large catch of *B. ovifera* which may constitute the location of a VME indicated by this species was found at: 43°21'50.4''N 49°25'19.2''W (start of tow) 43°23'09''N 49°24'17.4''W (end of tow). There were only a few individuals of *Halocynthia aurantium* present in these data."

Figure 4: *Boltenia ovifera*, "Tail" of the Grand Banks of Newfoundland, (NAFO 3N Div.). Photo courtesy of IEO. (from NAFO, NAFO SCS Doc. 11/ 22, at 28)

As for tube-dwelling anemones, there is evidence of their presence on the tail of the Grand Bank, but a further analysis is required. Their association with sandy bottoms should also be noted and therefore mapping the eventual occurrence of such species as well as bryozoans should be a requirement of impact assessments in this area.

Given this new development,[1] we recommend that the Grand Bank Arctic surf clam fishery should undertake a comprehensive impact assessment that follows the FAO International Guidelines for the Management of Deep-

[1] Endorsement by NAFO Fisheries Commission of the Scientific Council recommendation to list the above mentioned VME indicator elements and species.

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Sea Fisheries in the High Seas criteria (Para. 47)[2] to ensure that the VME indicator elements and species referred to above as well as species belonging to the same ecosystem are not being significantly impacted by this fishery (individually and cumulatively).

Under NAFO regulations, impacts assessments (following the FAO criteria referred to above) are to be conducted to avoid significant adverse impacts on VMEs. We understand that this fishery is not regulated by NAFO, but assessing potential fisheries impacts on species belonging to the same ecosystem as the target species (including trophic and physical impacts) as well as on the marine biodiversity is a legal obligation under the UN Fish Stocks Agreement (UNFSA, Art. 5 (d), (e) and (g)).

WWF's recommendation follows up on the response provided by the assessment team in the Assessment Report, version 5, which stated:

> "IMM Comment: Thank you for the information on the VME classification of the Southeast Shoal and adjacent Shelf Edge/Canyons. As confirmed in a follow-up email, it is noted that the NAFO report indicates that the VME has not progressed past the 'candidate VME' stage. It is our understanding that this means that the area is not therefore afforded any specific protection. However, as with other elements of the P2 (and P1 and P3) assessment undertaken for this fishery, if the fishery was certified and if changes occurred to the VME classification of the site, then those changes would be considered as part of the routine surveillance audit process. Other comments on the information needed or recommended for an impact assessment approach are included below." (MSC Assessment Report for Grand Bank Arctic Surfclam Fishery, Version: 5 Public Certification Report, Ref: 82531/GB/v5, at 165)

In the same response to WWF, the assessment team indicated that such an *in situ* impact assessment would not be difficult to be undertaken since most information has been collected, including VME mapping by NAFO. However, as observed above, mapping of the distribution of some VME indicator species is still needed. The assessment team also noted that a risk analysis has been already been conducted by DFO for the Placentia-Bay/Grand Banks Large Ocean Management Area (PB/GB LOMA) with respect to the ecologically and biologically significant areas (EBSAs). We would like to point out that despite the similarities between the EBSA and the VME criteria, there are significant differences in the application of the criteria as well as with respect to the respective management responses. Furthermore, NAFO's analysis is more recent and more specific to VMEs than the

[2] Under these criteria, impact assessments should address, *inter alia*:
"i. Type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing (harvesting plan);
ii. best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;
iii. identification, description and mapping of [Vulnerable Marine Ecosystems] VMEs known or likely to occur in the fishing area;
iv. data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment;
v. identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs and low-productivity fishery resources in the fishing area;
vi. risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be significant adverse impacts, particularly impacts on VMEs and low-productivity fishery resources;[2] and
vii. the proposed mitigation and management measures to be used to prevent significant adverse impacts on VMEs and ensure long-term conservation and sustainable utilization of low-productivity fishery resources, and the measures to be used to monitor effects of the fishing operations." (FAO Guidelines, Para. 47)

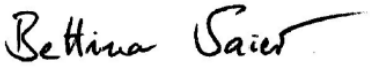
PB/GB LOMA document referred to by the assessment team, and therefore should also be taken into consideration.

Finally, we would also like to call attention to the Revised Guidelines for the Consideration of Biodiversity in Environmental Impact Assessments and Strategic Environmental Assessments in Marine and Coastal Areas, which has been adopted by the Convention on Biological Diversity (CBD) Conference of the Parties (including Canada) in October 2012 (CBD, Decision XI/18 (B)). These guidelines emphasize the need for impact assessments with particular biodiversity consideration in areas such as EBSAs and VMEs.

In conclusion, since the VME candidate areas and species have now past the 'candidate VME' stage (in accordance with the 2013 NAFO Conservation and Enforcement Measures, NAFO/FC Doc. 13.1, Annex I. E, Parts VI and VII), we bring this information to your attention for further consideration in the surveillance audit process.

Thank you for the opportunity to provide comments.

Sincerely,



Bettina Saier, Ph. D.
Director, Oceans Program
WWF-Canada

Daniela Diz, Ph.D.
Senior Officer, Marine Policy
WWF-Canada

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IMM audit team response

We welcome the detailed input provided by WWF. In considering the information within the submission we cross referenced the fishery footprint and the catch composition from sampling of the unsorted catch from the "Assessment of the Ocean Quahog (*Arctica islandica*) Stocks on Sable Bank and St. Mary's Bay, and the Arctic Surfclam (*Mactromeris polynyma*) Stock on Banquereau. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2007/034". The overlap of the fishery with the Southeast Shoal appears to be minimal and none of the VME indicator species appear in the sampled catches.

The audit team also sought the views of DFO, specifically asking whether Arctic surfclam is considered to be a straddling stock, what status the fishery has with respect to the UNFA and also for any general comments on the WWF submission. The following is taken from the DFO written response:

> "In accordance with the definitions and authorities outlined in UNFA, Article 1, and UNCLOS, Article 77, Arctic surf clam is not considered a straddling or highly migratory species. As a sedentary species on Canada's continental shelf, the fishery falls exclusively under Canadian management (i.e. it is not under NAFO management authority or subject to UNFA). As a bottom contact fishery, it is subject to Canada's Policy for Managing the Impacts of Fishing on Sensitive Benthic Areas and its companion tool, the Ecological Risk Assessment Framework (ERAF) for Coldwater Corals and Sponge Dominated Communities. Under the Policy on Sensitive Benthic Areas the fishery is considered to be in an historically fished area.
>
> The Sensitive Benthic Areas Policy and the ERAF will be implemented on a case-by-case basis in accordance with priorities set by each DFO Region. Similar to NAFO's approach to vulnerable marine ecosystems, the initial application of the policy is to corals and sponges. The ERAF is designed for assessing the risk a fishery may pose to coral and sponge concentrations.
>
> In comparison, similar to Canada's domestic Policy on Sensitive Benthic Areas, if the surf clam fishery were managed by NAFO, it would fall under provisions related to existing fishing areas. In accordance with the 2013 NAFO annual meeting decisions, vessels conducting fishing activities in areas known as "existing bottom fishing areas" shall follow article 22. This article outlines provisions for the collection of information regarding VME indicator species, and rules associated with catch thresholds with identified VME indicator species.
>
> There are no plans by NAFO to conduct reassessments of bottom fishing activities until 2016. Based on this, there are no NAFO fisheries assessments required prior to 2016, unless substantial new information is found to verify the existence of VMEs, including those found in VME indicator areas.
>
> It should also be noted that page seven of the letter indicates that the VME candidate areas and species have now "past the 'candidate VME' stage". This line is somewhat misleading, as the Annexes referred to in the NAFO Conservation and Enforcement measures are simply the NAFO lists of VME indicator species and elements. Similar to Canada's Ecologically and Biologically Significant species and areas, the lists by themselves do not verify the presence or concentration of specific VMEs, and thus do not necessarily call for specific management measures. Only those species and elements that have been verified, such as some corals and sponge species, have specific management rules associated with them."

Having made the comparison of information provided in the WWF submission with where the fishery operates and taking into account the information provided by DFO in relation to the status of the fishery and VME designation we are not of the view that this has made any fundamental changes requiring changes to the certification.

Appendix 2

Notification of Surveillance Audit

Found at:
http://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/clearwater-seafoods-banquereau-and-grand-bank-arctic-surf-clam/assessment-downloads

Combined Annual Audit of the Eastern Canada Offshore Scallop, Lobster and Clearwater Seafoods Banquereau and Grand Bank Arctic Surf Clam Fisheries

MSC Certification
Certification Body: Intertek Moody Marine

Normal on-site Surveillance Audit

Following certification of the above fisheries, Intertek Moody Marine (IMM) is now continuing the process of annual surveillance audits.

These audits have two principal functions:
1. To review any changes in the management of the fishery, including regulations, key management or scientific staff, or stock evaluation

2. To evaluate the progress of the fishery against any Conditions of Certification raised during the Main Assessment

During the audit, or at separate meetings, we shall be speaking with representatives of the fishery and fishery management organisations, as well as be available to meet with interested stakeholders to discuss matters related to the fishery. The surveillance audit will be conducted in Halifax and Dartmouth, Nova Scotia, between 27th and 29th May.

The on site assessment team will be: Paul Knapman, Lead Auditor; Andy Brand (Scallop and Arctic Surf Clam); and, Howard Powles (Lobster). Off-site review of the report will be undertaken by: Terry Holt (Scallop); Colin Bannister (Lobster); and, John Angel (Arctic Surf Clam)

Details of the assessment team membership are included below; in addition full CVs are available from IMM by request.

Should you have any information on this fishery that you feel should be considered in the assessment, please advise Paul Knapman paul.knapman@intertek.com . The assessment team will be available to meet with stakeholders as appropriate. Stakeholders are also invited to submit written submissions related to the above noted fishery, should they choose. Written submissions must be submitted to the Paul Knapman by **May 29th, 2013**.

Intertek Moody Marine notifies identified stakeholders directly through email. If you know of anyone who may be interested in this notification please forward to them and notify us so we may add them to our list of stakeholders. It should be noted that because email is not a foolproof way of transmitting notifications, we ask that stakeholders also subscribe to the free notification service provided by the MSC at : http://www.msc.org/newsroom/updates/subscribe

Audit Team Members:

Andy Brand
Andy Brand worked for the University of Liverpool for 40 years on the academic staff of the Port Erin Marine Laboratory, Isle of Man, retiring in 2006 as Director of the Laboratory. During this time he developed large, well-funded, research programmes on the biology, ecology, aquaculture and fisheries of bivalve molluscs, especially scallops, and on the environmental impact of scallop dredging. He has had extensive fishery management and environmental assessment consultancy experience, including contracts with government departments and industry, and has been a member of ICES Working Groups on herring, scallops and ecosystem effects of fishing. In addition to work in the Irish Sea, he has advised on scallops and fisheries management in Alaska, Argentina, Australia, Bermuda, Chile, Ireland, France and the Philippines. He is now an Honorary Senior Fellow of the University of Liverpool and works as an independent consultant on shellfisheries. He has recent experience as an Assessor (2) and Independent Reviewer (3) for Marine Stewardship Council certifications for scallop, mussel and oyster fisheries in the Irish Sea, Faeroes, Denmark and Canada.

Terry Holt
Dr. Holt is a director of CMACS Ltd with responsibility for managing marine consultancy projects, Environmental Assessments and ecological surveys. He has over twenty five years experience in shellfish ecology, marine aquaculture, EIAs and benthic fish and invertebrate surveys, including providing expert evidence on molluscan fisheries at planning enquiries. Dr Holt has previously been involved in Marine Stewardship Council (MSC) pre-assessments and main assessments for Intertek Moody Marine (Burry Inlet Cockle fishery, Danish Blue shell mussel fishery Limfjord, Ben Tre clam fishery, Vietnam, Patagonian Toothfish and Isle of Man Queen Scallop Fishery) and has worked on molluscan fishery pre-assessments for other organisations in SE Asia. He also contributed at early MSC workshops on the development of generic scoring guidelines and refining of assessment methods.

John Angel
John worked with the federal Department of Justice before moving to the Department of Fisheries and Oceans as head of legal and regulatory affairs in 1983. His last position in government (1994) was as Regional Director of Fisheries Management for the Scotia-Fundy Region. After ten years as Executive Director of the Canadian Association of Prawn Producers, a trade association representing offshore northern shrimp interests in Eastern Canada, John retired from full time employment. He has extensive experience in the development of integrated resource management plans and fishing strategies as well as a background in Canadian fisheries law and is a past-member of the Fisheries Resource Conservation Council (FRCC), an independent advisory body to the Minister of Fisheries and Oceans. He has been on several MSC assessment teams as the Principle 3 lead.

Howard Powles
Howard has worked in fishery science, stock assessment, and conservation and management of fishery resources since the mid-1960's, as a working scientist, science manager, program manager, and consultant, with a recurrent focus on crustacean resources. His M. Sc. thesis (1966) was on distribution and biology of snow crab in the southern Gulf of St. Lawrence in relation to a rapidly-developing fishery for this species. During the early 1990s he worked with the FRCC lobster team as principal DFO scientific contact and contributed to the FRCC (1995) review of lobster conservation. Following this he worked closely with DFO Fisheries Management to implement FRCC recommendations and coordinated an Atlantic-wide program of research to fill in knowledge gaps identified in the FRCC study. As Director of Fisheries Science and of Biodiversity Science (1998-2004) at DFO, Howard was active in developing ecosystem based approaches to ocean management, in particular approaches based on defining ecosystem objectives and indicators, and led DFO's activities related to the new *Species at Risk Act*.

Colin Bannister
Colin is the former Head of the Shellfish Resource Group at the Centre of Environment, Fisheries and Aquaculture Science (Cefas), Lowestoft, in the United Kingdom (UK) and from 2001 until retirement in

2004 was the Senior Fisheries Science Advisor at CEFAS, providing high level advice to the UK Department of Environment, Food and Regional Affairs (DEFRA) and industry on all aspects of the assessment and management of finfish stocks. He has extensive knowledge and experience of the management of wild shellfish stocks, both crustacean and molluscan, and of scientific research and advice on the same. Since 2004, he has acted as a scientific member of the Canadian Government Review Panel for the Snow Crab fishery in the Gulf Region of Canada; a member of the Committees and Council of the Shellfish Association of Great Britain; and recently completed a report "Towards a Development Strategy for the Shellfish Industry in England" for the DEFRA Inshore Group. Colin has been involved in the assessment of a number of fisheries both as a team member and as a peer reviewer.

Paul Knapman
Paul is a lead assessor/auditor and the general Manager for Intertek Moody Marine. He has extensive experience of the fishing industry in North America and Europe. He was previously Head of an inshore fisheries management organisation, a senior policy advisor to the UK government on fisheries and environmental issues, a fisheries officer and a fisheries consultant working in Europe and Canada.

Appendix 3:
Determination of surveillance level

A surveillance audit may be conducted as either an "on-site" or "offsite audit". This is determined by using criteria set out by the MSC:

Criteria	Surveillance Score	Banquereau and Grand Bank Arctic Surf Clam
1. Default Assessment Tree		
Yes	0	0
No	2	-
2. Number of Conditions		
Zero Conditions	0	0
1-5 Conditions	1	1
>5 Conditions	2	-
3. Principle Level Scores		
≥ 85	0	0
<85	2	-
4. Conditions on outcome PIs?		
Yes	2	-
No	0	0
Total		1

The score for the fishery is used to determine the surveillance level appropriate to the fishery using the table below:

			Years after certification or re-certification			
Surveillance score	**Surveillance level**		**Year 1**	**Year 2**	**Year 3**	**Year 4**
2 or more	Normal surveillance		On-site surveillance audit	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit & recertification visit
1	Remote surveillance	Option 1	Off-site surveillance audit	On-site surveillance audit	Off-site surveillance audit	On-site surveillance audit & recertification visit
		Option 2	On-site surveillance audit	Off-site surveillance audit	On-site surveillance audit	
0	Reduced surveillance		Review new information	On-site surveillance audit	Review new information	On-site surveillance audit & recertification visit

The Clearwater Seafoods Banquereau and Grand Bank Arctic Surf Clam scores 1 and so will have an off-site surveillance audit in 2014.