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MSC SUSTAINABLE FISHERIES CERTIFICATION

Clearwater Seafoods Banquereau and Grand Bank Arctic surfclam



3rd Surveillance - 'Review of Information'

Certificate Code F-ACO-0018 (Previously MML – F –125)

CAB Name Acoura Marine Ltd.

Authors Paul Knapman, Andy Brand

Client Name Clearwater Seafoods Limited Partnership

Date November 2015



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1 General Information

Fishery name	Clearwater Seafoods Banquereau and Grand Bank Arctic surf clam					
Unit(s) of Assessment	Species: Arctic surfclam (Mactromeris polynyma)					
(UoA)	Gear: Hydraulic dre	dge				
	Area: UoC1: Grand	Bank, UoC	2: Banquer	eau Bank		
Date certified	17 th July 2012	17 th July 2012 Date of expiry 16 th July 2017				
Surveillance level and type	Level 1, review of ir	formation				
Date of surveillance audit	The review of inform 2015	nation comr	nenced on	20 th September		
Surveillance stage	1st Surveillance					
	2nd Surveillance					
	3rd Surveillance			Х		
	4th Surveillance					
	Other (expedited et	c)				
Surveillance team	Lead assessor: Paul Knapman Assessor(s): Andy Brand					
CAB name	Acoura Marine Ltd.					
CAB contact details	Address		6 Redheu	ıghs Rigg,		
			Edinburgh, EH12 9DQ, UK.			
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	Contact name(s)		Billy Hynes			
			Polly Burns			
Client contact details	Address		Clearwater Seafoods Limited Partnership, 757 Bedford Highway,Bedford, Nova Scotia, B4A 3Z7 Canada			
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	Contact name(s)		Christine Catherine	•		



2 Background

The client provided a number of documents for review; these are included in the reference section. Included in the information was a document, "Status of the fishery for Arctic surfclam in Atlantic Canada in 2014", the following is taken from this document background information with respect to the two units of certification (UoC):

The annual monitoring program for the status of the fishery for Arctic surfclam in Atlantic Canada is described in the document "Offshore Surfclam Science Monitoring Program". Three indicators will be used 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.

Banquereau

Landings of Arctic surfclam from the fishery on Banquereau Bank in 2014, as indicated by the logbook data provided by industry to DFO Science, were 23,657 t, relative to a quota of 24,000 t (Table 1).

CPUE calculated from logbook data provided by industry for the fishery on Banquereau Bank in 2014 indicates an annual average CPUE of 118 g/m² (Table 1, Figure 1). This is slightly less than the value of 128 g/m² in 2013, but well above the trigger level of 70 g/m². The spatial extent or footprint of the fishery on Banquereau Bank in 2014 was 201 km² (Figure 2, Table 1). This is higher than the value of 150 km² in 2013, but is well below the threshold level of 254 km².

The proportion of older/larger Arctic surfclams in the unsorted catch from the fishery on Banquereau Bank in 2014, as indicated by onboard sampling data provided by industry, was $2.0\% \ge 120$ mm (Figure 3, Table 2). This value is well above the trigger level of $1.0\% \ge 120$ mm.

The three indicators for the Arctic surfclam fishery on Banquereau Bank in 2014 are all positive relative to their respective trigger values and suggest there has been no change in stock status since the last full assessment in 2011.

Grand Bank

There were no fishing trips for Arctic surfclams on Grand Bank in 2014. Landings in 2013 were 199 t, against a quota of 20,000 t, and there has only been limited fishing activity in the previous 7 years (Figure 4, Table 3). With this low level of fishing activity, these indicators cannot be considered representative of the status of the Grand Bank stock, but only of the small area being fished. The annual average CPUE values have been close to or below the trigger level during this period (Figure 4). The resulting footprint or spatial extent of the fishery has been very small, only 6.1 km² in 2013 (Figures 5, Table 3). The proportion of older/larger Arctic surfclams in the unsorted catch from the fishery on Grand Bank in recent years has been around the trigger level of 0.5% ≥105 mm, (Figure 6, Table 4). The low effort has resulted in few samples of length frequencies so this is not considered a reflection of stock status on Grand Bank.

There is no indication of a change in stock status since the last full assessment in 2010.



Table 1. Catch (t), Footprint (Area dredged km^2), and CPUE (g/m^2) by year for the offshore surfclam fishery on Banquereau Bank

Year	Logged Catch (t)	Area Dredged (km²)	CPUE
1986	29	0.8	36
1987	1,210	16.1	75
1988	2,474	24.5	101
1989	9,159	84.9	108
1990	6,158	68.2	90
1991	714	9.7	74
1992	0	0.0	0
1993	64	2.2	29
1994	5,313	39.8	133
1995	11,425	84.1	136
1996	19,262	156.4	123
1997	19,547	157.4	124
1998	24,553	238.2	103
1999	24,138	254.2	95
2000	20,248	233.3	87
2001	11,014	158.9	69
2002	12,506	149.0	84
2003	16,960	147.0	115
2004	16,493	149.5	110
2005	14,327	141.5	101
2006	15,932	116.7	137
2007	17,931	115.4	155
2008	19,301	130.6	148
2009	24,158	180.5	134
2010	22,558	160.3	141
2011	20,858	131.0	159
2012	20,230	136.0	149
2013	19,271	150.0	128
2014	23,657	200.9	118



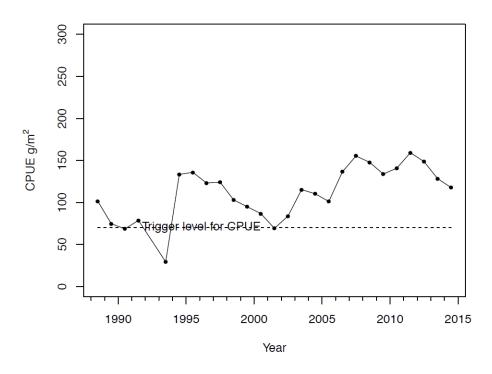


Figure 1. Annual CPUE for the last four vessels active in the Arctic surfclam fishery on Banquereau Bank

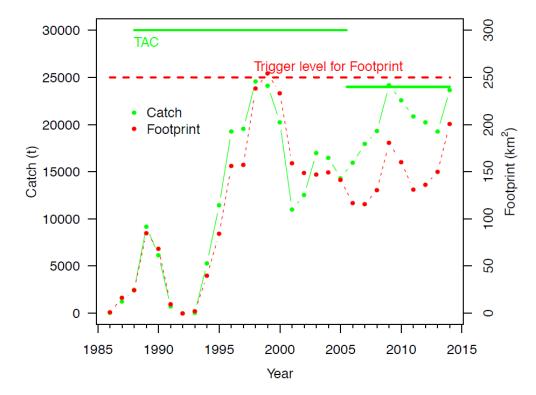


Figure 2. Footprint (km²) of the offshore surfclam fishery by year on Banquereau Bank.



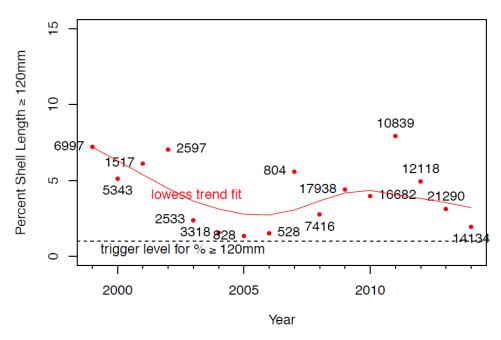


Figure 3. Percent of large (≥ 120 mm) Arctic surfclams in unsorted commercial catch on Banquereau Bank.

Table 2. Percent of large Arctic surfclams in unsorted catch on Banquereau Bank.

	n Unsorted	% >= 120
1999	6,997	7.2
2000	5,343	5.13
2001	1,517	6.13
2002	2,597	7.05
2003	2,533	2.37
2004	3,318	1.54
2005	828	1.33
2006	528	1.52
2007	804	5.6
2008	7,416	2.75
2009	17,938	4.4
2010	16,682	3.97
2011	10,839	7.93
2012	12,118	4.93
2013	21,290	3.12
2014	14,134	1.96



Table 1. Catch (t), Footprint (Area dredged $\rm km^2$), and CPUE (g/ $\rm m^2$) by year for the offshore surfclam fishery on Grand Bank. There was no fishery in 2014.

Year	Logged Catch (t)	Area Dredged (km²)	CPUE
1987	1	0.1	10
1988	5	0.0	0
1989	373	3.4	110
1990	6,049	23.6	256
1991	2,094	11.3	185
1992	5,161	27.1	190
1993	13,100	92.8	141
1994	10,979	95.2	115
1995	14,907	128.4	116
1996	5,772	53.6	108
1997	7,492	80.0	94
1998	931	11.4	82
1999	1,472	18.6	79
2000	3,289	46.0	72
2001	8,026	110.4	73
2002	6,077	120.3	51
2003	9,017	125.3	72
2004	6,437	66.9	96
2005	3,967	51.8	77
2006	5,003	75.4	66
2007	215	7.5	29
2008	0	0.0	0
2009	437	7.5	58
2010	296	9.3	32
2011	112	9.0	12
2012	0	0.0	0
2013	199	6.1	33



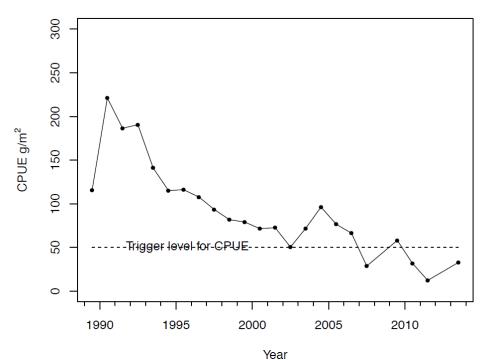


Figure 4. Annual CPUE (g/m²) for the last four vessels active in the Arctic surfclam fishery on Grand Bank. There was no fishery in 2014.

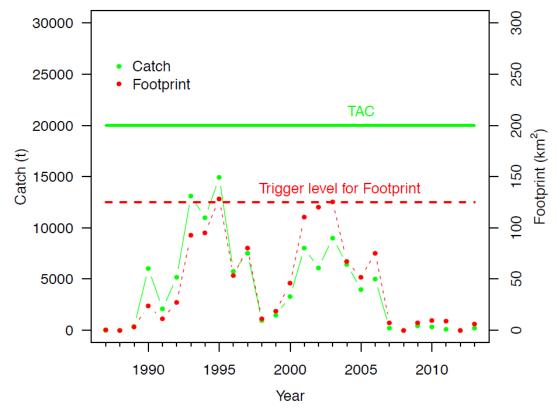


Figure 5 Footprint (km²) of the offshore surfclam fishery by Year on Grand Bank. There was no fishery in 2014.



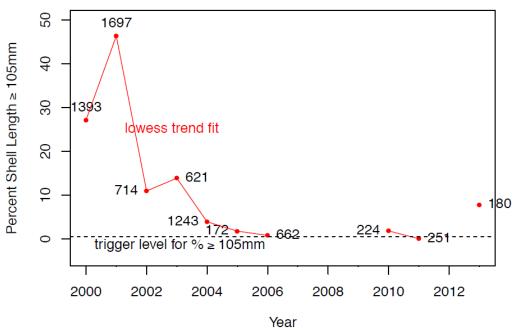


Figure 6. Percent of large (≥105 mm) Arctic surfclams in unsorted commercial catch on Grand Bank. Values since 2006 are not representative of stock status. There was no fishery in 2014.

Table 4. Percent of large (≥ 105 mm) Arctic surfclams in unsorted catch on Grand Bank. Values since 2006 are not representative of stock status. There was no fishery in 2014.

	n Unsorted	% >= 105
2000	1,393	27.14
2001	1,697	46.38
2002	714	10.92
2003	621	13.85
2004	1,243	3.86
2005	172	1.74
2006	662	0.76
2007	0	NA
2008	0	NA
2009	0	NA
2010	224	1.79
2011	251	0
2012	0	NA
2013	180	7.78



Table 5 Summary Tables for TAC and Catch Data

TAC Banquerau Bank	Year	2014	Amount	24,000 t
UoA share of TAC	Year	2014	Amount	24,000 t
UoC share of TAC	Year	2014	Amount	24,000 t
Total green weight catch by UoC	Year	2014	Amount	23,657 t
	(most recent)			
	Year (2 nd most	2013	Amount	19,271 t
	recent)			

TAC Grand Bank	Year	2014	Amount	20,000 t
UoA share of TAC	Year	2014	Amount	20,000 t
UoC share of TAC	Year	2014	Amount	20,000 t
Total green weight catch by UoC	Year	2014	Amount	0 t
	(most recent)			
	Year (2 nd most	2013	Amount	199 t
	recent)			

2.1 Audit Team Comments / Observations

The last full stock assessment was carried out in 2010 on Grand Bank and 2011 on Banquerau (DFO 2012a).

In October 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, 2012b). Such fisheries were deemed not to need annual science assessments or management measures, but DFO continue to monitor the fishery so that changes in stock status can be detected and appropriate actions initiated.

Precautionary Approach (PA) reference points have been adopted for the Arctic surfclam resource on both Banquereau and Grand Bank (Roddick, 2013). These stocks 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, as in 2014, fishery indicators with established triggers were monitored to determine if changes in stock status had occurred.

The annual monitoring program for Arctic surfclam on Banquereau and Grand Bank uses 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.

Using the above information, the audit team have the following observations:

Banquereau

Landings of Arctic surfclam from the fishery on Banquereau Bank in 2014 were within the 24,000 mt TAC.

CPUE calculated from the logbook data indicated an annual average CPUE of 118 g/m² in 2014. In 2013 the value was 128 g/m² and in 2012 the values was 149 g/m². The trigger used to indicate a material change in the fishery is 70 g/m². Although CPUE has fallen over the last three years the fishery is well above the trigger level.



The spatial extent or footprint of the fishery was 201 km² in 2014. In 2013 it was 151 km² and in 2012 it was 136 km². The trigger used to indicate a material change in the fishery is 254 km². The fishery is well below the trigger level.

The proportion of older/larger Arctic surfclams in the unsorted catch from the fishery on Banquereau Bank in 2014, was $2.0\% \ge 120$ mm. In 2013 it was $3.1\% \ge 120$ mm. This value is well above the trigger level of $1.0\% \ge 120$ mm.

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.

Grand Bank

There were no fishing trips for Arctic surfclams on Grand Bank in 2014. With this and previous years low level of fishing activity, the indicators cannot be considered representative of the status of the Grand Bank stock, but only of the small area being fished.

There is no indication of a change in stock status since the last full assessment in 2010.

2.2 Recent Significant Changes in the Fishery

Clearwater commissioned its new clam vessel, "Belle Carnell", in July 2015. The 73 m retrofitted oil supply vessel is being labeled by Clearwater as, "The most advanced shellfish
harvester in the world" https://youtu.be/YHwjv0TQw4Y. The vessel is capable of shucking
and individually quick freezing clams within an hour of catch using the vessel's proprietary
and advanced harvesting and processing technologies. Products will be sold almost
exclusively into international, high-value sushi and sashimi markets. Clearwater expect to
benefit from the Canadian Government's ongoing initiatives to expand free trade, including
the recently enacted Korean Free Trade Agreement, the soon-to-be-ratified Comprehensive
European Trade Agreement (CETA) and the Trans-Pacific Partnership (TPP).

Also in July 2015, the Canadian Fisheries Minister announced that the TAC for the Banquereau and Grand Bank will increase in 2016 to 52,000 mt and DFO opened a period within which parties could register an interest to participate in the fishery. The closing date for applications was 31st October 2015. The outcome of this process was not available to the audit team at the time of undertaking this information review and will be taken into account at the next surveillance audit in 2016.

3 Assessment Process

The last surveillance audit for the Clearwater Seafoods Banquereau and Grand Bank Arctic surfclam (CLA263.pdf) concluded that, with all conditions met, the year 3 audit could be a "reduced audit".

Since the last audit, the MSC have issued their new Fisheries Certification and Guidance v2.0. As of 1st April 2015, fisheries that were certified using v1.3, CABs are required to adopt v2.0 surveillance process requirements.

In instances where fisheries achieve the minimum surveillance level (Level 1), i.e. no conditions of certification, the fishery is eligible for a "review of information" audit.



A "Review of information" audit involves, "... seeking the views of the client about:

- 1. Changes to the fishery and its management;
- 2. Performance in relation to any relevant conditions of certification;
- 3. Any developments or changes within the fishery which impact traceability and the ability to segregate MSC from non-MSC products; and
- 4. Any other significant changes in the fishery."

(FCR 7.23.12.1)

If the information base for PI scores has changed the CAB is required to:

- a. Report and record what has changed in the information base;
- b. Re-score the PI;
- c. If the new score is less than 80, the CAB will define the condition(s) and require the client to develop a Client Action Plan for the new condition(s).

(FCR 7.23.12.5)

In a review of information audit a CAB is required to actively consult with the client, and stakeholders are invited to provide written submissions via an announcement of the audit posted on the MSC website. A notice of the review of information audit was posted on the MSC website on 20th August 2018 (CLA263.pdf). The notice is also included in Appendix 2 of this report.

DFO provided a letter to the client in July 2015 (see Appendix 1) that confirms that there were no changes with respect to the assessment of the resource, licence conditions, data collection, governance arrangements and consultation processes. Furthermore, the letter confirms there have been no changes in compliance or concerns raised.

No other stakeholder comments or submissions were received by the audit team.

4 Results and Conclusion

In 2014 the fishery continued to focus fishing effort on the Banquereau Bank. The fishery operated well within stock management/review trigger levels.

There were no significant changes in legislation or management during the audit period.

No violations were reported.

No developments or changes took place that would impact traceability or the ability to segregate MSC for non-MSC products.

The audit team conclude that the fishery should remain MSC certified.

This audit focuses on the 2014 season, however some significant changes have been announced during the 2015 season which merit mention, i.e. the increase in 2016 quota and potential for increased participation in the fishery. The consequence of these will be reviewed in detail at the 4th surveillance audit due in 2016.

MSC Certification Requirements state that the Conformity Assessment Body should commence the re-assessment of a certified fishery by the fourth anniversary of the existing certificate. The fishery was certified on 17th July 2012 and so the reassessment should



commence by 17^{th} July 2016. The fishery will be able to use the MSC Certification Requirements v1.3 standard and v2.0 process.



References

DFO. 2012a. Assessment of the Arctic Surfclam (*Mactromeris polynyma*) Stock on Banquereau in 2010. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2011/068. http://www.dfo-mpo.gc.ca/Library/345111.pdf

DFO (2012b). Reference points consistent with the precautionary approach for a variety of stocks in the Maritimes Region. Canadian Science Advisory Secretariat, Science Advisory Report 2012/035. 35 pp.

Roddick, D. (2013). Precautionary approach reference points for Arctic surfclams (Mactromeris polynyma). Canadian Science Advisory Secretariat, Research Document 2013/007. iv + 11 p.

Clearwater Information Pack. Available on request



Appendix 1. Stakeholder submissions



Fisheries and Oceans Canada Pêches et Océans Canada

1 Challenger Drive PO Box 1006 Dartmouth, NS B2Y 4A2

JUL 1 4 2015

Ms. Christine Penney
Vice President of Sustainability and Public Affairs
Clearwater Seafoods Limited Partnership
757 Bedford Highway
Bedford, Nova Scotia
B4A 3Z7

Re: Banquereau and Grand Banks Arctic Surf Clam Marine Stewardship Council Certification - Third Annual Surveillance Audit

Dear Ms. Penney:

The third annual surveillance audit for the Banquereau and Grand Banks Arctic Surf Clam Marine Stewardship Council (MSC) Certification is scheduled for July 2015. One of the objectives of MSC's annual surveillance audits is to review any significant changes to the fishery, including changes to management, compliance and/or science.

Fisheries and Oceans Canada has reviewed this fishery and confirms that there have been no changes with respect to assessment of the resource, licence conditions, data collection, governance arrangements, and consultative processes. Regarding compliance, there have been no material changes, nor have any concerns been noted.

Should you require anything further, please contact Colleen Smith, Maritimes Region, Eco-labelling Coordinator, at (902) 426-6384 or by email: Colleen.Smith@dfompo.gc.ca.

We wish you all the best with your upcoming surveillance audit.

Yours sincerely,

Morley Knight

Regional Director General

Maritimes Region

for

Ady K. Glibass Michael J. Alexander Regional Director General

Newfoundland and Labrador Region

Canada



Appendix 2. Notification posted on the MSC website on 20th August 2015

Marine Stewardship Council Surveillance Announcement

IFC are preparing to carry out the 3rd annual surveillance audit for the Clearwater Seafoods Banquereau and Grand Bank Arctic Surfclam Fishery, in accordance with MSC Certification Requirements v2.0. This fishery has achieved the minimum surveillance level (Level 1) requirements owing to it having no conditions of certification and so will be subject to a "Review of Information" audit".

Name of Fishery	Clearwater Seafoods Banquereau and Grand Bank Arctic Surfclam Fishery					
Surveillance level and type	Level	1		Туре	Review	of information
	Any change activity since surveillance	e PCD	R / previous	The previous audit was a remote audit and followed MSC CR v1.3		
Surveillance number (tick one)	1st Surveill	ance				
	2nd Surveil	lance				
	3rd Surveill	ance				
	4th Surveillance					
	Other (expe	edited e	tc)			
Proposed Team Leader	Name			Paul Kna	apman	
	Areas of responsibility		Lead Auditor and Principle 3			
	Competend details	cy criter	ia fulfilment	Meets MSC General Qualification requirements, completed MSC Lea Assessor training and multiple MSC assessments and audits within the last 5 years.		npleted MSC Lead and multiple MSC
	Onsite?	Onsite?		Offsite?		\boxtimes
Proposed team members	Surveillance team member 2					
[remove if not applicable]	Name		Andy Brand			
	Competend details	cy criter	ia fulfilment	requirem	ents and ents and	ral Qualification multiple MSC full- audits within the
	Onsite?			Offsite?		\boxtimes
	Surveillar	nce tea	am member 3			
	Name					
	Competend details	cy criter	ia fulfilment			
	Onsite?			Offsite?		
Audit/review time and location	The review of information will take place from 20 th September 2015.					



Assessment/ review activities

The review of information involves IFC seeking the views of the client about:

- 1. Changes to the fishery and its management;
- Performance in relation to any relevant conditions of certification;
- Any developments or changes within the fishery which impact traceability and the ability to segregate MSC from non-MSC products; and
- 4. Any other significant changes in the fishery.

Stakeholders can send any information they would like the team to review to Paul Knapman paul.knapman@intertek.com

Submitted by: Paul Knapman 17th August 2015

Surveillance Team

Paul Knapman

Paul is a Lead Assessor/Auditor and former General Manager for Intertek Fisheries Certification. 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. Paul was the Lead Auditor for this fishery's first annual audit

Andy Brand

Andy worked 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 studied, and 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 and independent reviewer for Marine Stewardship Council certifications for scallop, mussel, clam and oyster fisheries in the Irish Sea, Faroes, Denmark, the Netherlands, Spain, India, USA and Canada. Andy was an assessment team member and has been involved with all the annual audits for this fishery.



Appendix 3. Surveillance Schedule

Table 3.1 : Surveillance level rationale

Year	Surveillance activity	Number of auditors	Rationale
4	On-site audit	Likely 3 on-site	This will be the 4 th annual audit and when the reassessment is required to commence. It is anticipated that the re-assessment will have 3 team members on-site. It is considered prudent to have all 3 team members involved with the 4 th audit thereby informing them all about the status of the fishery prior to the information gathering required for the re-assessment.

Table 3.2: Timing of surveillance audit

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
2016	July 2016	June 2016	The client has a number of other certified fisheries and it would make sense to try and coincide audits for all these fisheries. June would be close to all the certification anniversaries.

Table 3.3: Fishery Surveillance Program

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 1	On-site surveillance audit	Off-site surveillance audit	Off-site review of information surveillance audit	On-site surveillance audit & re- assessment site visit

