



**Surveillance Report**  
**SFSAG North Sea Haddock Trawl & Danish Seine Fishery**

Certificate No.: MML-F-082

**Intertek Moody Marine**  
October 2012

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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 Scottish Fisheries Sustainable Accreditation Group (SFSAG) - North Sea haddock trawl & Danish seine haddock fishery.

**Species:** Haddock (*Melanogrammus aeglefinus*)

**Area:** ICES IVa & IVb: Central & Northern North Sea.

**Method of capture:** Demersal (otter trawls (single & multiple rigs) and Danish seine

<b>Date of Surveillance Visit:</b>	22 October 2012			
<b>Initial Certification</b>	<b>Date:</b> 22 October 2010		<b>Certificate Ref:</b> MML-F-082	
<b>Surveillance stage</b>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
<b>Surveillance team:</b>	<b>Lead Assessor:</b> A Hough <b>Assessor(s):</b> M Pawson			
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## 2.0 RESULTS, CONCLUSIONS AND RECOMMENDATIONS

This report contains the findings of the second surveillance cycle in relation to this fishery.

The client's response to the Conditions of Certification was set out in an Action Plan, which was appended to the final certification report. Action on this was examined as a part of this second surveillance audit. For each condition, the report sets out progress to date. This progress has now been evaluated by the Intertek Moody Marine audit team ('Observations' and 'Conclusion') against the commitments made in the Action Plan. This assessment includes a re-evaluation of the scoring allocated to the relevant Performance Indicators in the original MSC assessment. Where the requirements of a condition are met, the Performance Indicators are re-scored and if the score is 80 or more, then the condition is closed.

The team carrying out the surveillance audit was Dr Andrew Hough and Dr Mike Pawson. This represents a change in personnel from the first surveillance audit; Andrew Hough (Principle 2) was involved in this fishery from the pre-assessment and participated in the main assessment. Mike Pawson (Principle 1 and 3) was engaged in the first surveillance audit.

### Information Sources:

#### Meetings

22 October 2012:

Marine Scotland : Gregor Mckenzie

SFSAG : Jane Sandell, Mike Park

#### Reports etc

ICES. 2012a. Report of the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK), 27 April–10 May 2012. ICES CM 2012/ACOM:13.

ICES, 2012b. ICES Advice 2012, Book 6

ICES. 2012c. Report of the Working Group on Mixed Fisheries Advice for the North Sea (WGMIXFISH), 21–25 May 2012. ICES CM 2012/ACOM:22.

Napier, I. R. 2011. Fishers' North Sea stock survey 2011. NAFC Marine Centre, Shetland, Scotland.

J Drewery, M Watt, R J Kynoch, A Edridge, J Mair, and F G O'Neill (2011). Catch Comparison Trials on Gamrie Bay FlipFlap Grid design of Nephrops Trawl, Draft Report, 11 pp.

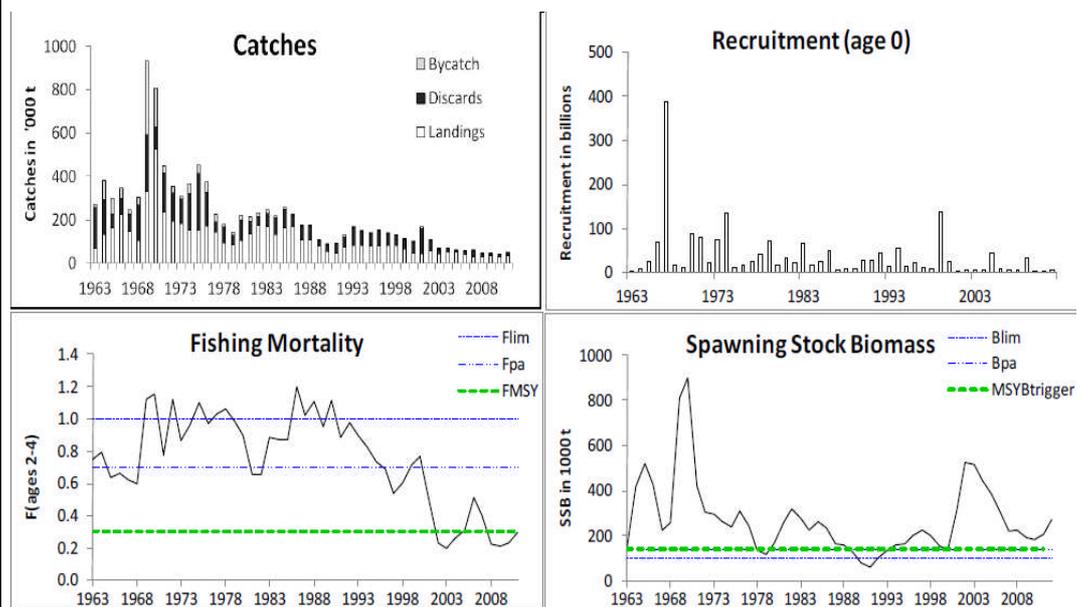
### Standards and Guidelines used:

1. MSC Principles and Criteria
2. MSC Certification Requirements v1.1

### Stock status and Catch Data

### Update on Stock Status (ICES advice for 2013)

The graphics below summarise the results of the May 2012 stock assessment for haddock in Subarea IV (North Sea) and Division IIIa West (Skagerrak) (weights in thousand t) (ICES 2012a), including intermediate-year forecasts for 2012. Fishing mortality (F) has been below  $F_{pa}$  and around  $F_{MSY}$  and spawning stock biomass (SSB) has been above  $MSY$  Btrigger since 2001. Recruitment is characterized by occasional large year classes, the last of which was the strong 1999 year class. The industry's perception is that haddock abundance was increasing in all areas of the North Sea in 2011 (Napier, 2011), which concurs with the stock assessment.



The age-based analytical assessment (XSA) utilises three survey indices (IBTS Q1, ScoGFS Q3, EngGFS Q3) and includes discards and industrial by catch, and was benchmarked in early 2011. The assessment is sensitive to the estimation of a few large cohorts, so the variability in estimates among assessment years is to be expected. Forecasts are largely influenced by the 2005 and 2009 year classes, which are around the long-term average, and recent recruitment has otherwise been relatively poor. There is little retrospective bias in the assessment and ICES considers that there is close agreement between the assessments in 2011 and 2012.

The overall reporting (in particular through the fully documented fisheries (FDF) programme) of catch data provided to ICES improved in 2012. The approach used to collate discard data has changed in 2009 to conform to the EU Data Collection Framework (DCF), but has not changed the perception of discard rates for haddock, which are highly variable without obvious long-term trend but appear to be declining in recent years.

#### Management plan

In 2008 the EU and Norway agreed a revised management plan for this stock (ICES has evaluated this and concludes that it can be accepted as precautionary), which states that every effort will be made to maintain a minimum level of SSB greater than 100,000 t (Blim). Furthermore, fishing was restricted on the basis of a TAC consistent with F of no more than 0.3 for appropriate age groups, along with a limitation on inter-annual TAC variability of  $\pm 15\%$ . A minor revision in 2008 permits inter-annual quota flexibility ("banking and borrowing") of up to  $\pm 10\%$ , which ICES has evaluated and concluded has no significant impact on sustainability. This facility has not yet been used. The management plan has been adhered to by the EU and Norway since its implementation, which ICES considers has contributed to lower F levels and greatly improved stability of

	<p>yield.</p> <p>ICES advises (ICES, 2012b), on the basis of the EU–Norway management plan (as in 2011), that landings in 2013 should be no more than 47 811 t, which is a TAC increase of 15% and is expected to lead to an F decrease of 8%. TACs for this stock are set for Division IIa (EU waters) and Subarea IV, and the whole of Subarea III.</p> <p>If the ICES MSY framework was followed, which implies F to be increased to 0.3, the human consumption landings would be less than 49 000 t in 2013. This would be expected to lead to an SSB of 202 000 t in 2014.</p> <p>ICES will evaluate whether new survey information that becomes available in September forms a basis to update the advice and if so, will publish new advice in November 2012.</p> <p><i>Mixed fisheries advice</i></p> <p>In 2012, ICES put forward mixed-fisheries advice for the first time (ICES, 2012c), in which there is a range of plausible scenarios, assuming fishing patterns and catchability in 2012 and 2013 unchanged from those in 2011. ICES estimates that the reduced haddock TAC in 2012 (85% of the 2011 TAC) implies a reduction of F, which may act as a limiting factor in many fisheries in 2012. Following the ‘cod’ scenario (full implementation of the cod management plan) in 2013, cod is the limiting species for all the North Sea demersal fisheries, and the haddock management plan catch options would not be fully utilized.</p>
<b>Total TAC in most recent fishing year</b>	41,575 t in 2012
<b>UoC share of TAC</b>	Scottish share of the 2012 TAC is 48% or 20 037 t; 95% of this is within the UoC.
<b>Client share of TAC</b>	as above
<b>Green Weight<sup>1</sup> of catch taken by client group</b>	<p>Most recent calendar year (2011): 19 000 t</p> <p>Previous year (2010): 20 000 t</p>

<sup>1</sup> The weight of a catch prior to processing

<b>Condition 1</b>	<b>Mitigation Measures to reduce by-catch:</b> The client shall ensure that there is a partial strategy in place that is expected to maintain retained species at levels that are highly likely to be within biologically-based limits, or to ensure the fishery does not hinder their recovery and rebuilding.
<b>PI</b>	2.1.2: <b>Management strategy:</b> There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species.
<b>SG 60</b>	There are measures in place, if necessary, that are expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).
<b>SG 80</b>	There is a partial strategy in place, if necessary that is expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or species involved. There is some evidence that the partial strategy is being implemented successfully.
<b>SG 100</b>	There is a strategy in place for managing retained species. The strategy is mainly based on information directly about the fishery and/or species involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its overall objective.
<b>Score</b>	<b>Overall score: 75</b> For <b>cod</b> and <b>saithe</b> this SG meets all the 100 guideposts.  For <b>monkfish</b> and <b>whiting</b> the fishery meets the partial strategy requirements of SG 80 in that the cod recovery programme will be beneficial for these species. In all cases there is some actual and modelling evidence that the strategies being adopted are working and being implemented effectively, although further measures could be taken to reduce the bycatch of species such as whiting. This scoring issue scores 70.
<b>Rationale</b>	The joint EU/Norway Management Plan includes the requirement to reduce bycatch in the haddock fishery. Considerable work has been conducted in trialling more selective gears for mixed whitefish fisheries in Scotland. There is now a need for the widespread adoption of suitable selective gear to reduce the incidental catch of species that may be subsequently discarded.
<b>Client Action Plan</b>	Members of the client group will continue to participate extensively in the development and trial of further selective gears to reduce discards through their participation in initiatives such as the Conservation Credits scheme, a Scottish response to regional management that promotes sustainable fishing practices, and the Scottish Industry Science Partnership (SISP), which helps fishers develop new, environmentally friendly, fishing gears. Furthermore, the group will seek to influence the on-going use and development of innovative net design and configuration of whitefish gear, Seasonal Closures (SC's), and Real Time Closures (RTC's) which together provide substantial protection for juveniles and vulnerable stocks such as cod and whiting. The group will use current levels of selectivity and gear design as a benchmark from which to assess the need for further improvements; the group will deliver any necessary changes through their participation, and influence within the various stakeholder groups.  It is expected that a formal partial strategy for the adoption of suitably selective gear will be in place within a year of initial certification and that there is evidence that this strategy is being implemented successfully within three years of certification
<b>Client Progress</b>	The full client report in advance of the surveillance audit is appended to this report. The following section is based on this client report.

	<p>The client fleet has trialled a number of new gear types since the site visit in 2009. The variety of gears, as well as the timeline of actions, can be seen in Annex II of the client report for 2012.</p> <p>Seasonal and Real Time Closures have become an accepted part of fisheries management within Scotland under the <i>Conservation Credits Scheme</i>, which was implemented in February 2008. These have been extended into real time closures for juveniles, as agreed between the EU and Norway in late 2009. To 16<sup>th</sup> October 2012, there have been 3 juvenile closures, compared to 32 for the same period in 2011. There were 142 cod closures within Scottish waters this year. A similar system of cod closures is operated in English waters. A full explanation of the progress of the RTC scheme can be seen in Appendix II and Annex I to Appendix II of the client report. ICES reports that the effects of this regulation on the behaviour of the fleet and on the haddock stock are still unclear.</p> <p>The expansion of the closed-circuit TV (CCTV) and fully documented fisheries (FDF) programmes in 2010–2012 in Scotland, Denmark, and England is expected to have contributed to the reduction of cod mortality. Under this scheme, UK vessels are not permitted to discard any cod, and all cod caught are counted against the quota. Vessels carrying CCTV systems may preferentially target haddock to prevent exhausting the cod quota and having to tie up.</p> <p>SFSAG has encouraged the adoption of more selective gears through the work of FMAC (Fisheries Management and Conservation Group – see ‘Changes to Management’ section below). The Scottish Government is implementing fisheries policy through co-management and SFSAG feel that encouraging the uptake of selective gear through the use of a centralised, incentive-based scheme fulfils its objectives in more rational and effective manner than could be achieved by SFSAG alone.</p> <p>In 2012 Scottish vessels using TR2 (80-99mm) in the North Sea must use a highly selective gear (Annex 3) that reduces the capture of cod by more than 60%. These nets also reduce the capture of juveniles and unwanted species. This gear must also be used when fishing to the West of Scotland (Area VIa west of the French line) North of 59<sup>o</sup>. From the 1<sup>st</sup> October 2012 all Scottish vessels using TR2 that do not fall within the category outlined above must operate with a 3-m long 200mm square mesh panel (SMP) of which the rear-most row of meshes shall be no further than 12m from the cod line. For vessels with engine capacity of 112kW or less, the SMP may be 160mm instead of 200mm and the length of the SMP may be 2m and not 3m.</p>
<p><b>Observations</b></p>	<p>As noted above, the TR2 component of the client fleet is almost entirely (95%) using highly selective gear; the remaining component is not targeting haddock. The TR1 component of the fleet has shown significant increases in selectivity to reduce catches of juveniles (and imposition of RTCs).</p> <p>It is also noted that whiting, the species of primary concern in the main assessment, has undergone a reappraisal of the management plan in the North Sea. In 2012, ICES was unable to set F or SSB reference levels for whiting in Subarea IV (North Sea) and Division VIII (Eastern Channel). However, new estimates of natural mortality (predation) from the 2011 run of the North Sea multispecies model (ICES, 2011b) have led to substantially increased estimates of recruitment and SSB, and decreased estimates of F by approximately 25%, though the trends in stock dynamics are unchanged. SSB is currently around the average of the time-series, and F was at its historic low in 2011. Recruitment has been below the long-term average in recent years.</p> <p>Overall, ICES considers that the quality of the assessment has improved along with the quality of landings and discard data (which are an important component of the assessment), and that the catch and survey data indicate consistent stock trends. In September 2010, ICES advised that F be maintained at 0.3 (ICES, 2010), on the basis of which the EU and Norway agreed interim management for 2011 and ICES advice for 2012 was given. However, given the considerable revision in F in the 2012 assessment, ICES considers that the previous evaluations are invalid and should be repeated with the new stock assessment results. As an interim measure, ICES considers that it would be appropriate to scale the target F (0.3) in the</p>

	<p>management plan (by around 25% = 0.225), which would lead to human consumption landings of no more than 19 k t in the North Sea in 2013. This is a slight increase on 2012 (17 kt), but the TAC continues to be restrictive and discard rates are expected to remain high in 2012 and 2013 unless selective gear is used.</p> <p>In this context, the TR1 fleet continue use the optimum mesh size for the best selectivity, and the TR2 fleet has adopted a new approach based on recent gear trials with a fish exclusion device (the Flip Flap Grid - designed by Gamrie Bay Trawls) that showed retention of small cod, haddock and whiting to be greatly reduced compared to the commercial gear fitted only with an SMP.</p> <p>There is, therefore, a strategy for management of cod by catch, and a partial strategy for the other main by-catch species (whiting). Measures have been subject to evaluation as to their effectiveness in terms of discard reduction (whiting) and cod stock assessment, which shows an increase in biomass and an F below the management target; other stocks are within biologically-based limits (saithe, monkfish) and the partial strategy (associated with cod recovery, but also effective in reducing effort on these species) would indicate that this SFSAG fishery would not compromise this status.</p>
<b>Conclusion</b>	<p>The client has met the condition at this second surveillance point. The partial strategy is in place and improved selectivity measures have been, and continue to be, adopted. Evidence on improvements in selectivity and gear performance as measured against current benchmark levels will be reported at the third surveillance audit.</p> <p>The requirements of this condition have been met. The score for cod, as indicated in the original assessment is 100, for other scoring components (saithe, monkfish and notably whiting) the score is increased to 80.</p> <p>This PI is now rescored at 85 and the condition is closed.</p>

Condition 2 closed at first surveillance audit.

<b>Condition 3</b>	<b>Mitigation Measures to reduce by-catch:</b> The client shall ensure that there is a partial strategy in place that is expected to maintain both retained species at levels that are highly likely to be within biologically-based limits, or to ensure the fishery does not hinder their recovery and rebuilding.
<b>PI</b>	2.2.2: <b>Management strategy:</b> There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species.
<b>SG 60</b>	There are measures in place, if necessary, which are expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery. The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/species).
<b>SG 80</b>	There is a partial strategy in place, if necessary, for managing bycatch that is expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or the species involved. There is some evidence that the partial strategy is being implemented successfully.
<b>SG 100</b>	There is a strategy in place for managing and minimising bycatch. The strategy is mainly based on information directly about the fishery and/or species involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its objective.
<b>Score</b>	<b>Overall score: 75</b> There is a partial strategy (through the EC CPOA for sharks) in place for managing spurdog bycatch that is expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery. This includes a vessel-level approach of a move-on strategy in the case of spawning aggregations of this species. This is a large-mesh gear which will help minimise the capture of non-commercial species. However there is scope for the wider adoption of more selective gear to reduce bycatch further so does not quite achieve SG 80 (75). There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or the species involved. This is supported by the declining markets for, and landings of spurdog and the cessation of targeted fishing of this species (80). There is some evidence that the partial strategy is being implemented successfully. More selective trawl designs to reduce the level of by-catch will benefit this benthopelagic species (80).
<b>Rationale</b>	The joint EU/Norway Management Plan includes the requirement to reduce discards in the haddock fishery. Considerable work has been conducted in trialling more selective gears for mixed whitefish fisheries in Scotland. There is now a need for the widespread adoption of locally suitable selective gear to reduce the incidental catch of species that may be subsequently discarded.
<b>Client Action Plan</b>	Members of the client group will continue to participate extensively in the development and trial of further selective gears to reduce discards through their participation in initiatives such as the Conservation Credits scheme, a Scottish response to regional management that promotes sustainable fishing practices, and the Scottish Industry Science Partnership (SISP), which helps fishers develop new, environmentally friendly, fishing gears. Furthermore, the group will seek to influence the on-going use and development of innovative net design and configuration of whitefish gear, Seasonal Closures (SC's), and Real Time Closures (RTC's) which together provide substantial protection for juveniles and vulnerable stocks such as cod and whiting. The group will use current levels of selectivity and gear design as a benchmark from which to assess the need for further improvements; the group will deliver any necessary changes through their participation, and influence within the various stakeholder groups.

	<p>It is expected that a formal partial strategy for the adoption of suitably selective gear will be in place within a year of initial certification and that there is evidence that this strategy is being implemented successfully within three years of certification</p>
<b>Client Progress</b>	<p>As above, the clients report in advance of this audit has been appended hereto and key sections reproduced below.</p> <p>The client fleet has trialled a number of new gear types since the site visit in 2009. The variety of gears, as well as the timeline of actions, can be seen in Annex II.</p> <p>Seasonal and Real Time Closures have become an accepted part of fisheries management within Scotland. These have been extended into real time closures for juveniles, as agreed between the EU and Norway in late 2009. To 16<sup>th</sup> October 2012, there have been 3 juvenile closures and 142 cod closures within Scottish waters this year. This demonstrates a significant reduction in discards from 2011 where the number of juvenile's closures for the same period stood at 32. A similar system of cod closures is operated in English waters. A full explanation of the progress of the RTC scheme can be seen in Appendix II and Annex I to Appendix II.</p> <p>SFSAG has chosen to encourage the adoption of more selective gears through the work of FMAC. The Scottish Government is implementing fisheries policy through co-management and SFSAG feel that encouraging the uptake of selective gear through the use of a centralised, incentive based scheme fulfils its objectives in more rational and effective manner than could be achieved by SFSAG alone.</p> <p>As outlined in Appendix II and its Annexes, the Scottish fleet has trialled and is now using a system of catch quotas for cod. This has significantly reduced the discarding of cod in the North Sea as participating vessels may not discard any of the species. Once the vessel has exhausted its cod quota, it must stop fishing in the North Sea.</p> <p>In 2012 Scottish vessels using TR2 (80-99mm) in the North Sea must use a highly selective gear (Annex 3) that reduces the capture of cod by more than 60%. These nets also reduce the capture of juveniles and unwanted species. This gear must also be used when fishing to the West of Scotland (Area Via west of the French line) North of 59<sup>o</sup>. From the 1<sup>st</sup> October 2012 all Scottish vessels using TR2 (80-99mm), that do not fall within the category outlined above, must operate with a 200mm square mesh panel no further than 12-15m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 12m from the cod line). For vessels with engine capacity of 112kW or less, the SMP may be 160mm instead of 200mm and the length of the SMP may be 2m and not 3m.</p>
<b>Observations</b>	<p>The only main species of concern identified in the original assessment was spurdog. This species is now subject to a zero TAC and so there is no targeting of this species (any catches must be returned at sea – depending on how these are handled, survival can be high).</p> <p>It was confirmed during the audit that fishermen will avoid catches of spurdog due to their entanglement with gear and damage to other catch. This confirms and extends the avoidance of aggregations reported in the original assessment. As noted for Condition 1, the adoption of selective gear is now virtually complete in the TR2 component of the client fleet and selectivity has increased in the TR1 component.</p> <p>A partial strategy is therefore in place such that the fishery would not be expected to hinder recovery of this species. Objective basis for confidence that the partial strategy will work, based on information on gear trials within the fishery and measures of selectivity within the fleet.</p> <p>There is evidence that the partial strategy is being implemented successfully, notably the adoption of selective gear in the TR2 fleet and increased selectivity in the TR1 fleet.</p>
<b>Conclusion</b>	<p>There is a partial strategy in place that would reduce by catch of all species through increased selectivity. By catch of spurdog has been reduced as it is now prohibited to retain or land the species, the fishery operates to avoid known spurdog aggregations and spurdog signals on echo sounders etc and selectivity of gear has increased.</p>

This PI is therefore rescored at 80 and the condition closed.
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<b>Any complaints against the certified operation; recorded, reviewed and actioned</b>
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No issues of compliance were identified with Marine Scotland, and cooperation with regulators was perceived to be improved.
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No complaints against the certified operation were identified with the client.
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<b>Any relevant changes to legislation or regulation.</b>
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None
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<b>Any relevant changes to management regime.</b>
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The conservation credit scheme (whereby extra days at sea may be obtained in return for adoption of highly selective gear) are now administered within Scotland by FMAC, a new group constituting broad stakeholder membership (including POs, Fishermen's Associations, Government and Government Science). FMAC is able to implement new measures extremely quickly (within a few days) and apply internal sanctions etc. This is seen as a positive measure.
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<b>Overall Conclusions</b>
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All Conditions have now been closed.
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The revised Principle scores for the fishery are now:
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Principle 1: 92.5
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Principle 2: 84.7
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Principle 3: 95.3
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No changes in management have taken place that would detrimentally affect the performance of this fishery against the MSC standard and the fishery continues to meet the requirements of the MSC Standard.
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MSC Certification should therefore continue with audits annually (See Appendix 3).
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## **Annex 1**

No written submissions were received. The outcome of the meeting with the clients is represented in the report above.

**Annex 2 Stakeholder Notification of Surveillance Audit****SFSAG North Sea Haddock Fishery****MSC Certification****Certification Body: Intertek Moody Marine****Second Surveillance Audit**

Following certification of this fishery, we are now continuing the process of annual surveillance audits of the fishery. 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. We expect to carry out meetings on 22 October 2012:

**Edinburgh, UK**

22 October 2012

Attended by: Dr Andrew Hough, Dr Mike Pawson

This represents a change in personnel from the first surveillance audit; Andrew Hough was involved in this fishery from the pre-assessment and participated in the main assessment. Mike Pawson was engaged in the first surveillance audit.

Should you have any information on this fishery that you feel should be considered in the assessment, please advise us. We may be available to meet with stakeholders as appropriate. If you would like to arrange a meeting, please advise us of:

- a) your name and contact details
- b) your association with the fishery
- c) the issues you would like to discuss (in order for us to arrange appropriate representation)
- d) where and when you would like to meet

Yours

Dr Andrew Hough  
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28 September 2012

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**Annex 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	SFSAG NS Haddock Fishery
<b>1. Default Assessment Tree</b>		
Yes	0	0
No	2	
<b>2. Number of Conditions</b>		
Zero Conditions	0	0
1-5 Conditions	1	
>5 Conditions	2	
<b>3. Principle Level Scores</b>		
≥ 85	0	
<85	2	2
<b>4. Conditions on outcome PIs?</b>		
Yes	2	
No	0	0
<b>Total</b>		<b>2</b>

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

Surveillance score	Surveillance level	Years after certification or re-certification				
		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 SFSAG North Sea Haddock Fishery scores 2 as the Principle 2 score is <85, and so will require an on-site audit next year.

**Annex 4 Client Submission in Advance of Second Surveillance Audit**



# **Scottish Fisheries Sustainable Accreditation Group**

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**North Sea Haddock**

**Year Two**

## **EXECUTIVE SUMMARY**

The Scottish Fisheries Sustainable Accreditation Group (SFSAG) North Sea Haddock fishery received certification under the standards set by the Marine Stewardship Council in October 2010. Conditions associated with the reduction of by-catch and the reduction and recording of discards were placed upon the fishery. The client group has continued to make progress in meeting these conditions through a number of bespoke and generic measures and has continued to actively support national measure through involvement in co-management. The client fleet has participated in a variety of incentive based schemes to demonstrably reduce by-catch and discarding, and has been active in promoting such activities in a European context. The bespoke system of collating discard information has replaced by an electronic recording requirement within the electronic logbooks. SFSAG will continue to actively participate in the design and implementation of innovative schemes and to support the development of more sustainable practices.

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### **1. Introduction**

## **1.1 SFSAG**

1.1.1 SFSAG was initially formed in 2008, and incorporated in 2009, to seek certification for two of the keystone species of the Scottish industry, North Sea Haddock and Nephrops. Certification for NS Haddock was successfully achieved in October 2010 and this report forms part of the second year surveillance audit.

1.1.2 SFSAG Board membership is composed of the following organisation:

- Aberdeen Fish Producers Organisation
- Anglo-Scottish Fish Producers Organisation
- Fife Fish Producers Organisation
- Fishermen's Mutual Association (Pittenweem)
- North East of Scotland Fishermen's Organisation
- Northern Producers Organisation
- Orkney Fish Producers Organisation
- Scottish Fishermen's Organisation
- Scottish White Fish Producer's Association (SWFPA)
- Shetland Fish Producers Organisation

1.1.3 The Board of SFSAG is chaired by Mike Park of SWFPA and Secretariat is provided by Seafood Scotland. Marine Scotland Policy and Science also take an active role in the group by assisting with expertise and funding advice. Additional information on SFSAG can be found at [www.scottishfsag.org](http://www.scottishfsag.org).

## **1.2 The Client Fleet and Fishery**

1.2.1 The certified fishery is the North Sea Haddock trawl and Danish seine fishery. The client fleet is currently composed of 200 vessels fishing with both TR1 (100mm +) and TR2 (80-99mm) gear and with both single and twin rig. There are no multi-rigged vessels within the client fleet. The fleet is diverse in size, ranging from vessels of <10m to over 35m registered length.

1.2.1 The fishery is a mixed fishery in which haddock is the main component of the landed fish. Other species landed include cod, whiting, saithe and Nephrops norvegicus. Most of the haddock are landed into Scottish ports and are sold over the fish market, which is included in the scope of the certification. Some haddock are sold directly to local processors in the north east of Scotland.

1.2.2 The initial UK share of the quota in 2012 was 64% and the Scottish share was 48% or 20,037 tonnes. The majority of this will be allocated to vessels within the client group. Of the overall TAC, including the client fleet outwith the Scottish quota management system will be about 50% of the overall TAC.

1.2.3 In 2011, the client fleet landed around 19,000t of NS Haddock. In 2010, the client fleet landed around 20,000t of NS Haddock.

### **1.3 Stock Status**

- 1.3.1 The stock demonstrates dependency on strong year classes that appear periodically but has been fished above B<sub>trig</sub> for over a decade. The fishing mortality has been well below F<sub>pa</sub> for the last decade and the impact of the implementation of the Cod Recovery Plan, which contains a strong element of effort restrictions, is likely to ensure that a relatively low level of fishing mortality is sustained. The stock has remained healthy and has been fished at an appropriate level since prior to the certification of the fishery.
- 1.3.2 The fishery is jointly managed with Norway on the basis of a management plan agreed in 2008. The plan limits TAC movements to + or – 15% and restricts fishing on the basis of a TAC consistent with a fishing mortality of 0.3 (26% removal of the stock).
- 1.3.3 The application of the MSY approach would result in an increase in TAC, to 49,000t, in 2013. The application of the management plan would result in an increase in TAC of 15% to 47,811t in 2013.

## **2 General Information**

- 2.1 MSC NS haddock was launched on 29th October 2010. Only one North East processor had Chain of Custody (CoC) certification in place at the time although a number were working towards it.
- 2.2 A significant number of processors have gained CoC certification since that time, and a range of products are now going into a variety of outlets. A description of this can be seen in Appendix I.
- 2.3 Fish salesmen were briefed on the invoicing and sales note requirements of the CoC prior to certification but it took a period of adjustment for the information to automatically appear on the paperwork. This has now been fully addressed and all certified haddock is sold as such, enabling the buyer to decide whether the fish enters the MSC chain of custody or not.
- 2.4 The procedures to enable easy discrimination between certified and non-certified haddock, including the supply of visible tags that are used on boxes within the fish markets continue to be in use. The group is still in discussion with Peterhead Harbour Authority on the use of the landings board, and the landings website to communicate the quantities of MSC haddock expected for any given market. Very little progress has been made on this to date but quotes have been received for the work and it is anticipated that the board will be MSC compliant by early 2013. Interest has been expressed on similar provision in Lerwick.

- 2.5 Audits continue to be carried out and are still well received but have indicated few, if any, issues. Sanctions have not been imposed on any vessel.
- 2.6 SFSAG will continue to review its official procedures and take action if and when needed
- 2.7 The UK has 36 registered business sites with haddock chain of custody. Worldwide there are 670, although it is appreciated that this may not accurately reflect the number actually trading the product.

### **3. Conditions**

- 3.1 The fishery was certified subject to three conditions. These were:
- Continuation of participation in by-catch reduction initiatives, including the design and adoption of selective gear.
  - The recording of the total catch of retained species
  - Continuation of participation in discard reduction initiatives, including the design and adoption of selective gear.
- 3.2 The nature of SFSAG is such that each Board member represents a significant industry body engaged in, and influencing, the policy debate at national level and, in some cases, EU level. It was considered by SFSAG, and reflected within the client action plan, that progress towards the conditions associated with the reduction of by-catch and discards should be progressed through the component organisations, rather than SFSAG itself. This was thought to reduce duplication and confusion and to confer an increased benefit on the sustainability of the fleets itself. It is in this way that the group has effected the necessary change.
- 3.3 The engagement with established administrative processes has, however, led to a number of changes and some of the terminology within the client action plan is now obsolete. In other cases the efficacy of initiatives has been reduced by external factors.
- 3.3.1 Conservation Credits has continued to develop and the functions are now carried out within FMAC (Fisheries Management and Conservation Group). Membership of this new group continues to reflect a broad range of stakeholder interests yet is more focused and, as a result, more able to deal with the challenge of regional management presented by the reform of the Common Fisheries Policy and, thus, the legislative framework of fisheries management within the EU. The group will continue to develop and promote innovate approaches to improved selectivity and the reduction of unwanted catches.

3.3.2 The Scottish Industry Science Project (SISP) continues to operate and the last call was in September 2012. The Fishing Industry Science Alliance (FISA) will take over from SIFP although the budget will be reduced.

### **3.4 Condition 1 – By-catch Reduction**

3.4.1 The client fleet has trialled a number of new gear types since the site visit in 2009. The variety of gears, as well as the timeline of actions, can be seen in Annex II.

3.4.2 Seasonal and Real Time Closures have become an accepted part of fisheries management within Scotland. These have been extended into real time closures for juveniles, as agreed between the EU and Norway in late 2009. To 16<sup>th</sup> October 2012, there have been 3 juvenile closures and 142 cod closures within Scottish waters this year. This demonstrates a significant reduction in discards from 2011, where the number of juvenile closures for the same period stood at 32. A similar system of cod closures is operated in English waters. A full explanation of the progress of the RTC scheme can be seen in Appendix II and Annex I to Appendix II.

3.4.3 SFSAG has chosen to encourage the adoption of more selective gears through the work of FMAC. The Scottish Government is implementing fisheries policy through co-management and SFSAG feel that encouraging the uptake of selective gear through the use of a centralised, incentive based scheme fulfils its objectives in more rational and effective manner than could be achieved by SFSAG alone.

3.4.4 In 2012 Scottish vessels using TR2 (80-99mm) in the North Sea must use a highly selective gear (Annex 3) that reduces the capture of cod by more than 60%. These nets also reduce the capture of juveniles and unwanted species. This gear must also be used when fishing to the West of Scotland (Area Via west of the French line) North of 59<sup>o</sup>. From the 1<sup>st</sup> October 2012 all Scottish vessels using TR2 (80-99mm), that do not fall within the category outlined above, must operate with a 200mm square mesh panel no further than 12-15m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 12m from the cod line). For vessels with engine capacity of 112kW or less, the SMP may be 160mm instead of 200mm and the length of the SMP may be 2m and not 3m.

### **3.5 Condition 2 – Recording of Total Catch of Retained Species**

3.5.2 This condition was closed in the 2012 audit.

3.5.3 The advent of electronic logbooks has improved the flow of information to Marine Scotland and the current guidance for e-logs requires the submission of discard information in electronic format, as outlined in the 2010 audit report.

### **3.6 Condition 3 – Discard Reduction**

- 3.6.1 The client fleet has trialled a number of new gear types since the site visit in 2009. The variety of gears, as well as the timeline of actions, can be seen in Annex II.
- 3.6.2 Seasonal and Real Time Closures have become an accepted part of fisheries management within Scotland. These have been extended into real time closures for juveniles, as agreed between the EU and Norway in late 2009. To 16<sup>th</sup> October 2012, there have been 3 juvenile closures and 142 cod closures within Scottish waters this year. This demonstrates a significant reduction in discards from 2011 where the number of juvenile's closures for the same period stood at 32. A similar system of cod closures is operated in English waters. A full explanation of the progress of the RTC scheme can be seen in Appendix II and Annex I to Appendix II.
- 3.6.3 SFSAG has chosen to encourage the adoption of more selective gears through the work of FMAC. The Scottish Government is implementing fisheries policy through co-management and SFSAG feel that encouraging the uptake of selective gear through the use of a centralised, incentive based scheme fulfils its objectives in more rational and effective manner than could be achieved by SFSAG alone.
- 3.6.4 As outlined in Appendix II and its Annexes, the Scottish fleet has trialled and is now using a system of catch quotas for cod. This has significantly reduced the discarding of cod in the North Sea as participating vessels may not discard any of the species. Once the vessel has exhausted its cod quota, it must stop fishing in the North Sea.
- 3.6.5 In 2012 Scottish vessels using TR2 (80-99mm) in the North Sea must use a highly selective gear (Annex 3) that reduces the capture of cod by more than 60%. These nets also reduce the capture of juveniles and unwanted species. This gear must also be used when fishing to the West of Scotland (Area Via west of the French line) North of 59<sup>o</sup>. From the 1<sup>st</sup> October 2012 all Scottish vessels using TR2 (80-99mm), that do not fall within the category outlined above, must operate with a 200mm square mesh panel no further than 12-15m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 12m from the cod line). For vessels with engine capacity of 112kW or less, the SMP may be 160mm instead of 200mm and the length of the SMP may be 2m and not 3m.

**Appendix I: SFSAG North Sea Haddock – MSC Product Availability.**

<b>Ref:</b>	<b>Retailer</b>	<b>Product</b>	<b>Pack</b>	<b>Form</b>	<b>Comment</b>
1	<b>Asda</b>	Microwaveable Scottish haddock with lemon & pepper butter.	105 gm	Fresh / Chilled VP	
		Microwaveable Scottish haddock with butter.	105 gm	Fresh / Chilled VP	
		Skinless Scottish haddock block fillets	c/w	Fresh / Chilled VP	
		Skinless Scottish smoked haddock block fillets	c/w	Fresh / Chilled VP	
2	<b>Marks &amp; Spencer</b>	Microwaveable Scottish haddock with lemon & pepper butter.	105 gm	Fresh / Chilled VP	
		Microwaveable Scottish haddock with butter.	105 gm	Fresh / Chilled VP	
		Skinless Scottish	c/w	Fresh /	

Ref:	Retailer	Product	Pack	Form	Comment
		haddock block fillets		Chilled VP	
		Skinless Scottish smoked haddock block fillets	c/w	Fresh / Chilled VP	
		Microwaveable Scottish haddock with lemon & pepper butter.	105 gm	Fresh / Chilled VP	
		Microwaveable Scottish haddock with butter.	105 gm	Fresh / Chilled VP	
3	<b>Sainsburys</b>	Just Cook – smoked haddock rarebit	365 gm	Fresh / Chilled	Shared line
		2 Extra Large Battered haddock fillets	460gm	Frozen	
4	<b>Tesco</b>	Skinless Scottish haddock block fillets	c/w	Fish counter	
		Skinless Scottish smoked haddock block	c/w	Fish counter	(dyed & undyed)

Ref:	Retailer	Product	Pack	Form	Comment
		fillets			
5	<b>Jane's Foods (Canada)</b>	Multigrain Haddock	610gm	Frozen	
		Premium Battered Haddock	575 gm	Frozen	
		Premium Battered Haddock	1kg	Frozen	
		Breaded Haddock	580 gm	Frozen	
6	<b>Loblaws – Presidents Choice (USA)</b>	Scottish haddock fillets	600 gm	Frozen	
		Battered haddock & hops	550 gm	Frozen	
		Breaded haddock	550 gm	Frozen	
7	<b>Thank Goodness (USA)</b>	Premium Battered Haddock	482 gm	Frozen	
8	<b>Nature Oceane</b>	Haddock Fillets	c/w	Fresh/chilled	

Ref:	Retailer	Product	Pack	Form	Comment
	(Belgium)				
9	Fish & Chip Shop Outlets	The Bay Fish & Chips - Stonehaven		Take Away	
		The Chip Box - Kilmarnock		Take Away /Restaurant	
		Richardson's Fish Bar - Fleetwood		Take Away / Restaurant	
	Cesar UK	Cesar		canned	Pet Food /shared
	Sheba	Finesse Cuisine		canned	Pet Food / shared

**Appendix II: Gear and Technical Developments in the Scottish Demersal Sector March 2009 to October 2011**

Gear and Technical Developments in the Scottish Demersal Sector			
March 2009 – October 2011			
Date of introduction	TRI (Whitefish)	TR2(Nephrops)	Comment
March 2009	Real Time Closures for Cod		<p><b>Key Features (Annex 1)</b></p> <p>144 closures in 2009; closures were based on both physical samples and CPUE information.</p>
June 2009	Seasonal Closure becomes permanent		<p>The seasonal closure of an area known as the Long hole becomes a permanent feature due to the on-going densities of cod. A further three remaining seasonal closures become a permanent feature of the Scottish fisheries management regime.</p>
July 2009	Introduction of a voluntary Cod Catch Quota Scheme		<p>Under the Marine Scotland voluntary Cod Catch Quota Scheme (CCQS), participating vessels must retain on board and land all cod that is caught, regardless of size and marketability. Those participating in the Catch Quota Scheme operate a fully documented fishery for cod.</p> <p>A pilot scheme was launched in July 2009 for skippers to use electronic monitoring on their boats to help</p>

			reduce fish discards. Seven Scottish skippers were chosen for the initial pilot scheme (four whitefish and three nephrops).
January 2010	Real Time Closures for Cod		165 closures in 2010; From the 1 <sup>st</sup> July the area of closure increased from 7.5km by 7.5mn, to, 15km by 15km. The period of closure remained 21 days.
January 2010	Introduction of second phase of a voluntary Cod Catch Quota Scheme		<p><b>Scheme Characteristics (Annex 2)</b></p> <p>The pilot was expanded to include 17 vessels. An additional 5% of the EU share of Cod TAC was set aside for Member States to operate the scheme.</p> <p>Vessels taking part are not permitted to discard any North Sea cod including those below the minimum size, with all catches counting against quota. Once the quota for these stocks is used up the vessels must stop fishing for all species, whereas under current rules vessels can continue to fish but discard over-quota fish and risk over-exploitation of the stocks.</p>
March 2010	<ul style="list-style-type: none"> <li>• 130mm Cod end</li> <li>• 300mm Belly Mesh</li> <li>• 600mm Belly</li> <li>• 200mm Square Mesh panel</li> <li>• Orkney Trawl</li> </ul>	<ul style="list-style-type: none"> <li>• 130mm Square mesh panel</li> <li>• 160mm Square mesh panel</li> <li>• 200mm square mesh panel</li> </ul>	<p><b>Key Features (Annex 3)</b></p> <p>Additional selectivity – a matrix of options that delivered an additional number of days. The majority of options were proposed for trial by</p>

	<ul style="list-style-type: none"> <li>• Shetland Trawl</li> </ul>		client group members
12 August 2010	Commission Regulation (EU) No 724/2010 of 12 August 2010		<p>Introduction of rules to protect densities of juvenile (fish below the minimum landing size) cod haddock, whiting, and saithe. Industry participation via NSRAC.</p> <ul style="list-style-type: none"> <li>• 8 closures during 2010</li> <li>• 30 closures in 2011 (As of 16<sup>th</sup> October)</li> </ul>
January 2011	Introduction of third phase of a voluntary Cod Catch Quota Scheme		<p>The scheme has been expanded in 2011 and vessels have been given an additional amount of cod which is no greater than 30% of the vessels cod landings in 2010. This additional opportunity comes from the additional 12% of the EU share of the cod TAC. 57 vessels applied for the scheme, 26 were successful.</p>
January 2011	Real Time Closures for Cod		<p>152 closures in 2011 (As of 16<sup>th</sup> October); the area closed remains 15km by 15km.</p>
29th June 2011		Scottish Scientific Trial – Juvenile Closures	<p>21 day trial that allowed vessels using approved gear (improved selectivity) access to Juvenile areas. A scheme promoted by client group members as a way of incentivising change</p>

29 <sup>th</sup> June		Introduction of new net designs	The introduction of prototype net designs that reduces significantly the capture of unwanted species. The initiative is solely driven by catchers. Scientific analyses of the output will be available in December 2011. Industry led trials of other designs continues. Falls within the responsibility of SISF.
5 <sup>th</sup> August 2011	Commission Implementing Regulation (EU) No 783/2011 of 5 August 2011		Strengthening amendment to Juvenile RTC regulation. Reduced the sampling threshold from 300kg to 200kg and trigger threshold of from 15% to 10%.
February 2012		Agreement to introduce highly selective gears into the TR2 sector in the North Sea ( <i>fishes at any time Area IVa and / or 'Farn Deeps'</i> ). Highly selective gears are required to deliver a reduction in cod catch by at least 60%. Introduce 1 <sup>st</sup> MAY 2012.	Industry driven initiative to lessen the effect of the annual effort reduction. Vessels awarded a greater number of days in return for a reduction in cod mortality – Scottish, unilateral measure
1 <sup>st</sup> October 2012		Requirement for all TR2 vessels to use, as a minimum, a 200mm square mesh panel – vessels may not, from 00:01 on 1 October 2012, be absent from port in ICES Areas IV, VIa or VIId carrying gear category TR2 without having installed in its gear a 200mm SMP. The SMP must be no further than 12-15m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than	Industry led initiative to reduce the capture of juveniles – predominantly haddock and whiting.

		12m from the cod line).	
1 <sup>st</sup> October 2012		Agreement to introduce highly selective gears into the TR2 sector to the West of Scotland area VIa ( <i>inside the French line</i> ) South of 59°N. Highly selective gears are required to deliver a reduction in cod catch by at least 60%. Introduced 1 <sup>st</sup> October 2012.	Industry driven initiative to lessen the effect of the annual effort reduction. Vessels awarded a greater number of days in return for a reduction in cod mortality – Scottish, unilateral measure

## Annex 1

### **Real Time Closures (RTCs) – Key Features**

1. RTCs continue to apply to all waters in the Scottish Zone and beyond where Scottish vessels are operating out with the 12 mile limit. Inside the 12 mile limit, Marine Scotland will, where the trigger level has been achieved, consider in consultation with the Conservation Credits Steering Group the nature and extent of the need for any closure in relation to current and anticipated fishing activity. The overall size of each closure is 15nm x 15nm or the equivalent thereof. For vessels operating under the Catch Quota Management System, the overall size will be 7.5nm x 7.5nm.
2. The shape and size of any closed area shall, in the first instance, be agreed between the Marine Scotland boarding officer and the Master of the fishing vessel. Where any dispute cannot be resolved, the area shall default to a square with sides of equal length. There will be potential for further amendment after discussions between industry representatives and Marine Scotland.
3. The key features of RTCs are as follows:
  - A minimum of 40 cod per hour's fishing effort will indicate a high abundance;
  - The overall size of each closed area shall be a maximum size of 15nm x 15nm or the equivalent thereof. Any closures in Zone 2, inside our fishery limits of the North Sea, shall remain at the current size of 7.5nm x 7.5nm;
  - There will be a maximum level of eleven closures (plus three extra in the event of a positive sample) set at any one time. If eleven closures cannot be established then the maximum possible shall be established. Any closed area will be defined by a maximum of six points;
  - Closures within the 12 mile zone can only be established in exceptional circumstances which may require consultation with industry representatives;
  - Each closure will be as a result of one positive sample (over 40 cod per hour). Analytical closures shall be based on the highest ranked areas in relation to cod recorded on log sheets and related to time spent fishing as identified by VMS information. This is referred to as Logged Per Unit Effort (LPUE);
  - Closures will last for a fixed period of 21 days after which the area will automatically re-open;
  - There will be no set minimum closures in North Sea Zones 1 and 2. Closed areas shall be focussed on the highest ranking LPUE data, delivering the maximum conservation benefit. LPUE data of less than 0.05 will be discounted;
  - Any closures in Zone 2 inside our Fishery Limits of the North Sea shall remain at the current size of 7.5nm x 7.5nm;
  - A buffer zone of 15nm will be established around a closure. No other closures will encroach on the buffer zone;
  - Other UK administrations and other Member States will be advised of closures and vessels encouraged to observe them;

## Annex 2

### **Overview**

1. This is a voluntary system. It is based on catch-quota management, not on traditional landing quotas. The catch-quota management system (CQMS) will operate in the 2011 quota management year and be applicable to CQMS species in the North Sea only.
2. The purpose of this management system is to reduce discards, reduce stock mortality, provide better scientific data and encourage fishermen to fish more selectively. At the same time, it is aimed at delivering higher revenue for participating vessels compared to those not participating.
3. The main features for vessels participating in the CQMS are that:
  - a) all caught fish are recorded;
  - b) all CQMS species caught shall count against quota;
  - c) all CQMS species caught shall be retained on board and landed;
  - d) fishermen will have the responsibility to document that all fish caught are accounted for; and
  - e) all participating vessels are exempted from effort controls.
4. The main objectives of the system are to:
  - Reduce discard levels.
  - Reduce fishing mortality rates for demersal stocks.
  - Build on our current evidence base and experience from the scheme working towards the introduction of better fisheries management arrangements, including in a multi-species context and influencing and pre-empting the review of the CFP.
  - Provide further detailed evaluation of using catch-quota and related incentive schemes as fishery management and discard reduction tools.
  - Seek to ensure improved science and advice on the basis of precise fisheries data. In effect, it is hoped that participants in the scheme will significantly enhance our data collection capability. Science needs better data to assess fish stocks more precisely, but science also needs reliable real-time data to assess e.g. the effect of management initiatives such as a discard ban.
  - Improve the effect and tuning of regulations regarding e.g. real-time closures, grading bans and effort restrictions by providing precise data on catch rates and discards from reference vessels having full catch documentation.

### **Eligibility**

5. To allow for effective management, monitoring and communication, eligibility shall be limited to Scottish vessels only. For the purposes of the CQMS a Scottish vessel shall be defined as Scottish registered and administered at a Marine Scotland coastal office.

### Conditions of participation

6. The scheme shall be open to all vessels.
7. Once accepted into the system participating vessels must remain in for the remainder of the calendar year.
8. All participating vessels will require fully functioning vessel monitoring systems and electronic logbook system.
9. Participating vessels will be required to secure a REM system from an approved Marine Scotland supplier. Only engineers authorised by the Marine Scotland supplier will be able to carry out repairs and maintenance.
10. Participants will receive a fishing authorisation for the 2011/12 effort management year that does not limit their days at sea. The authorisation will also note those parts of the Conservation Credits scheme that will continue to apply to CQMS participants.
11. Participating vessels shall not be permitted to lease out the quota obtained from Marine Scotland as part of participation in CQMS.
12. The systems shall remain switched on at all times regardless of the sea area in which the vessel is operating.
13. Once a vessel has caught all of any of the individual CQMS species it will be required to cease all fishing in the North Sea. Vessels are therefore strongly encouraged to consider the use of highly selective gears and continue avoidance behaviours to ensure this scenario does not arise. Whilst additional quota can be leased in during the year, this additional quota will not qualify for the *pro rata* increase in quota given at the start of the management year.
14. Due to the need to cross-verify the value of electronic monitoring, observers will be required onboard participating vessels from time to time. Participating vessels **MUST** accept an observer under these circumstances.
15. In relation to the equipment installed there shall be a duty of care placed on the master as laid out in **duty of care code**. It is the responsibility of the Master to ensure that crew are cognisant and compliant with the terms and conditions of the CQMS. Failure to do so will result in removal from the CQMS.
16. A vessel engaged in Pair Trawl activities shall only be eligible for the scheme if both vessels are signed up to the scheme.
17. All North Sea **CQMS species** shall be retained onboard. Undersized fish shall not be mixed with fish above the minimum landing size. For the purposes of recording undersized CQMS species and reducing the need for additional weighing, a standard 70/75 litre fish box containing undersized CQMS species shall be recorded as 50 kilos. A standard 600 kilo bin containing undersized CQMS species shall be recorded as 400 kilos. Similar *pro rata* calculations apply to other size boxes and bins
18. Participating vessels are exempted from the offence of retaining undersized CQMS species only. Undersized fish cannot be sold or offered for human consumption. It can be disposed of by sending for fishmeal or offering as bait to static gear operators.

19. Discarding of species other than CQMS species shall be allowed as long as it adheres to the requirements of the High Grading Ban.
20. In the event of equipment failure the Master shall notify the call centre immediately he becomes aware of the failure. The trip may be finished before return to port but the vessel will not be allowed to return to sea until equipment is fully functioning again. Early communication of any equipment problems will allow Marine Scotland to take steps to ensure that the problem can be corrected as soon as possible on the vessel's return to port.
21. Footage and data gathered may be used in anonymised & aggregated form in publications and reports produced by Marine Scotland.
22. Enquiries made under Freedom of Information shall be answered following normal FOI guidelines. However, personal data (which includes CCTV footage and data) will not be released.
23. Marine Scotland may place additional cameras onboard participating vessels as required.
24. Marine Scotland will engage with those who participate in the scheme to obtain feedback on the impact of the equipment on a vessel. Any installation costs and maintenance costs shall be borne by the vessel. If any funding opportunities for REM equipment become available through the EU, Marine Scotland will pursue those avenues with the European Commission and seek to allow retrospective payments.
25. Marine Scotland will take action where necessary against vessels which breach the conditions of the scheme or any other general fishery regulations. Action may range from advisory or administrative sanctions, including expulsion from the scheme, to formal enforcement action.

#### **Removal Penalties**

26. Removal from the scheme may be considered where the participant has failed to comply with the terms of the management system, including where:
  - there has been a failure to allow observers onboard;
  - there has been tampering or interference with the on-board REM equipment;
  - there has been a consistent failure to maintain the duty of care requirements;
  - there has been deliberate blocking of the view from REM equipment to the vessel's catch-handling areas; and/or
  - there have been inconsistencies between observed catches and those subsequently landed.
27. Vessels removed from the scheme will be required to make available to their Producer Organisation (for them to transfer to Marine Scotland) the quota tonnage awarded to them through their participation in the CQMS. If a vessel is not able, during the relevant management year, to provide to its PO the quota made available to it through the CQMS, the vessel will be invited to make a transfer in the following year. Where the vessel is unable to make the transfer in the following year, Marine Scotland will make a deduction from the days at sea allocation of the vessel, at a level to be determined by Marine Scotland.
28. In addition, where a vessel is removed, the days at sea authorisation granted to it will be rescinded, and Marine Scotland will thereafter consider the level and terms of any new allocation of days at sea. Marine Scotland will not be able to guarantee an allocation of days at sea to vessels removed from the scheme, particularly where removal takes place later in the effort management year.
29. Vessels removed will not be permitted to join any CQM system in the following year and will be required to repay any additional CQMS species received.

30. Marine Scotland reserves the right to change any of the rules of the scheme at any time.

### Annex 3

#### **Conservation Credits Gear Developments – Key Features**

##### **TR1 gears**

###### **“The Scottish Eliminator trawl”**

To qualify for the additional days associated with the use of the Scottish Eliminator trawl, a vessel must use gear that has all of the following features:

- All top sheet wing netting sections to be made of diamond mesh netting of at least 600mm mesh size;
- All lower sheet wing netting sections to be made of diamond mesh netting of at least 600mm mesh size;  
The belly panel must be made of diamond mesh netting of at least 600mm mesh size. It must extend across the full width of the trawl, be attached directly to the fishing line and extend towards the rear of the net for at least 7.5m (stretched length); and,
- All top sheet netting directly above and forward of the belly panel must be made of diamond mesh netting of at least 600mm mesh size.

###### **“The Orkney / Shetland cod avoidance trawl”**

To qualify for the additional days associated with the use of the Orkney cod avoidance trawl, a vessel must use gear that has all of the following features:

- All top sheet wing netting sections to be made of diamond mesh netting of at least 300mm mesh size, as measured from knot centre to knot centre;
- All lower sheet wing netting sections to be made of diamond mesh netting of at least 300mm mesh size, as measured from knot centre to knot centre;
- The belly panel must be made of diamond mesh netting of at least 300mm mesh size as measured from knot centre to knot centre. It must extend across the full width of the trawl, be attached directly to the fishing line and extend towards the rear of the net for at least 7.5m (stretched length); and,
- All top sheet netting directly above and forward of the belly panel must be made of diamond mesh netting of at least 300mm mesh size, as measured from knot centre to knot centre.

###### **“130mm cod end”**

Cod end of mesh size 130mm or greater.

###### **“The 300mm belly panel cod avoidance trawl”**

To qualify for the additional days associated with the use of the 300mm belly panel cod avoidance trawl, a vessel must use a gear with a belly panel that has the following features:

- The belly panel must be made of diamond mesh netting of at least 300mm mesh size;
- The stretched length of the belly panel should be no less than 12m;
- The leading edge of the belly panel must be no greater than 4.6m from the fishing line centre; and,

- The rear edge of the belly panel must be at least 16.6 from the fishing line centre.

**“The 600mm belly panel cod avoidance trawl”**

To qualify for the additional days associated with the use of the 600mm belly panel cod avoidance trawl, a vessel must use a gear with a belly panel that has the following features:

- The belly panel must be made of diamond mesh netting of at least 600mm mesh size;
- The stretched length of the belly panel should be no less than 12m;
- The leading edge of the belly panel must be no greater than 4.6m from the fishing line centre; and,
- The rear edge of the belly panel must be at least 16.6 from the fishing line centre.

**“The 800mm belly panel cod avoidance trawl”**

To qualify for the additional days associated with the use of the 800mm belly panel cod avoidance trawl, a vessel must use a gear with a belly panel that has the following features:

- The belly panel must be made of diamond mesh netting of at least 800mm mesh size;
- The stretched length of the belly panel should be no less than 12m;
- The leading edge of the belly panel must be no greater than 4.6m from the fishing line centre; and,
- The rear edge of the belly panel must be at least 16.6 from the fishing line centre.

**“The 200mm Square Mesh Panel”**

To qualify for the additional days associated with the use of the TR1 200mm SMP cod avoidance trawl, a vessel must use a gear with a SMP that has the following features:

- it must be made from netting of at least 200mm mesh size;
- it must be no less than 3m long;
- it must be fitted a maximum of 2 diamond meshes from each selvedge; and,
- The SMP must be no further than 15 -18m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 15m from the cod line).

**TR2 gears**

**1. “Nephrops 120/130mm Square Mesh Panel (SMP)”**

The insertion of a 120mm SMP of minimum length 3m in the straight extension of the net or a 130mm SMP in the taper. The SMP must be no further than 12-15m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 12m from the cod line). In the West of Scotland, the SMP must be 130mm.

**2. “Nephrops 160mm Square Mesh Panel (SMP)”**

To qualify for the additional days associated with the use of the TR2 160mm SMP cod avoidance trawl, a vessel must use a gear with a SMP that has the following features:

- the SMP must be made from netting of at least 160mm mesh size;
- the SMP must be no less than 3m long;
- the SMP must be fitted a maximum of two diamond meshes from each selvedge; and,
  - In the North Sea the SMP must be no further than 9-12m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 9m from the cod line).
  - In the West of Scotland the SMP must be no further than 12-15m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 12m from the cod line).

### **3. “Nephrops 200mm Square Mesh Panel (SMP)”**

To qualify for the additional days associated with the use of the TR2 200mm SMP cod avoidance trawl, a vessel must use a gear with a SMP that has the following features:

- the SMP must be made from netting of at least 200mm mesh size;
- the SMP must be no less than 3m long;
- the SMP must be fitted a maximum of two diamond meshes from each selvedge; and,
  - In the North Sea the SMP must be no further than 9-12m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 9m from the cod line).
  - In the West of Scotland the SMP must be no further than 12-15m from the cod line (i.e. the rearmost row of meshes of the SMP shall be no more than 12m from the cod line).

## **TR2 gears (Highly Selective)**

### **1. “Nephrops Flip-Flap ‘netting’ grid trawl”**

To qualify for the additional days associated with the use of the TR2 cod avoidance Flip-Flap ‘netting’ Grid trawl, a vessel must use a gear with the following features:

- all top wing netting to be made of diamond mesh netting of at least 160mm mesh size;
- the top sheet netting panel must be made of diamond mesh netting of at least 160mm mesh size. It must extend across the full width of the trawl and extend towards the rear of the net for at least 8.0m (stretched length).
- the internal Flip-Flap ‘netting’ Grid (FFG) must be made from square mesh netting of at most 200mm mesh size and must be positioned no more than 500mm from the rearmost meshes of the end tapered section;
  - must be no less than 8 open mesh bars across by 10 open mesh bars deep;

- the top 8 x 5 bar meshes to be attached to the top netting section between selvages length for length;
  - the lower 8 x 5 bar meshes can be left unattached across the trawls lower netting section but must have leadline (or similar) of weight no less than 1kg/m attached around the edges of its full length;
  - have an unblocked fish outlet (with clean meshes all the way around) cut out of the trawls top sheet netting immediately ahead of the FFG;
  - the opening width of the posterior side of the fish outlet should be no less than 26 x 80mm diamond meshes (or equivalent) across and cut out to a tip in the forward direction along mesh bars;
- a top sheet square mesh panel (SMP) made from square mesh netting of at least 200mm mesh size must be placed within the end tapered section;
    - the SMP must be no less than 3m long;
    - the SMP must have no less than 12 open mesh bars across its width;
    - the rearmost meshes of the SMP must be no more than 0.5m from the forward tip of the unblocked fish outlet.

## **2. Faithlie Cod Avoidance Panel**

To qualify for the additional days associated with the use of the TR2 Faithlie Cod Avoidance Panel, a vessel must use a gear with the following features:

### **Design of Inclined Panel**

- The Faithlie Cod Avoidance Panel is made from netting of mesh size of at most 300mm.
- It is hung on the square and is 8 bars in height and 14 bars wide.
- It is cut out as shown in figure 1.
- It can be roped around the perimeter in such a way so as not to distort the panel when laid flat (figure 2).
- To allow the passage of benthos and ground fish species, it is permitted to create a hole at the bottom of the panel, by cutting out the mesh bars shown in figure 1. For strength and integrity the perimeter of the hole must be roped with a rope whose length is no more than 2.1m and whose diameter is no more than 12mm (figure 2).

### **Positioning of Panel**

- Attachment points A are fitted to the selvages in the tapered section of the gear where there are 200 open 80mm meshes (or equivalent) in circumference.
- Attachment point B is fitted to the centre of the top sheet 3½ meshes aft of the cross section that is described by attachment point A.
- Attachment point C is fitted to the centre of the bottom sheet 3½ meshes forward of the cross section that is described by attachment point A (figure 3).
- The perimeter of panel is fitted to the trawl netting, length for length, between the attachment points.

### **Fish Outlet Holes**

- Two unblocked fish outlet holes (with clean meshes all the way around) must be cut out of the trawls top sheet netting not more than two meshes ahead of the inclined panel at any point.
- They must be positioned 2 x 80mm diamond meshes (or equivalent) meshes either side of the centre line.
- The opening width of the posterior side of these fish outlets should be no less than 28 x 80mm diamond meshes (or equivalent) across and cut out in the forward direction along mesh bars until there are 9 open meshes across (figure 3).