



**Surveillance Report
New Zealand Hoki Fishery**

Certificate No.: **MML-F-030**

Moody Marine Ltd.
February 2011 v2

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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 New Zealand Hoki Fishery

Species: Hoki (*Macruronus novaezelandiae*)

Area: New Zealand EEZ HOK1

Method of capture: Trawl Fishery

Date of Surveillance Visit:	Dec 15– 17 , 2010			
Initial Certification	Date: 1 Nov 2007		Certificate Ref: MML-F-030	
Surveillance stage	1st	2nd	3rd	4th
Surveillance team:	Lead Assessor: J Akroyd Assessor(s): A Punt, G Tingley, A Hough			
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2.0 RESULTS, CONCLUSIONS AND RECOMMENDATIONS

This report contains the findings of the third surveillance cycle in relation to the NZ hoki fishery. The first annual surveillance audit (Moody Marine 2008) provided a summary of the previous MSC assessment analyses of this fishery (Scoring Guideposts, original assessment evaluation, text of original condition, original client Action Plan and 2008 progress report). The full text on these is not, therefore, repeated here.

The client's response to the Conditions of Certification was set out in an Updated Action Plan to Address Conditions of certification for Hoki. Action on this was examined as a part of this third surveillance. For each condition, the report sets out progress to date. 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 required to be closed.

Information regarding this year's audit has been collected principally from reports provided by the client and directly from the Ministry of Fisheries (MFish) Deepwater Management, Science and Compliance Teams and from the NGOs. Consultations were undertaken with MFish, WWF, Royal Forest and Bird, and the NZ Seafood Industry Council. Other organisations (Department of Conservation, NIWA, ECO and Greenpeace) were also invited to contribute. WWF requested to submit comments post the audit and following the NZ holiday period. These were received from WWF (21st January 2011), and have been taken into consideration in the preparation of this audit report.

For each Condition, the report sets out the activity being assessed and, as is required by the MSC assessment methodology, the client produced an Action Plan setting out the stages involved in addressing the Conditions raised and further information was provided during the audit. This progress report and associated information has now been evaluated by the Moody Marine Surveillance Team ('Observations' and 'Conclusion') against a) the commitments made in the Action Plan, b) the intent of the original Condition and c) the original scoring indicator, guideposts and commentary. The influence of any overall legislative and management changes in the fishery are also taken into consideration.

The MSC has issued a Directive to Certification Bodies on the content of Conditions of Certification. Significant features of the directive are that Conditions should be targeted towards achievement of measurable outcomes, where appropriate, in terms of information, management processes and/or eventual outcomes and should have clear timelines. Where possible, therefore, the phrasing of Conditions is considered here in relation to this directive. The directive also makes clear that Conditions cannot be used to direct a client, in detail, as to how a Condition is to be met, only as to what is the required outcome. Where guidance is provided in the original text of Conditions of Certification, this should be interpreted, therefore, as a recommendation on how to proceed in meeting Conditions, not a requirement.

The fishery was originally certified in March 2001 by SGS and was then subject to a full sequence of surveillance audits. Prior to expiry of the original certificate, the fishery was reassessed by SGS. The client at the time was the Hoki Fishery Management Company Ltd. The reassessment of the fishery gave rise to objections which were resolved through the MSC's Objection Procedures. As the objection procedures took some time to resolve, an extraordinary surveillance audit took place in August 2007. The fishery was reassessed and recertified in November 2007, again by SGS.

In early 2006, the client (the Deepwater Stakeholder Group Ltd, since renamed the Deepwater Group Ltd, DWG) produced an Action Plan for meeting Conditions of Certification (or CARs) that was accepted by the SGS assessment team.

Following recertification, the client then decided to transfer the contract for surveillance audits to Moody Marine Ltd (MML). In accordance with MSC Tab Directive 12, the SGS certificate was replaced by a MML certificate at the agreed transfer date (12 September 2008).

MML carried out the first annual surveillance audit in October 2008 and a second annual audit in November 2009.

The second annual surveillance audit determined that the requirements of the Conditions of Certification numbers 1,3,4,5,7,8,10,11 and 12 had been fully met at that time and these nine Conditions were closed:

The closure of these Conditions resulted in the scores for the ten relevant PIs being rescored at 80 or more. Three conditions remain unclosed.

This report contains the findings of the third annual surveillance report carried out by MML in December 2010.

As required by the Marine Stewardship Council Fisheries Certification Methodology (MSC FAM v6, September 2006 Section 6.6), the 2010 surveillance audit focused on compliance with and progress on stipulated conditions. The conditions that remained open following the 2009 audit were:

- i) Condition 2: Stock rebuilding strategy
- ii) Condition 6: Levels of acceptable risk and impact
- iii) Condition 9: Management Plan

In the case of Conditions 2 and 9, after relevant objective evidence was examined, the MML Surveillance Team verified that these Conditions had been met as the outcomes had been achieved. In each case, the fishery's performance against the relevant performance indicators and scoring guideposts were rescored at above 80 and, as a result, these two conditions have been closed out (FAM 6.7.7)

In the case of Condition 6, although there has been significant progress and a commitment by the client to complete the requirements, progress is behind target and remedial action has been agreed.

The Surveillance Team also reviewed potential and actual changes in the management system, changes in legislation, personnel changes and the current scientific base of information including stock assessments.

In addition to comments on 'open' conditions, WWF and Forest and Bird raised issues about conditions that had been previously closed. In this report the Surveillance Team has investigated these and, where appropriate, has made recommendations to address some issues. However, there is little 'new' information that would suggest that further conditions need to be raised at this point in time.

As many of the issues raised in the written submission by WWF relate to details within the management of NZ hoki fishery, rather than to fishery's performance in relation to the Performance Indicators used to assess the fishery against the MSC FAM, the Surveillance Team recommends that WWF take their concerns up directly with DWG and with the Ministry of Fisheries.

Specific Issues

Item	Comments
1	Update on Stock Status
Observations	<p>The hoki TACC for the 2009-10 fishing season was set at 110,000t, 20,000t larger than the TACCs for 2007-08 and 2008-09. 2008-09 was the last year for which data for the entire season were available for inclusion in the stock assessment, although catch data for 2009-10 were available for the audit. The estimated catch during 2008-09 was 1,200t below the TACC. An agreed arrangement between industry and the Minister of Fisheries aimed to apportion catches between the Eastern and Western stocks, with 25,000t of the 90,000t TACC for 2008-09 from the western stock (27.8% of the TACC). However, the actual catch from the western stock was about 30,000t (34% of the TACC), similar to the catch from western stock during the 2007-08 fishing season.</p> <p>New strategies were in place for the 2009-10 fishing season to ensure that the split of the catch between the two stocks matches the intended amount. The catches from the western and eastern stocks were 47,928t and 57,115t. Both the catch from the western and eastern stocks were below the west: east split of the TACC (50,000t; 60,00t).</p> <p>The 2010 assessment was essentially an update to the 2009 assessment, with the only major structural difference between the 2009 and 2010 assessments being the inclusion of data collected since the last assessment. The 2010 assessment was based on the stock assessment package CASAL, and again involved a two-stock population dynamics model fitted using Bayesian methods. The new data included in the 2010 assessment were a Cook Strait acoustic survey, two trawl surveys (Chatham Rise and sub-Antarctic), and proportion-at-age data from the surveys and fishery. The 2010 assessment reported biomass relative to various management reference points (e.g. B_{MSY}, and the management target range of $0.35B_0$ to $0.5B_0$) and reported exploitation rate as the maximum over age of the ratio of the total catch in numbers to the population numbers. Exploitation rate was reported along with two exploitation-related reference points (those corresponding to spawning biomasses of $0.35B_0$ and $0.5B_0$).</p> <p>As in past years, the assessment was based on two final accepted model runs (denoted 2.1 and 2.2 in the 2010 assessment). These two sets of model specifications are identical to models 1.1 and 1.2 from the 2009 assessment and represent different ways of dealing with the unexplained lack of older fish in commercial catches and surveys. The assessment also reported results from a set of sensitivity tests, including analyses which aimed to address the inability of the model to mimic the large increase in the biomass estimates from the trawl survey in the sub-Antarctic area.</p> <p>Both stocks are estimated to be a larger fraction of their unfished levels in 2010 compared to 2009 (Table 1). There is now a very high probability that both stocks are above the soft limit of $0.2B_0$ and the B_{MSY} values estimated under the assumption of deterministic dynamics ($0.24B_0$ and $0.25B_0$ for the eastern and western stock respectively). The probability that the western stock has recovered to the lower end of the management target ($0.35B_0$) is > 0.975 for run 2.2 and > 0.8 for runs 2.1, 2.2, and 2.4. There is a greater than 0.5 probability that the eastern stock is above the upper end of the management target range. The exploitation rates for both stocks are estimated to be currently lower than that corresponding to $0.5B_0$. Figures 1 and 2 summarize the assessment results in the form of Kobe plots.</p> <p>A key uncertainty in the last three assessments was the inability to mimic the biomass estimates from the trawl survey in the sub-Antarctic area. The contribution of these data to the likelihood is upweighted in model runs 2.1 and 2.2 to force the model to fit these data better (to the extent this is possible). One reason explored during the 2010 assessment for the inability of the standard model to mimic these data was that catchability for this survey changed during 2003-07 or during 2008-10. Both of these sensitivity tests led to better fits to the data even when the trawl survey biomass estimates for the sub-Antarctic area were not upweighted. However, there is no</p>

	<p>information (other than the inability to fit the survey biomass estimates) at present to justify a change in catchability.</p> <p>Projections for the eastern and western stocks were undertaken under the assumption that future recruitment is best represented by the recruitment between 1995 and 2001 (inclusive). These projections show that stock size will be above the upper end of the management target ($0.5B_0$) in five years in median terms under the current TACC as well as an increased TACC of 120,000. The Minister of Fisheries decided to increase the TACC from 110,000t to 120,000t for the 2010-11 fishing season, with the expectation that half of the TACC would be taken from the western and half from the eastern stock.</p> <p>The assessment remains state-of-the-art. However, the assessment document for 2010 contains less detailed information than previous documents. It would be beneficial for the review process for the assessment document to be as self-standing as possible. In addition, many of the assumptions on which the assessment is based (in particular choices regarding how some biological processes are modelled) have been in place for many years. In general one or two aspects of the assessment are explored in detail each year as part of the continuing examination of the assessment. It may therefore be appropriate to consider an in-depth (preferably external) review of the assessment to examine whether recent information supports different choices for these assumptions. MFish indicated that a review of the hoki assessment was being planned as part of the process of reviewing science projects, but no details on when such a review would occur for hoki are available.</p> <p>In its submission, WWF recommended that:</p> <ul style="list-style-type: none"> i) The response of the fishery to current and possible future increases in TACCs to be closely monitored. ii) Research to be conducted into the impact of climate (ENSO) and spiny dogfish on hoki recruitment <p>The Surveillance Team considers that item i) is already being undertaken by DWG and by the Ministry of Fisheries in the annual stock assessments of both hoki stocks and in the annual reviews of management measures; and that item ii) can be addressed within the Ecological Risk Assessment process currently underway.</p>
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Item	Comments
2	Condition of Certification 2: Stock rebuilding strategy
Activity assessed	<p>PI 1.2.1.1 Are measures in place to rebuild a stock if it is found to be below a target or limit reference point?</p> <p>PI 1.1.5.1 Are the stocks at or above reference points?</p> <p>The western stock of hoki was considered to be depleted when the fishery was recertified because this stock was assessed not to be fluctuating about its target reference point. Rather, this stock was assessed to be close to the limit reference point. Moreover, there was no formal rebuilding strategy in place to ensure that rebuilding of the western stock to a management target occurred. However, measures had been taken to reduce fishing mortality on the western stock (a lower TACC and a shift in catch towards the eastern stock) based on the results of forecasts during the 2004 assessment.</p> <p>PI 1.2.1.1</p> <p>SG 60: Measures to reduce exploitation rates are in place, and the stock is being monitored to determine the extent to which management actions are achieving the goal of rebuilding.</p> <p>SG 80: Management measures based on an explicit rebuilding strategy designed to have a high probability of recovery to the reference point are in place. The delay in recovery to the reference point caused by the fishery is expected to be no longer than one generation.</p> <p>SG 100: Rebuilding measures are in place based on agreed decision rules that have been evaluated and found to have a very high probability of rebuilding. The delay in recovery to the reference point caused by fishery is expected to be less than one generation. A review of previous decision rules is being undertaken to determine how future recurrences of depletion can be reduced.</p> <p>PI 1.1.5.1</p> <p>SG 60: The stocks are likely above their limit reference points or a rebuilding program is in place so that recovery to above the limit reference points will likely not be delayed by more than one generation</p> <p>SG 80: The stocks are being maintained above their limit reference points and are likely currently, and in the future to be around their target reference points</p> <p>SG 100: There is a very high probability that all stocks are above their target reference points, and are likely currently, and in the future, to be around their target reference points.</p> <p>Actions & milestones</p> <p>The agreed workplan to address the lack of a rebuilding strategy was:</p> <p>By 31 March 2008</p> <ul style="list-style-type: none"> Complete CAR 07/0 'A rebuilding plan for the western stock is required'. The fishery needs to develop a rebuilding plan for the western stock of hoki, including a rebuilding target, a desired rate of rebuilding and a desired time to recovery. Evidence of satisfactory progress in this regard could be the funding and initiation of a Management Strategy Evaluation exercise for hoki commenced by March 2008. <p>By 31 October 2008:</p> <ul style="list-style-type: none"> Determine a policy position regarding desired rebuild rate for a depleted hoki stock; Develop a rebuild target reference point relevant to the certification period; and Seek agreement from the Ministry of Fisheries for the Hoki Stock Assessment Working Group to assess and report information to inform these management requirements. <p>By 30 April 2009:</p> <ul style="list-style-type: none"> Secure adoption of a rebuilding plan for the western stock which includes: <ul style="list-style-type: none"> Estimates of the expected time to recover to the limit and target reference points for biomass Estimates of current and expected future exploitation rates relative to F_{MSY} and the agreed reference points

	<ul style="list-style-type: none"> Estimates of the probability that recovery to the limit and target reference points for biomass will occur by various years considering options that include a range of annual catch levels, including zero An assessment regime to monitor progress towards rebuilding while it remains below the target level <p>By May each year, commencing 2009:</p> <ul style="list-style-type: none"> Update the rebuilding plan annually to: <ul style="list-style-type: none"> Monitor progress and to assess the effects of management actions taken Determine if further measures are required to ensure progress towards rebuilding remains adequate, given the desired rate of recovery <p>By March 2010:</p> <ul style="list-style-type: none"> Complete policy analysis of alternative management strategies for both hoki fisheries that are designed to achieve: <ul style="list-style-type: none"> Multiple utilisation and sustainability objectives Certainty as to management actions, and Clear specification of necessary services <p>Relevant Performance Indicators: 1.1.5.1; 1.2.1.1</p>
Client Progress Report	<p>The National Fisheries Plan for Deepwater and Middle-depth Fisheries has been approved by the Minister of Fisheries and is in place.</p> <p>Within Part1B of the National Fisheries Plan for Deepwater and Middle-depth Fisheries, the Fishery-Specific Chapter on Hoki contains the harvest strategy in place for hoki including the trigger point for implementation of a formal time-constrained rebuilding plan and the requirements for a rebuilding strategy which is triggered if any hoki stock falls below 20% B₀ and requires a catch limit to be set that will deliver half the rate of stock rebuild that would occur in the absence of fishing.</p> <p>Copies of the National Deepwater Plan and the hoki fishery-specific chapter can be found at: http://www.fish.govt.nz/ennz/Consultations/Archive/2010/National+Fisheries+Plan+for+Deepwater+and+Middle-Depth+Fisheries/default.htm</p>
Observations	<p>PI 1.1.5.1 was rescored during the 2009 audit:</p> <p><i>“PI 1.1.5.1 is rescored as 80 for the western stock and 90 for the eastern stock because the western stock is well above its limit reference point and within the range of the interim management target while there is a very high probability that the eastern stock is within the bounds of the interim management target.”</i></p> <p>The outstanding issue related to PI 1.1.2.1 during the 2009 audit was that the Fisheries Plan, which specifies how the rebuilding strategy will drive future management responses, was not at the time finalised and adopted.</p> <p>The Fisheries Plan has now been finalised and adopted. This plan includes an outline of the hoki harvest strategy. This strategy includes the requirement for a formal time-constrained rebuilding plan should the soft limit of 0.2B₀ be breached and consideration of fishery closure if the hard limit of 0.1B₀ was breached. The nature of the rebuilding plan is specified in the harvest strategy standard and includes desired rates of recovery which are consistent with world’s best practice.</p>
Conclusion	<p>In relation to PI 1.2.1.1, the adoption of a Fisheries Plan which includes the requirement for a time-constrained rebuilding satisfies the requirements under PI 1.2.1.1. The western stock of hoki is now rebuilt to within the management target range with high probability.</p> <p>This PI has been rescored 90 because the adopted Fisheries Plan includes a well-specified rebuilding plan which aims to allow recovery to the target with at least 70% probability by twice the minimum possible time for recovery.</p>

	<p>Original score at re-certification in 2007: 73 Re-score at the second annual surveillance in December 2010: 90</p> <p>As the score is now above the 80, this Condition is now closed.</p> <p>Future audits will review any changes to the hoki harvest strategy and the results of any further Management Strategy Evaluation analyses relevant to hoki (e.g. analyses exploring the effects of climate on the performance of the hoki harvest strategy).</p>
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Item	Comments
3	Condition of Certification 6: Levels of acceptable risk and impact
Activity assessed	<p>PI 2.1.3.1. Are levels of acceptable impact determined and reviewed?</p> <p>SG 60: Levels of acceptable impacts for the main non-target species and habitats in the fishery have been estimated at least qualitatively.</p> <p>SG 80: Risks and acceptable levels of impact have been determined through a robust peer reviewed scientific risk assessment process that takes a precautionary approach to gaps in knowledge and involves the relevant range of ecological expertise and stakeholders. Levels of acceptable impact caused by the removal of the target species, at key life stages, on the main species of prey and predators of the target species are being determined. Research is underway to study impacts related to, and refine the assessment of, any medium level risks and the main gaps in knowledge.</p> <p>SG 100: Levels of acceptable impact caused by the removal of the target species, at key life stages, on the main species of prey and predators of the target species have been determined. The risks and acceptable levels of impact have been determined through a robust peer reviewed scientific risk assessment process that takes a precautionary approach to gaps in knowledge and involves the relevant range of ecological expertise and stakeholders. Research is underway to study impacts related to, and refine the assessment of, any medium level risks and the main gaps in knowledge. The assignment of acceptable levels of impact is subject to regular review. Original Evaluation: The fishery conducted a qualitative ERA (in 2002) that identified the main areas of risk</p> <p>PI 2.1.4.1. Are the impacts of the fishery on ecosystem structure, function, biological diversity, and productivity within acceptable levels?</p> <p>SG 60: The main impacts of the fishery are generally considered to be within acceptable levels.</p> <p>SG 80: The effects of removal of the target and non target species, and impacts and productivity, are generally maintained within acceptable levels for the most important parameters (as established in 2.1.3.1).</p> <p>SG 100: The effects of the fishery on the ecosystem have been quantified in all areas where the fishery operates, and impacts are found to be always maintained within acceptable levels for all the most important parameters.</p> <p>PI 2.1.4.2. Are the impacts of a fishery on habitat structure and function within acceptable levels?</p> <p>SG 60: The main impacts of the fishery on habitats are generally considered to be within acceptable levels.</p> <p>SG 80: The effects on the benthic and midwater habitats, and their functions, are generally maintained within acceptable levels for the most important parameters (as established in 2.1.3.1).</p> <p>SG 100: The effects of the fishery on the habitats have been quantified in all areas where the fishery operates, and impacts are found to be always maintained within acceptable levels for the most important parameters.</p> <p>Actions & milestones</p> <p>By 30 June 2008:</p> <ul style="list-style-type: none"> • Review 2002 ERA methodology and consult with stakeholders. <p>By 31 October 2008:</p> <ul style="list-style-type: none"> • Scope, develop and consult with stakeholders on revised ERA methodology. <p>By 31 April 2009:</p>

	<ul style="list-style-type: none"> • Implement a new ERA process. <p>By 31 October 2009:</p> <ul style="list-style-type: none"> • Scope, design and implement a process to develop objectives for each of the main risk issues identified in the revised ERA • Consult on proposed process. • Develop draft objectives for the main ecological risks. <p>By 31 October 2010:</p> <ul style="list-style-type: none"> • Design, pilot and test management objectives and practices that will detect and reduce major impacts identified in the ERA • Complete and implement a management plan to achieve each of the above objectives. • Develop and implement a research and monitoring plan to measure the effects of the management measures and to further develop management responses for those objectives that have been identified as requiring further work and/or information. <p>By 31 October 2011:</p> <ul style="list-style-type: none"> • Implement the above agreed procedures that have been found to be effective in monitoring and reducing agreed adverse effects on the aquatic environment.
Client Progress Report	<ul style="list-style-type: none"> • 14 Dec 2009 – Initial meeting to assess ERA methodologies, all stakeholders invited. Given the low level of experience with undertaking Ecological Risk Assessments in New Zealand and the complex and expensive quantitative ERA methodologies developed by CSIRO, DWG contracted Richard Stoklosa of E-Systems Pty Limited, as a facilitator to undertake a workshop and technical meetings and report on expert and stakeholders' views. Richard has experience in risk assessment in the engineering sector and was engaged by CSIRO to review their ERA techniques for fisheries. • The purpose of the ERA workshop on 14 Dec 2009 was to consult with stakeholders and with interested parties to assess the types of risk assessment methodologies that could be considered for an ERA of the hoki fisheries, to explore options of undertaking a more broadly based ERA of New Zealand's deepwater fisheries, to identify the respective information and data requirements for each methodology, to identify the scientific information and expertise that could be available to support qualitative and quantitative ERA methods, and to consider the fisheries management requirements from an ERA. • 15 Dec 2009 – Initial technical meeting with fisheries scientists from NIWA and MFish to further discuss the application of risk assessment methodologies and to assess the data and information available to inform and ERA in New Zealand. • 19 Feb 2010 – Final report 'Advice of Stakeholders to Deepwater Group and New Zealand Ministry of Fisheries, Prospects for Ecological Risk Assessment of Hoki and EEZ Fisheries', from E-Systems Pty Ltd (Stoklosa, R. 2010). • Feb-Mar 2010 - From this study, DWG and MFish determined the best option was to undertake an updated ERA of the hoki fisheries and to subsequently undertake ERAs across the range of New Zealand's deepwater fisheries within the 10 Year Research Programme, based on the methodologies and experiences developed and applied for hoki. Key elements of the E-Systems study were used to inform the development of specifications for an updated ERA for hoki and to seek expressions of interest from a number of potential service providers for this work. • Mar 2010 – DWG considered report and decided to look for an alternative service provider. • April 2010 – bids sourced from alternative service providers. • May 2010 – DWG considered bids unacceptably high and sought alternative processes to update the hoki ERA • Jun 2010 – ERA specifications revised, bids sourced from alternative service providers. • Jul 2010 – DWG contracted Boyd Fisheries Consultants Ltd to undertake a Level 1 ERA for hoki fisheries. • Jul-Aug 2010 - Preparatory work, assessing methodologies, assessing and compiling

	<p>relevant documentation, and organising key participants and timing of work shop to suit selected members of Expert Panel. Dialogue commenced with science service providers, candidates for Expert Panel and with representatives of MFish, NIWA, DoC, SeaFIC, WWF-NZ, ECO, Forest & Bird, Greenpeace NZ and EDS.</p> <ul style="list-style-type: none"> • 25 Aug 2010 - meetings with Aoife Martin and others, MFish, and with Igor Debski, DOC, to discuss options, timing and assistance for hoki ERA. • 26 Aug 2010 - meeting with Stephanie Rowe (ex Department of Conservation) to discuss ERA methods and processes applied in ERA for seabirds • 2 Sep 2010 - meetings with WWF-NZ (Bob Zuur and Rebecca Bird), with Forest and Bird (Kirstie Knowles) and with Department of Conservation (Russell Harding and Igor Debski) to discuss proposed hoki ERA methods and processes. • 27 Sep 2010 - meeting at DWG office in Nelson with Bob Zuur, WWF-NZ to discuss proposed level 1 ERA methodology for hoki and to agree on final methodologies. • Oct 2010 – assessing and compiling relevant documentation and organising key participants and timing of work shop to suit selected members of Expert Panel. • Nov 2010 – Notification of hoki ERA two-day workshop on 13 & 14 Dec, invitations to participants.
Observations	<p>DWG has put considerable effort into addressing this Condition over the last year and has commenced an Ecological Risk Assessment (ERA) process for hoki. Some of this effort was, unfortunately, unproductive though false starts through delays in getting the process started and through differences in view on the most appropriate methodology.</p> <p>Some stakeholders expressed their concerns with these delays and with the selection of the chosen ERA methodology. The eNGOs in particular expressed concerns over a number of aspects of the process and this was given as one reason for their choice to reduce their participation in the ERA process.</p> <p>The false starts and change in methodology (apparently without consultation) were unhelpful in improving relations with some stakeholders or in getting their buy-in into the ERA process and need to be avoided in future development of the ERA process (such as Level 2 assessments). However, despite the reservations of some stakeholders on process and approach, the majority of stakeholders did express the view that the ERA was useful and largely meet its objectives, so far.</p> <p>Overall, despite the problems, the ERA process does appear to have been effective in identifying and qualitatively scaling risks associated with the fishery and is to be broadly welcomed. However, given the problems identified by some stakeholders with the process, a review of the ERA process is considered advisable to ensure that the process would not have permitted key risks to have been missed or miss- scaled and to address stakeholder concerns and permit improved stakeholder buy-in.</p> <p>The key need now is to address the major risks identified by the ERA (as is required by the Condition).</p>
Conclusion	<p>This condition remains behind milestones targets, but we note that significant efforts have been made to resolve this issue within the overall timescale specified.</p> <p>DWG needs to continue to engage with all stakeholders to enable all stakeholders the opportunity to fully participate with the ERA process and to avoid some of the pitfalls that have affected the process so far. This should specifically include allowing adequate time to enable stakeholders to prepare for and to participate in the process.</p> <p>The continued lateness of the ERA process remains a concern to the Surveillance Team. The timescale for completing this Condition remains very tight. There needs to be a focus on completing the three elements that were due for completion by November 2010 namely:</p> <ul style="list-style-type: none"> • Design, pilot and test management objectives and practices that will detect and reduce

	<p>major impacts identified in the ERA;</p> <ul style="list-style-type: none"> • Complete and implement a management plan to achieve each of the above objectives; • Develop and implement a research and monitoring plan to measure the effects of the management measures and to further develop management responses for those objectives that have been identified as requiring further work and/or information; <p>and then to deliver meeting the implementation requirement before the 4th Annual Surveillance Audit towards the end of 2011:</p> <ul style="list-style-type: none"> • Implement the above agreed procedures that have been found to be effective in monitoring and reducing agreed adverse effects on the aquatic environment. <p>The Surveillance Team expects any previously unidentified major risks that may be determined by the ERA process to be addressed. In addition, and as noted in the 2nd Annual Surveillance Audit Report, the Surveillance Team are also specifically looking for risks posed by the fishery to elasmobranchs and to seabirds (including cryptic mortalities) to be addressed.</p> <p>Given the detailed concerns raised by some stakeholders about the adequacy of the ERA process, the Surveillance Team strongly recommends to DWG that it commissions a brief, independent, high level review of the adequacy of the ERA specifically to:</p> <ul style="list-style-type: none"> i) address stakeholder concerns about the process and, ii) establish whether the process was adequate to identify key risks. <p>Scores for the three PIs affected are unchanged.</p>
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Item	Comments
4	Condition of Certification 9. Management Plan
Activity Assessed	<p>P1: 3.1.1.2 Is there a management plan that includes objectives related to target species and the impacts of fishing on the ecosystem</p> <p>Need to develop and implement a Ministry of Fisheries approved Fisheries Plan in collaboration with all relevant stakeholder groups</p> <p>SG 60: The fishery operates under a set of informal and formal arrangements that broadly constitute a coherent management system.</p> <p>SG 80: There is a strategic overview of the management system that identifies the goals and objectives, processes (including strategies, and provision of management advice), management tools and arrangements, responsibilities, points of stakeholder engagement, research, monitoring and compliance plans, and applicable laws and regulations.</p> <p>SG 100: There is a documented system of goals and objectives, processes (including strategies, and provision of management advice), management tools and arrangements, responsibilities, points of stakeholder engagement, research, monitoring and compliance plans, and applicable laws and regulations. This document is developed within the framework of the Fisheries and other applicable Acts.</p> <p>Actions & milestones By 1 May 2008:</p> <ul style="list-style-type: none"> • write a draft strategic overview of the management of hoki • finalise this plan within a timeframe agreed by stakeholders
Client progress report	<p>Summary of actions to date</p> <ul style="list-style-type: none"> • The National Fisheries Plan for Deepwater and Middle-depth Fisheries, which includes a Fishery-Specific Chapter on Hoki has been approved by the Minister of Fisheries and is now in place. • Copies of the National Deepwater Plan can be found at: http://www.fish.govt.nz/en-nz/Consultations/Archive/2010/National+Fisheries+Plan+for+Deepwater+and+Middle+Depth+Fisheries/default.htm
Observations	<p>The National Fisheries Plan for deepwater and middle–depth Fisheries (the National Deepwater Plan) sets the objectives to guide the management of the Deepwater and Middle-depth fisheries within the New Zealand Exclusive economic Zone. It also describes the performance monitoring regime which will be used to assess if the prescribed objectives have been achieved. The National Deepwater Plan provides an overarching framework for the management of the deepwater fisheries for a period of five years.</p> <p>The high level management objectives specified are the outcome of collaborative work between the Deepwater Group, representatives of eNGOs and the Ministry of Fisheries. However, it would appear that to a lesser extent the stakeholders also inputted into the development of the operational objectives.</p> <p>The chapter sets out the operational objectives and performance for hoki fishery and the key bycatch fisheries. It also addresses the management of adverse environmental effects caused by the hoki fishing activity.</p>
Conclusion	As the National Fisheries Plan for deepwater and middle depth species has now been approved and a plan for implementation is in place

	<p>This PI has been rescored 100 because:</p> <p><i>“There is a documented system of goals and objectives, processes (including strategies, and provision of management advice), management tools and arrangements, responsibilities, points of stakeholder engagement, research, monitoring and compliance plans, and applicable laws and regulations. This document is developed within the framework of the Fisheries and other applicable Acts.”</i></p> <p>Original score at re-certification in 2007: 78 Re-score at the second annual surveillance in December 2010: 100</p> <p>As the score is now above the 80 guidepost, this condition is now closed.</p> <p>Future audits will review the implementation of the National Deepwater Plan</p>
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Item 5	Comments on Conditions closed in 2009
	Condition of Certification 1: Are appropriate target and limit reference points used
WWF recommendation	A condition is introduced that specifies a fisheries management target related to fishing pressure is defined for the hoki fishery.
MML comment	<p>This condition was closed in 2009 and rescored to 90 because:</p> <ul style="list-style-type: none"> a) the management target exceeds the best estimate of B_{MSY}, b) the reference points have been selected specifically for the hoki stock and, c) analyses which show that the upper and lower thresholds for the management target account for several sources of uncertainty have been undertaken. <p>The rescoring would have been higher had the analyses considered the impacts of ecosystem effects and serial depletion and included fishing mortality reference points.</p> <p>The WWF recommendation is confusing in that the assessment presents results relative to two fishing mortality related reference points (Fig 7 Plenary report). Those reference points are also displayed in the Kobe plots (refer Item 1 update of stocks).</p> <p>Conclusion:</p> <p>Appropriate target and reference points are used in the hoki stock assessment. These reference points are in line with current practice for well managed fisheries and take account of the species and the nature of the fishery</p>
	Condition of Certification 3: Nature and distribution of habitats
WWF recommendation	A condition is introduced that requires research to be conducted into the nature of the links between BOMECS classes and associated benthic communities.
MML comment	<p>This Condition was closed and rescored at the 2nd Annual Surveillance in November 2009. As part of rescoring, the Surveillance Team commented on how a higher score could have been achieved.</p> <p>The four page report on the distribution of hoki fishing effort (footprint) over the whole of the EEZ directly addressed these comments in part. This report also identified one of the BOMECS classes (#9) as being potentially impacted to a high level by the hoki fishery. This information was fed into the ERA process in a timely manner to help address Condition 6 (see below).</p> <p>The report on the fishery footprint of all of the Tier 1 species across the whole of the EEZ (Black and Wood, 2010) is a substantive document describing the spatial scale and intensity of benthic impacts for the major fisheries operating within the EEZ and enable the relative importance of the hoki fishery to be gauged as well as enabling a holistic view of the Tier 1 fishery footprint to be considered for any future consideration of benthic protection measures.</p> <p>In discussions, the eNGOs acknowledged that there has been a lot of work done but would also like to see some focus on research in areas where information was less abundant e.g. species assemblages (invertebrates).</p> <p>Conclusion:</p> <p>The Surveillance Team note that that DWG have continued to address issues of interest and importance in this area even though there are no outstanding Conditions related to PIs associated with habitats.</p>

	Condition of Certificate 4: Trophic relationships
WWF recommendation	A new Condition is required to manage the risks of trophic impacts of the Chatham Rise and sub Antarctic species
MML comment	<p>This Condition was closed and rescored at the 2nd Annual Surveillance in November 2009.</p> <p>Information from some of the recent research projects has been fed into the ERA process (see Condition 6 below).</p> <p>Further scientific outputs from recent and on-going research are expected to be available during 2011 and will be incorporated into the ERA processes where relevant.</p> <p>The eNGOs acknowledged that much knowledge has been gained but the important issue is what is being (and will be) done with this knowledge. As noted above, recent research data are being prepared for publication and have already fed into the ERA process, especially relating to some, as yet unpublished, work on ecosystem indicators. A suggestion was made by the eNGOs that this ecosystem indicator information, due to its newness and potential importance should form the subject of new Condition.</p> <p>The Surveillance Team has considered this proposal for a new Condition relating to ecosystem indicators and has determined that this is not necessary at this time as the information has yet to be completed and has therefore not been peer reviewed. The Surveillance Team notes that the preliminary outcomes are already being considered by the scientific community and fisheries managers and was being considered in the ERA process. Further, a new Condition can only be raised on the basis of changes in management/information that require any of the original PIs to be rescored and the outcome is <80. As this information is not new but rather further developments to interpret existing information, and would not change the relevant scores. However, this matter will be considered in the re-assessment of the NZ hoki fishery against the then applicable MSC FAM.</p> <p>Conclusion:</p> <p>The annual surveillance audits will continue to monitor the outputs from recently completed and on-going research in this area, as well as monitoring further developments in the overall ecosystem research programme.</p>
	Condition of Certification 5: Impacts of fishing gear on habitats
WWF recommendation	<p>A Condition is introduced to manage the risks of benthic impacts of the Chatham Rise fishery on BOMECE habitat class 9</p> <p>A Condition is introduced that requires DWG to engage with stakeholders in developing the revised benthic protected area plan, such as for the Chatham Rise</p>
MML comment	<p>This Condition was closed and rescored at the 2nd Annual Surveillance in November 2009.</p> <p>Recently reported studies on the spatial and temporal distribution of hoki trawl effort within the EEZ and distributed between the fifteen BOMECE classes contribute to our understanding of the impacts of the fishery on habitats.</p> <p>Comments from the eNGOs recognised that good knowledge has been acquired in this area (especially with the BOMECE) but also noted that there is a need to better understand the impact e.g. the level of pressure on BOMECE Class 9. The Surveillance Team note that this issue has already been picked up by the on-going ERA process and the Surveillance Team will continue to monitor how this proceeds at future annual surveillance audits.</p> <p>Conclusion:</p>

	<p>Further progress in defining the impacts of bottom trawling on benthic habitats has been made through recently published studies. As noted last year (2nd Surveillance Audit report), outside of the requirements of this Condition, there is a need for fisheries managers to further consider, the provision of adequate protection to core hoki habitats, irrespective of any existing environmental impacts as a result of fishing. It is noted that a DWG paper in response to this Condition (Tilney and Clement, 2009b) indicates an intention to address this issue.</p> <p>It is also expected that further aspects of managing the interactions of trawl gear with the benthic environments will be addressed both within Condition 6 (below) the Ecological Risk Assessment and also in future reviews of the approach to defining benthic protection areas.</p>
	Condition of Certification 7: Impacts on Seabirds
WWF recommendation	<p>That the previous condition be reinstated and new ones developed that based on the following:</p> <ul style="list-style-type: none"> i) Warp strike monitoring should be re-established and the relationship (if any) between landed birds and cryptic mortality should be determined. i) The extent to which fishing practices (compared to effort) have and can contribute to reductions in seabird mortality should be investigated. iii) An agreed seabird standard that defines acceptable levels of seabird bycatch in the fishery should be developed. iv) The fishery should develop and implement capture trigger limits and robust management actions to address situations where trigger limits are reached or exceeded
MML response	<p>This Condition (#7) focussed on the management of offal and was closed and rescored at the 2nd Annual Surveillance in November 2009.</p> <p>The WWF submission raised a number of specific issues and requests for five conditions with respect to seabirds, one related specifically to Condition 7 and others more generally in relation to seabirds:</p> <p>The Surveillance Team notes that their previous consideration of the impacts of known mortalities on the populations of seabirds remains valid and that the impacts of the hoki fishery are small and, as has been determined by the seabird ERA, generally of low risk. (Rowe, 2009, 2nd Surveillance Audit report 2009).</p> <p>To specifically address the issues raised by WWF:</p> <ul style="list-style-type: none"> i) All requirements of research and application of offal management under the original Condition 7 were met. ii) The Surveillance Team agree that some on-going monitoring of interactions of seabirds with trawl warps should continue if this is considered to be significant risk and agree that cryptic mortality may be issue requiring further consideration. iii) This can already be determined as detailed effort data are available. iv) While this is one approach to continuing to address and to seek reductions in the mortalities of seabirds this is not necessarily the most effective or appropriate approach and is not required to meet the MSC Standard. <p>The ERA process was specifically highlighted as the method for identifying such potential issues, defining their importance by assessing risks and then taking appropriate action, through requiring further research, monitoring or changes in management. This process, although running late, does appear to be working, as demonstrated by specific issues having recently been identified. The ERA process, required by Condition of Certification, needs to be given adequate time to consider the risks and to propose and to implement research, monitoring or management actions, as appropriate, to address identified risks.</p>

	<p>Conclusion:</p> <p>The ERA process is still at an intermediate stage and has yet to report. If the ERA, with its wide stakeholder participation, identifies significant risks, then the ERA process requires these risks to be appropriately addressed. This includes addressing any significant seabird related risks.</p> <p>The Surveillance Team expects the outcomes from the ERA to be reported on quickly following the ERA workshop meetings in December 2010.</p> <p>The Surveillance Team will review the outputs of the ERA process and the approaches to address any identified risks. This will specifically include whether cryptic mortality is considered a major risk, whether warp strike monitoring is required, and how this should be addressed. Should the Surveillance Team consider any risks have been inappropriately scaled or inadequately addressed, the Surveillance Team will consider whether further recommendations to or Conditions on the fishery are required.</p>
	Condition of Certification 8: Fur seals
WWF recommendation	<p>That conditions are introduced to ensure:</p> <ul style="list-style-type: none"> i) The impacts of the hoki fishery on fur seal subpopulations, especially those along the west coast of the South Island, are assessed. ii) That the probable increased fur seal mortality should be monitored and addressed if TACCs increase. iii) That ways to minimise fur seal captures, such as fishing practices and exclusion devices, be investigated.
MML comment	<p>The interactions of fur seals with the hoki fishery continue to be monitored as part of the observer programme and though the required reporting of such interactions.</p> <p>This issue continues to be considered within a number of fora involving government, industry and other stakeholders, including research studies, working groups, as well as during the recent ERA workshop.</p> <p>Hamilton and Baker (2010) report that the hoki fishery does not pose a current threat to the fur seal population in New Zealand. The Surveillance Team note, however, that the Expert Panel of the ERA did express concern about the possibility of local population impacts.</p> <p>WWF's comments and requests for Conditions are noted, but the Surveillance Team does not agree that these are necessary at this time as there is on-going monitoring of fishery induced fur seal mortality and impacts of fishery induced mortality at the population level has been recently addressed. There is one outstanding issue, the possible effects of the fishery on local fur seal populations, as identified by the ERA process. Once the ERA has been formally reported there are requirements to then address identified issues and the Surveillance Team will be looking to see that this issue has been appropriately addressed given the level of risk identified in the ERA Report.</p> <p>Conclusion:</p> <p>This condition was closed in the 2009 audit. However, we note that further assessments of interactions between fur seals and the NZ hoki fishery are being undertaken within the ERA under Condition 6.</p> <p>With the on-going monitoring of the fishery and the reporting of studies considering possible impacts of the fishery on fur seals at the population level, the Surveillance Team is satisfied</p>

	<p>that potential impacts of the fishery on fur seals is however being adequately addressed.</p> <p>The annual surveillance audits will continue to review the position with respect to fur seals, and will particularly seek to ensure that new issues identified by the ERA process are appropriately addressed.</p>
	Condition of certification 12: Research Plan
WWF recommendation	While a research plan has been prepared, we do not consider that this meets the intent of the CoC and therefore recommend this Condition be reinstated
MML comment	<p>This condition was closed out in the 2009 audit as the surveillance team considered that</p> <p><i>“There is a research plan that involves short- and long-term projects that are prioritised based on the needs for the management of the target species and protection of the ecosystem. Stakeholders assist in design of research projects and the assignment of priorities. Funding is available for many high priority research projects. Some long-term research projects are supported.”</i> (P3.1.4.1, 80 level).</p> <p>There is a 10 year research programme for deepwater species that is being implemented and is embedded into the National Deepwater Plan. Although there are valid arguments raised by WWF the Surveillance Team considers that these should be addressed during the implementation of the plan not as part of the MSC certification. The Surveillance Team highly recommends that all eNGOs who have such concerns become further involved as the 10 year research plan is progressively implemented.</p>

6	Other issues
WWF recommendation	We suggest Moody needs to address the issue of late information provision and stakeholder input with the Client. DWG and MFish should be required to convene a meeting with stakeholders to discuss matters for inclusion in the audit action plan well in advance of the site visit.
MML comment	<p>The surveillance team agrees that stakeholder engagement is an extremely important part of the MSC certification and audit process. WWF raised the concern that</p> <p><i>“As in 2009, the 2010 audit was characterised with information circulated at the last moment. WWF received around 20 documents which required review to inform our participation in the audit process less than a week before we met with Certifiers. As we have stated previously, receiving information so late makes it difficult for stakeholders to input meaningfully, and undermines the role of stakeholders in MSC-surveillance audit processes. There is also limited engagement with stakeholders by the Client in relation to the audit process in the intervening period.</i></p> <p><i>Despite raising the issue of late provision of information to stakeholders repeatedly in recent surveillance audits, this situation has not yet been satisfactorily addressed.”</i></p> <p>This matter was raised with DWG. DWG’s response was that the most of these 20 documents had either been in the public arena for some time or had been previously provided to WWF and that only two were newly released the week prior to the audit, being provided to MML Surveillance Team and to WWF at the same time.</p> <p>The Surveillance Team were also advised, that DWG and MFish had offered to meet with WWF at a mutually convenient time to discuss matters relating to the management of NZ hoki fisheries in general or to the MSC Certification in particular and had strongly encouraged WWF</p>

	<p>to take up this offer.</p> <p>MML cannot be an adjudicator between DWG and WWF but is concerned the relationship between the client and the stakeholders is better managed to ensure stakeholders are effectively engaged in the consultation processes.</p> <p>We recommend that DWG, the Ministry of Fisheries and eNGOs meet on a regular basis to discuss any aspects of management of the fishery that may be of concern to eNGOs.</p>
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7	<p>Overall Conclusions</p> <p>The overall management of the fishery continues to improve. Progress on two of the three conditions has been substantial resulting in rescoring against the PIs and closure of Conditions 2 and 9.</p> <p>Progress with Condition 6, relating to updating the Ecological Risk Assessment, is behind time in achieving milestones which is of concern. However, the client has made progress and has shown commitment to the process and to meeting the terms of this Condition. DWG is aware of the need to keep this on track during the next year to meet the overall timeline for completion.</p> <p>The Surveillance Team were impressed by the amount of preparation and the provision of numerous reports that were provided to them prior to the audit. We note that the client elected to provide this documentation to the other parties to this surveillance audit at the same time they were provided to MML.</p> <p>The Surveillance Team also thank the eNGOs that took part in meetings and to WWF who contributed a clear and detailed written submission.</p> <p>The major concern that most stakeholder and eNGO groups have is what they consider to be a lack of communication with DWG and the limited involvement they are having concerning the management of the NZ hoki fishery and its interactions with the marine ecosystem. Most acknowledge some of this is due to their limited resources and time constraints. However, most also seek an ongoing dialogue with DWG and with the Ministry of Fisheries. DWG have accepted this request and advised WWF in early 2010 they were prepared to meet for up to two hours every week to discuss matters of concern to WWF.</p> <p>The surveillance team, in recognising the value, knowledge and experience the stakeholders and eNGOs have, encourages WWF and other eNGO groups to take up the invitation to meet with DWG and with the Ministry of Fisheries on a more frequent basis, and recommends the client should involve these groups wherever appropriate.</p> <p>Other issues raised by eNGOs have been taken into account in the observation sections of the various Conditions of Certification and in a separate area under 'closed conditions'. The additional concerns raised by WWF may be considered during future annual surveillance audits and or when the fishery undergoes a further re-certification process. These will be considered in relation to the appropriate MSC FAM , performance indicators and scoring guidelines applicable at such time.</p> <p>As the certifying body cannot require any specific approach to addressing an issue any of the, other suggestions made by WWF would be more appropriately taken up in discussions directly between the eNGOs, DWG and the Ministry of Fisheries</p>
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	<p>Progress against conditions can be summarised as follows:</p> <ol style="list-style-type: none"> 1. Conditions where requirements are deemed to be fully to have been fully met and the Condition closed: Conditions 2 and 9 2. Conditions which are or have been behind target dates but which are apparently being addressed within overall assessment timescales Conditions 6 <p>The rescoring (in the 2009 Audit) of PI 1.1.5.1 to 80 (for the western stock) and to 90 (for the eastern stock); of PI 1.2.1.1 to 90; and of PI 3.1.1.2 to 100 (in this Audit) has resulted in Conditions 2 and 9 being closed.</p> <p>No changes in management have taken place that would detrimentally affect the performance of this fishery against the MSC standard; no PIs have therefore been re-scored other than those detailed above in respect to Conditions of Certification.</p> <p>The fishery therefore continues to meet the requirements of the MSC Standard. MSC Certification should continue with surveillance audits annually.</p>
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Information Sources:**Meetings**

Meetings attendance for the 3rd annual hoki surveillance audit, Wellington New Zealand 15th -16th December 2010.

Jo Akroyd (independent) and Geoff Tingley (Cefas, UK) attended all meetings as assessors representing Moody Marine Ltd.

Meeting	Name	Role
Opening Client Meeting	George Clement	CEO, DWG
15 December 2010	Richard Wells	Operations Manager, DWG
	Vicky Reeve	Deepwater Fisheries Management Team, MFish
Sea Food Industry	Peter Bodeker	CEO, SeaFIC
15 December 2010	Alastair Macfarlane	General Manager Trade and Information, SeaFIC
	David Middleton	Chief Scientist, SeaFIC
MFish Science	Pamela Mace	Chief Scientist
15 December 2010	Martin Cryer	Science Manager Aquatic Environment
MFish Compliance	Dean Baigent	Acting Deputy Chief Executive Field Operations
15 December 2010	Fay Holdom	National Manager Field Operations Strategy
	Aoife Martin	Deepwater Fisheries Management Team
	Vicky Reeve	Deepwater Fisheries Management Team
eNGOs	Bob Zuur	Marine Advocate, WWF
16 December 2010	Rebecca Bird	Marine Programme Manager, WWF
	Kevin Hackwell	Advocacy Manager, Royal Forest and Bird
Closing Client Meeting	George Clement	CEO
16 December 2010	Aoife Martin	Deepwater Fisheries Management Team

Reports and Information Sources**All Principles**

Updated Action Plan to Address Conditions, Clement I. 2010

Sustainable Management of New Zealand Hoki, Clement,I and Tilney,R, 2010

Updated Action Plan to Address Conditions of Certification for Hoki, Clement,I and Tilney,R 2009

Surveillance Report: New Zealand Hoki Fishery. November 2009 V 2, Punt,A:Tingley,G: Akroyd,J:Hough,A 2009

Sustainability of New Zealand's Deepwater Fisheries from an Energetics Perspective. Knight,B: Jiang,E; Shiner,J 2010

Hoki 2010 Plenary report p 367-400, MFish 2010

Hoki Stock Assessment FAR 2010, MFish 2010

Hoki (HOK) Initial Position Paper, MFish 2010

Hoki (HOK) Final Position Paper, MFish 2010

WWF – New Zealand (2011). Submission MSC Surveillance Audit 2011 the New Zealand Hoki Fishery.

Principle 1

Harvest Strategy Standard for New Zealand Fisheries, MFISH 2008/

Hoki, Fishery Assessment Plenary Report for 2009.

Hoki management measures for the 2010-2011 fishing year: final advice paper.

McKenzie, A. Assessment of hoki (*Macruronus novaezelandiae*) in 2010. DRAFT FAR 2010.

Minister's Decision letter 2010/11 Hoki (HOK1)

National Fisheries Plan for Deepwater and Middle-depth Fisheries: Hoki Chapter Part 1B MFISH 2010

National Fisheries Plan for Deepwater and Middle-depth Fisheries: Wider Context. Part 1A Management Objectives for all Deepwater Fisheries, MFISH 2010

Table 1. Estimates (posterior medians) of spawning biomass in the most recent year (percentage of B_0) from the 2007, 2008, 2009 and 2010 assessments ("current year" is 2007 for the 2007 assessment, is 2008 for the 2008 assessment, is 2009 for the 2009 assessment, and is 2010 for the 2010 assessment). The values in parenthesis are 95% probability intervals.

Run	Stock/ assessment year							
	Eastern stock				Western stock			
	2007	2008	2009	2010	2007	2008	2009	2010
2.3, 4.4,	46	45	47	51	20	28	36	40
1.1, 2.1	(37,54)	(38,52)	(40, 56)	(43, 60)	(12,32)	(20,48)	(27, 53)	(33, 53)
2.4, 4.5,	37	42	49	57	24	30	39	52
1.2, 2.2	(30,48)	(34,50)	(40, 59)	(47, 70)	(19,31)	(25,37)	(32, 49)	(42, 63)

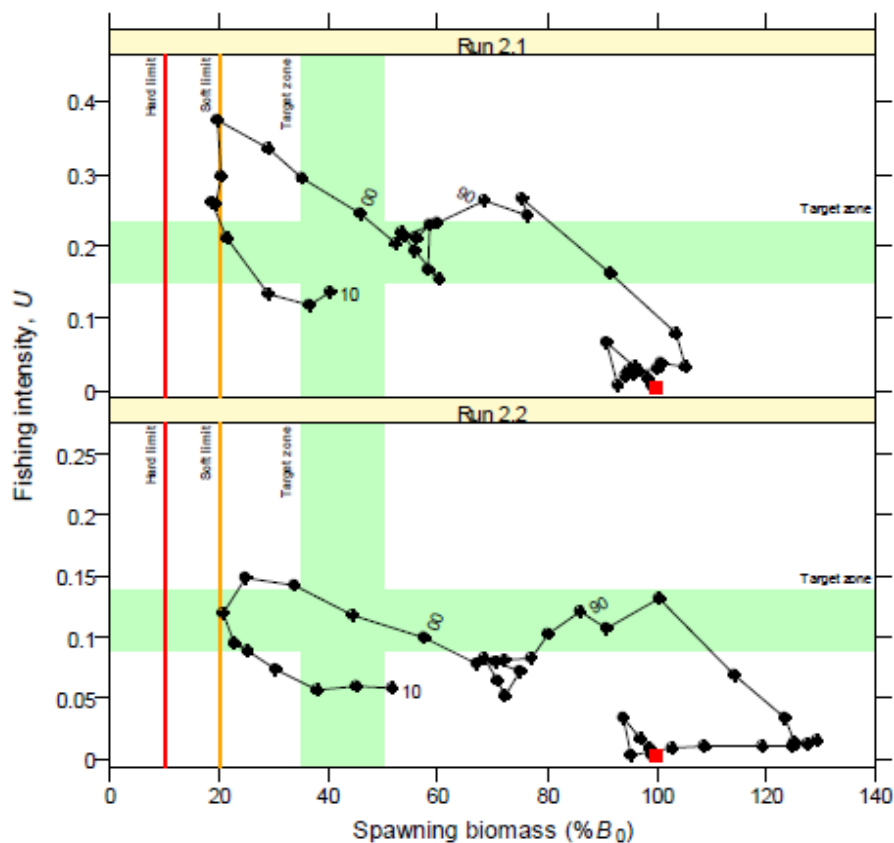


Figure 1. Trajectory over time of fishing intensity (U) and spawning biomass ($\%B_0$), for the western hoki stock from the start of the assessment period in 1972 (represented by a red square), to 2010. The vertical line at 10%B0 represents the hard limit, that at 20%B0 is the soft limit, and the shaded area represents the interim management target ranges biomass and fishing intensity. Biomass estimates are based on MCMC results, while fishing intensity is based on corresponding MPD results. Reproduced [with permission] from the 2010 assessment plenary report.

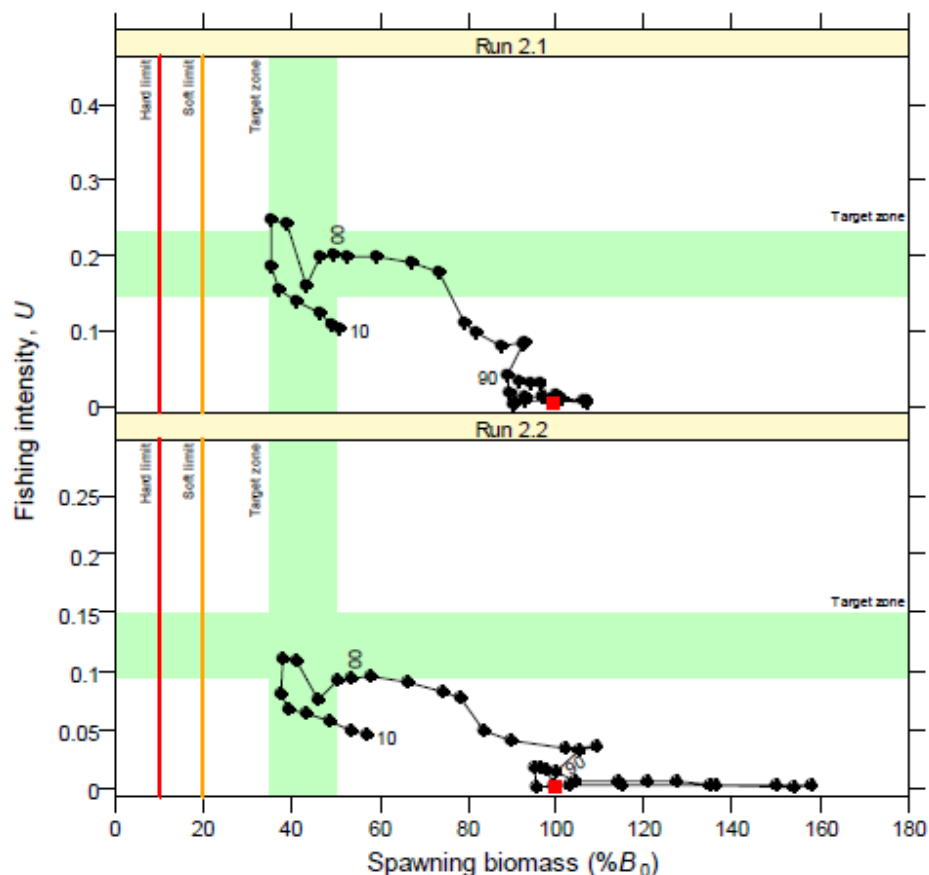


Figure 2. Trajectory over time of fishing intensity (U) and spawning biomass ($\%B_0$), for the eastern hoki stock from the start of the assessment period in 1972 (represented by a red square), to 2010. The vertical line at $10\%B_0$ represents the hard limit, that at $20\%B_0$ is the soft limit, and the shaded area represents the interim management target ranges in biomass and fishing intensity. Biomass estimates are based on MCMC results, while fishing intensity is based on corresponding MPD results. Reproduced [with permission] from the 2010 assessment plenary report.

Principle 2

Black, J. and Wood, R. (2010). Analysis of New Zealand's Trawl Grounds for the Tier 1 Species, GNS Science Consultancy Report 2010/167. 31p.

Wood, R. (2010). Analysis of Hoki Trawl Footprint and BOMECA Areas. Letter Report to DWG 15th September 2010 No. 2010/240LR Project No 530W1111. 4pp.

Hamilton and Baker (2010). Assessment of the impact of selected fisheries mortality on New Zealand fur seal populations using the Potential Biological Removal (PBR). (Draft Report to DWG) November 2010 37pp.

Principle 3

National Fisheries Plan for Deepwater and Middle-depth Fisheries: Wider Context. Part 1A Management Objectives for all Deepwater Fisheries, MFish 2010

National Fisheries Plan for Deepwater and Middle-depth Fisheries: Hoki Chapter Part 1B, MFish 2010

Compliance Information Sheet: Compliance benchmarking for New Zealand fisheries MFish 2010

Standards and Guidelines used:

1. MSC Principles and Criteria for Sustainable Fishing

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| <ol style="list-style-type: none">2. MSC Fishery Certification Methodology Version 6. September 20063. TAB Directives – all4. Policy Advisories - all |
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Appendix 1

Summary of meetings held with eNGOs

Meeting with eNGOS (am Thursday 16th December 2010).

Rebecca Bird (WWF); Bob Zuur (WWF); Kevin Hackwell (Forest & Bird).

Following is a brief summary of the view of NGOs (in attendance). The NGOs agreed to provide a written report in January 2011.

1. NGO's major process concerns

a) Communication and Information sharing

Concern and frustration was again raised that information and reports from DWG were provided to stakeholders only one week prior to the site visit. This does not allow stakeholders time to develop constructive comments and determine whether they need to bring anything else to the table. There was acknowledgement that some of the information would have been available prior to this time and they would prefer to receive information as it is available rather than wait for a "package" so close to the audit date. Communication with DWG was an ongoing problem, they would like better dialogue with DWG and requested that all information be available to stakeholders at the time of notification of the audit (i.e. 30 days prior to the site visit).

This was considered to be of such great importance that, if information was not provided in time, the audit process should be delayed.

A request was made that a draft of the audit report be made available.

b) ERA process

Progress on the ERA had been extremely slow and very problematic in terms of methodology. Only one NGO (WWF) was involved in the 2 day workshop, the other NGOs made a deliberate decision not to participate as they were unhappy with the process, methodology, delays and timing. There was agreement that the ERA process was extremely important and that there was some good exchange of information. The facilitator was not an experienced ERA facilitator which caused process problems. The "methodology" was not the one expected (CSIRO) and the change in methodology had not been consulted on with stakeholders.

Participants expressed reservations about the process with DWG were made and this did not appear in the Client Action Plan to address Conditions of certification.

c) Input from NGOs into Audit report

The NGOs considered that some of the issues they raised in the 2009 audit that they considered to be of significance were not dealt with appropriately (e.g. in some cases MML responded that these would be dealt with at re-certification whereas they considered they should have been dealt with now).

d) DWG and MFish deepwater management relationship

Concern was expressed that the relationship between DWG and MFish Deepwater management (MoU) impacts on the ability for other stakeholders (NGOs) to be involved in the decision making processes.

2. NGO's raised some issues with a number of the Conditions from the 2009 audit

a) Condition 002 – open

The fishery is in a better state now due to improved recruitment and changes in catch limits. However, there is remaining concern that the modelling doesn't understand factors affecting recruitment such as

climate. They would like to see better predictions of recruitment and see this included in the 10year research plan.

b) Condition 003 – closed

Acknowledgement that there has been a lot of work done but would like to see focus on research in areas that need more information (e.g. species assemblages including invertebrates).

c) Condition 004 – closed

Acknowledgement that there has been much knowledge gained but the important issue is what is being done with this knowledge. Recent (unpublished) work by Pinkerton, NIWA, shows declining trends in some ecosystem indicators. This issue was raised at the ERA workshop and scored a “2/3”. As this is new information the NGOs suggest that consideration should be given to a new Condition.

d) Condition 005- closed

Again good knowledge has been acquired in this area (BOMECE). However, there is a need to better understand the impacts (e.g. Class 9 is under pressure) and is one of three areas identified from ERA process for further work.

e) Condition 006 – open

There were several major concerns raised including:

- the methodology used – why it was changed from the CSIRO methodology to another less robust and more simplistic methodology (Fletcher) and the stakeholders had not had an opportunity to comment on the change in methodology
- Why had the process taken so long to commence?
- The facilitator was not experienced in ERA methodology
- All the appropriate participants were not in attendance (e.g. MFish science, other NGOs)
- Some NGOs made a deliberate decision not to attend as they did not consider the process robust and therefore did not wish to be seen to endorse it
- The ERA process should have been applied to the demersal mixed fisheries that include hoki, not just hoki alone.

Overall the NGOs saw this as a missed opportunity to get good engagement and although the NGO that did attend said some very useful information was exchanged and some good dialogue took place. However, they had major concerns about the methodology, and the lack of stakeholder engagement.

f) Condition 007 – closed

NGOs disagree with MML’s conclusion in the 2009 audit report. The reduction in bird mortality is due to reduction in effort and they are concerned that when effort increases bird mortality will increase. A second major concern is that cryptic mortality is not well estimated. The question was raised about whether observers on vessels were continuing to monitor warp interactions.

g) Condition 008 – closed

Although the NZ fur seal population seems to have increased, this information is based on a national estimate. Little information about fur seal populations is known on a local level. There is a need to understand fishery impacts at local population levels.

h) Condition 009 – open

There is now a national Deep Water Fisheries Plan. The NGOs supported the development of this plan but are concerned as to the degree to which the documents relate to long-term management (i.e. focus is often too short). There is too great an emphasis at the operational planning level.

The meeting was constructive and WWF wish to provide a more detailed report to the audit team in January 2011

Appendix 2: Submission from WWF New Zealand



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WWF-New Zealand Submission

MSC Surveillance Audit 2010

The New Zealand Hoki Fishery

21 January 2011

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Introduction

WWF-New Zealand has prepared this submission as a contribution to the certifier's Third Annual Surveillance Audit (2010) of the New Zealand hoki fishery. The submission comments on progress in response to the existing conditions of certification (CoC) applying to the fishery including a review of the Updated Action Plan to Address Conditions of Certification for Hoki. We note, following the second surveillance audit (Dec 2009), nine out of twelve Conditions of Certification for Hoki were closed; WWF disagreed with the closures in a number of cases. WWF's concerns about issues and concerns with the hoki fishery certification are outlined in the consideration of progress against the CoCs. Where new information exists and/or we disagree with the premature closure of conditions from the previous audit, we suggest new conditions and/or the reinstatement of previously closed conditions.

Process

Stakeholder engagement is an important part of the MSC certification and audit process. As in 2009, the 2010 audit was characterised with information circulated at the last moment. WWF received around 20 documents which required review to inform our participation in the audit process less than a week before we met with Certifiers. As we have stated previously, receiving information so late makes it difficult for stakeholders to input meaningfully, and undermines the role of stakeholders in MSC-surveillance audit processes. There is also limited engagement with stakeholders by the Client in relation to the audit process in the intervening period.

Despite raising the issue of late provision of information to stakeholders repeatedly in recent surveillance audits, this situation has not yet been satisfactorily addressed.

Recommendation:

We suggest Moody needs to address the issue of late information provision and stakeholder input with the Client. DWG and MFish should be required to convene a meeting with stakeholders to discuss matters for inclusion in the audit action plan well in advance of the site visit.

Updated Action Plan

CoC 1: Performance Indicator 1.1.4.2: Are appropriate target and limit reference points used?

Last year we raised the issue that reference points for the hoki fishery had only been established in relation to biomass. While the latest plenary document assesses both F (fishing pressure) and U (exploitation rate), no reference points relating to fishing mortality have been established.

The 2010 plenary report reiterates previous caution that the use of B_{MSY} , as calculated in report, is not a suitable target for management of the hoki fishery:

- It assumes a harvest strategy that is unrealistic in that it involves perfect knowledge
- It assumes perfect knowledge of the stock-recruit relationship, which is actually very poorly known
- It makes no allowance for extended periods of low recruitment, such as that observed in 1995–2001 for the W stock.
- It would be very difficult with such a low biomass target to avoid the biomass occasionally falling below 20% B_0 so the actual target probably needs to be considerably above this theoretical optimum

Recommendation:

- A condition is introduced that specifies a fisheries management target related to fishing pressure is defined for the hoki fishery.

CoC 2: Performance Indicator 1.2.1; and PI 1.1.5.1: Are measures in place to rebuild a stock if it is found to be below a target or limit reference point?

WWF notes that the Fisheries Plan has been approved by the Minister and that this includes provisions for rebuilding stocks if they fall below trigger points.

WWF recognises that the hoki fishery has recovered somewhat following earlier low levels. DWG attributes this to reductions in TACC. While this would put less fishing pressure on the fishery, we note that TACCs have been subsequently increased and that key factors affecting recruitment are still poorly understood. It appears that climate (El Nino / Southern Oscillation) and predation by spiny dogfish affects recruitment, but these factors are not well understood and do not appear to be part of proposed research. This would provide management with an improved ability to predict fishery performance in terms of rebuilding stocks.

Recommendation:

Conditions are introduced that require:

- The response of the fishery to current and possible future increases in TACCs to be closely monitored.
- Research to be conducted into the impact of climate (ENSO) and spiny dogfish on hoki recruitment.

CoC 3: Performance Indicator 2.1.1.1: Are the nature and distribution of habitats relevant to the fishing operations known?

While progress is being made with researching the impact of the fishery on the benthos, it is important that the impacts of the trawl footprint are managed sustainably, something not addressed by this CoC. Work has been undertaken in mapping various BOMECS (benthic optimised marine environment classification) classes in relation to areas trawled for hoki. We note that the link between BOMECS classes and many aspects of benthic communities is not good and further work is needed.

Recommendation:

- A condition is introduced that requires research to be conducted into the nature of links between BOMECS classes and associated benthic communities.

CoC 4: Performance Indicator 2.1.1.3: Are the trophic relationships of the target species known?

WWF is disappointed that the actions and milestones associated with this CoC focused on processes, rather than the management of impacts. Information presented at the Ecological Risk Assessment workshop in December 2010 and as part of this Audit shows an improvement in our understanding of actual and potential trophic impacts. The ERA workshop identified concern about the nature of those impacts, with the Panel allocating a score of “3” for the Chatham Rise and subantarctic fisheries. WWF suggests that a new condition is needed to manage those risks. Note that “manage” may simply involve better quantifying the risk if the further work shows the risk to be low.

Recommendation:

- A new condition is required to manage the risks of trophic impacts of the Chatham Rise and subantarctic fisheries.

CoC 5: Performance Indicator 2.1.2.2: Is there adequate knowledge of the impacts of fishing gear on the habitats where the fishery operates?

DWG and MFish have collected information in terms of the trawl footprint and BOMECS classes. As noted earlier, there is still some uncertainty about the relationship between BOMECS and several species assemblages/communities. At the ERA workshop, the Panel was concerned about the extent of impact on BOMECS habitat class 9, scoring this a “3”. This highlights the limited value of the CoC and the need for a new condition to manage those risks. Note that “manage” may simply involve better quantifying the risk if the further work shows the risk to be low.

Although benthic protected areas (BPAs) have been implemented, the absence of a complete process to establish them within a comprehensive, adequate and representative biodiversity conservation framework

means that more needs to be done. WWF looks forward to engaging with DWG on the proposed BPA plan for the Chatham Rise in order to manage the benthic impacts in this area.

Recommendation:

- A new CoC is introduced to manage the risks of benthic impacts of the Chatham Rise fishery on BOMECH habitat class 9.
- A condition is introduced that requires DWG to engage with stakeholders in developing the revised benthic protected area plan, such as for the Chatham Rise.

CoC 6: Performance Indicators 2.1.3.1, 2.1.4.1, 2.1.4.2:

- **Are levels of acceptable impact determined and reviewed?**
- **Are the impacts of the fishery on ecosystem structure, function, biological diversity, productivity within acceptable levels?**
- **Are the impacts of the fishery on habitat structure and function within acceptable levels?**

The 2009 Audit report:

- Recognised the importance of the ERA – WWF suggests that this has been even more important with DWG's proposed move away from prescriptive to performance based management,
- Noted DWG's intent to conduct an ERA based on the CSIRO method, and
- Stressed the need for stakeholders to be fully engaged.

We reported to the 2009 Audit that WWF and other stakeholders had been invited to an ERA workshop for the hoki fishery on 14 December 2009. We expressed concern at the significant delay in initiating the ERA process and supported the use of the CSIRO ERA methodology and the selection of Dr Richard Stoklosa to lead the process. That workshop proved to be of little value and little progress was made for the next ten months. An ERA workshop was held in the week prior to the present audit and Bob Zuur (WWF) was the only NGO member of the Panel. While a WWF staff member participated on the Panel, this was on the condition that we do not accept the methodology adopted.

WWF is not satisfied with the process to develop the ERA, in spite of repeatedly offering to assist the DWG with development of the methodology. DWG did invite us to a meeting to discuss the workshop that we attended at short notice and we participated in a few meetings arranged by the consultant. We advised DWG that we agreed to participate in the meeting in an advisory capacity only, that this could not be interpreted that we endorse any process and/or methodology selected, and that we had previously advised DWG about concerns about the ERA process.

Particular methodological concerns raised with DWG or its consultant include:

- The need to define the fishery, including current mitigation methods in place, to define the baseline. Given the complexity of the hoki/hake/ling trawl fishery we suggested that the ERA address the broader fishery, rather than making arbitrary decisions about allocating fishery impacts to one element (i.e. hoki).
- The need to agree on operational objectives and "acceptable" levels ; We note that the Updated Action Plan identifies operational tasks including the development of management objectives for each of the main ecological risk issues. These objectives were not developed.
- The problems with bringing together the outputs from the workshop - the draft method proposed a flawed approach of multiplying consequence with likelihood.
- The specification of a critical consequence level, i.e the point at which management action is mandatory. In the course of the Panel discussion, it was agreed that a score of "3" implied the need for a management response.
- The mixing of uncertainty and consequence in some consequence tables.
- Defining terms such as a "major change in structure or function".
- "Likelihood" is not equivalent to "exposure" as in Table 6.

- Likelihood score is inappropriate as the consequence assessment was based on the most likely case, not a worse case scenario [this was accepted following my suggestion to other Panel members at the workshop]
- Address the situation where there is likely to be a range of scores: rare/major, possible/severe.
- The role of sensitivity analysis.

The main concern we have about the adopted approach is the simplicity of the scoring system: this was restricted to consequence and confidence. The problem is that there are multiple dimensions for the consequences of many ecological risks. For example, for benthic impacts these dimensions include scale, intensity of impact, and frequency of trawling, as well as the fragility of the benthos and the ability to recover. The Panel had to internalise these dimensions to generate a single score. The CSIRO method is more sophisticated and hence robust, and so is to be preferred. It appears that the method was selected on the basis of cost rather than a genuine attempt to advance on the limitations in the first hoki ERA.

Although DWG conducted an ERA workshop in the week prior to the surveillance audit and draft notes have been circulated to Panel members, the final ERA report is yet to be produced. We would expect fishery managers to then develop a plan to respond to the significant risks identified in the ERA. Hence, we are not satisfied that progress with the ERA meets the CoC or the expectations of the certifier as indicated in the 2009 audit report.

We note that a more robust ERA for deepwater fisheries is likely to be conducted next year as part of the deepwater research programme. Hence, we suggest that the certifier delays consideration of rescoring this condition until the 2011.

Recommendations:

- The ERA conducted by DWG does not meet the requirements of the CoC nor the expectations of the certifying body (as defined in the 2009 Audit report);
- Any further rescoring of this condition should be delayed until a future audit, when progress with the Deepwater Research Programme ERA can be assessed.

CoC 7: Performance Indicator 2.2.3.1: Do the impacts of the fishery on protected, endangered, threatened or at risk species exceed unacceptable levels?

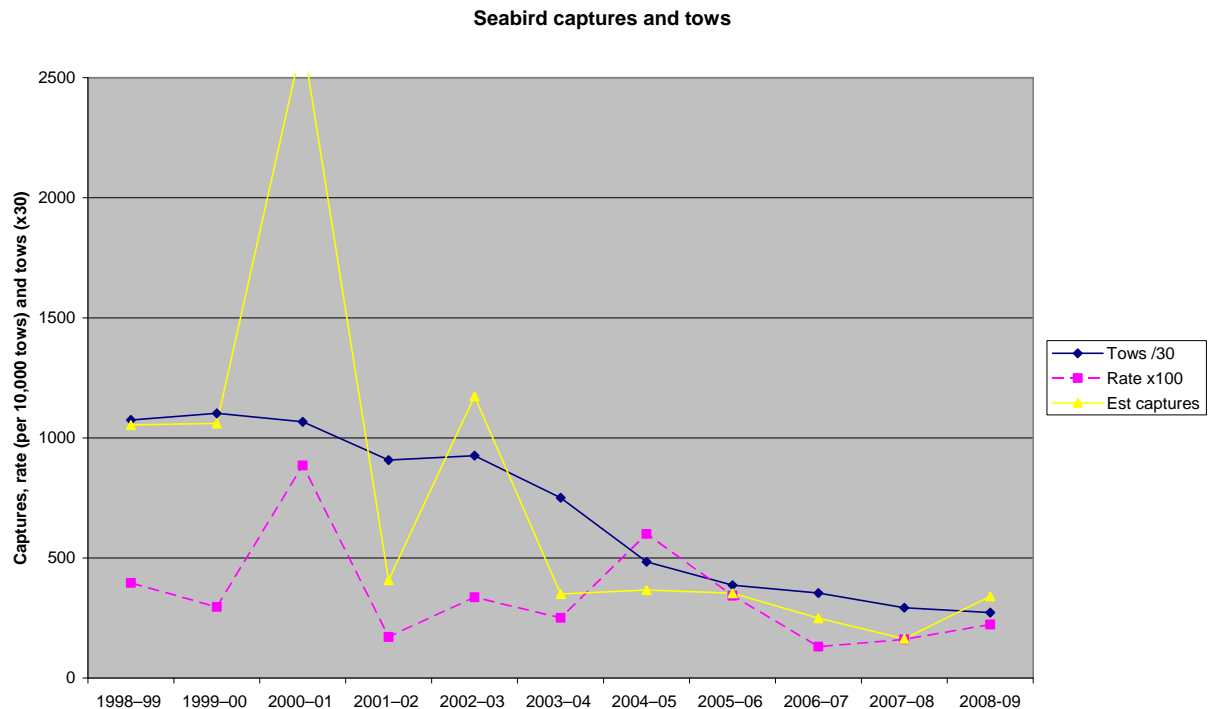
The 2009 Audit concluded that:

“The evidence of a reduction in observed mortality of those species most at risk, as well as the overall reduction in seabird mortality (Abraham et al., 2009), as a direct result of changes in fishing practices over recent years inevitably leads the surveillance team to conclude that the requirements of this Condition have been fulfilled”.

This is a flawed statement and indefensible decision.

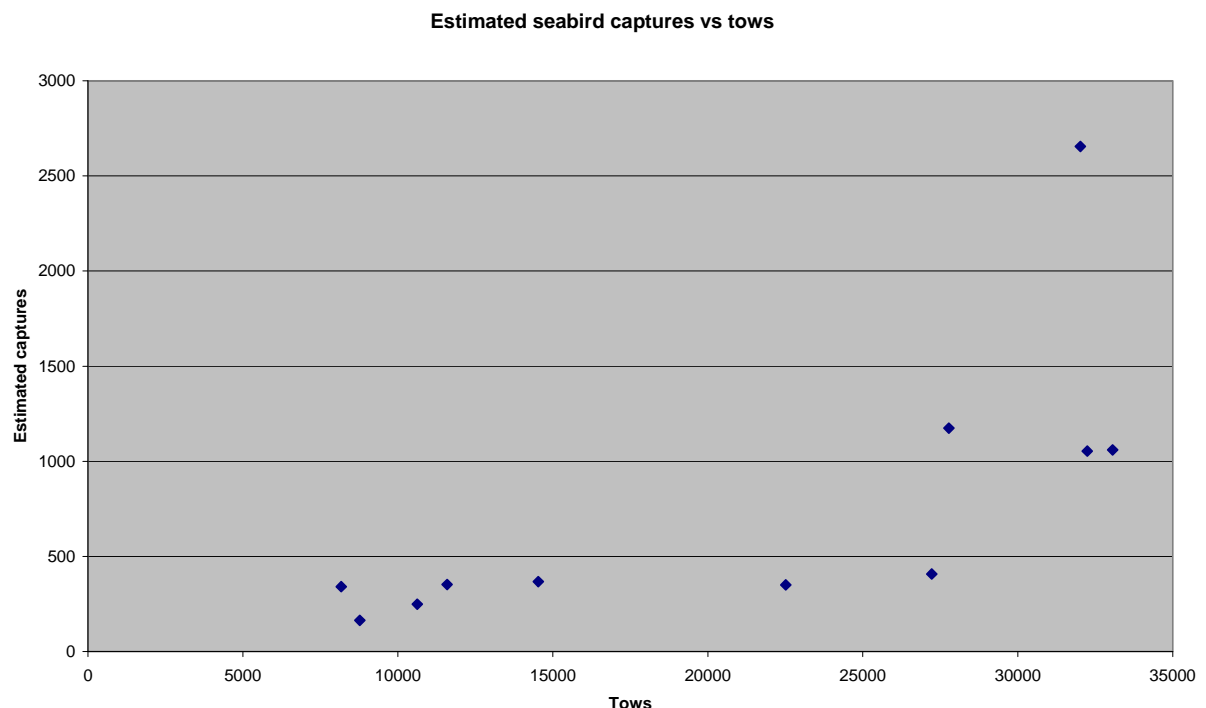
Firstly, there is insufficient monitoring of warp strikes (earlier warp strike monitoring has been stopped over the last two years) and no assessment of the relationship (if any) between landed birds and cryptic mortality.

Secondly, the data that have been collected show that, while estimated seabird mortality based on observed bird landings have declined significantly, the major driver of this is fishing effort, rather than fishing practices or mitigation.



This graph¹ clearly shows a decline in total estimated captures and how this parallels the decline in fishing effort. While recorded catch rates appear to have declined between 1998/2004 and 2005/09, no further decline is evident in the last four years of the record.

The relationship between fishing effort and estimated captures is show below:



We recognise that even excluding the important aspect of cryptic mortality, more detailed analysis of these data is required, including separation of main species groups, net/warp mortality, fishing location, and observer effort and protocols. Nevertheless, we fail to see any evidence of an “overall reduction in seabird mortality ... as a direct result of changes in fishing practices” that led to the review team’s conclusion.

¹ Reworked data from the latest Dragonfly report prepared for MFish.

WWF suggests that it was premature to close this condition and that further work is needed to quantify captures and cryptic mortality and to ascertain the extent to which fishing practices (compared to effort) have contributed to any changes.

Furthermore, WWF believes that as long as there is no agreement between industry, stakeholders and government as to what constitutes “acceptable” levels of seabird bycatch in the fishery, it is not possible for the fishery to meet this indicator at the level of the 80 scoring guidepost. The development of a seabird mortality performance standard through the Working Group for the Seabird National Plan of Action (NPOA) has apparently been put on hold. WWF maintains that the fishery must also develop and implement capture trigger limits and robust management actions to address situations where trigger limits are reached or exceeded.

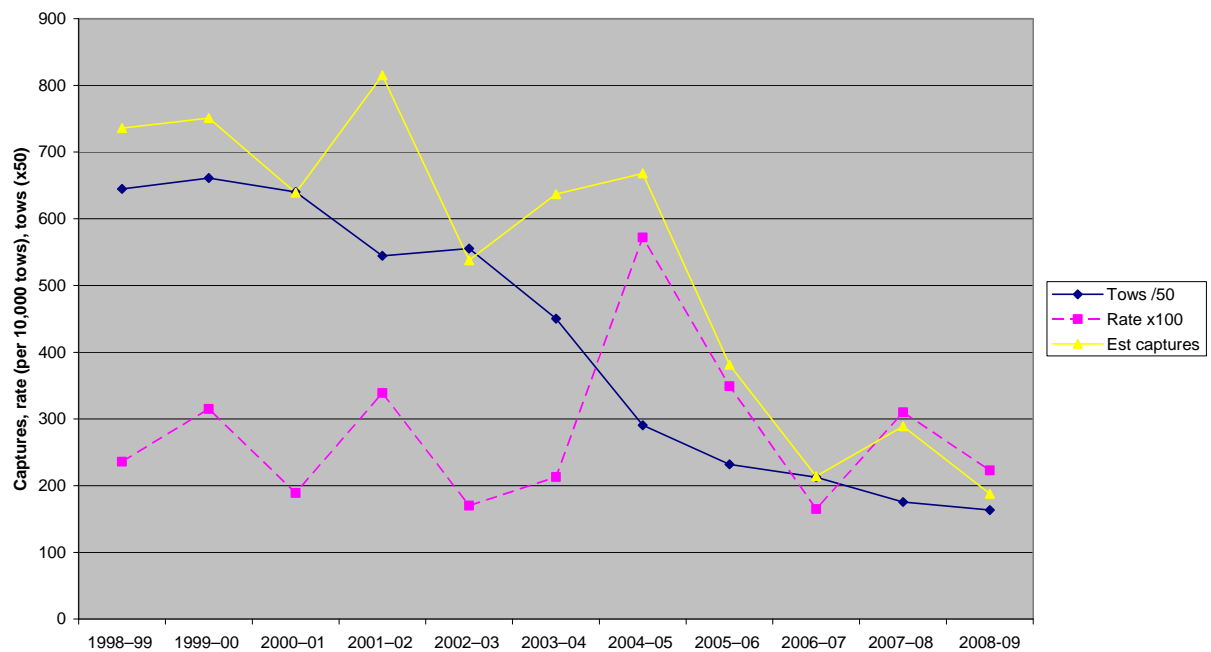
Recommendations:

- That the previous condition be reinstated and new ones developed that based on the following:
- Warp strike monitoring should be re-established and the relationship (if any) between landed birds and cryptic mortality should be determined.
- The extent to which fishing practices (compared to effort) have and can contribute to reductions in seabird mortality should be investigated.
- An agreed seabird standard that defines acceptable levels of seabird bycatch in the fishery should be developed.
- The fishery should develop and implement capture trigger limits and robust management actions to address situations where trigger limits are reached or exceeded

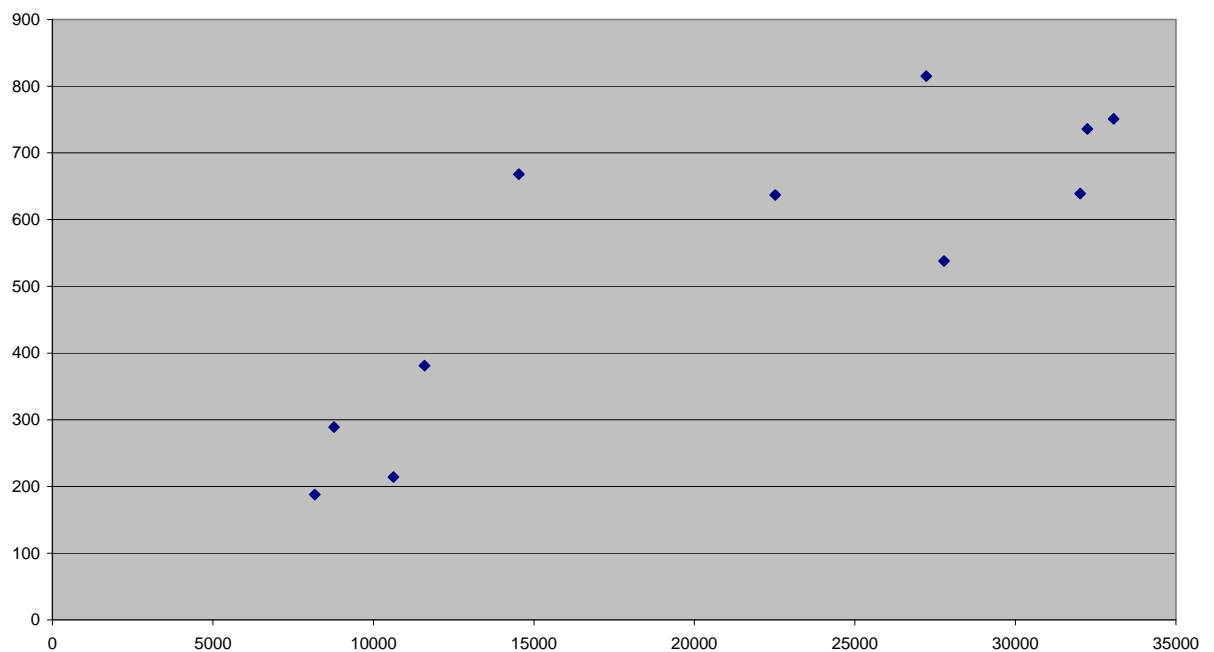
CoC 8: Performance Indicators 2.2.3.1 and 2.3.1.1: Do the impacts of the fishery on protected, endangered, threatened or at risk species exceed unacceptable levels? Are management measures for the target species in place that allow for the rebuilding of the affected non-target populations?

While a recent paper (Hamilton and Baker, 2010) suggests that the hoki fishery does not currently threaten the national population of fur seals, we note that the Expert Panel for the hoki ERA expressed concern that impacts of the fishery on subpopulations could not be excluded. WWF suggests that currently unpublished information (included that compiled by Best) is analysed to assess the impact of the fishery on subpopulations, especially along the South Island’s west coast.

Similar analysis to that for seabirds illustrates recent trends in fur seal captures.

Fur seal captures, rates and tows

This graph shows a decline in fur seal captures in parallel with the decline in fishing effort. It also shows that capture rate has not declined since 1998. Further analysis shows that fur seal captures are closely related to fishing effort:

Fur seal captures vs tows

It is therefore possible that the impact of the fishery on fur seal populations will increase should hoki TACCs increase.

Finally, WWF is not convinced that enough is being done to minimise the captures of these mammals and that further work on exclusion devices and fishing practices is needed.

Recommendations:

- That conditions are introduced to ensure:
- The impacts of the hoki fishery on fur seal subpopulations, especially those along the west coast of the South Island, are assessed.
- That the probable increased fur seal mortality should be monitored and addressed if TACCs increase.
- That ways to minimise fur seal captures, such as fishing practices and exclusion devices, be investigated.

CoC 9: Performance Indicator 3.1.1.2: Is there a Management Plan that includes objectives related to target species and the impacts of fishing on the ecosystem?

As reported by DWG, the Minister of Fisheries has approved a fisheries plan for deepwater and middle-depth species. Objectives and targets have been specified for target fish stocks, although we have some reservations about these (see above). The Plan specifies some operational objectives for the impacts of fishing on the ecosystem:

- OO2.6 Complete an Ecological Risk Assessment (ERA) to assess the level of risk from hoki fishing activity to non-fish species, including ETP species, by 2010
- OO2.7 Determine additional management measures required to mitigate adverse effects on non-fish species, including ETP species, identified through the ERA by 2011
- OO2.8 Define what is meant by ‘habitats of particular significance for fisheries management purposes’ for the hoki fishery by 2010; identify the range of habitats that are significant, and review current levels of protection by 2013
- OO2.9 Identify what further levels of habitat protection are required to be implemented by 2013
- OO2.10 Ensure that incidental seabird mortalities in the hoki fishery are avoided and minimised to acceptable levels (which may include standards) by 2011
- OO2.11 Ensure that incidental marine mammal captures in the hoki fishery are avoided and minimised to acceptable levels (which may include standards) by 2012
- OO2.12 Ensure that the incidental capture of endangered and protected shark captures in the hoki fishery are avoided and minimised to acceptable levels (which may include agreed standards) by 2013
- OO2.13 Implement measures to monitor and improve vessel at sea performance in terms of environmental interactions from 2010
- OO2.14 Monitor trends in captures of incidental bycatch species in the hoki fishery from 2010
- OO2.15 Implement appropriate spatial management measures to address the impact that hoki bottom trawl fishing activity has on the benthic habitat, post 2013

WWF’s submission on the draft plan included the following:

While WWF-NZ supports the high-level management objectives listed in the [draft] Plan, few of these have clearly defined outcomes. The Plan defines Operational Objectives, but they tend to be outputs. While these outputs are often necessary (and we support many of them), the true test of the effectiveness of management will best be assessed in relation to outcomes. These outcomes could be, for example, the number of birds being killed (intermediate outcome) and the health of the seabird populations (ultimate outcome). The document is rather quiet about this, relying on subsequent work (e.g. the seabird and benthic standards) to define these endpoints.

WWF-NZ expects that the Plan will specify capture trigger limits for hoki and other fisheries and define robust management actions to address situations where trigger limits are reached or exceeded. The [draft] Plan provides little detail on how seabird mortality will be reduced.

The final Plan does not address these points. Indeed there is no longer any commitment to produce the standards that WWF considers so very important to guide and assess the management of the fishery. Some objectives now include statements “which may include standards”, compared to objectives in the draft Plan such as “OO2.10 Ensure that incidental seabird mortality in the hoki fishery are avoided and minimised to agreed standards by 2011”. This represents a major step backwards.

Hence we consider these objectives to provide little meaningful guidance to fisheries management and that they do not meet the intent, if not the wording, of the CoC.

Recommendations:

- While a fisheries plan has been prepared and approved by the Minister, its environmental operational objectives provide little meaningful guidance to fisheries management and they do not meet the intent, if not the wording, of the CoC. The condition should therefore remain open.
- Standards for seabird mortality, fur seal mortality and benthic impacts should be produced as a matter of priority and should be specifically required by the Certifiers to satisfy this PI..

CoC 12: Performance Indicator 3.3.1.1: Does the management system include a research plan to support the management of the target species and protection of the ecosystem?

WWF was disappointed with the 10-year Research Programme for Deepwater Fisheries. Key points raised in our submission on the draft Programme were:

- The Research Programme should cover all research related to the management of deepwater and middle-depth fisheries, including that required to support standards development.
- The Research Programme should define information needs (derived from management objectives in the Fisheries Plan) and it should identify priority information gaps, before proposing further research.
- The Observer Services Strategy should ensure that there are sufficient trained observers to meet the needs of deepwater research without impacting on other fisheries research.
- Observer placement should be driven by research needs, rather than by an ideological desire for “100% coverage”.
- A better understanding of the processes affecting hoki fishery recruitment is needed if the significant fluctuations in recruitment are to be managed effectively.
- The Research Programme should consider how uncertainties in stock structure, migration patterns, stock-recruit steepness, natal fidelity and the size of recent year classes are to be addressed.
- The Research Programme should develop a good understanding of the nature of trawled and untrawled habitats for the 2013 review of BPAs and this will need more than observer records and analysis of trawl locations.
- WWF opposes the narrow approach in the Research Programme to monitor dead animals. The Programme should also investigate ways to minimise protected species mortality and assess the impact on protected species populations.
- The Research Programme should generate information on the nature and extent of protected shark species interactions.
- The Research Programme should consider the need to collect information on the impact of the hoki fishery on community and trophic structure and on spawning disruption.

These points do not appear to have been addressed in the final Research Programme.

Recommendation:

- While a “research plan” has been prepared, we do not consider that this meets the intent of the CoC and therefore recommend this condition be reinstated.

Appendix 3 response from DWG received 31 January 2011

DWG has read and considered the written submission from WWF-NZ.

We note there are a number of factual inaccuracies within this submission which need addressing, and differences of view that need exploring and teasing out. I propose that most of the areas where there are differences of view are not essential or relevant to the 2010 audit and that DWG and the Ministry will continue to offer to engage with WWF-NZ. In February 2010 I offered to meet with WWF-NZ for up to two hours every week for as long as it took to discuss matters of concern to them in relation to the management of NZ deepwater fisheries and with the MSC Certification of hoki in particular. That offer still stands. My recollection is that they only responded to this offer on one or maybe two occasions during 2010.

On the 'factual inaccuracies' relevant to the 2010 audit, their report includes the proposition that they received '20' new papers a few days prior to the audit which prevented them from being adequately informed. Please find attached a list of these documents and note that all but two (highlighted in red) had either already been provided to WWF directly sometime prior, or were part of the public record. These two documents were provided to Moody Marine's audit team and to the named participants for the audit (including WWF-NZ) on 9 December 2010.

Rather than providing our detailed comments on their submission, DWG would prefer to answer any consequential questions you may have and to provide any further information to assist you to complete your 2010 audit assessment.

Regards

George Clement

CEO

DeepWater Group
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