

## MSC SUSTAINABLE FISHERIES CERTIFICATION

### New Zealand Albacore Tuna Troll



**Public Certification Report**

February 2017

Prepared for: **Tuna Management Association of New Zealand**  
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## Glossary

ALB	Albacore Tuna
CCM	WCPFC Commission Members, Cooperating Non-Members and Participating Territories are termed CCMs
CELR	Catch Effort Landing Return
CNM	Co-operating Non Member
CoC	Chain of Custody
CPUE	Catch per Unit Effort
DoC	Department of Conservation
EEZ	Exclusive Economic Zone
ERA	Ecological Risk Assessment
ETP	Endangered, Threatened and Protected
F	Fishing mortality
FAD	Fish Aggregating Device
FFA	Forum Fisheries Agency
FMA	Fishery Management Area
$F_{MSY}$	Fishing mortality at MSY
GRT	Gross registered tonnage
HCR	Harvest Control Rule
HMS	Highly Migratory Species
IUU	Illegal, Unreported and Unregulated
KAH	Kahawai
LFRR	Licensed Fish Receiver Return
LRP	Limit Reference Point
MARPOL	International Convention for the Prevention of Marine Pollution
MFCL	MULTIFAN-CL Stock Assessment Software
MHR	Monthly Harvest Return
MOW	Management Objectives Workshop
MPI	Ministry for Primary Industries
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NPOA	National Plan of Action
NGO	Non-Government Organisation
NIWA	National Institute of Water and Atmospheric Research
NZ	New Zealand
PAE	Part Allowable Effort
PNA	Party to the Nauru Agreement
PNAO	Party to the Nauru Agreement Office
PSA	Productivity Sensitivity Analysis
QMS	Quota Management System
RBM	Ray's Bream
RFMO	Regional Fisheries Management Organisations
SB	Spawning biomass
$SB_{current}$	Average spawning biomass over recent years
$SB_{MSY}$	Spawning biomass at MSY
SC	Science Committee (of the WCPFC)
SKJ	Skipjack
SPC	Secretariat of the Pacific Community
SPC-OFPP	SPC Oceanic Fisheries Programme
SPO	South Pacific Ocean
SST	Sea Surface Temperature
STCZ	Sub-Tropical Convergence Zone
TAC	Total Allowable Catch

TACC	Total Allowable Commercial Catch
TCC	Technical and Compliance Committee (of the WCPFC)
TCLER	Tuna Longline Catch Effort Return
TRP	Target Reference Point
UNCLOS	United Nations Convention on Law of the Sea
UNFSA	United Nations Fish Stock Agreement
UoA	Unit of Assessment
UoC	Unit of Certification
VDS	Vessel Day Scheme
VMS	Vessel Monitoring System
WCPFC	Western and Central Pacific Fisheries Commission
WCPFC-SC	WCPFC Scientific Committee
WCPO	Western Central Pacific Ocean

# 1 Executive Summary

- » This report provides details of the MSC assessment process for the New Zealand albacore troll fishery for the Tuna Management Association of New Zealand. The assessment process began on the 18<sup>th</sup> February 2016 and was concluded 14<sup>th</sup> February 2017.
- » A comprehensive programme of stakeholder consultations was carried out as part of this assessment, complemented by a full and thorough review of relevant literature and data sources.
- » A rigorous assessment of the wide-ranging MSC Principles and Criteria was undertaken by the assessment team and a detailed and fully referenced scoring rationale is provided in the assessment tree provided in **Appendix 1.1** of this report.
- » The **Eligibility Date** for this assessment is the date of certification.

The assessment team for this fishery assessment comprised of Jo Akroyd, who acted as team leader and primary Principle 3 specialist; Kevin McLoughlin who was primarily responsible for evaluation of Principle 1 and Principle 2.

## Client strengths

- » There are strong fisheries management and research systems operating in New Zealand.
- » The fishery operates only within the New Zealand fisheries waters
- » The troll fishing method is relatively environmentally friendly.
- » The fishery has already had 4 years of MSC certification.

## Client weaknesses

- » The large number of small vessels complicates monitoring.
- » There is a low level of observer coverage.
- » Albacore tuna are not managed under the New Zealand Quota Management System.

## Determination

- » **On completion of the assessment and scoring process, and following stakeholder and peer review, Acoura Marine has concluded that the fishery should be certified.**

## Rationale

- » No performance indicator (PI) scored <60 and all the Principles have an average weighted score of 80 or above.

## Conditions & Recommendations

- » Two criteria which contribute to the overall assessment score scored less than the unconditional pass mark, and therefore trigger a binding condition to be placed on the fishery, which must be addressed in a specified timeframe (within the 5-year lifespan of the certificate). The fishery had two PIs (1.2.1 and 1.2.2) score between 60 and 80, Therefore two conditions of certification are proposed, both for Principle 1 and consistent with harmonisation requirements.

Full explanation of these conditions is provided in **Appendix 1.3**

- » In addition, the assessment team made a recommendation relating to P 2.3.3, ETP species. Despite low levels of ETP interactions seen in historic data, there should be

an ongoing level of observer coverage that will provide information on potential interactions. As this is not the result of a failure to meet the unconditional pass mark, it is non-binding; however, in the opinion of the assessment team, it would make a positive contribution to ongoing efforts to ensure the fishery does not pose any long-term sustainability threats to ETP species.

- » For interested readers, the report also provides background to the target species and fishery covered by the assessment, the wider impacts of the fishery and the management regime, supported by full details of the assessment team, a full list of references used and details of the stakeholder consultation process.

Acoura Marine Ltd. confirm that this fishery is within scope.

## 2 Authorship and Peer Reviewers

### 2.1 Assessment Team

All team members listed below have completed all requisite training and signed all relevant forms for assessment team membership on this fishery.

**Assessment team leader: Jo Akroyd**  
**Primarily responsible for assessment under Principle 3**

Jo is a fisheries management and marine ecosystem consultant with extensive international and Pacific experience. She has worked at senior levels in both the public and private sector as a fisheries manager and marine policy expert. Jo was with the Ministry of Agriculture and Fisheries in New Zealand for 20 years. Starting as a fisheries scientist, she was promoted to senior chief fisheries scientist, then Fisheries Management Officer, and the Assistant Director, Marine Research. She was awarded a Commemoration Medal in 1990 in recognition of her pioneering work in establishing New Zealand's fisheries quota management system. Among her current contracted activities, she is involved internationally in fishery certification of offshore, inshore and shellfish fisheries as Fisheries Management Specialist and Lead Assessor for the Intertek Fisheries Certification audit team. She has carried out the Marine Stewardship Council's (MSC) certification assessment for sustainable fisheries. Examples include New Zealand (hoki, southern blue whiting, albacore, scallops), Fiji (longline albacore) Japan (pole and line tuna, flatfish, snowcrab, scallops), China (scallops), and Antarctica (Ross Sea tooth fishery).

**Expert team member: Kevin McLoughlin**  
**Primarily responsible for assessment under Principles 1 and 2**

Kevin McLoughlin is a specialist fisheries consultant based in Australia with more than 30 years' experience across a wide range of international and domestic fisheries science issues, with close links to government policy. He represented the Australian Government on many committees and groups such as fishery assessment groups, providing advice on a diverse range of fisheries and species (including tuna, shark, various finfish, scallop and prawn). Work in assessment groups involved assessment of target species, development of bycatch action plans and ecological risk assessments. Kevin was responsible for the production of annual status reports for Australian government-managed fisheries for a number of years. He was Australia's delegate on scientific issues at the Indian Ocean Tuna Commission and was Chair of the IOTC Working Party on Bycatch for several years. Kevin was also a delegate at meetings of the Commission for the Conservation of Southern Bluefin Tuna.

Kevin has worked predominantly on Principle 1 aspects of MSC assessments but has also undertaken Principle 2 and 3 work, as well as peer review and surveillance audits for several fisheries. Kevin was a team member for the full assessment of the Fiji albacore longline fishery, the Tri Marine Western and Central Pacific Skipjack and Yellowfin Tuna Fishery, Australia's blue grenadier fishery, as well as the Western Australia Exmouth Gulf and Shark Bay prawn trawl fisheries. He was a peer reviewer for the New Zealand albacore troll fishery and for the North and South Pacific American Albacore Fishing Association fisheries and has undertaken surveillance audits for a number of fisheries.

#### 2.1.1 Peer Reviewers

**Peer Reviewer 1 – Tim Huntington**



Tim Huntington is a fisheries biologist with over 30 years' industry and consulting experience. His qualifications include a BSc (Hons) in Biological Sciences and MSc in Applied Fish Biology. He has worked in capture fisheries and aquaculture in over 60 countries worldwide, with a particular focus on Europe, the Middle East, Africa and Asia (including the Indian and Pacific Ocean countries). Following a number of industry and consulting posts, Tim has specialised in promoting sustainability in fisheries and aquaculture. This initially included working on a number of fisheries development projects for the Global Environment Facility, FAO and other agencies before focusing on the roles that eco-labelling can play in driving improved fishing practises and management. He has worked extensively with the MSC responsible fisheries programme, including leading pre-assessments, full assessments as well as chain of custody audits for a number of certification bodies including Acoura, Intertek, MacAlister Elliott and SCS. He has participated as lead auditor or a team member on a number of UK, NE and NW Atlantic, Indian Ocean and Pacific Ocean fisheries and specialises in contributing to the Principle 2 elements. He also works with fisheries on fisheries improvement planning, using the MSC standard as a benchmark for baseline and incremental assessments. In addition to his work for the Certification Bodies, Tim has also worked direct for MSC, where his contributions have included a number of studies on chain of custody methodologies, looking at including aquaculture in the MSC fisheries standard and the 2011 review of environmental benefits of MSC certification. Tim is also the co-author of a number of reports published by the UN's Food and Agriculture Organisation (FAO) on the costs and benefits of fisheries certification for small-scale fisheries.

#### **Peer Reviewer 2 – Joe DeAlteris**

Dr. DeAlteris retired from the University of Rhode Island (URI) in May of 2012, and was awarded Professor Emeritus status. In 30 of service to URI he is taught course work, conducted research, and developed outreach programs in fisheries conservation engineering, fish population dynamics and quantitative ecology, and shellfish aquaculture. He mentored more than 40 graduate students completing MS and PhD degrees. He served on numerous government committees including the National Research Council. He authored more than 35 publications in peer-reviewed journals, and also authored and co-authored numerous books, manuals, non-referred articles, and technical reports in the fields of fisheries biology, stock assessment and fishing gear technology.

Dr. DeAlteris has an international reputation as an expert in the field of stock assessment and fishing gear technology. He brings intimate knowledge of finfish and invertebrate fisheries and has considerable experience in MSC fishery evaluations. He has worked for several certifying bodies (CBs). Dr. DeAlteris has worked the full assessment of the Louisiana blue crab and Atlantic red crab fisheries, the Echebatar Indian Ocean tuna fishery, the re-assessment of British Columbia halibut fishery, and annual audits of Dungeness crab, red crab blue crab, Canadian haddock, Full Bay sea scallop and the shrimp fisheries. He has also conducted pre-assessments, and assessment peer reviews. He recently worked as an expert evaluator on the Global Seafood Sustainability Initiative (GSSI).

#### **2.1.2 RBF Training**

RBF was not used for this fishery assessment.

### 3 Description of the Fishery

#### 3.1 Unit(s) of Assessment (UoA) and scope of certification sought

##### 3.1.1 Proposed Unit of Certification (UoC)

Acoura Marine Ltd confirm that the fishery is within scope of the MSC certification sought following the assessment, as defined below.

The certificate covers all New Zealand vessels permitted by the Ministry for Primary Industries to fish for albacore in the NZ fisheries waters using troll gear. There is no proposal to include any other fishing methods. The UoA is the same as the UoC.

The proposed Unit of Certification for this fishery is as below:

<b>Species:</b>	Albacore Tuna ( <i>Thunnus alalunga</i> )
<b>Stock:</b>	South Pacific
<b>Geographical area:</b>	ALB 1. NZ EEZ.
<b>Harvest method:</b>	Troll
<b>Client Group:</b>	Tuna Management Association of New Zealand
<b>Other Eligible Fishers:</b>	The client for this assessment (Tuna Management Association of NZ) is to make access to the certificate open to all NZ vessels permitted by the Ministry for Primary Industries to fish for albacore in the NZ waters using troll gear.

##### 3.1.2 Final UoC

The final Unit of Certification for this fishery is as defined below. This has not changed throughout the process.

<b>Species:</b>	Albacore Tuna ( <i>Thunnus alalunga</i> )
<b>Stock:</b>	South Pacific
<b>Geographical area:</b>	ALB 1. NZ EEZ.
<b>Harvest method:</b>	Troll
<b>Client Group:</b>	Tuna Management Association of New Zealand
<b>Other Eligible Fishers:</b>	The client for this assessment (Tuna Management Association of NZ) is to make access to the certificate open to all NZ vessels permitted by the Ministry for Primary Industries to fish for albacore in the NZ waters using troll gear.

##### 3.1.3 Total Allowable Catch (TAC) and Catch Data

Table 1. TAC and Catch Data

TAC	Year	N/A	Amount	
UoA share of TAC	Year	N/A	Amount	TACs do not apply – the UoA covers the total NZ troll catch of albacore – see Table 3
UoC share of total TAC	Year	N/A	Amount	TACs do not apply – the UoC covers the total NZ troll catch of

				<b>albacore – see Table 3</b>
<b>Total green weight catch by UoC</b>	<b>Year (most recent)</b>	<b>2015</b>	<b>Amount</b>	<b>2425 t</b>
	<b>Year (second most recent)</b>	<b>2014</b>	<b>Amount</b>	<b>1937 t</b>

### 3.1.4 Scope of Assessment in Relation to Enhanced Fisheries

This fishery is not an enhanced fishery.

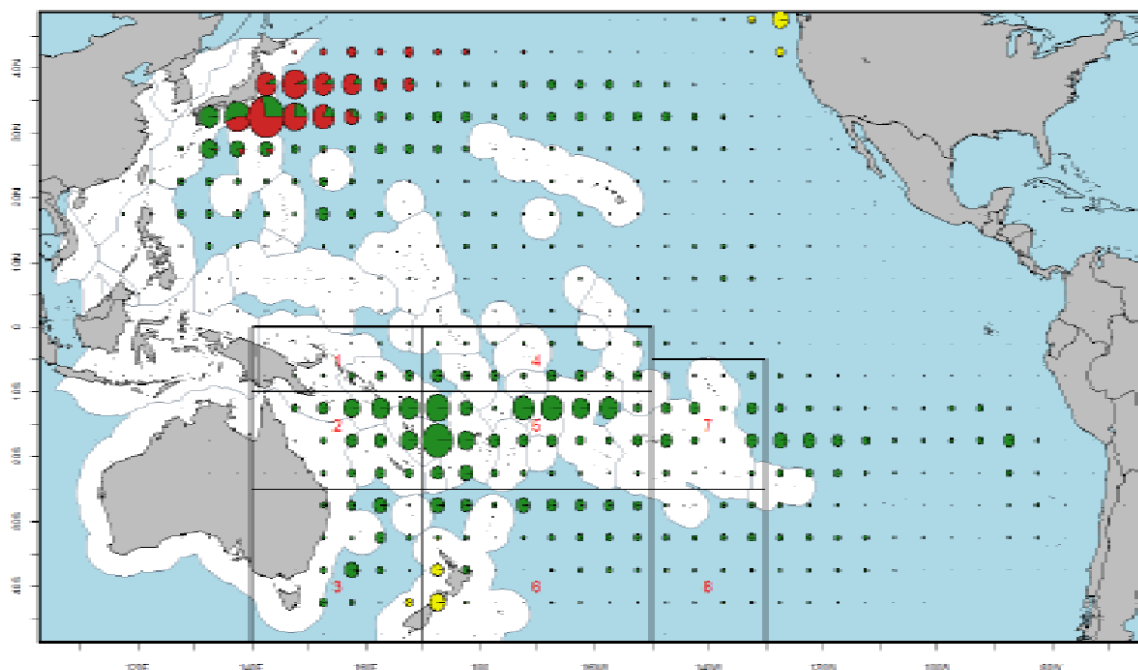
### 3.1.5 Scope of Assessment in Relation to Introduced Species Based Fisheries (ISBF)

The fishery does not include introduced species.

## 3.2 Overview of the fishery

The fishery under assessment is the NZ albacore (*Thunnus alalunga*) troll caught fishery.

In the Pacific Ocean, there are two managed populations of albacore tuna, North Pacific and South Pacific. Management of the South Pacific albacore tuna stock is the responsibility of the Western and Central Pacific Fisheries Commission (WCPFC). The distribution of catches is seen in **Figure 1**. The South Pacific albacore catch in 2014 (83,033 t) was the fourth highest on record (WCPFC-SC 2015a), about 6000 t lower than the 2010 record catch of 88,942 t. Catches from within New Zealand waters in 2014 were about 4% of the South Pacific albacore catch (Table 2). Total annual landings over the last 10 years ranged between 2092 t and 3720 t. The New Zealand albacore fishery, especially the troll fishery, has been characterised by periodic poor years that have been linked to poor weather or colder than average summer seasons.



**Figure 1.** Catch distribution (2004-2013) by 5° square and fishing method: longline (green), pole-and-line (red), and other (yellow) for North and South Pacific albacore for the entire Pacific Ocean. Overlaid are the regions for the 2015 stock assessment (Harley et al., 2015a).

**Table 2.** Reported total landings (t) of albacore tuna from New Zealand waters and from the South Pacific Ocean (SPO) 1972 to 2014 (MPI 2015a).

Year	NZ EEZ	SPO	Year	NZ EEZ	SPO	Year	NZ EEZ	SPO
1972	240	39521	1987	1236	25052	2002	5566	73240
1973	432	47330	1988	672	37867	2003	6744	62477
1974	898	34049	1989	4884	49076	2004	4459	61871
1975	646	23600	1990	3011	36062	2005	3459	62566
1976	25	29082	1991	2450	35600	2006	2542	62444
1977	621	38740	1992	3481	38668	2007	2092	58591
1978	1686	34676	1993	3327	35438	2008	3720	62740
1979	814	27076	1994	5255	42318	2009	2216	82901
1980	1468	32541	1995	6159	38467	2010	2292	88942
1981	2085	34784	1996	6320	34359	2011	3205	66476
1982	2434	30788	1997	3628	39490	2012	2990	87752
1983	720	25092	1998	6525	50371	2013	3142	84698
1984	2534	24704	1999	3903	39614	2014	2466	83033
1985	2941	32328	2000	4428	47338			
1986	2044	36590	2001	5349	58344			

Albacore are first caught in New Zealand waters using troll gear when sub-adult and adult (MPI 2015a). Subsequently, they appear to gradually disperse northwards beyond New Zealand waters where they are caught as adults, mainly by longline fleets from Japan, Korea, and Chinese Taipei, and more recently through development and expansion of domestic fleets of several Pacific Island nations.

The troll fishery for juvenile albacore in New Zealand coastal waters began in the 1960s. Prior to 1973 the albacore troll fishery was centred off the North Island (Bay of Plenty to Napier and New Plymouth) with the first commercial catches off Greymouth and Westport in 1973 (MPI 2015a). Albacore now form the basis of a summer troll fishery, primarily on the west coasts of the North and South Islands, and is the dominant catching method in New Zealand waters. Most albacore troll fishery catches are in the first and second quarters of the calendar year, with the fourth quarter important in some years. The commercial albacore troll fishery operates between December and May each year, and the fishing year is from 1 October to 30 September. Tuna longlining was not established as a fishing method in the domestic industry until the early 1990s. The fish are caught throughout the year by this method, predominantly as a bycatch on sets targeting bigeye and southern Bluefin tuna (Table 3). Small catches of albacore are occasionally reported using pole-and-line and hand line gear.

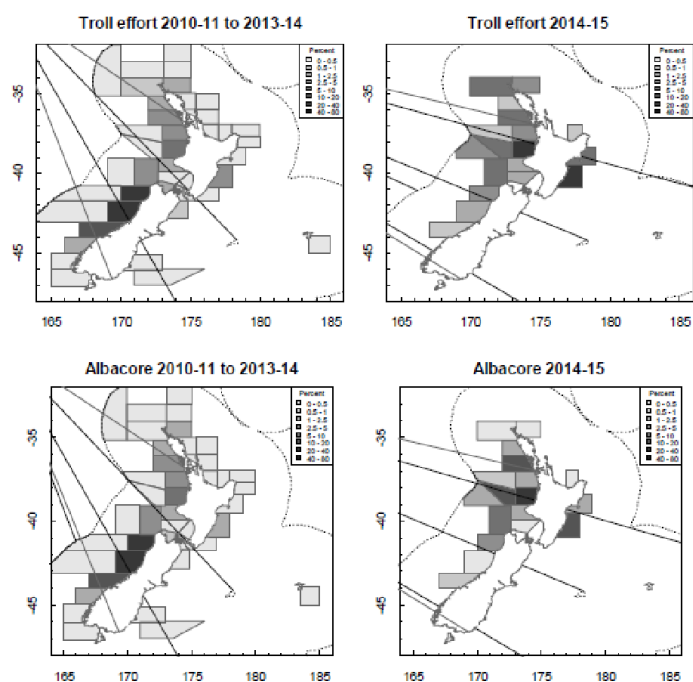
**Table 3.** South Pacific albacore troll and longline catch (t), New Zealand, 2001–2015 (WCPFC-SC 2016).

Year	Troll	Longline
2001	2736	2612
2002	3012	2545
2003	3721	2971
2004	3212	1248
2005	2808	634
2006	2043	496
2007	1736	357
2008	3352	383

2009	1794	422
2010	1833	460
2011	2787	419
2012	2726	265
2013	2836	303
2014	1937	313
2015	2425	223

In recent years, troll fishing accounts for approximately 55% of the overall effort in the surface lining fisheries (troll, surface longline, pole & line) and approximately 90% of the albacore catch (MPI 2015a).

The client for the certification is the Tuna Management Association of New Zealand which represents the interests of troll fishers (approximately 175 vessels). The NZ Part 1 annual report to the Commission (WCPFC-SC 2016) reports the number of NZ registered troll vessels fishing for tuna: 158 vessels in 2011, 168 in 2012, 161 in 2013, 153 in 2014 and 131 in 2015. The record of licensed troll vessels and permit holders eligible to fish for albacore in New Zealand waters is held by Commercial Fisheries Services Ltd (FishServe, <http://www.fishserve.co.nz>).



**Figure 2.** Distribution of troll effort (percent of vessel-days) and troll catch of albacore (percent of total catch) for 2010- 11 to 2013-14 troll seasons (left) and for 2014-15 season (right); Note: Positional data for troll are reported at a NZ statistical area resolution. Source: WCPFC-SC 2016.

Albacore trollers in New Zealand typically tow 12-18 lines simultaneously from the vessel's stern and from long outrigger poles mounted amidships. Line lengths or depths are adjusted to permit hauling of any one line without tangling or interfering with the others. The lines are either braided polypropylene, Dacron or monofilament nylon and are hauled in by hand or by hydraulic haulers. Lures have metal heads and feather or plastic skirts, and are rigged with barbless double hooks. Troll vessels do not stop when fishing during the day, but may slow and make tight circles or short, straight runs when fishing on an albacore school. Fish are

hauled directly to the stern of the vessel where they are quickly taken from the water and unhooked before being stored whole in ice. Troll fishing is a highly-targeted fishing method and albacore has comprised approximately 99% of retained catch over recent years (MPI email, 15 June 2016).

Albacore vessels usually drift at night or steam toward potential fishing grounds as determined by recent fishing activity, sea surface temperatures, or observations of baitfish and albacore on sonar or depth sounding equipment. The use of cooperative, or "code", groups also increases efficiency of the fleet. At dawn, jigs are deployed and the rest of the day is a continuous cycle of pulling fish, changing lures, stowing the catch, and searching for birds, water temperature fronts and other vessels that might indicate productive fishing areas. At dusk, the jigs are retrieved and stored for the next day of fishing.

Vessels in the fishery are typically 12-24 m in length, operating with crews of 2-5, with a holding capacity of 3 to 20 t (held on ice). Being seasonal, albacore fishing usually forms only one of several fishing activities for the vessels involved.

The wide distribution of albacore in coastal waters over summer leads to it being a seasonally, locally important recreational species. It is predominantly targeted by fishers for food, but is also frequently taken as bycatch when targeting other gamefish. Albacore are taken predominantly on rod and reel (over 99% of the 2011-12 recreational harvest), and from trailer boats (over 96% of the 2011-12 harvest) (MPI 2015a). They are caught around the North Island and upper South Island, more frequently on the West Coast. Estimated recreational catch of albacore for 2011-12 was 21,898 fish, with a mean weight of 4.21kg (approximately 92 t) (MPI email, 2 June 2016). Small albacore are also commonly caught for bait or as a bycatch off the northern coast of the North Island. These are predominantly juvenile fish of 1-3kg.

There is limited information on Maori customary fishing for albacore, although catch is considered to be low.

### **3.3 Principle One: Target Species Background**

#### **3.3.1 Albacore tuna biology**

Two albacore stocks (North and South Pacific) are recognized in the Pacific Ocean based on location and seasons of spawning, low longline catch rates in equatorial waters and tag recovery information (Medley et al., 2011). The South Pacific stock considered in this assessment is distributed from the east coast of Australia and archipelagic waters of Papua New Guinea eastward to the coast of South America, and south of the equator to at least 49°S. There is some suggestion of gene flow between the North and South Pacific stocks based on an analysis of genetic population structure, however migration between stocks is not thought significant enough to affect management. For assessment and management purposes, the north-south boundary between albacore stocks is considered to be the equator, with 140°E taken to be the boundary with the Indian Ocean stock (Akroyd et al., 2012). There is no direct evidence of population structure within the South Pacific Ocean; however, the data are limited. Hoyle et al. (2012) note spatial heterogeneity in some fishery or population characteristics (e.g. most notably growth rates), which suggest that mixing rates across the South Pacific might not be very rapid, irrespective of whether there is effectively a single panmictic spawning population.

Albacore tuna are highly migratory, exploiting widely-spaced feeding and spawning grounds, and stocks are thought to be strongly influenced by large oceanic phenomena such as El Niño (Akroyd et al., 2012). Initial growth is rapid, with albacore reaching 45-50 cm fork length (FL) in their 1st year. The fish begin to mature at ~80cm FL (length at 50% maturity ~85cm;

Farley et al., 2013a). Mature albacore spawn in tropical and sub-tropical waters between about 10°S and 25°S during the austral summer. Juveniles recruit to surface fisheries in New Zealand coastal waters and in the vicinity of the sub-tropical convergence zone (STCZ – around 40°S) in the central Pacific at 1 year of age, from where they appear to gradually disperse to the north. Subsequently, there are regular migrations between tropical and subtropical waters. Albacore migrate southwards during early summer and northwards during winter coinciding with the seasonal oscillation of the location of the 23–28°C isotherm of sea surface temperature.

A recently completed analysis of South Pacific albacore biology found that otoliths were more reliable as ageing material than vertebrae (Farley et al., 2013a). Their work using otoliths (validated by direct marking with oxytetracycline, and indirect methods) showed that the longevity of albacore was found to be at least 14 years, with significant variation in growth between sexes and across longitudes. They found that growth rates were similar between sexes up until age 4, after which the growth for males was on average greater than that for females, with males reaching an average maximum size more than 8 cm larger than females. Farley et al (2013b) contend that the different growth rates between sexes may be responsible for the observed dominance of males among fish in the larger size classes (greater than 95 to 100 cm fork length). This study showed that growth rates were also consistently greater at more easterly longitudes than at westerly longitudes for both females and males. While they were not able to identify the determinants of the longitudinal variation in growth of albacore, they suggest that variation in oceanography, particularly the depth of the thermocline, may affect regional productivity and therefore play a role in modifying growth of South Pacific albacore.

The longest period at liberty for a recaptured tagged albacore in the South Pacific to date is 11 years (Hoyle et al., 2012). The maximum age estimated from readings of 1969 otoliths was 14.3 years (Farley et al., 2013a).

The instantaneous natural mortality rate for South Pacific albacore is believed to be ~0.2-0.5 per year, with significant numbers of fish reaching at least 10 years (Hoyle et al., 2012). No information is available on possible changes in natural mortality with size and for the purposes of the stock assessment, natural mortality is assumed to be constant throughout life (Hoyle et al., 2012).

The troll fishery catches juvenile albacore typically 5 to 8 kg in size with the mean fork length for 1996–97 to 2006–07 being 63.5 cm (MPI 2015). Clear length modes associated with cohorts recruiting to the troll fishery are evident in catch length distributions. In 2006–07 three modes with median lengths of 51, 61, and 72 cm were visible, that correspond to the 1-, 2-, and 3-year-old age classes.

Albacore are not a low trophic level (LTL) species.

### 3.3.2 Stock assessment and information

Stock assessments for South Pacific albacore tuna are conducted by the Oceanic Fisheries Programme of the Secretariat of the Pacific Community (SPC), as science provider to the WCPFC. Fishery overviews and summary information on the status of tuna stocks are published periodically and are discussed at scientific meetings of the WCPFC. These reports are available on the WCPFC website (<http://www.wcpfc.int/meetings/all>). All countries operating fleets in the region report catch, effort and size frequency data if sampled. SPC maintains a central database for the catch, effort, size frequency, tagging, biological data, observer, sampling and other data from the fishery.



The assessment is conducted using the well-established MULTIFAN-CL software (see: <http://www.multifan-cl.org/>). MULTIFAN-CL was developed as an analytical tool for fisheries in which large-scale age sampling of catches is unfeasible or not cost effective, but where length-frequency (size composition) sampling data are available. It provides a statistically based, robust method of length-frequency analysis.

The data used in the South Pacific albacore assessment consist of fishery-specific catch, effort and length-frequency data and tag release-recapture data. These data are available from the New Zealand troll fishery. Although New Zealand has an observer programme, it has had very limited coverage of the troll fishery, focussing on purse seine and longline activities for tuna. New Zealand has an ongoing shed-sampling programme of the catch for the troll fishery. Data from the shed-sampling programme (length frequency composition and length-weight relationship data) have been provided to WCPFC since 1996–97. These data are an important input to the length-based regional stock assessment of the South Pacific albacore stock. The percentage of albacore shed-sampled in the 5 fishing years from 01-10-2010 to 30-9-2015 was 0.93% (26,159 sampled fish from a total reported number of 2,810,834 albacore caught).

New Zealand catch, fishing effort, fishing operation data, and vessel information are collected on logsheets provided by each permit holder to the Ministry for Primary Industries on Catch Effort Landing Returns (CELR) and Tuna Longline Catch Effort Returns (TLCER). CELR forms are completed for each day of fishing for all gear types (e.g. handline, troll, purse seine and some longline). TLCER forms are filled out only for surface longlining for tunas, these data are recorded for each longline set. The forms are submitted monthly by the 15th of following month. Tuna landings data are compiled from the Licensed Fish Receiver Returns (LFRR) filed monthly by each Licensed Fish Receiver and Monthly Harvest Returns (MHR) filed by the fishing permit holder.

WCPFC members have responsibility to submit a range of data. Scientific data (including catch and effort) is submitted annually and is used in the stock assessment. CCMs are also required to submit Part 1 and Part 2 annual reports.

Part 1 reports are submitted to the WCPFC Scientific Committee (SC) and include information on: (a) fisheries information; (b) background (e.g. historical description of national fisheries) (c) flag state reporting that details the activities of national fleets, listed by gear types, in the Convention Area (including trends related to changes in fishing patterns, fleet operations, target species, and size composition); (d) coastal state reporting of activities by foreign and domestic fleets in waters under national jurisdiction (including trends in each fishery related to changes in fishing patterns, fleet operations, target species, and size composition); (e) the status of tuna fishery data collection systems (including information on log sheet data collection and verification, the observer program, the port sampling program, and unloading and transshipment); and (f) research activities focused on both target and non-target species; reporting against the requirements of WCPFC Conservation and Management Measures (CMMs).

Part 2 reports are submitted to the TCC and require CCMs to report on their implementation of the CMMs, as well as monitoring and inspection activities, surveillance activities, investigations and prosecution activity, and other relevant information. Monitoring and inspection activities includes the vessel monitoring system, transshipments inspections, at-sea inspections, port inspections, observer monitoring, monitoring of trade and domestic distribution of highly migratory fish species, inspections of domestic-only vessels, and high seas boarding and inspection of flag vessels. Part 1 reports are posted on the WCPFC website. Part 2 reports are classified as confidential and only available to other CCMs. Under Article 24 of the WCPFC Convention.

The 2012 assessment (Hoyle et al., 2012) indicated that fishing mortality (exploitation) rates for adult albacore were moderately low from the early 1970s to the mid-1990s, and showed a large increase since that time for adult fish. Key conclusions, based on the median of the grid of alternative scenarios explored, were that overfishing was not occurring and the stock was not in an overfished state. However, the WCPFC SC noted that depletion levels of the exploitable biomass, estimated to be between 10% and 60%, depending on the component fishery, have increased sharply in recent years. The SC has noted for several years that any increases in catch or effort are likely to lead to declines in catch rates in some regions, especially for longline catches of adult albacore, with associated impacts on vessel profitability.

The median estimate of MSY from the structural sensitivity analysis was 99,085 t (46-560 – 215,445 t), comparable to the recent levels of (estimated) catch from the fishery (Hoyle et al., 2012).

An updated South Pacific albacore was undertaken in 2015 and presented at the 2015 SC meeting (Harley et al., 2015a). The updated assessment includes much new data and new features reflecting recommendations from previous South Pacific albacore tuna assessments as well as relevant recommendations from the review of the 2011 bigeye tuna assessment (Davies et al., 2015). The 2015 assessment is supported by the analysis of operational longline data to construct both the CPUE time series regional weights and the analysis of longline size data (Harley et al., 2015a). Changes in the 2015 stock assessment include: improvements to the MULTIFAN-CL modelling framework, a regional disaggregated framework, access to operational data for construction of CPUE indices and regional weights, age-length data to improve growth estimation, and additional tagging data (WCPFC-SC 2015a). Further, the regional structure of the model was changed to cover the southern WCPFC convention area and reference points evaluated are for this area. This brings about better alignment with the other WCPFC tuna assessments. The geographic area for 2012 assessment was the Pacific Ocean south of the equator. Natural mortality was set at 0.3 in the reference case for consistency with the value used in the assessments performed in other RFMOs. SC11 selected the reference case model as the base case to represent South Pacific albacore stock status. To characterize uncertainty a total of 18 model grid runs was considered. Model outcomes indicate that fishing mortality has generally been increasing through time.

### Reference points

Work has been ongoing on target and limit reference points by the WCPFC SC for several years, with limit reference points (LRPs) initially taken as the main priority issue. At its 8th Annual Session, the Commission adopted a hierarchical approach to identifying Limit Reference Points for the target species in the WCPFC (WCPFC-TCC10-2014-DP06, see: <https://www.wcpfc.int/node/19705>), as follows:

Level	Condition	LRPs
Level 1	A reliable estimate of steepness is available	$F_{MSY}$ and $B_{MSY}$
Level 2	Steepness is not known well, if at all, but the key biological (natural mortality, maturity) and fishery (selectivity) variables are reasonably well estimated.	$F_{X\%SPR_0}$ and either $X\%SB_0$ or $X\%SB_{current,F=0}$
Level 3	The key biological and fishery variables are not well estimated or understood.	$X\%SB_0$ or $X\%SB_{current,F=0}$

South Pacific albacore is considered to be a level 2 species. WCPFC SC8 (2012) recommended a biomass LRP for South Pacific albacore (as well as yellowfin and bigeye tuna) to be set at  $20\%SB_{current,F=0}$ , which was endorsed by WCPFC9 in 2012.  $SB_{current,F=0}$  is defined as the 'estimated average spawning biomass over a recent period in the absence of

fishing’. Further discussion related to the definition of a ‘recent period’ took place at SC9. SC9’s recommendation was to use a 10-year time window (subject to review), up to and including the most recent year used in the stock assessment – this recommendation was endorsed by the Commission during WCPFC10. Whilst an albacore LRP has been agreed by the WCPFC, there remains the question of agreeing an acceptable level of risk of breaching the LRP. Establishing acceptable levels of risk of breaching a limit reference point is something that needs to guide all management decisions, however agreement on acceptable levels of risk has not been reached and this issue is ongoing.

Historically, WCPFC has managed stocks in relation to MSY-related reference points. There is an implicit target reference region to maintain biomass at, or above, that required for MSY. However, current assessment indicates that  $SB_{MSY}$  is actually lower than the agreed LRP, eliminating  $SB_{MSY}$  as a target (WCPFC-MOW, 2015).

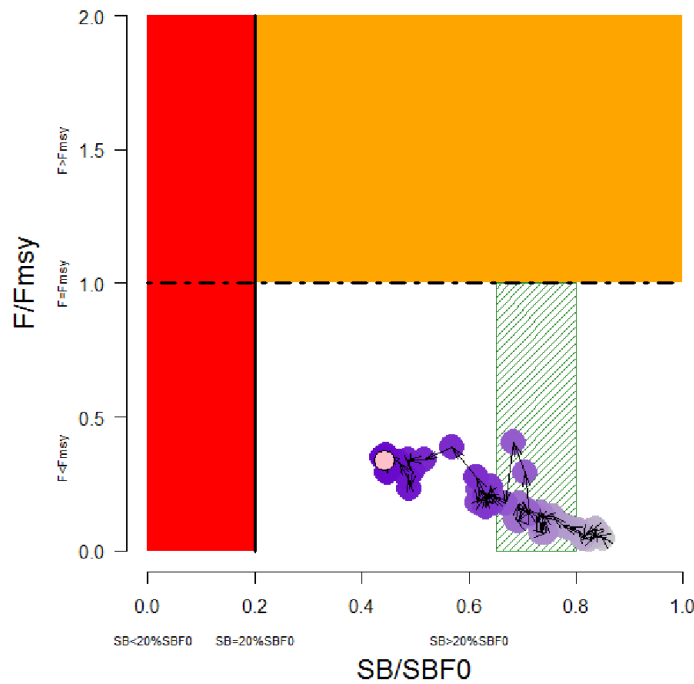
### Stock status

As indicated above, outcomes from the 2015 stock assessment are presented over a total of 18 model runs to characterize uncertainty. Across the grid of inputs to the model,  $F_{current}/F_{MSY}$  ranged from 0.13-0.62, indicating that **overfishing is not occurring**, but fishing mortality on adults is approaching the assumed level of natural mortality (Table 4),

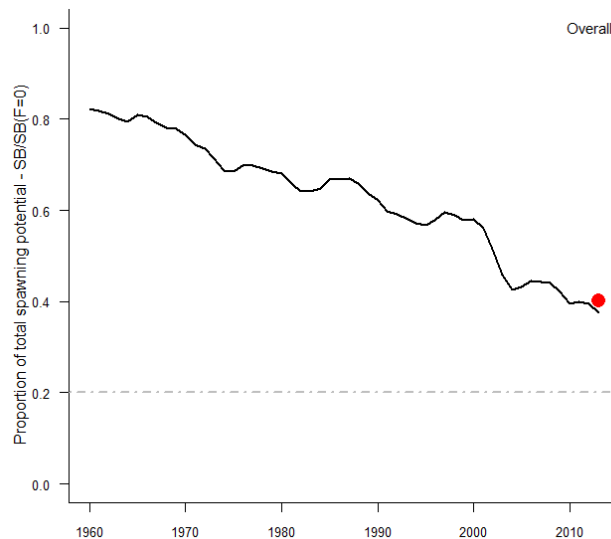
The latest (2013) estimates of spawning biomass are above both the level that will support the MSY ( $SB_{latest}/SB_{MSY} = 2.86$  for the base case and range 1.74—7.03 across the grid) and the adopted LRP of  $0.2SB_{F=0}$  ( $SB_{latest}/SB_{F=0} = 0.40$  for the base case and range 0.30-0.60 across the grid), indicating that the stock is **not overfished** (Figure 3). The ratio of exploited to unexploited spawning potential for the WCPO for the reference case is shown in Figure 4. The estimated MSY of 76,800 t is lower than in the 2012 assessment (2012 MSY = 99,085 t). Aside from general improvements to the stock assessment, this was also influenced by exclusion of catches from outside the southern part of the WCPFC Convention area; and a reduction in the assumed value of natural mortality (WCPFC-SC 2015a).

**Table 4.** Estimates of management quantities for base case and grid of 18 models (see Table SP-ALB1, WCPFC-SC 2015a for details). For the purpose of the assessment, “current” is the average over the period 2009–2012 and “latest” is 2013 (Table SP ALB2, WCPFC-SC 2015a).

	Base case	5%	Grid Median	95%
$MSY(mt)$	76,800	62,260	84,980	129,814
$C_{latest}/MSY$	1.00	0.60	0.91	1.23
$F_{current}/F_{MSY}$	0.39	0.13	0.34	0.62
$B_0$	711,400	638,465	806,900	1,024,500
$B_{current}$	456,984	365,962	509,653	783,308
$SB_0$	396,500	368,925	438,700	502,275
$SB_{MSY}$	57,430	35,762	59,180	90,778
$SB(F = 0)$	408,361	392,358	442,163	486,146
$SB_{latest}$	164,451	131,456	190,467	272,696
$SB_{latest}/SB_{MSY}$	2.86	1.74	3.20	7.03
$SB_{latest}/SB(F = 0)$	0.40	0.30	0.44	0.60



**Figure 3.** Majuro plot: representing stock status in terms of spawning potential depletion and fishing mortality. The red zone represents spawning potential levels lower than the agreed limit reference point which is marked with the solid black line. The orange region is for fishing mortality greater than  $F_{MSY}$  ( $F_{MSY}$  is marked with the black dashed line). The lightly shaded green rectangle covering 0.65 - 0.80 $SB_{F=0}$  is the 'space' consistent with the candidate economic-based Target Reference Points provided in Pilling et al. (2015). The pink circle the latest period as defined in **Table 4**. Source WCPFC-SC 2015a.



**Figure 4.** Ratio of exploited to unexploited spawning potential,  $SB_{latest}/SB_{F=0}$ , for the reference case. The current WCPFC limit reference point of 20% $SB_{F=0}$  is provided for reference as the grey dashed line and the red circle represents the level of spawning potential depletion based on the agreed method of calculating  $SB_{F=0}$  over the last ten years of the model (excluding the last year). Source WCPFC-SC 2015a.

Although current catches are estimated to be sustainable, in recent years, longline fleets from Pacific Island Countries and Territories (PICTs) targeting albacore have reported difficulties in maintaining profitability and there has been concern over increasing South Pacific albacore catches and the level of effort targeting the species.

SC11 also considered an index of economic conditions in the South Pacific albacore fishery for the first time (Reid and Raubani, 2015). This index, which integrates fish prices, catch rates, and fishing prices, indicates a strong declining trend in economic conditions, reaching an historical low in 2013. While there was a slight recovery in 2014, conditions are still well below the average, primarily due to high fishing costs and continued low catch rates. Many vessels based in Fiji have stopped fishing and are tied up at wharves. There is concern that older age classes of albacore are being depleted because they are taken in large numbers by longliners, with the result that vessels are chasing fewer fish and achieving lower catch rates although the overall population is at sustainable levels.

SC11 indicates that further increases in effort will yield little or no increase in long-term catches and result in further reduced catch rates. Despite the fact that the stock is not overfished and overfishing is not occurring, SC11 reiterates the advice of SC10 recommending that longline fishing mortality and longline catch be reduced to avoid further decline in the vulnerable biomass so that economically viable catch rates can be maintained.

Whilst there is currently no agreed biomass-related target reference point for South Pacific albacore, the WCPFC has examined economic-based target reference points for the stock. Based on bio-economic modelling described in Pilling et al. (2015) the range of  $SB_{F=0}$  that would support break-even or 10% profits is 0.65 -0.80  $SB_{F=0}$ . This region has been shaded green on the Majuro plot (Figure 3). As reported above, the latest (2013) spawning biomass is estimated to be 40% of  $SB_{F=0}$  and therefore lower than the potential TRPs (Harley et al., 2015a).

#### Harvest strategy and control rules

At the level of the South Pacific albacore stock, overall management is the responsibility of WCPFC. Under this regional convention New Zealand is responsible for ensuring that the management measures applied within its waters are compatible with those of the Commission. Many New Zealand fishery stocks are managed under a quota management system; however, albacore is not managed under this system. However, conservation and management measures set by WCPFC do place binding effort controls on the albacore fishery in New Zealand fisheries waters. As indicated above, WCPFC adopted a LRP for South Pacific albacore (and other key tuna species) in 2012. No formal target reference points have been agreed, although reference points in the range 40-60% $B_{current,F=0}$  are currently under discussion.

The major management actions currently in place for South Pacific albacore are set out in CMM-2010-05. The key element of CMM-2010-05 is that there should be no increase in the number of fishing vessels actively fishing for South Pacific albacore above either 2000-2004 or 2005 levels. However, the CMM specifically allows Pacific Islands to pursue a responsible level of development of their domestic albacore fisheries over and above these levels. It also requires cooperation on research, as well as annual reporting of catch levels. CMM-2010-05 is set out below:

1. Commission Members, Cooperating Non-Members, and participating Territories (CCMs) shall not increase the number of their fishing vessels actively fishing for South Pacific albacore in the Convention Area south of 20°S above current (2005) levels or recent historical (2000-2004) levels.
2. The provisions of paragraph 1 shall not prejudice the legitimate rights and obligations under international law of small island developing State and Territory CCMs in the

Convention Area for whom South Pacific albacore is an important component of the domestic tuna fishery in waters under their national jurisdiction, and who may wish to pursue a responsible level of development of their fisheries for South Pacific albacore.

3. CCMs that actively fish for South Pacific albacore in the Convention Area south of the equator shall cooperate to ensure the long-term sustainability and economic viability of the fishery for South Pacific albacore, including cooperation and collaboration on research to reduce uncertainty with regard to the status of this stock.
4. CCMs shall report annually to the Commission the catch levels of their fishing vessels that have taken South Pacific Albacore as a bycatch as well as the number and catch levels of vessels actively fishing for South Pacific albacore in the Convention area south of 20°S. Initially this information will be provided for the period 2006-2010 and then updated annually.
5. This measure will be reviewed annually on the basis of advice from the Scientific Committee on South Pacific albacore.

### Recent developments

In 2010, while noting that catch levels from the South Pacific albacore stock appeared to be sustainable, the WCPFC applied a capacity limit (CMM 2010-05) because of the uncertainty in the assessment and potential economic effects of a declining CPUE. The effectiveness of this CMM in restricting increases in effort has been questioned at subsequent Commission meetings.

In 2014, FFA members presented a proposal to WCPFC11 for a more comprehensive CMM for South Pacific albacore tuna, to replace CMM 2010-05 (WCPFC-FFA 2014). FFA's preamble to the proposal indicates that although CMM 2010-05 is appropriate for achieving one of its purposes – of limiting the number of flag fishing vessels actively fishing for South Pacific albacore in the Convention Area south of 20°S – it does not enable cooperation to “ensure the long-term sustainability and economic viability of the fishery for South Pacific albacore”. The FFA members' proposal covers the entire WCPO range of the stock, promotes cooperation with IATTC, and would limit catch rather than effort in part of this area. It defines a total catch limit for the stock, set at the latest assessed MSY level – around 100,000 t – an interim limit which would be replaced by a target reference level when one is agreed by WCPFC, and proposes that the total stock limit be divided into four different sub-limits. There are no flag limits for EEZs, with zone limits instead, so fishing nations are not limited by their flag state allocations, which only apply on the high seas. Access arrangements are still possible. No consensus was reached on adoption of this proposal.

This issue was raised again at the 2015 Commission meeting and FFA submitted a proposal to revise CMM 2010-05 seeking improve its effectiveness. The discussions on this led to a relatively minor update to 2010-05 requiring submission of species catch data, by vessel, by year for 2006-2014 and earlier years where possible. This resulted in adoption of CMM 2015-02 (replacing CMM 2010-05).

FFA also submitted a proposal at WCPFC12 (WCPFC-FFA2015) with three main purposes: set a target reference point (TRP) of 45% of the unfished biomass for South Pacific albacore; provide a reference to the existing LRP agreement; and establish that the acceptable risk of breaching this limit reference point will be 5% or less. FFA noted that it had settled on a TRP after considerable debate, and after due consideration of the alternatives analysed in bio economic models and industry views. The proposal noted that fishing the stock down to MSY would reduce longline catch rates below the level where they are profitable. The 2015 stock assessment base case indicates estimated stock biomass is ~41% of what it would be in the absence of fishing ( $SB_{latest}/SB_0$ ). The FFA CCMs stated that while moving the biomass indicator from 41% back to 45% does not sound significant, the

stock is on a downward trajectory and already requires a cut in total longline fishing catch by 37% over the course of a rebuilding program.

A small working group (SWG) was established at WCPFC12 to discuss issues relating to South Pacific albacore. The SWG met three times during WCPFC12 but no agreement was reached on an albacore TRP nor on the acceptable levels of risk of breaching the reference point. Several parties expressed their disappointment at this outcome. FFA members stated that South Pacific coastal states will continue to develop collaborative zone-based management arrangements and while they preferred to develop them within overall limits of a Commission-wide TRP, in its absence these CCMs will finalise the establishment of their own management system for fisheries within their EEZs, including the use of an interim TRP. It was noted that three-quarters of the albacore catch is taken within EEZs.

An important development at WCPFC11 was the adoption of a CMM (CMM2014-06) to develop and implement a harvest strategy approach for key fisheries and stocks in the WCPO. The CMM identifies the elements that harvest strategies are to contain (including defined operational objectives, target and limit reference points for each stock, acceptable levels of risk of not breaching limit reference points, a monitoring strategy, decision rules that aim to achieve the target reference point and avoid the limit reference point, and management strategy evaluation). CMM 2014-06 includes a requirement that the Commission agree a work plan and indicative timeframes to adopt or refine harvest strategies for skipjack, bigeye, yellowfin, South Pacific albacore, Pacific Bluefin and northern albacore tuna by no later than the twelfth meeting of the Commission in 2015. Following discussions at WCPFC12 a work plan under CMM 2014-06 was agreed (WCPFC 2015a, Attachment Y). The Commission tasked the SC with support from the Scientific Service Provider to undertake the activities specified in the agreed work plan (included in this report at Appendix 6).

With support from FFA, a number of South Pacific nations have been developing an agreement known as the Tokelau Arrangement. The Tokelau Arrangement is the formal expression of an existing cooperative understanding on individual zone limitations on catch of South Pacific albacore tuna developed at meetings of the FFA Sub-committee on South Pacific Tuna and Billfish. The Tokelau Arrangement provides a framework for the development of cooperative zone-based management of South Pacific albacore tuna fisheries. The final text of the Tokelau Arrangement was agreed at the 91st meeting of the Forum Fisheries Committee on 31st October 2014. Signatories as at 1 December 2014 were Australia, Cook Islands, Niue, New Zealand, Samoa, Tokelau, Tonga, Tuvalu and Vanuatu. This move sets self-imposed limits on total allowable catches by countries. It highlights how Pacific nations intend to move forward with or without WCPFC consensus, noting that this will be far more challenging in the light of WCPFC's failure to take compatible measures for the high seas.

### 3.4 Principle Two: Ecosystem Background

This section of the report outlines the fishery's potential impacts on the wider ecosystem. Five components are considered to cover the range of potential ecosystem elements that may be impacted by the fishery. Major changes have been made in the assessment tree in assessing P2 components under MSC CR v2.0 compared with MSC CR v1.3. Under CR v1.3, the first two components of the P2 assessment tree address species retained by the fishery and discarded species. The first two elements now deal with 'Primary' and 'Secondary' species. There are complex rules to deal with these that are detailed in CR v2.0. In summary, 'Primary' and 'Secondary' species, and the other 3 elements of P2 are:

- (i) Primary species — species in the catch that are not covered under P1 because they are not included in the UoA. In addition, primary species have management tools and measures in place, intended to achieve stock management objectives reflected in either limit or target reference points.
- (ii) Secondary species — secondary species are not covered under P1 because they are not included in the UoA and are not considered 'primary' as defined above i.e. they do not have management tools and measures in place; these species are also not classified as ETP species.
- (iii) Endangered Threatened or Protected (ETP) species — species recognised by national and/or binding international agreements (as defined in CR v2.0).
- (iv) Habitats — the habitats within which the fishery operates.
- (v) Ecosystem — broader ecosystem elements such as trophic structure and function, community composition, and biodiversity.

As indicated in Section 3.3.2, New Zealand catch, fishing effort, fishing operation data, and vessel information are collected on logsheets completed for each day of fishing. The forms are submitted monthly by the 15th of following month. Tuna landings data are also recorded on fish receiver returns. Interactions with ETP species are required to be reported on MPI's Non-fish and Protected Species Catch Return form. Reported catches other than albacore occur at very low levels (0.64% of total retained catch) (Table 5).

Observer coverage for the albacore troll fishery is low. New Zealand's Aquatic Environment and Biodiversity Annual Review summarises information on a range of issues related to the environmental effects of fishing. The 2015 edition (AEBR 2015) reports on the species composition data of observed troll catches (numbers of fish) for the period 2006-07 to 2012-13 (Table 6). Observers began to go to sea on troll vessels in 2007. The first two years were a trial period with one trip observed in each year. Coverage was 0.5–1.5% of days fished for the 2009-10 to 2012-13 fishing years. Albacore comprised 94.4% of the number of fish caught over this period.



**Table 5.** Albacore troll logsheet catch composition data (kg, 2010-11 to 2014-15) provided by MPI, June 2015.

Species	2010-11	2011-12	2012-13	2013-14	2014-15	5-year total	5-year %
Albacore tuna <i>Thunnus alalunga</i>	364246 2	280332 4	237851 5	213951 5	224697 6	13210793	99.36%
Barracouta <i>Thyrsites atun</i>	9506	2973	1126	2768	1106	17479	0.13%
Blue cod <i>Parapercis colias</i>		240	1		4	245	0.00%
Bigeye tuna <i>Thunnus obesus</i>			849	877	27	1754	0.01%
Blue shark <i>Prionace glauca</i>	135	216	90	15		456	0.00%
Dolphinfish <i>Coryphaena hippurus</i>	80			10	15	105	0.00%
Kahawai <i>Arripis trutta</i>	672	894	1062	712	944	4284	0.03%
Kingfish <i>Seriola lalandi</i>	98	36	83	103	14	334	0.00%
Octopus		567				567	0.00%
Octopoda							
Mako shark <i>Isurus oxyrinchus</i>	103	167	294	26	275	865	0.01%
Ray's bream <i>Brama brama</i>	3481	1540	435	1294	3543	10292	0.08%
School shark <i>Galeorhinus galeus</i>	2	100				102	0.00%
Broadnose sevengill shark <i>Notorynchus cepedianus</i>	80					80	0.00%
Southern ray's bream <i>Brama australis</i>			9			9	0.00%
Gemfish <i>Rexea solandri</i>	108	10	4		172	294	0.00%
Skipjack tuna <i>Katsuwonus pelamis</i>	13793	2816	2052	15429	6780	40869	0.31%
Southern bluefin tuna <i>Thunnus maccoyii</i>	1396	4396	30	1594		7415	0.06%
Slender tuna <i>Allothunnus fallai</i>	1		77	20	10	108	0.00%
Tarakihi <i>Nemadactylus macropterus</i>			1		21	22	0.00%
Hagfish					60	60	0.00%
Myxini							
Moonfish <i>Mola mola</i>					32	32	0.00%
Hapuku <i>Polyprion oxygeneios</i>				10	21	31	0.00%
Thresher shark	30	30				60	0.00%
Alopiidae							
Yellowfin tuna <i>Thunnus albacares</i>	74				130	204	0.00%
Other	3	1	17		17	38	0.00%
<b>Total</b>	367202 4	281730 9	238464 5	216237 3	226014 5	13296497	100.00%

Only species for which greater than 1 t is caught over the 7-year period shown in Table 5 are considered.

**Table 6.** Species composition of observed albacore troll catches, 2006-07 to 2012-13 (Source: AEBR 2015).

Species	Scientific name	Number of Fish Caught							Totals	%
		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13		
Albacore tuna	<i>Thunnus alalunga</i>	1684	1776	1755	5403	4905	2772	3881	22,176	94.4
Ray's bream	<i>Brama brama</i>		18	12	537	35	7	15	624	2.7
Skipjack tuna	<i>Katsuwonus pelamis</i>	1	2	26	20	359	2		410	1.7
Barracouta	<i>Thyrsites atun</i>			1		24	13	23	61	0.3
Kahawai	<i>Arripis trutta</i>			6		3	14	14	37	0.2
Kingfish	<i>Seriola lalandi</i>			2	4	4			10	0.04
Dolphinfish	<i>Coryphaena hippurus</i>				1				1	0.004
Mako shark	<i>Isurus oxyrinchus</i>						1	1	2	0.01
Unidentified		2			174				176	0.7
									<b>23,497</b>	<b>100.0</b>

### Primary species

New Zealand manages many of its commercial fish species under a Quota Management Scheme (QMS). There are currently 628 fish stocks in the Quota Management System (QMS) (MPI 2016a). Of these, 292 stocks are considered to be “nominal” stocks (fish stocks for which a significant commercial or non-commercial potential has not been demonstrated), leaving 346 QMS stocks or sub-stocks. Under the QMS a yearly total allowable commercial catch (TACC) is set for every fish stock. Each year an Annual Catch Entitlement (ACE) is generated on the basis of the TACC and issued to holders of quota. All commercial fishers must obtain ACE to cover the QMS fish they catch in a fishing year.

New Zealand introduced a Harvest Strategy Standard (HSS) for its commercial fisheries in 2008. The HSS specifies four performance measures that are used to evaluate the status of New Zealand’s fish stocks and fisheries, with the highest priority being given to the first three of these:

- the soft limit – a biomass level below which a stock is deemed to be “overfished” or depleted and needs to be actively rebuilt;
- the hard limit – a biomass level below which a stock is deemed to be “collapsed”, where fishery closures should be considered in order to rebuild a stock at the fastest possible rate;
- the overfishing threshold – a rate of extraction (percentage of a stock removed each year) that should not be exceeded as it will ultimately lead to the stock biomass declining below management targets and/or biomass limits, if this hasn’t already happened; and
- the management target – usually a biomass level, but sometimes a fishing mortality rate, that stocks are expected to fluctuate around, with at least a 50% probability of achieving the target.

As Table 5 indicates, the catch of the majority of species reported is negligible. None of the primary species is ‘main’. Other than albacore, catches exceeded 1 t for only 6 species over the 7-year period: barracouta, Ray’s bream, skipjack tuna, southern Bluefin tuna, bigeye tuna and kahawai. Of these, all are managed under the QMS apart from skipjack tuna. Like albacore, skipjack is managed in accord with international obligations via WCPFC processes. The status of these stocks is shown in Table 7.

Not all of the species retained by the troll fishery are the subject of detailed assessment and management plans, however, those managed under the QMS are subject to TACCs against which catches are monitored on an on-going basis.

**Table 7.** New Zealand fisheries stock status (November 2015) (as at the stated 'last assessment date') (<http://fs.fish.govt.nz/Page.aspx?pk=16&tk=478>)

Species name	Plenary stock	Last assessment date	At or above target levels?	Below the soft limit?	Below the hard limit?	Over-fishing?	Corrective management action
Barracouta <sup>1</sup>		-			●●		-
Ray's bream		-					-
Southern Bluefin tuna <sup>2</sup>		2014	■ ■ ■ ■	■ ■ ■ ■	■	● ●	Rebuilding reference points determined and management procedure adopted
Bigeye tuna <sup>2</sup>		2014	■ ■ ■ ■	■ ■	● ●	■ ■ ■ ■	CMM adopted at WCPFC12 (CMM 2015-01)
Kahawai		2015	● ● ● ●	● ● ● ●	● ● ● ● ● ●	● ● ● ●	-
Skipjack tuna <sup>2</sup>		2014	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	-

<sup>1</sup> there are several management areas for this species; these outcomes are for the management area with greatest overlap with troll fishery catches

<sup>2</sup> skipjack is not managed under the QMS; management for skipjack in the Pacific is primarily through WCPFC arrangements

Grey shading indicates status is unknown

● indicates favourable status

■ indicates unfavourable status

The number of circles or squares indicate the level of certainty:

At or above target levels?	● ● ● ● ●	● ● ● ●	● ● ●	● ●	●	■ ■	■ ■ ■ ■	■ ■ ■ ■ ■
Probability	> 99%	> 90%	> 60%	40-60 %	< 40%	< 10%	< 1%	
Below the soft limit? Below the hard limit? Overfishing?	■ ■ ■ ■ ■	■ ■ ■ ■	■ ■	■	● ●	● ● ● ●	● ● ● ● ●	

### Barracouta

Barracouta are managed under the QMS. TACCs are set across several areas of the NZ EEZ. Barracouta have not been the subject of analytical stock assessment to underpin TACC levels. Over 99% of the recorded catch is taken by trawlers, thus troll catches are a minor component of the total catch and TACC, and pose no risk to the sustainability of the stock. There is little information on which to base the TACCs other than historic catches. In the region where the majority of the troll fishery effort takes place, catches of barracouta have averaged more than 8000 t over the past 30 years. Catches from the troll fishery have totalled only approximately 17.5 t over the last 5 years. Hard and soft limits have not been established; the default HSS levels of 10%SB<sub>0</sub> and 20%SB<sub>0</sub>, respectively, are assumed. The

status is not well known but there is no information to indicate the stock is below the hard limit.

### *Ray's bream*

Ray's bream has not been the subject of analytical stock assessment to underpin TACC levels required under the QMS. This species has medium to high productivity, and so should be reasonably robust to the moderate levels of exploitation of the troll fishery. Ray's bream is likely to come from a wide-ranging single stock found throughout the South Pacific Ocean and southern Tasman Sea. Recent catches from the troll fishery represent <1% of the Ray's bream TACC. Hard and soft limits have not been established; the default HSS levels of 10%SB<sub>0</sub> and 20%SB<sub>0</sub>, respectively, are assumed. The status in relation to these limits is not known.

It was noted at the initial MSC assessment of this fishery that recorded Ray's bream catches may represent a combination of three different species and a recommendation was made to improve the accuracy of reporting. In 2012, the Tuna Management Association (TMA) distributed species identification information to Licensed Fish Receivers, for distribution to vessels, intended to improve catch reporting. Southern Ray's bream is one of the species which is potentially caught and mis-reported as Ray's bream. Table 5 indicates that only 9 kg of Southern Ray's bream has been reported over the past 5 years. It would be appropriate that any future observer coverage of the troll fleet provide further examination of catches of these species.

### *Kahawai*

Kahawai are a schooling pelagic species found around the North Island, the South Island, the Kermadec and Chatham Islands. Several separate regional units are defined for management purposes under the QMS. Purse seine vessels take most of the catch; however, substantial quantities are also taken seasonally in set net fisheries and as a bycatch in longline and trawl fisheries. Kahawai is also an important recreational species. Kahawai troll catch is less than 0.1% of the total troll fishery catch and represents a minor amount of the overall TACC (2728 t). The stock in the management area where the highest catch is taken (KAH1) was assessed in 2007 and found to be above the B<sub>MSY</sub> target. The status of stocks in other regions is unknown. The low overall take in the troll fishery (<1 t/yr.) relative to the overall TACC level (2728 tonnes) implies troll fishery impacts are minor. There is a soft limit of 20%B<sub>0</sub> and a hard limit of 10%B<sub>0</sub>. Table 7, above, indicates that kahawai are unlikely to be below the soft limit and highly unlikely to be below the hard limit.

### *Bigeye tuna*

Bigeye tuna are managed as highly migratory species under New Zealand legislation. The 2014 bigeye catch of 161,000 t was similar to that of recent years. There has been concern that overfishing of bigeye has been ongoing for several years. The most recent stock assessment was undertaken in 2014 (Harley et al., 2014). Depletion of the spawning biomass is estimated to have reached 16% of the unexploited level, i.e. beneath the limit reference point of 20%SB<sub>F=0</sub>. The stock is considered to be overfished and overfishing is occurring. A number of resolutions and CMMs have been developed over time intended to mitigate the overfishing of bigeye and to limit the growth of fishing capacity in the WCPO. These measures have been unsuccessful in either restricting the apparent growth of fishing capacity or in reducing the fishing mortality of bigeye. CMM 2015-01 contains the latest management measures introduced for bigeye tuna (as well as yellowfin and skipjack tuna). The stated objective for bigeye is that the fishing mortality rate for bigeye tuna will be reduced to a level no greater than F<sub>MSY</sub>, i.e. F/F<sub>MSY</sub> ≤ 1 in a step by step approach through 2017. Measures designed to achieve this intended mortality reduction include extension of the FAD closures previously in place. Limits on days of purse seine fishing effort are required to be developed within the EEZs of coastal states. Purse seine high seas effort

limits for China, the European Union, Indonesia, Japan, New Zealand, Republic of Korea, Chinese Taipei, and the USA are also specified. 2015-01 includes catch limits for longline vessels by flag (for China, Indonesia, Japan, Republic of Korea, Chinese Taipei, and the USA).

### *Skipjack tuna*

Skipjack tuna are also managed as highly migratory species under New Zealand legislation. Skipjack catch has increased continuously over a long period of time, and depletion of the spawning biomass is now estimated to have reached 50% of the unexploited level. The latest assessment indicates stock is not overfished and overfishing is not occurring (Rice et al., 2014). The total catch of tuna in the WCPFC Convention Area was a record in 2014, approximately 1.9 million t. WCPFC has adopted  $20\%SB_{F=0}$  as a limit reference point for skipjack. In 2015, the 12<sup>th</sup> Commission meeting of WCPFC agreed CMM 2015-06 which sets the target reference point for skipjack tuna at an (initial) value of  $50\% SB_{F=0}$ , subject to review no later than 2019.

### *Southern Bluefin tuna*

Since 1991, surface longlines have been the predominant gear used to target southern Bluefin tuna in New Zealand waters with 96% of all days fished in the domestic fishery using this method, only 4% using hand line and < 1% used trolling. Approximately 7.4 t in total has been reported by the troll fishery over the last 5 years. The New Zealand TACC is currently 830 t, including a small amount for recreational and customary fishing. Management of southern Bluefin tuna throughout its range is the responsibility of the Commission for Conservation of Southern Bluefin Tuna (CCSBT) of which New Zealand is a founding member. CCSBT sets quotas for the fishery. The current global TACC is 14,647 t.

The stock has been at a very low level for a number of years. The latest estimate is that the stock is at approximately 9% of the initial spawning stock biomass. In 2011, CCSBT adopted a management procedure (MP) to set quotas for three year periods based on the latest fisheries indicators from the stock. The MP is designed to rebuild the spawning stock to 20% of the unfished level by 2035 (with 70% certainty). Agreed fishery indicators under the MP have allowed increases in quota levels in recent years.

### Secondary species

Species caught which do not have the management arrangements of the primary species in place are taken in only trivial quantities (Table 5). There are effectively no secondary species.

### Endangered Threatened and Protected species

The MSC standard defines ETP species as those that are recognized by “national legislation and/or binding international agreements” or those listed on CITES Appendix I (CR v1.4 req. CB 3.11.1). The World Conservation Union also produces risk-based threat categories for species in all parts of the world, however, these listing (unlike national listings and CITES listings) are not legally binding unless invoked as such under national legislation: IUCN listings are not used to categorize species as ETP in the MSC process.

The Wildlife Act 1953 gives absolute protection to wildlife throughout New Zealand and its surrounding marine EEZ. All marine mammals (including all seal, dolphin and whale species) are fully protected throughout New Zealand and its EEZ under the Marine Mammals Protection Act 1978. The result of this is that almost all native birds, all marine mammals and marine reptiles (including turtles and sea snakes) are fully protected in New Zealand (under one of the two Acts). The exceptions are a small number of native birds managed as game birds, and a few other native birds that are partially protected. Just one native bird, the black-

backed gull, is currently unprotected. In addition, Schedule 7A of the Wildlife Act lists certain marine species that are legally protected, i.e., all species in the orders Antipatharia (black corals), Gorgonacea (gorgonian corals), and Scleractinia (stony corals) and the family Stylasteridae (hydrocorals). Fish protected under the Wildlife Act include the oceanic whitetip, basking, deepwater nurse, white pointer, and whale sharks, manta and spintail devilrays, and two groupers. CITES listed species include: the New Zealand fur seal; elephant seal; a number of cetaceans; basking, Great white, scalloped hammerhead and porbeagle sharks; as well as black coral (*Antipatharia* spp) (<http://www.doc.govt.nz/about-doc/role/international/endangered-species/cites-species/nz-cites-listedspecies/>).

The national requirements for ETP protection in New Zealand law notes that while interactions are not forbidden (i.e. not zero), the law requires interactions to be reported on MPI's Non-fish and Protected Species Catch Return form. The long-term aim is to minimise mortalities where possible, with the zero interactions being described as the aspirational objective. The approach requiring reporting of interactions, combined with observer coverage, provides good information on the potential effects of the fishery on ETP species. No specific limits on interactions have been set.

There is very little evidence of interactions between the tuna troll fishery and ETP species within New Zealand waters. The troll gear used in the fishery, towed, un-baited artificial lures, are seldom lost during fishing and are likely to have very limited impacts in post-loss (ghost) fishing.

In 2009, a risk assessment (qualitative, level 1) was carried out to examine the potential impact of interactions with commercial fisheries on seabirds in the New Zealand EEZ. A group of scientific and technical experts was established who assigned levels of exposure and consequence for seabird species (Rowe 2013). Workshop participants with knowledge of trolling had witnessed or heard about seabird captures in this fishery. Species considered to have the highest level of exposure to trolling were Australasian gannets (*Morus serrator*), black petrels (*Procellaria parkinsoni*) and Buller's shearwaters (*Puffinus bulleri*). Black petrels and gannets were known to chase lures off East Cape, and gannets had been seen diving on lures, but they often missed and continued lunging onto lures repeatedly. Confidence levels in scoring exposure were low due to the poor data available to assess the fishery. Overall, risk scores were low or negligible for all species except black petrels, where a moderate risk implied that some specific management is needed (Rowe 2013).

Subsequent quantitative risk assessments have found black petrels to be at very high risk (Richard and Abraham 2013, 2015). These risk assessments cover all fishing by commercial trawl, bottom-longline, surface-longline, and set-net fisheries. Troll fishing was not included in the level 2 risk assessment because of the low level of observer coverage and the level 1 risk assessment guidance which suggested that interactions with black petrels were possible but uncommon (Rowe 2013).

In New Zealand, a Conservation Service Programme ("CSP") has operated under the administration of the Department of Conservation (DoC) since 1996. The CSP has the ultimate aim of avoiding, remedying or mitigating the adverse effects of commercial fisheries on protected species (DoC, 2015). Each year, the CSP Annual Plan outlines the conservation services to be delivered. These services are subject to cost recovery from the commercial fishing industry and the Plan forms the basis for levying the commercial fishing industry under the Fisheries Act 1996. The CSP Research Advisory Group was established in December 2013 to provide guidance for the development of the Annual Plan. Provision of observer services is an important component of CSP work.

Observer coverage for the albacore troll fishery is low. For the period 2010-2015 there was a total of 99 observer days and 22,783 fishing days. Approximately 0.7% of effort was

observed in 2011-2012 (MPI email, 2 June 2016). As no protected species had been observed as bycatch, observer coverage was suspended after 2011-2012 due to the difficulties placing observers on small vessels in this fishery.

MPI provided the assessment team with ETP interaction data reported by industry for 2010-2015. The only interactions reported were:

2014	1 flesh-footed shearwater alive and uninjured
2014	1 Australian gannet alive and uninjured
2015	1 NZ fur seal alive and uninjured

New Zealand is a party to the Agreement for the Conservation of Albatrosses and Petrels (ACAP) which covers 29 species of these seabirds, the majority of which occur in New Zealand waters (and are legally protected). This Agreement requires New Zealand to take measures to achieve and maintain a favourable conservation status for albatrosses and petrels (further detail: [www.acap.aq](http://www.acap.aq)). New Zealand has also developed an updated National Plan of Action for Seabirds (NPOA-Seabirds) (MPI, 2013). The NPOA-Seabirds aims to reduce the number of seabird deaths from fishing and sets out an approach for the coming five years. It defines over-arching objectives for the prevention, monitoring and management of incidental seabird capture. It sets out how these objectives are to be addressed and implemented by MPI, and provides clear expectations for regular review and reporting on progress towards meeting the objectives. It outlines ways to reduce fishing-related seabird deaths by raising awareness of the problem and encouraging the research and resourcing of new measures and methods. Risk assessment (Richard and Abraham 2013) underpins the NPOA-Seabirds guides management expectations. For example, seabird species identified as at very high or high risk of having commercial fisheries bycatch exceed population sustainability limits should be managed to a lower risk category by 2018.

### Habitats

The albacore troll fishery operates in surface waters of the open ocean; hence habitat interactions are largely concentrated on the pelagic environment. Given the gear type, impacts are expected to be transient and negligible. The oceanography and primary productivity within the New Zealand EEZ has been well studied through historical and current research projects and remote sensing studies.

Benthic habitat impact from lost gear, as noted above, will be minimal due to the infrequency of lost gear and the nature of the gear.

MARPOL, the International Convention for the Prevention of Pollution from Ships (1973) covers pollution by oil, chemicals, and harmful substances in packaged form, sewage and garbage. New Zealand is a signatory of this Convention, and thus the albacore troll fishery falls within the agreements on prevention of disposal of harmful waste and fishing gear while at sea.

### Ecosystem impacts

Albacore is a top-level predator within the ecosystem. This ecosystem role is not explicitly considered within management decisions, but the overarching goal of managing to MSY levels (or above) implicitly takes this into account. In turn, consideration of the wider fishery implications, through the basis of management on the outcomes of the WCPFC assessments, supports the management strategy.

The diet of albacore is well understood across its main life history stages, while the predators of juvenile stages are also reasonably well known. Information has been gathered

in both the Pacific Ocean and New Zealand waters, particularly from observations on catches within the longline fishery.

At an approximate average annual catch of 2400 t for the last 10 years, removals of albacore by the troll fishery are a small proportion of total albacore removals, and as albacore stocks in the region are estimated to be above  $B_{MSY}$ , their ecosystem role is expected to be maintained. Given the relatively clean nature of the fishery, related food web impacts are also expected to be minimal.

New Zealand undertakes a range of ecosystem-related research in support of its fisheries. The 2015 annual review of aquatic biodiversity (AEBR 2015) points to supporting third party certification of fisheries as being an important function. To provide relevant information to fulfil these roles, MPI contracts the following types of research (AEBR 2015): (i) aquatic environment research to assess the effects of fishing on marine habitats, protected species, non-target species of fish, and to understand habitats of special significance for fisheries; (ii) marine biodiversity and productivity research to increase understanding of the systems that support resilient ecosystems and productive fisheries, including their trophic linkages.



### 3.5 Principle Three: Management System Background

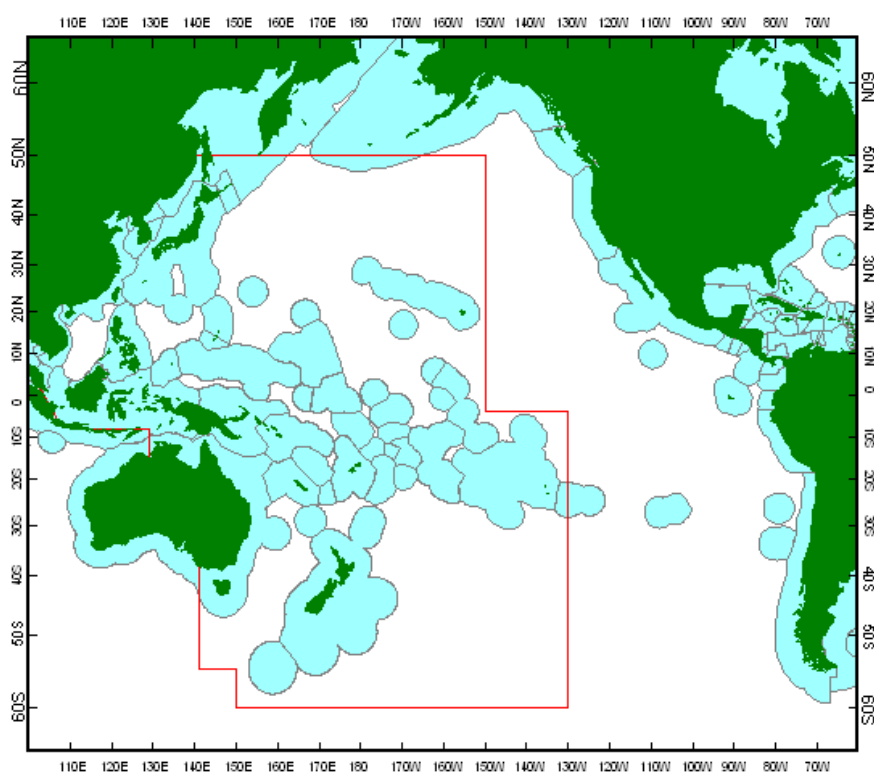
#### 3.5.1 Area of operation of the UoA and under which jurisdiction it falls

The albacore tuna in this UoA are caught in the New Zealand EEZ. They are part of the South Pacific albacore tuna stock.

Albacore tuna are considered as a highly migratory species. As such the key components of the governance and fisheries management of South Pacific albacore are the Western Central Pacific Fisheries Commission (WCPFC) and the New Zealand Government. Both are consistent with the United Nations Convention for the Law of the Sea (UNCLOS) and United Nations Fish Stocks Agreement (UNFSA).

The key components of governance and fisheries management relevant to this troll fishery include the Western Central Pacific Fisheries Commission and the New Zealand Government.

WCPFC sets conservation and management measures and policies for the WCPFC Convention area (Figure 5).



**Figure 5.** The Pacific Ocean, showing the boundaries of the WCPFC convention area, and the EEZs of Pacific Ocean countries (light blue).

The New Zealand government is responsible for management of fisheries within its EEZ. Legislation relating to New Zealand fisheries management is aligned with the WCPFC objectives, in that it broadly addresses sustainability and utilisation, and includes specific

consideration of the aquatic environment and a precautionary approach. NZ is a signatory to the Convention (Article 8, WCPFC, 2000) that specifies;

- conservation and management measures established for the high seas and those adopted for areas under national jurisdiction shall be compatible in order to ensure conservation and management of highly migratory fish stocks in their entirety; and
- the coastal State shall ensure that the measures adopted and applied by it to highly migratory fish stocks within areas under its national jurisdiction do not undermine the effectiveness of measures adopted by the Commission under this Convention in respect of the same stocks.

Regional organisations, Forum Fisheries Agency (FFA) and the Secretariat of the Pacific Community (SPC) also play significant roles in the management framework for this fishery. The FFA provides technical assistance to its members and SPC is the WCPFC science provider.

### **3.5.2 Management agencies and stakeholders with interests in this fishery**

#### ***The Western and Central Pacific Fisheries Commission***

The Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean established the WCPFC in 2004 to conserve and manage migratory fishery resources in the WCPO. The WCPFC is the overarching regional management framework relevant to this assessment.

The Convention provides a framework for the participation of fishing entities in the Commission which legally binds fishing entities to the provisions of the Convention, participation by territories and possessions in the work of the Commission.

The WCPFC Secretariat is based in Pohnpei, Federated States of Micronesia and includes a 'Scientific Committee' (SC) and a 'Technical and Compliance Committee' (TCC). In addition to bodies specified in the Convention, the Commission may establish other subsidiary bodies (e.g., the Finance and Administration Committee) and also employs ad hoc working groups as required. Ad hoc working groups have been established for data-related issues, the Commission's vessel monitoring system, the regional observer program, and other issues.

The Commission has 27 Members, of which most are small island developing states (SIDSs). All major coastal and fishing states in the WCPO are Members, except for Vietnam, which has co-operating non-member (CNM) status. Current members are: Australia, Canada, People's Republic of China, Cook Islands, European Union (EU), Federated States of Micronesia (FSM), Fiji, France, Indonesia, Japan, Kiribati, Korea, Republic of the Marshall Islands (RMI), Nauru, New Zealand, Niue, Palau, Papua New Guinea (PNG), Philippines, Samoa, Solomon Islands, Chinese Taipei, Tonga, Tuvalu, United States of America (USA) and Vanuatu.

Several other states are granted Cooperating Non-Member (CNM) status on an annual basis, agreeing to comply with WCPFC measures, participating as observers, and entitled to authorize their vessels to fish in the WCPO within set limits. At WCPFC6, the CNM status of Belize, El Salvador, Mexico and Senegal was renewed, and CNM status was extended to Ecuador and Vietnam (WCPFC6, 2010, paragraphs 22-49). There are also participating territories in the WCPFC, including American Samoa, Commonwealth of the Northern Mariana Islands, French Polynesia, Guam, New Caledonia, Tokelau, and Wallis and Fortuna.

The WCPFC Convention (WCPFC, 2000) incorporates provisions of the UNFSA (United Nations fish stocks agreement), including in particular:

- The objective of ensuring, the long-term conservation and sustainable use of highly migratory fish stocks (Article 2);
- The general principles in Article 5 of the UNFSA including the application of the precautionary approach, incorporating the UNFSA Annex II Guidelines for The Application of Precautionary Reference Points (Article 5);
- The application of these principles by Parties in their cooperation under the Convention, including the application of these principles in areas under national jurisdiction (Article 7);
- Compatibility of measures established for the high seas and those adopted for areas under national jurisdiction (Article 8);
- Application of the dispute settlement provisions of the UN Fish Stocks Agreement to disputes between WCPFC Members (Article 31);
- Recognition of the interests of small scale and artisanal fishers, and of communities and small island states dependent for their food and livelihoods on tuna resources. (Article 30).

The roles and responsibilities of WCPFC members are clearly described in the Convention, especially Articles 23 and 24, the Commission Rules of Procedure, Conservation and Management measures, and other Commission rules and decisions, including the Rules for Scientific Data to be Provided to the Commission, and the Rules and Procedures for Access to and Dissemination of Data Compiled by the Commission.

### **New Zealand Government**

As a member of the WCPFC, New Zealand is responsible for ensuring management measures applied within NZ fisheries waters are compatible with those of the WCPFC, and fishing by NZ flagged vessels both within and beyond the NZ EEZ is carried out in accordance with any measures put in place by WCPFC. The role of the Ministry for Primary Industries (MPI) is to:

1. Be the Government's principal adviser on fisheries management.

In this role, MPI provides advice:

- on policy and statutory decisions about NZ fisheries management and aquaculture;
- in relation to NZ's position on international fisheries management.

2. Provide or purchase services to maintain the effective management of NZs fisheries.

In this role, MPI:

- provides compliance services, including education, enforcement and prosecution;
- provides observer services;
- purchases research and registry services;
- provides oversight and quality assurance of scientific research;
- collects catch effort, area, method and other fisheries information;
- monitors delivery of contracted and devolved fisheries registry services;
- discharges the Crown's obligations under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, the Māori Fisheries Act 2004 and the Māori Commercial Aquaculture Claims Settlement Act 2004.

MPI is the Government agency responsible for the conservation and management of fisheries. It is charged with consistently monitoring the fisheries resource and providing timely and appropriate policy advice on all aspects of fisheries management to the Government. The Ministry is also responsible for carrying out the Government's policies to manage and conserve fisheries.

The NZ Fisheries Act 1996 provides the legislative framework for fisheries management, within NZ fisheries waters and for NZ flagged vessels and nationals on the high seas. The purpose of the Fisheries Act 1996 is to provide for utilisation of fisheries resources while ensuring sustainability. In giving effect to the purpose of the Act, decision makers are required to take into account environmental and information principles, and to act consistently with the Treaty of Waitangi (Fisheries claims) Settlement Act 1992 and international obligations.

The Department of Conservation (DoC) is the New Zealand Government department responsible for the management protected species and marine mammals within NZ's EEZ.

### **Forum Fisheries Agency (FFA)**

FFA was established under the South Pacific Forum Fisheries Agency Convention and the governing body is the Forum Fisheries Committee (FFC). The FFA Secretariat is based in Honiara, Solomon Islands. The FFA presently has seventeen members - Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu, each of which is represented on the FFC.

The FFA Secretariat focuses its work on:

- a. Fisheries management – providing policy and legal frameworks for the sustainable management of tuna;
- b. Fisheries development – developing the capacity of members to sustainably harvest, process and market tuna to create livelihoods; and
- c. Fisheries operations – supporting monitoring, control and surveillance of fisheries as well as treaty administration, information technology and vessel registration and monitoring.

Within the overall FFA programme, the fisheries management programme is designed to assist FFA Members, to refine and maintain effective policy and legal frameworks for the sustainable management of the shared tuna fisheries resources of the region. This programme provides advice on:

- Appropriate legal frameworks for national tuna management, including members' obligations under various treaties and arrangements;
- Appropriate fisheries management frameworks including the incorporation of the principles of ecosystem based fisheries management;
- Effective fisheries administration, including access arrangements, licensing of foreign and domestic fishing vessels, economic implications of different management systems, and the use of new systems and technologies;
- Development and implementation of monitoring, control and surveillance systems and effective compliance regimes; and provides these services assisting members to keep abreast of best practice fisheries management models, and develop stronger and deeper regional co-operation in fisheries management;
- Providing effective oversight, and where appropriate management of a regional vessel register, vessel monitoring system, and observer program (including for US vessels);
- Servicing regional fisheries treaties and arrangements; and improving capacity in fisheries management.

Two key instruments in the implementation of these programmes are the *Regional Tuna Management and Development Strategy* and the *Regional Monitoring Control and Surveillance Strategy*.

In addition to providing services to FFA Members, the FFA Secretariat supports the WCPFC regional Vessel Monitoring System (VMS), providing establishment, maintenance, diagnostic

and support infrastructure and services, automatic location communicator (ALC) management services and communication gateways for the Commission VMS, along with training for Commission staff.

### **The Secretariat of the Pacific Community (SPC)**

The SPC, based in Noumea, New Caledonia, provides scientific (and policy) support services to all Pacific Island countries and Territories, including members of the Forum Fisheries Agency. The SPC was founded in 1947 and has 26 member countries, including American Samoa, Australia, Cook Islands, Federated States of Micronesia, Fiji Islands, France, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, New Zealand, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, United States of America, Vanuatu and Wallis and Futuna. Such services include SPC-OFP provision of data and scientific stock assessment support services to WCPFC for all major tuna species.

### **Tuna Management Association (TMA) of NZ**

The TMA

- Is an unincorporated non-profit association headed by duly appointed officers;
- Provides a vehicle to represent the albacore troll fishing industry on matters affecting the fishery (e.g. discussions with MPI on proposed management measures to be applied);
- Promotes and actively supports initiatives aimed at securing the long-term interests of the industry (e.g. Tokelau Arrangement, Te Vaka Moana, MSC certification);
- Provides a forum for members to air their concerns or grievances on issues affecting their fishing operations;
- Serves as a point of contact for interaction with external bodies (e.g. MSC, Media).

Membership is open to all albacore troll fishers in New Zealand waters who have a fishing permit issued by MPI. The fishery principally operates off the western coasts of the North and South Islands. Around 170 vessels are represented by the TMA.

### **Fisheries Inshore New Zealand**

Fisheries Inshore is a commercial fisheries stakeholder organisation that works for the collective interests of inshore quota owners, Annual Catch Entitlement (ACE) holders and commercial fishers.

### **The National Institute of Water and Atmospheric Research, (NIWA)**

NIWA is a Crown Research Institute established in 1992. It operates as a stand-alone company with its own Board of Directors and Executive. NIWA's seafood sector work comprises fish, fisheries and aquaculture research and consultancy.

### **Non-Government Organisations (NGOs) (Environmental interests).**

A number of NGOs participate in consultations on the science and management of highly migratory fisheries. WWF-NZ, Royal Forest and Bird Protection Society of New Zealand, Greenpeace, and Environment and Conservation Organisations of New Zealand (ECO) are participants.

### **Recreational Fishers**

Recreational fishers catch albacore by trolling during the summer months. There is some

uncertainty with recreational harvest estimates for albacore. The most recent survey suggested annual recreational catches of albacore were around 245–260 t.

### **Customary Fishing**

It is uncertain whether albacore were caught by early Maori, although it is clear that they trolled lures (for kahawai) that are very similar to those still used by Tahitian fishermen for various small tunas. Given the number of other oceanic species known to Maori, and the early missionary reports of Maori regularly fishing several miles from shore, albacore were probably part of the catch of early Maori.

An estimate of the current customary catch is not available.

### **3.5.3 Consultations leading to the formulation of the management plan**

#### **WCPFC**

The WCPF Convention describes the functions, roles and responsibilities of member states and the committees established by the Commission related to consultative processes. The Rules of Procedure in the Convention have clearly defined the roles and responsibilities of members and non-members. Stakeholders including Non-Government Organisations (NGOs) and other interested parties meaningfully engage with WCPFC activities through attendance as an observer at Commission and related meetings (including Scientific Committee (SC) and Technical Compliance Committee (TCC)).

The Commission actively assists and facilitates the regular and timely provision of fisheries information on its website in advance of and following meetings and workshops.

The Commission actively uses information from the fishery and its member states to inform fisheries management discussions and the formulation of management measures, as demonstrated by reports and outcomes of WCPFC meetings.

The WCPFC Convention requires the SC to “recommend to the Commission a research plan, including specific issues and items to be addressed by the scientific experts or by other organizations or individuals, as appropriate, and identify data needs and coordinate activities that meet those needs”. The current WCPFC Strategic Research Plan 2012-2016 addresses four overall research and data collection priorities: monitoring of fishing activities through the collection, compilation and validation of data from the fishery; monitoring and assessment of target stocks; monitoring and assessment of non-target species and of the pelagic ecosystems of the WCPO; and evaluation of existing CMMs and of potential management options. WCPFC employ two scientific staff, but most of the research is carried out by third party organizations, such the Secretariat of the Pacific Community. Nevertheless, WCPFC co-ordinates such research through the SC.

The Plan is substantially directed towards providing information to enable the Commission to avoid overfishing or depletion of targeted stocks and the application of an ecosystem approach. However, the Implementation process in the Plan is also designed to contribute to improving governance and policy, through the development of management information tools such as Management Strategy Evaluation, and the development of relevant scientific and technical capacities in developing country Commission members.

#### **New Zealand**

The development of the NZ Management Plan for the albacore troll fishery is led by the Ministry for Primary Industries (MPI). The Management Plan for this fishery is part of the

National Fisheries Plan for Highly Migratory Species. This Plan was signed off by the Minister of Fisheries in 2010. The plan is implemented by an Operational Management Plan and a series of Annual Operational Plans that specify key areas of focus year to year. All these plans are developed with stakeholder input, in accordance with consultation processes run by the Ministry. Performance against the Plans is reviewed in a series of Annual Review Reports. An update to the National Fisheries Plan for Highly Migratory Species is scheduled for early 2017.

In addition to specific consultations about planning relevant to the fishery, MPI has responsibility for consulting with stakeholders located in NZ in advance of WCPFC meetings. Ministry staff also meet with stakeholders, including industry, after meetings to relay key content and results of discussions of relevance to the New Zealand fishery.

Finally, the Ministry involves stakeholders in its annual research prioritisation and planning processes.

The Department of Conservation's (DoC) involvement in the fishery is focused on interactions with marine protected species. Consultations run by the Department that may have bearing on the content of management planning documents for the fishery include annual research prioritization and planning processes, and less frequent consultations on legislative changes and strategic intent. (Strategic consultations were most recently focused on the Conservation Services Programme Strategic Statement - 2015, for example, which outlines the scope of Conservation Services).

For both the Ministry and the Department, a substantial component of consultation relates to research outputs. Both agencies run working group processes that are open to all stakeholders and involve the expert review of research contracted by these agencies to external providers. Research outputs are not accepted before they have been considered by stakeholders at these working groups. Between the two agencies, working groups cover all technical components of fisheries management, including stock assessment, bycatch, ETP species interactions, effects of fishing on the benthos and benthic habitats, and broader ecosystem impacts of fishing. All the consultations are on-going.

### **3.5.4 Decision making**

#### **WCPFC**

The WCPFC has a consensus-based decision-making process, with provision for a two-chambered voting process requiring a 75% majority in both chambers if all efforts to reach a decision by consensus have been exhausted. In addition, there are provisions for a decision to be reviewed by a review panel at the request of a Member (WCPFC, 2000 Article 20, paras 6- 9). The subsidiary bodies of the Commission provide extensive, detailed reports to the Commission (see for example WCPFC-SC (2009)), including advice and recommendations.

Decision-making is open, with the process, outcomes and basis for decisions recorded in detail in records of Commission sessions and publicly available papers. In the context of regional fisheries management, the WCPFC decision-making framework has resulted in an extensive set of CMMs and strategies to respond to sustainability issues. However, the degree to which the decision-making processes at the Commission result in measures that achieve fishery specific objectives could be questioned e.g. in respect of the control of fishing effort on bigeye tuna. Stock assessment and studies presented at the SC identify serious issues at regional level. These are addressed through regionally agreed CMMs.

The WCPFC Convention (Art. 6) requires the application of the precautionary approach and the use of a Scientific Committee to ensure that the Commission obtains the best scientific information available for its consideration and decision-making. In 2012, WCPFC adopted a resolution (Resolution 2012-01) to promote the use of the best available science in management decision making.

Information on fishery performance is publicly available through SPC data, and Part 1 reports provide detailed reporting on catch, fleet size and other issues relating to the fishery. The WPPFC SC and TCC papers and reports on the web provide a high level of public access and transparency, showing how scientific information is used to inform management actions, which are then monitored for effectiveness and discussed at the Commission.

The WCPFC dispute mechanism is set out in Article 31 of the Convention.

## **New Zealand**

The 1996 Fisheries Act requires consultation with stakeholders. To affect this, the Minister has established consultation guidelines. These guidelines recognize that consultation leading to decisions must occur in accordance with law; in a reasonable manner; and fairly, in accordance with the principles of natural justice. The Minister is the decision maker in fisheries management matters and his decisions are bound by the law, and are therefore open to legal review. The law requires identification of stakeholders “with an interest” in each fishery, and the identification of those who represent stakeholders with an interest. The Minister must notify stakeholders in advance of the consultation, and to subsequently inform them of his decisions.

MPI provides an initial consultation plan and the manner of consultation, including the timeframe for the consultation and the decision. MPI distributes the decision and subsequently reviews the process to assure that their consultation meets all requirements.

When management changes are proposed to meet sustainability requirements, MPI prepares a discussion document that provides the Ministry’s initial proposals for issues needing decision and a range of management options. The proposals outlined in MPI’s discussion document are preliminary and are provided as the basis for consultation with stakeholders. Subsequently, MPI prepares a decision document, which summarises stakeholders’ views on their proposals and makes recommendations to the Minister. The decision document and the Minister’s letter setting out his final decisions are posted on MPI’s website as soon as they become available.

The Fisheries Act 1996 requires a precautionary approach. Section 10 of the Fisheries Act 1996 specifies four information principles, which encompass the precautionary principle, that must be taken into account in relation to the utilisation of fisheries resources or ensuring sustainability:

All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following information principles:

- decisions should be based on the best available information;
- decision makers should consider any uncertainty in the information available in any case;
- decision makers should be cautious when information is uncertain, unreliable, or inadequate;
- the absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act.



A decision to consult or not to consult, and any decision made after consultation, must be made in accordance with the principles of administrative law, and in accordance with Fisheries Act 1996 obligations.

### 3.5.5 Objectives for the fishery

Two sets of overarching objectives apply to the governance of the fisheries: Regional objectives through WCPFC, and national objectives for New Zealand.

#### WCPFC

Long-term objectives for fisheries within the waters of the Convention area are found within the WCPFC Convention text. Under Article 2 the Commission has the objective to 'ensure, through effective management, the long-term conservation and sustainable use of highly migratory fish stocks within the Convention area, consistent with UNCLOS and UNSFA. Article 5 provides principles and measures for achieving this conservation and management objective. Article 10(c) provides the explicit long-term objective of 'maintaining or restoring populations' to "above levels at which their reproduction may become seriously threatened". Article 5 (c) explicitly requires CCMs to apply the precautionary approach and Article 6 outlines the means by which this will be given effect, including through the application of the guidelines set out in Annex II of UNSFA. These guidelines provide additional objectives to guide decision-making, including the use of target reference points to meet management objectives and the adoption of fisheries management strategies to ensure that target reference points are not exceeded on average. Evidence that these objectives are guiding, or are beginning to guide decision-making is provided in various reports of the Commission.

#### New Zealand

Objectives for the NZ albacore fishery are included in the NZ Plan for Highly Migratory Species and Operational Plans for albacore tuna. The structure of the National Fisheries Plan for Highly Migratory Species and operational management plans for large pelagic species, skipjack and albacore is shown in Figure 6 below.

Management objectives for HMS fisheries are grouped into:

#### *Use Outcome*

- Promote a viable and profitable tuna fishery in New Zealand
- Maintain / enhance world class game fisheries in New Zealand fisheries waters
- Deliver fair opportunities for access to HMS fisheries
- Minimise wastage and promote humane treatment
- Maori interests (including customary, commercial, recreational and environmental) are enhanced.

#### *Environment Outcome*

- Maintain a sustainable fishery for HMS within environmental standards
- Implement an ecosystem approach to fisheries management, taking into account associated and dependent species
- Protect, maintain, and enhance fisheries habitat
- Allow for HMS aquaculture development while ensuring the ecosystem and wild fisheries are protected.

#### *Governance conditions*

- Recognise and provide for Deed of Settlement obligations
- Influence international fora and ensure New Zealand interests are taken into account
- Maintain an effective fisheries management regime.

Fishery specific objectives include:

- Regularly monitor the need for more active management of albacore, based on utilisation criteria
- Maintain catch-based attribution of cost recovery levies
- Devise incentives to add value to and/or reduce wastage in the albacore fishery
- Manage the impacts of any fishing in New Zealand waters under provisions of the US Tuna Treaty.

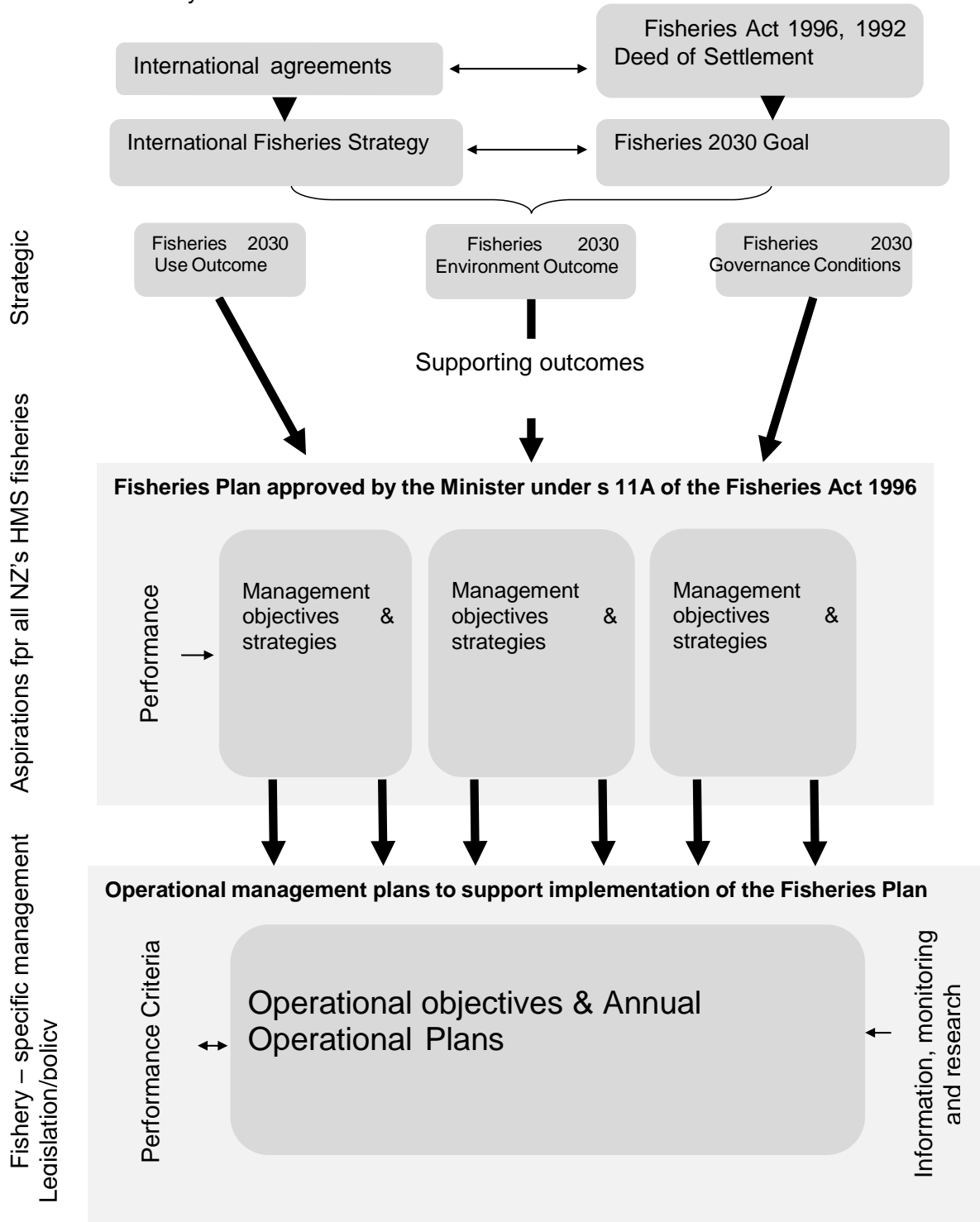


Figure 6. Structure of the National Fisheries Plan for Highly Migratory Species and operational management plans for large pelagic species, skipjack and albacore

### **3.5.6 Fleet types participating in the fishery.**

Trolling refers to the towing of artificial lures or natural baits near the surface from a moving boat. Commercial albacore trollers in New Zealand tow 12-18 lines simultaneously from the vessel's stern and from long outrigger poles mounted amidships. The line lengths or depths are adjusted to permit hauling of any one line without tangling or interfering with the others. The lines are either braided polypropylene, Dacron or monofilament nylon and are hauled in by hand or by hydraulic haulers. Lures have metal heads and feather or plastic skirts, and are rigged with barbless double hooks. Troll vessels never stop when fishing during the day, but may slow and make tight circles or short, straight runs when fishing on an albacore school. Fish are hauled directly to the stern of the vessel where they are quickly taken from the water and unhooked before being stored whole in ice.

Albacore vessels usually drift at night or steam toward promising fishing grounds as determined by recent fishing activity, sea surface temperatures, or observations of baitfish and albacore on sonar or depth sounding equipment. The use of cooperative, or "code", groups also increases efficiency of the fleet. At dawn, the jigs are deployed and the rest of the day is a continuous cycle of pulling fish, changing lures, storing the catch, and searching for birds, water temperature fronts or other vessels that might indicate productive fishing areas. At dusk, the jigs are retrieved and stored for the next day of fishing.

Being seasonal, albacore usually forms only one of several fishing activities for the vessels involved. Vessels in the fishery are typically 12-24 m in length, operating with crews of 2-5, with a holding capacity range of 3 to 20 t (all on ice).

### **3.5.7 Management regulations and measures**

Management of albacore throughout the WCPO is the responsibility of the WCPFC. A list of CMMs relevant to the purse seine fishery can be sources on the WCPFC website ([www.wcpfc.int/conservation-and-management-measures](http://www.wcpfc.int/conservation-and-management-measures)).

As a member, New Zealand is responsible for ensuring management measures applied within New Zealand fisheries waters are compatible with those of the WCPFC, and fishing by New Zealand flagged vessels both within and beyond the New Zealand EEZ is carried out in accordance with any measures put in place by WCPFC. The NZ Fisheries Act 1996 provides the legislative framework for fisheries management, within NZ fisheries waters and for NZ flagged vessels and nationals on the high seas.

Albacore is not managed as a QMS species in New Zealand. Therefore, no total allowable catch (TAC) applies in New Zealand fisheries waters or on the high seas. However, CMMs set by WCPFC do place binding effort controls on the albacore fishery in New Zealand fisheries waters.

The Fisheries Act 1996 sets out NZ's fisheries management regime; provisions relating to access to fisheries, including foreign licensed access; a high seas fishing regime; record keeping, reporting and disposal of fish provisions; and a system of offences and penalties. The Act has been drafted to be consistent with New Zealand's international obligations. Section 5(a) of the Act implements these obligations by specifying that all functions, duties or powers under the Act must be exercised in a manner consistent with New Zealand's international obligations relating to fishing. The New Zealand Government has obligations under the Fisheries Act 1996 to avoid, remedy or mitigate any adverse effects of fishing on the aquatic environment. Sections 8, 9, and 11 of the Fisheries Act 1996 apply to most aquatic environment issues, along with some additional legislation or specific clauses relevant to particular topics. For instance, the Marine Mammals Protection Act 1978 and the Wildlife Act 1953 apply to protected species. New Zealand is also signatory to a number of international agreements that create additional requirements for monitoring of the effects of fishing on the

aquatic environment and on associated or dependent species. The main regulations that apply to the NZ albacore fishery are:

- Fisheries (Commercial Fishing) Regulations 2001 and regional commercial fishing regulations;
- Fisheries (Western and Central Pacific Ocean Highly Migratory Fish Stocks) Regulations 2003.

Through the Fisheries Act 1996 and associated regulations stringent controls are imposed on fishing activities within NZ fisheries waters and on NZ flagged vessels and nationals operating on the high seas. All NZ vessels are required to be registered. All fishers operating within NZ waters, must be authorised by a fishing permit.

### **3.5.8 Monitoring, control and surveillance and enforcement**

#### **WCPFC**

The WCPFC has designed, largely established, and is in the early stages of implementing a comprehensive compliance program, including the following elements:

- Requirements for vessels, including support vessels operating outside their own waters to be on the WCPFC Record of Fishing Vessels and Authorisation to Fish (CMM 2009-11)
- Specifications, Markings and Identification of Vessels (CMM 2004-03)
- High seas Boarding and Inspection Procedures (CMM 2006-08)
- Blacklist of IUU Vessels (CMM2007-03)
- Rules for Provision of Scientific Data and Data Dissemination.

Some of the major elements of this program, including the observer and VMS programs, are founded on and supported by FFA programs. Additional elements being developed include conservation and management measures for Port State Controls and a Catch Documentation Scheme.

Addressing IUU fishing over the huge area of the WCPO is a major challenge. With most of the fishing taking place in national waters, the broad strategy of the WCPFC compliance program is to focus on controlling high seas fishing, strengthening the exercise of control by coastal state CCMs, and monitoring compliance with CCM obligations throughout the range of application of Commission measures. Compliance failures by vessels are addressed by the application of the WCPFC IUU listing procedure. Compliance failures by CCMs, rather than vessels, are currently addressed through Commission processes of monitoring, reporting and accountability under the WCPFC's Compliance Monitoring Scheme (CMM 2014-07).

#### **New Zealand**

NZ endeavours to deter fisheries related offending through successful prosecution and deterrent penalties. Penalties for fisheries related offences include fines, forfeiture of fish, vessels, other property and quota, and imprisonment.

Utilisation of HMS fisheries is subject to rules of sustainability, access, and allocation. Achieving New Zealand's fisheries management objectives depends upon high levels of compliance with these rules and with other conservation and sustainable management measures adopted by RFMOs and other international arrangements to which New Zealand is a party.

In the international context, New Zealand operates within compliance committees with the aim of developing and implementing a consistent and harmonised package of compliance measures across international arrangements.

MPI carries out monitoring and surveillance across the fishing sectors to ensure people operate in accordance with the legislative requirements. Compliance with these requirements ultimately allows New Zealand to meet its international obligations for the management and conservation of HMS. Regular monitoring and surveillance also provide a form of passive deterrence for potential offenders.

A number of monitoring, control and surveillance (MCS) tools are used to control the activities of vessels fishing within NZ fisheries waters including:

- Fishing permit requirements
- Fishing permit and fishing vessel registers
- Vessel Monitoring System (VMS) requirements
- Vessel and gear marking requirements
- Fishing gear and method restrictions
- Observer Programme
- Reporting (including catch and effort reporting) requirements
- Vessel inspections
- Control of landings (e.g. requirement to land only to licensed fish receivers)
- Record keeping requirements
- Auditing of licensed fish receivers
- Control of transshipment
- Monitored unloads of fish
- Information management and intelligence analysis
- Analysis of catch and effort reporting and comparison with VMS, observer, landing and trade data to confirm accuracy
- Boarding and inspection by fishery officers at sea
- Aerial and surface surveillance, and
- Any other measures agreed by Regional Fisheries Management Organisations (RFMOs).

Only a few albacore troll vessels have had observers on board despite recommendations in previous surveillance reports that the observer coverage should be increased.

MPI consider the albacore troll fishery to be a low risk fishery and consequently the observers have not been assigned to monitor this fishery.

All vessels fishing in New Zealand are required to report all fish caught. There are minimal retained or bycatch species caught in albacore troll fishery. Reporting requirements are set out in the Fisheries (Reporting) Regulations 2001, most notably in section 5 and section 6. Note also that it is illegal under the Fisheries Act 1996 to discard any species in the QMS unless the species is listed on Schedule 6 of the Fisheries Act 1996, all returns to the sea are recorded, and the specified conditions are met, or an MPI observer on the vessel authorises the discard.

A comprehensive reporting regime requires catch reports to be submitted by commercial fishers, including the estimated catch per set, the location and depth of every set and the total landed catch for each trip undertaken; landings only to Licensed Fish Receivers (LFRs), who must also report all catch received. MPI verification through auditing and reconciliation analysis across multiple sources ensures all catches are reported and documented correctly.

MPI's compliance strategy is underpinned by the VADE compliance operating model. VADE is focused on all elements in the compliance spectrum. Enforcement is but one of the tools utilised to ensure compliance, however it is the intervention that sets the conditions and incentives for voluntary compliance. There are four components to the VADE compliance operating model:

**Voluntary Compliance:** The voluntary component commences well before the involvement of compliance interventions as part of the regulatory setting process. MPI ensures that the consequence for non-compliance is proportionate to the effect to be achieved. Accordingly, sensible rules and sanctions ensure high voluntary compliance once those who need to comply are aware of their obligations. Within the compliance directorate, outcomes are achieved through education, engagement and communication of expectations and obligations.

**Assisted Compliance:** Assisted compliance is that range of activities that re-enforce obligations and give the organisation confidence that the desired purpose of the Fisheries Act 1996 is being achieved. This is heavily reliant on monitoring, inspection, responding and business intelligence activities. It requires feedback loops and compliments the voluntary component to determine if stakeholders are attempting to comply, are aware of their obligations or indeed choosing not to comply. Determined upon what observations are deduced an appropriate intervention is then considered. Assisted compliance remains heavily focused on reminding individuals their compliance is being monitored and if no discernible behaviour change formal direction or sanction will occur.

**Directed Compliance:** Directed Compliance is that range of tools that Compliance Officers apply to direct a desired behavioural change. It ranges from those powers that allow directed activity such as infringement notices, official sanctions such as warnings and in some cases regulatory or lower threshold prosecutions.

**Enforced Compliance:** Enforced compliance is where the full extent of the law is applied. While it can be the decision as a consequence of no noticeable behavioural change despite Voluntary, Assisted and Directed interventions, it is also for those entities or individuals who deliberately choose to break the law and where a lesser intervention is inappropriate. This is for either serious offending or where legislation requires an enforcement action. These cases are formally investigated with a view to prosecution.

The VADE model gives a framework for stakeholders to understand the discretionary powers and approach regardless of sectors. It gives some confidence to compliance officers to apply discretion at the frontline and allows for calibration across sectors for national consistency. MPI's Compliance Directorate has published a series of compliance information sheets to bring to the industry's attention matters that are of direct interest and concern to the Ministry.

### 3.5.9 Monitoring and management performance evaluation

#### WCPFC

WCPFC has mechanisms in place to evaluate the management system as demonstrated by the various committees and working groups that meet regularly and report their findings to the Commission. The WCPFC Secretariat submits a report on compliance of members with the reporting provisions of the Commission (CMM 2013-02). Progress with implementation of CMMs is monitored through the reporting provisions within the CMMs themselves, or the members Annual Reports to the Commission. Stock assessments conducted by the SPC are

subject to peer review by other members of the Scientific Committee and occasional external review.

WCPFC has undertaken an independent review of its performance, consistent with the Kobe Course of Actions for the period 2011 to 2013 (Anon. 2012). As a result, the Commission established several working groups to address the different recommendations of the report, which can be found on the WCPFC website. An independent review (MRAG, 2009) has been conducted of the Commission's science structure and functions resulting in overhauling of the operation of the SC and adoption of a peer review process and other changes to the data and science functions.

## **New Zealand**

All aspects of MPI's performance in relation to their role in managing fisheries are reviewed regularly and reported. These include

- compliance services, including education, enforcement and prosecution
- observer services
- purchasing research and registry services
- providing oversight and quality assurance of scientific research
- collecting catch effort, area, method and other fisheries information
- monitoring delivery of contracted and devolved fisheries registry services and
- Discharging the Crown's obligations under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, the Māori Fisheries Act 2004 and the Māori Commercial Aquaculture Claims Settlement Act 2004.

The annual review for Highly Migratory species 2014-2015 provides a record of the annual reviews of fisheries. This contains progress against key focus areas and business as usual tasks, and summary of key indicators for the fishing year.

This review encompasses all parts of the management system. Progress against the objectives in the National Fisheries Plan and the Annual Operational Plan is reviewed annually and reported in the Annual Review Report. MPI conducts an extensive review of performance of the fisheries that incorporates consultations with industry and other stake holders. Parts of the management system, specifically science and enforcement, undergo external review. Although the internal review is very comprehensive and parties external to MPI participate, there is no explicit separate external review of the management system.

### **3.5.10 Details of any planned education and training for interest groups.**

MPI have ongoing outreach and education for vessel captains, fishermen and other interested parties. MPI has the activities of the informed and assisted compliance that assures understanding by industry with regulations and other requirements. The industry has implemented a range of non-regulatory measures and supplementary measures for avoiding or mitigating interactions with ETP species. MPI invites representatives of NGOs to discuss issues important to them and to work on collaborative solutions.

## 4 Evaluation Procedure

### 4.1 Harmonised Fishery Assessment

Fishery Certification Requirements (FCR) version 2.0, section 7.4.16 states: if the assessment is based on overlapping fisheries, the CAB shall follow Annex PB. In addition, the definition of an overlapping fishery for the MSC is: two or more fisheries which require assessment of some, or all, of the same aspects of MSC Principles 1, 2 and/or 3 within their respective units of certification.

In this regard, several other fisheries that overlap with this assessment have already been MSC assessed and certified. This fishery is the fifth MSC assessment to include the WCPO skipjack stock. Previously certified fisheries are the:

- AAFA& WFOA albacore south
- Fiji albacore;
- SLCZ, HNSFC & CFA Cook Is albacore Japan pole and line fishery;
- Walker Seafood albacore

The assessment team took the following measures to harmonise with the certified fisheries:

- They used the same default assessment tree but the fishery under assessment used the assessment tree from FCR version 2.0.
- The team scored the fishery based on the previous scores, and only made changes in the event of evidence meriting altering the score or in response to the differences in the Scoring Guideposts of Version 2.0.
- Acoura participation in the harmonisation meeting held in Hong Kong in April 2016 (see below for more details).

This fishery was part of a pilot harmonisation initiative coordinated by MSC (<https://improvements.msc.org/database/hms-harmonisation>). The MSC harmonisation meeting, held from 21<sup>st</sup>-22<sup>nd</sup> April 2016 in Hong Kong, was aimed at bringing together all of the assessors and stakeholders so that the scores for the performance indicators (PIs) within Principle 1 could be discussed and harmonised, including proposals for scoring or changes in scoring, and creating or updating the status of conditions (including closing conditions or setting new ones, bearing in mind that fisheries may be on different timescales).

The original intent of this workshop was to consolidate harmonisation of Principle 1 scoring and scoring justification for Pacific tuna fisheries. While the process successfully dealt with harmonisation and aided Conformity Assessment Body and team discussions, the meeting did not result in definitive justification text for the range of scoring issues due to time constraints. The outcome of the workshop is a working document to inform and guide CAB teams as they assess tuna fisheries in the WCPFC area. MSC-assessed fisheries considered in relation to albacore tuna were: the PNA purse seine fishery; Tri Marine purse seine fishery; Solomon Islands purse seine and pole and line fisheries; and the Japanese pole and line fishery.

The findings of the workshop are an important consideration for the NZ albacore troll fishery.

**Table 8.** P1 scores for fisheries discussed at MSC harmonisation meeting (note that there are some differences in the wording of PIs between CRv1.3 and CRv2.0).

Fishery name	Date certified	CR version	1.1.1	1.1.2	1.2.1	1.2.2	1.2.3	1.2.4	Overall Principle 1



NZ troll albacore	PCR Jun 2011	FAM v2	100	75	80	60	80	85	81.9
AAFA & WFOA albacore - south	PCR Dec 2012	CR v1.3 (PI1.2.2 use v2)	100	70	80	60	90	85	81.9
Fiji albacore	PCR Nov 2012	CR v1.3 (PI1.2.2 use v2)	100	75	70	60	80	85	80.6
SLCZ, HNSFC & CFA Cook Is albacore	PCR Jun 2015	CR v1.3 (PI1.2.2 use v2)	100	75	70	60	80	85	80.6
Walker Seafood albacore	PCR Aug 2015	CR v1.3 (PI1.2.2 use v2)	100	75	70	60	80	95	81.9
Revised NZ troll albacore	In progress	CR v2.0	100	na <sup>1</sup>	70	60	80	95	84.2

<sup>1</sup> Under CRv1.3 PI 1.1.2 requires that "Limit and target reference points are appropriate for the stock". Under CRv2.0 this PI does not exist and the availability of reference points is considered under other PIs. PI 1.1.2 under CRv2.0 relates to the need for stock rebuilding, covered by PI 1.1.3 under CRv1.3.

The peer review comments for this process can be found in Appendix 2, with stakeholder comments in Appendix 3.1.

## 4.2 Previous assessments

The NZ albacore troll fishery was MSC certified in May 2011. There were three conditions to this certification. The fishery has completed all four of the required surveillance audits in 2012, 2013, 2014 and 2015. The fishery entered re-assessment and announced its participation in the harmonisation pilot on the 18th February 2016. This delayed entering the re-assessment process due to ongoing discussions regarding the harmonisation of tuna fisheries in the Western and Central Pacific. The MSC confirmed that the harmonisation pilot would be commencing in early 2016 and that this fishery should be involved to avoid delays in re-assessment at a later stage.

**In April 2016 Acoura made a request to MSC to extend the certificate and this was granted as the request did not alter the conformity of the applicant or certificate holder in the relation to the relevant MSC standard.**

**Table 9.** Summary of Previous Assessment Conditions.

Condition	PI(s)	Year closed	Justification
	CR v1.3		
1. Target and limit reference points need to be agreed by WCPFC, consistent with the management objectives and scientific stock assessment.	1.1.2	Not yet closed	Progress has been made at WCPFC. A limit reference point has been adopted. A formal target reference point has not been adopted but candidate target reference points are being developed. CMM 2014-06 has been adopted. This defines the approach for a harvest strategy with harvest controls and reference points to be adopted.
2. A well-defined harvest control rule needs to be	1.2.2	Not yet closed	Progress has been made at WCPFC via a series of Management Objective

proposed, tested and established by the scientific working group and management authority (primarily WCPFC).			Workshops. A formal target reference point has not been adopted but candidate target reference points are being developed. CMM 2014-06 has been adopted. This defines the approach for a harvest strategy with harvest controls and reference points to be adopted.
3. Short and long term objectives for the NZ albacore fishery, relating to the stock and all the relevant ecosystem components, need to be agreed by stakeholders. The fisheries plan should be finalized and evidence of implementation provided.	3.2.1	Closed Year 1	The Highly Migratory Species Fisheries Plan 2010-2015 was finalized. This plan which includes albacore, as well as the development and implementation of the Albacore Operational Management Plan 2010-15. This operational plan includes well defined and measurable short and long term objectives, which are demonstrably consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system.

### 4.3 Assessment Methodologies

This assessment has used the methodology found in MSC Fisheries Certification Requirements V2.0 October 2014 and the Default Assessment Tree it contains.

The MSC Full Assessment Reporting template v2.0 December 2015 was used.

### 4.4 Evaluation Processes and Techniques

#### 4.4.1 Site Visits

The itinerary for the site visit is outlined below. All meetings took place in Wellington, New Zealand.

**Table 10.** Individuals involved during the onsite visit.

Date	Name	Affiliation	Discussion
30/05/2016	Doug Loder	Tuna Management Association	Opening Meeting.
31/05/2016			All matters relating to client fishery operations and management
30/05/2016	Rob Tilney	Client Rep	Closing Meeting
31/05/2016			Opening Meeting.
30/05/2016	Malcolm Francis	NIWA	All matters relating to client fishery operations and management
31/05/2016	Dominic Valliers Jo Lambie	MPI	Closing Meeting
			Albacore - All P2 issues
			Albacore management including NZ involvement in WCPFC, P1, P2 and P3
2/06/2016	Gary Orr	MPI Compliance	P3 compliance issues
31/05/2016	Ian Angus Kris Ramm Igor Debski	DoC	Albacore - All P2 issues

	Katie Clemens-Seely		
30/05/2106 31/05/2016	Adrian Gutteridge	MSC Observer	All
30/05/2106 31/05/2016	Jo Akroyd	Acoura Assessor	All
30/05/2106 31/05/2016	Kevin McLoughlin	Acoura Assessor	All

#### 4.4.2 Consultations

In addition to people interviewed during the site visit, a total of 40 stakeholder individuals and organisations having relevant interest in the assessment were identified and consulted during this assessment.

Two stakeholder notifications were initially posted on the MSC website

- [Fishery Enters Full Assessment](#) and
- [Participation in pilot harmonisation process](#)

The processes used on the MSC website for tracking and announcing the various stages of the assessment as it progresses - from Full Announcement through to Certification - form an ideal tool through which to channel stakeholder interest and keep them abreast of the important stages of the assessment as a whole.

#### 4.4.3 Evaluation Techniques

In addition to information provided by the client and information gained during the site visit, the assessment team gathered information using a range of methods. The website of the WCPFC ([www.wcpfc.int](http://www.wcpfc.int)) was a key source of documentation about the target species, other retained species, CMMs and other management arrangements. The pre-assessment report (a draft copy of which was provided to the assessment team) was used as background. Individuals contacted during the assessment are listed above in Table 10. Stakeholders were informed primarily via announcements posted on the MSC website, and via direct email outreach. See Appendix 3 for a list of stakeholders contacted. Enquiries were also made during the site visit as to the existence of any local stakeholder groups that should be approached and made aware of the assessment. None were identified.

The scoring process followed the MSC FCR v2.0, Section 7.10. Scoring was completed by consensus through team meetings, skype calls and exchanging rationales by email and draft score and report sharing. The decision rule for MSC certification is as follows:

- No PIs score below 80. (cannot receive certification)
- The aggregate score for each Principle, rounded to the nearest whole number is 80 or above
- The aggregate score for each Principle is calculated by taking the average score for each section followed by the average of all section scores (see Principle level scores).

**Table 11.** Principle 1 & 2 scoring elements.

Component	Scoring elements	Main/Not main	Data-deficient or not
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PI 1	Albacore tuna	Target	Not data deficient
PI 2.1	Barracouta	Not main	Not data deficient
	Ray's bream	Not main	Not data deficient
	Kahawai	Not main	Not data deficient
	Bigeye tuna	Not main	Not data deficient
	Skipjack tuna	Not main	Not data deficient
	Southern Bluefin tuna	Not main	Not data deficient
PI 2.2	None		Not data deficient
PI 2.3	None		Not data deficient
PI 2.4	None		Not data deficient
PI 2.5	None		Not data deficient

The risk based framework was not used during this assessment.

## 5 Traceability

### 5.1 Eligibility Date

This fishery is already MSC certified. A request for variation to the MSC Certification Requirement (CR) to extend the certificate validity period beyond the standard 5-year certification period by 8 months from May 2016 to 31 January 2017 was granted by MSC.

### 5.2 Traceability within the Fishery

Factors that may lead to risks of non-certified fish being mixed with certified fish prior to entering Chain of Custody is listed in Table 12 below.

The CAB determined that the systems in place for tracking and tracing in the UoA were sufficient to ensure all fish and fish products identified and sold as MSC certified originated from the original UoC. The fishery has been certified for four years and there has been no issues in the CoC audits or MSC surveillance records. The records demonstrating traceability are kept and maintained by fishers, and the fishing companies that are the client group. The 10% of albacore landed by longliners as bycatch are clearly identified at all stages. They are not landed into the same ports and are never mixed with troll caught albacore. Different companies e.g. the skipjack companies who land bycatch albacore do so with robust documentation as required by the Ministry of Primary Industries. At no time are longline and troll caught albacore in the same place at the same time. At any stage of landing and processing the records are clear as to where the fish have been caught and by what method.

The fish changes ownership at point of landing.

**Table 12.** Traceability Factors within the Fishery.

Traceability Factor	
Potential for non-certified gear/s to be used within the fishery.	The vessels are small and geared up to use troll only gear when fishing the albacore season. No other gear type is employed.
Potential for vessels from the UoC to fish outside the UoC or in different geographical areas (on the same trips or different trips).	The UoC is all NZs EEZ. The vessels are small and fish inshore. The vessels must report fishing locations and MPI have effective MSC in place to ensure that the vessels are inside NZ waters.
Potential for vessels outside of the UoC or client group fishing the same stock.	A few longline vessels target albacore. A total of less than 10% of the albacore catch is caught by non-troll methods. Most of this is from longline vessels targeting bigeye and southern Bluefin and taking albacore as bycatch.
Risks of mixing between certified and non-certified catch during storage, transport, or handling activities (including transport at sea and on land, points of landing, and sales at auction).	All catches must have documentation with information on catch area, species, amount of catch and vessel name. This documentation is passed along with the fish to the point of sale. The fish are sold frozen whole and documentation is always with the fish.
Risks of mixing between certified and non-certified catch during processing activities (at-sea and/or before subsequent Chain of Custody).	There is no at sea processing. All fish are landed whole.

Risks of mixing between certified and non-certified catch during transshipment.	There is no transshipment.
Any other risks of substitution between fish from the UoC (certified catch) and fish from outside this unit (non-certified catch) before subsequent Chain of Custody is required.	All fish are caught in NZs EEZ and landed at NZ ports.

### 5.3 Eligibility to Enter Further Chains of Custody

The MSC certificate will apply to all NZ vessels permitted by the Ministry for Primary Industries to fish for albacore in the NZ waters using troll gear. As soon as the fish is landed it enters the Chain of Custody held by the various companies who sell the product as MSC certified.

### 5.4 Eligibility of Inseparable or Practicably Inseparable (IPI) stock(s) to Enter Further Chains of Custody

Albacore tuna is not an IPI stock.

## 6 Evaluation Results

### 6.1 Principle Level Scores

Table 13. Final Principle Scores

Final Principle Scores	
Principle	Score
Principle 1 – Target Species	84.2
Principle 2 – Ecosystem	94.7
Principle 3 – Management System	86.9

### 6.2 Summary of PI Level Scores

Principle	Component	Wt	Performance Indicator (PI)	Wt	Score
One	Outcome	0.333	1.1.1 Stock status	1.0	100
			1.2.1 Harvest strategy	0.25	70
	Management	0.667	1.2.2 Harvest control rules & tools	0.25	60
			1.2.3 Information & monitoring	0.25	80
			1.2.4 Assessment of stock status	0.25	95
Two	Primary species	0.2	2.1.1 Outcome	0.333	100
			2.1.2 Management strategy	0.333	90
			2.1.3 Information/Monitoring	0.333	90
	Secondary species	0.2	2.2.1 Outcome	0.333	100
			2.2.2 Management strategy	0.333	100
			2.2.3 Information/Monitoring	0.333	100
	ETP species	0.2	2.3.1 Outcome	0.333	100
			2.3.2 Management strategy	0.333	100
			2.3.3 Information strategy	0.333	80
	Habitats	0.2	2.4.1 Outcome	0.333	100
			2.4.2 Management strategy	0.333	100
			2.4.3 Information	0.333	100
	Ecosystem	0.2	2.5.1 Outcome	0.333	80
			2.5.2 Management	0.333	85
			2.5.3 Information	0.333	95
Three	Governance and policy	0.5	3.1.1 Legal &/or customary framework	0.333	90
			3.1.2 Consultation, roles & responsibilities	0.333	90
			3.1.3 Long term objectives	0.333	90
	Fishery specific management system	0.5	3.2.1 Fishery specific objectives	0.25	90
			3.2.2 Decision making processes	0.25	85
			3.2.3 Compliance & enforcement	0.25	80
			3.2.4 Monitoring & management performance evaluation	0.25	80

**Table 14.** Summary of Conditions

Condition number	Condition	Performance Indicator	Related to previously raised condition? (Y/N/NA)
1	SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for albacore tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	1.2.1	Y; will require harmonisation with other fisheries
2	SI a) By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.  SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties.  SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.	1.2.2	Y; will require harmonisation with other fisheries

### 6.3 Recommendations

Recommendation number	Recommendation	Performance Indicator
1	Despite low levels of ETP interactions seen in historic data, there should be an ongoing level of observer coverage that will provide information on potential interactions.	2.3.3

### 6.4 Determination, Formal Conclusion and Agreement

Following this decision by the assessment team, and review by stakeholders and peer-reviewers, this determination was confirmed by Acoura’s decision making entity that this fishery has passed its assessment and should be certified.



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CMM-2008-01 [Bigeye and Yellowfin tuna in the WCPO] (replaced by later CMMs)

CMM-2010-05 [South Pacific Albacore]

CMM-2010-07 [Sharks]

CMM 2011-04 [Sharks – oceanic whitetip shark]

CMM 2013-08 [Sharks – silky shark]

CMM 2014-02 [Vessel monitoring]

CMM 2014-05 [Sharks – measures for longline vessels]

CMM 2014-06 [Establishing a Harvest Strategy for Key Fisheries and Stocks in the WCPO]

CMM 2015-01 [Bigeye, yellowfin and skipjack tuna in the WCPO]

CMM 2015-02 [South Pacific Albacore]

CMM 2015-03 [Record of vessels]

CMM 2015-07 [Compliance and monitoring]

***NZ Legislation***

NZ Fisheries Act 1996

Treaty of Waitangi (Fisheries Claims) Deed of Settlement 1992

Maori Fisheries Act 2004

NZ (Commercial Fishing) Regulations 2001

NZ (Reporting Regulations) 2001

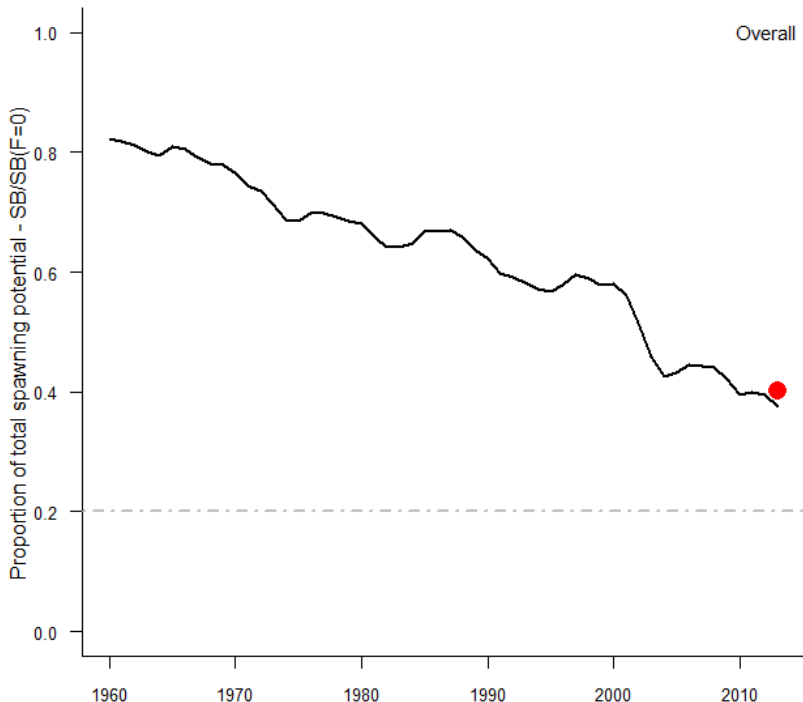
NZ Customary Fisheries Regulations 1998

## 8 Appendices

### Appendix 1 Scoring and Rationales

#### Appendix 1.1 Performance Indicator Scores and Rationale

Evaluation Table for PI 1.1.1 – Stock status

<b>PI 1.1.1</b>	<b>The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Stock status relative to recruitment impairment</b>		
<b>Guide post</b>	It is <b>likely</b> that the stock is above the point where recruitment would be impaired (PRI).	It is <b>highly likely</b> that the stock is above the PRI.	There is a <b>high degree of certainty</b> that the stock is above the PRI.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	<p>The most recent assessment determined that overfishing is not occurring and the stock is not in an overfished state. The latest estimates of spawning biomass (2013) are above both the level that will support the MSY (<math>S_{B_{latest}}/S_{B_{MSY}} = 2.86</math> for the base case and range 1.74–7.03 across the grid of model runs used in the assessment) and the adopted LRP of <math>0.2S_{B_{F=0}}</math> (<math>S_{B_{latest}}/S_{B_{F=0}} = 0.40</math> for the base case and range 0.30–0.60 across the grid) (see figure below from Harley et al., 2015a).</p>  <p>Ratio of exploited to unexploited spawning potential, <math>S_{B_{latest}}/S_{B_{F=0}}</math>, for the reference case (Harley et al., 2015a). The current WCPFC limit reference point of <math>20\%S_{B_{F=0}}</math> is provided for reference as the grey dashed line and the red circle represents the level of spawning potential depletion based on the agreed method of calculating <math>S_{B_{F=0}}</math> over the last ten years of the model (excluding the last year).</p>		

		Overall, the assessment indicates there is a high degree of certainty that the stock is above the point where recruitment would be impaired. The SG100 requirement is met.		
<b>b</b>	<b>Stock status in relation to achievement of MSY</b>			
	<b>Guide post</b>		The stock is at or fluctuating around a level consistent with MSY.	There is a <b>high degree of certainty</b> that the stock has been fluctuating around a level consistent with MSY or has been above this level over recent years.
	<b>Met?</b>		Y	Y
	<b>Justification</b>	<p>MULTIFAN-CL assessment provides probabilistic estimates of parameters of interest, and uncertainty has been extensively explored using a crosswise grid of sensitivity tests (Harley et al., 2015a).</p> <p>The latest estimates of spawning biomass (2013) are above the level that will support the MSY (<math>SB_{latest}/SB_{MSY} = 2.86</math> for the base case; 95% C.I. 1.74–7.03 across the grid of model runs used in the assessment). Fishing mortality has generally been increasing through time, with <math>F_{current}</math> (2009-12 average) estimated to be 0.39 times the fishing mortality that will support the MSY for the reference case. This indicates that a 2.5 times increase in fishing mortality is necessary to produce the MSY; this increase in effort would increase equilibrium catch by 20%, but likely reduce catch rates by almost 65% (Harley et al., 2015a).</p> <p>There are currently no agreed biomass-related target reference points for any species, but the WCPFC has examined economic-based target reference points for the South Pacific albacore tuna stock. Based on bio-economic modelling described in Pilling et al. (2015) the range of <math>SB_{F=0}</math> that would support break-even or 10% profit is <math>0.65-0.80SB_{F=0}</math>. This region has been shaded green on the Majuro plot (Figure 3). As reported above, the latest (2013) spawning biomass is estimated to be 40% of <math>SB_{F=0}</math> and therefore are lower than these potential TRPs.</p> <p>(N.B. <math>SB_{MSY}</math> is lower than the limit reference point (<math>0.14 SB_{F=0}</math>) due to the combination of the selectivity of the fisheries and maturity of the species.)</p> <p>The latest assessment indicates that the SG100 requirement is met.</p>		
<b>References</b>	Harley et al. (2015a); Pilling et al. (2015); WCPFC-SC (2015a)			
<b>Stock Status relative to Reference Points</b>				
	<b>Type of reference point</b>	<b>Value of reference point</b>	<b>Current stock status relative to reference point</b>	
<b>Reference point used in scoring stock relative to PRI (S1a)</b>	$SB_{F=0}$	$0.2SB_{F=0}$	$SB_{latest}/SB_{F=0} = 0.40$ for the reference case (95% C.I. 0.30–0.60 across the grid)	
<b>Reference point used in scoring stock relative to MSY (S1b)</b>	$SB_{MSY}$	$SB_{latest}/SB_{MSY}$	$SB_{latest}/SB_{MSY} = 2.86$ for the base case (95% C.I. 1.74–7.03 across the grid)	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>				

**Evaluation Table for PI 1.1.1A - key LTL [NOTE: only use this table for stocks identified as key LTL]**

<b>PI 1.1.1 A</b>		<b>The stock is at a level which has a low probability of serious ecosystem impacts</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	<b>Stock status relative to ecosystem impairment</b>			
	<b>Guide post</b>	It is <b>likely</b> that the stock is above the point where serious ecosystem impacts could occur.	It is <b>highly likely</b> that the stock is above the point where serious ecosystem impacts could occur.	There is a <b>high degree of certainty</b> that the stock is above the point where serious ecosystem impacts could occur.
	<b>Met?</b>	(Y/N)	(Y/N)	(Y/N)
	<b>Justification</b>	[Note: Insert as much text as required to justify the SG level achieved for this scoring issue]		
<b>b</b>	<b>Stock status in relation to ecosystem needs</b>			
	<b>Guide post</b>		The stock is at or fluctuating around a level consistent with ecosystem needs.	There is a <b>high degree of certainty</b> that the stock has been fluctuating around a level consistent with ecosystem needs or has been above this level over recent years.
	<b>Met?</b>		(Y/N)	(Y/N)
	<b>Justification</b>	[Note: Insert as much text as required to justify the SG level achieved for this scoring issue]		
<b>References</b>		[List any references here]		
<b>Stock Status relative to Reference Points</b>				
	<b>Type of reference point</b>	<b>Value of reference point</b>	<b>Current stock status relative to reference point</b>	
<b>Reference point used in scoring stock relative to ecosystem impairment (S1a)</b>	[e.g. B <sub>35%</sub> ]	[Include value specifying units. e.g. 50,000t total stock biomass]	[Include current stock status in the same units as the reference point e.g. 90,000/B <sub>35%</sub> =1.8]	
<b>Reference point used in scoring stock relative to ecosystem needs (S1b)</b>	[e.g. B <sub>75%</sub> ]	[Include value specifying units. e.g. 100,000t total stock biomass]	[Include current stock status in the same units as the reference point e.g. 90,000/B <sub>75%</sub> =0.9]	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>NA</b>
<b>CONDITION NUMBER (if relevant):</b>				

**Evaluation Table for PI 1.1.2 – Stock rebuilding**

<b>PI 1.1.2</b>		<b>Where the stock is reduced, there is evidence of stock rebuilding within a specified timeframe</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	<b>Rebuilding timeframes</b>			
	<b>Guide post</b>	A rebuilding timeframe is specified for the stock that is <b>the shorter of 20 years or 2 times its generation time</b> . For cases where 2 generations is less than 5 years, the rebuilding timeframe is up to 5 years.		The shortest practicable rebuilding timeframe is specified which does not exceed <b>one generation time</b> for the stock.
	<b>Met?</b>	(Y/N)		(Y/N)
	<b>Justification</b>	[Note: Insert as much text as required to justify the SG level achieved for this scoring issue]		
<b>b</b>	<b>Rebuilding evaluation</b>			
	<b>Guide post</b>	Monitoring is in place to determine whether the rebuilding strategies are effective in rebuilding the stock within the specified timeframe.	There is evidence that the rebuilding strategies are rebuilding stocks, <b>or it is likely</b> based on simulation modelling, exploitation rates or previous performance that they will be able to rebuild the stock within the specified timeframe.	There is <b>strong</b> evidence that the rebuilding strategies are rebuilding stocks, <b>or it is highly likely</b> based on simulation modelling, exploitation rates or previous performance that they will be able to rebuild the stock within the specified timeframe.
	<b>Met?</b>	(Y/N)	(Y/N)	(Y/N)
	<b>Justification</b>	[Note: Insert as much text as required to justify the SG level achieved for this scoring issue]		
<b>References</b>		[List any references here]		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>NA</b>
<b>CONDITION NUMBER (if relevant):</b>				



**Evaluation Table for PI 1.2.1 – Harvest strategy**

PI 1.2.1		There is a robust and precautionary harvest strategy in place		
Scoring Issue		SG 60	SG 80	SG 100
<b>a</b>	<b>Harvest strategy design</b>			
	<b>Guide post</b>	The harvest strategy is <b>expected</b> to achieve stock management objectives reflected in PI 1.1.1 SG80.	The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy <b>work together</b> towards achieving stock management objectives reflected in PI 1.1.1 SG80.	The harvest strategy is responsive to the state of the stock and is <b>designed</b> to achieve stock management objectives reflected in PI 1.1.1 SG80.
	<b>Met?</b>	Y	N	Not scored
	<b>Justification</b>	<p>MSC defines a harvest strategy as ‘the combination of monitoring, stock assessment, harvest control rules and management actions, which may include an MP or an MP (implicit) and be tested by MSE’ (MSC CR v2.0). The current harvest strategy is not formalised but consists of the elements considered at PIs 1.2.2, 1.2.3, and 1.2.4. This PI is intended to consider how they work together to achieve objectives reflected in PI 1.1.1.</p> <p>Regional management of the albacore stock throughout the South Pacific is the responsibility of the WCPFC. Under this regional convention New Zealand is responsible for ensuring that the management measures applied within fisheries waters of New Zealand are compatible with those of the Commission. New Zealand’s focus in its harvest strategy for the albacore troll fishery is effective implementation of WCPFC measures. New Zealand outlines its national approaches through annual operational plans (MPI 2015b). The harvest strategy for WCPO albacore has several components, with WCPFC, national and archipelagic management actions, supported by a robust stock assessment and extensive monitoring frameworks.</p> <p>The elements of the WCPFC harvest strategy are as follows:</p> <ul style="list-style-type: none"> <li>● data collection on the stock and fishery (considered at PI 1.2.3 below);</li> <li>● stock assessment process (considered at PI 1.2.4 below);</li> <li>● limit reference point (explicit) and target reference point (implicit) (considered variously at PIs 1.1.1, 1.2.2 and 1.2.4);</li> <li>● harvest control rules (considered at PI 1.2.2 below);</li> <li>● monitoring of implementation of CMM-2015-02 (replacing CMM 2010-05) via data gathering and reports to the Commission.</li> </ul> <p>This management strategy is reviewed annually during the Commission meeting. The management advice produced from recent assessments continues to be that the South Pacific albacore stock is not overfished and overfishing is not taking place. Countries undertake to control catches mainly through effort limits and limits on capacity (i.e. number of vessels targeting albacore), though there are no limits in place for the New Zealand troll fishery.</p> <p>Fishing effort on albacore has increased considerably since CMM 2010-05 was implemented, particularly above 20°S, where CMM 2010-05 does not apply (CMM 2010-05 has now been replaced by CMM 2015-02). Even with the current stock status well above likely target levels, there are already concerns about declining catch rates and the economic viability of some albacore fisheries. Members of FFA, including New Zealand, have made attempts to strengthen CMM 2010-05 at recent WCPFC Commission meetings, however the adoption of CMM 2015-02 did not change the key components of CMM 2010-05. Catches of South Pacific albacore do, however, appear to have stabilised since 2010, albeit at a relatively high level compared to historic catches (Table 2).</p>		

		<p>A number of South Pacific nations have been developing an agreement (the Tokelau Arrangement) to implement individual nation zone limitations on catch of South Pacific albacore tuna developed at meetings of the FFA Sub-committee on South Pacific Tuna and Billfish.</p> <p>WCPFC have made progress in the development of its harvest strategy with the adoption of CMM 2014-06 to develop and implement a harvest strategy approach for key fisheries and stocks in the WCPO. The CMM identifies the elements that harvest strategies are to contain (including defined operational objectives, target and limit reference points for each stock, acceptable levels of risk of not breaching limit reference points, a monitoring strategy, decision rules that aim to achieve the target reference point and avoid the limit reference point, and management strategy evaluation).</p> <p>CMM 2014-06 includes a requirement that the Commission agree a work plan and indicative timeframes to adopt or refine harvest strategies for skipjack, bigeye, yellowfin, South Pacific albacore, Pacific Bluefin and northern albacore tuna by no later than the twelfth meeting of the Commission in 2015. Following discussions at WCPFC12 a work plan under CMM 2014-06 was agreed (WCPFC 2015a, Attachment Y). The Commission tasked the SC with support from the Scientific Service Provider to undertake the activities specified in the agreed work plan (included in this report at Appendix 6).</p> <p>The current state of the stock and developments in improving the harvest strategy indicate that the strategy is expected to achieve PI 1.1.1 stock management objectives, meeting SG60 requirements.</p> <p>Whilst progress has been made in developing a harvest strategy, concerns over the effectiveness of current measures in restricting effort and lack of progress on some aspects of the harvest strategy lead the team to conclude that there is insufficient evidence that the elements of the harvest strategy are working together towards achieving stock management objectives. SG80 is not met.</p> <p>Note: this score is in agreement with the outcomes agreed at the MSC harmonisation meeting (Hong Kong 21-22 April 2016).</p>		
<b>b</b>	<b>Harvest strategy evaluation</b>			
	<b>Guide post</b>	The harvest strategy is <b>likely</b> to work based on prior experience or plausible argument.	The harvest strategy may not have been fully <b>tested</b> but evidence exists that it is achieving its objectives.	The performance of the harvest strategy has been <b>fully evaluated</b> and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels.
	<b>Met?</b>	Y	Y	Not scored
	<b>Justification</b>	The stock assessment provides an independent assessment of the effectiveness of management. Fishing mortality rate remains well below $F_{MSY}$ and the stock is well above the LRP of $0.2SB_{F=0}$ . The SG80 requirements are met. The harvest strategy is not fully evaluated, hence SG100 is not met.		
<b>c</b>	<b>Harvest strategy monitoring</b>			
	<b>Guide post</b>	Monitoring is in place that is expected to determine whether the harvest strategy is working.		
	<b>Met?</b>	Y		
	<b>Justification</b>	Systems are in place for recording catch and effort for all fishing entities fishing on South Pacific albacore. WCPFC Members are required to annually report		

		<p>information about their fishery (WCPFC Part 1 reports) and compliance requirements (WCPFC Part 2 reports). Monitoring is in place that is expected to determine whether the harvest strategy is working. SG60 requirements are met.</p>		
<b>d</b>	<b>Harvest strategy review</b>			
	<b>Guide post</b>			The harvest strategy is periodically reviewed and improved as necessary.
	<b>Met?</b>			Not scored
	<b>Justification</b>	<p>Not scored because SG80 not met for 1.2.1a. Current arrangements would not meet SG100: No harvest strategy for South Pacific albacore has been formalized and there is no formal review process. However, the harvest strategy is reviewed through WCPFC processes, including consideration of advice from annual meetings of the SC and consideration of management resolutions during annual Commission meetings. WCPFC CMM 2014-06 incorporates measures to progress development of the harvest strategy including adoption of reference points and harvest control rules. Whilst WCPFC processes provide a level of annual review, CMM 2014-06 itself does not include a requirement for periodical review.</p>		
<b>e</b>	<b>Shark finning</b>			
	<b>Guide post</b>	It is <b>likely</b> that shark finning is not taking place.	It is <b>highly likely</b> that shark finning is not taking place.	There is a <b>high degree of certainty</b> that shark finning is not taking place.
	<b>Met?</b>	Not relevant	Not relevant	Not relevant
	<b>Justification</b>	Sharks are not a target species.		
<b>f</b>	<b>Review of alternative measures</b>			
	<b>Guide post</b>	There has been a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock.	There is a <b>regular</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock and they are implemented as appropriate.	There is a <b>biennial</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock, and they are implemented, as appropriate.
	<b>Met?</b>	Not relevant	Not relevant	Not relevant
	<b>Justification</b>	<p>Limited observer coverage in the 1980s did not indicate discarding of albacore in the albacore troll fishery (MPI 2015a). Although this information is dated, the selective nature of troll fishing and the lack of a quota for albacore suggests there is a low likelihood of discarding.</p>		
<b>References</b>	MPI (2015a); MPI (2015b); WCPFC (2015a); WCPFC CMM 2010-05; WCPFC CMM 2014-06; WCPFC CMM 2015-02			
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>70</b>
<b>CONDITION NUMBER:</b>				<b>1</b>

<b>SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for albacore tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.</b>	
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**Evaluation Table for PI 1.2.2 – Harvest control rules and tools**

PI 1.2.2		There are well defined and effective harvest control rules (HCRs) in place		
Scoring Issue		SG 60	SG 80	SG 100
a	<b>HCRs design and application</b>			
	<b>Guide post</b>	<b>Generally understood</b> HCRs are in place or <b>available</b> that are <b>expected</b> to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached.	<b>Well defined HCRs are in place</b> that <b>ensure</b> that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock <b>fluctuating around</b> a target level consistent with (or above) MSY, or for key LTL species a level consistent with ecosystem needs.	The HCRs are expected to keep the stock <b>fluctuating at or above</b> a target level consistent with MSY, or another more appropriate level taking into account the ecological role of the stock, <b>most</b> of the time.
	<b>Met?</b>	Y	N	
<b>Justification</b>	<p>WCPFC CMM 2014-06 established a process for the adoption of harvest control rules, however, well-defined harvest control rules are not currently in place and SG80 is not met.</p> <p>Following the MSC Notice, “Scoring of ‘available’ Harvest Control Rules (HCRs) in CRv1.3 fisheries” of 24th November 2014, PI 1.2.2 SI(a) has been scored using CR v2.0 provisions for SG60 (as above) scoring for a number of fisheries, including several tuna fisheries. MSC have also provided further comment on HCRs with their notice of 16 December, 2015 “Interpretation on Harvest Control Rules (HCR)”. MSC CR v2.0 lays out two conditions for acceptance of HCR being available sufficient to justify scoring at the SG60 level.</p> <p>First, CR v2.0 SA2.5.2a provides for HCR being recognised as available, “...if stock biomass has not previously been reduced below <math>B_{MSY}</math> or has been maintained at that level for a recent period of time”.</p> <p>The MULTIFAN-CL software used for South Pacific albacore assessment provides probabilistic estimates of parameters of interest, and uncertainty has been extensively explored using a crosswise grid of sensitivity tests. Previous albacore assessment indicates that SB has not been reduced below <math>SB_{MSY}</math> (Hoyle et al. 2012). The latest estimates of spawning biomass (2013) are also above the level that will support the MSY (<math>SB_{latest}/SB_{MSY} = 2.86</math> for the base case; 95% C.I. 1.74–7.03 across the grid of model runs used in the assessment) (Harley et al., 2015a). Note that <math>SB_{MSY}</math> is lower than the limit reference point (<math>0.14 SB_{F=0}</math>) due to the combination of the selectivity of the fisheries and maturity of the species. Stock projections (to 2030) have also been undertaken in an examination of candidate biological and economic target reference points (Pilling et al., 2016). This work examines the consequences of a target reference point of MSY, which would require a substantial increase in effort over current levels and lead to lower catch rates and a stock size too close to the LRP given the level of uncertainty. However, continued fishing at recent levels is predicted to imply no biological risk to the stock (median <math>SB_{2030}/SB_{MSY} = 2.51</math> under status quo conditions) (Pilling et al., 2016).</p> <p>The CR v2.0 SA2.5.2a condition is therefore met.</p> <p>Second, CR v2.0 SA2.5.3b provides for HCR being recognised as available if, “...there is an agreement or framework in place that requires the management body to adopt HCRs before the stock declines below <math>B_{MSY}</math>”.</p> <p>WCPFC CMM 2014-06 sets out the principles and elements for harvest strategies to be developed and implemented, including requirements for target and limit reference points and decision rules or (“harvest control rules”), with a clear intention that harvest control rules, tested using simulation approaches, will be part of the implemented harvest strategies. The CMM also included a requirement to adopt a</p>			

		<p>work plan with an indicative timeframe no later than 2015 Commission meeting, with application to skipjack, bigeye, yellowfin, Pacific Bluefin, and South and North Pacific albacore tunas. In fact, work towards establishing reference points and harvest control rules is already well underway through the Management Objectives Workshop (MOW) process. Following discussions at WCPFC12 a work plan was agreed (WCPFC 2015a, Attachment Y). The Commission tasked the SC with support from the Scientific Service Provider to undertake the activities specified in the agreed work plan (included in this report at Appendix 6).</p> <p>As indicated above, the current stock assessment and projections of future stock size indicate that the stock will remain above <math>SSB_{MSY}</math> over the period agreed in the CMM 2014-06 work plan.</p> <p>The CR v2.0 SA2.5.3b requirement is therefore met.</p> <p>In summary, as conditions at both CR v2.0 SA2.5.2a and CR v2.0 SA2.5.3b are met, a score of SG60 is awarded.</p> <p>Note: this score is in agreement with the outcomes agreed at the MSC harmonisation meeting (Hong Kong 21-22 April 2016).</p>		
<b>b</b>	<b>HCRs robustness to uncertainty</b>			
	<b>Guide post</b>		The HCRs are likely to be robust to the main uncertainties.	The HCRs take account of a <b>wide</b> range of uncertainties including the ecological role of the stock, and there is <b>evidence</b> that the HCRs are robust to the main uncertainties.
	<b>Met?</b>		N	Not scored
	<b>Justification</b>	<p>The 'available' HCRs described at Sla do not allow an evaluation robustness to uncertainties.</p> <p>The SG80 requirements are not considered to be met.</p> <p>Note: this score is in agreement with the outcomes agreed at the MSC harmonisation meeting (Hong Kong 21-22 April 2016).</p>		
<b>c</b>	<b>HCRs evaluation</b>			
	<b>Guide post</b>	There is <b>some evidence</b> that tools used <b>or available</b> to implement HCRs are appropriate and effective in controlling exploitation.	<b>Available evidence indicates</b> that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.	<b>Evidence clearly shows</b> that the tools in use are effective in achieving the exploitation levels required under the HCRs.
	<b>Met?</b>	Y	N	Not scored
	<b>Justification</b>	<p>The rationale for this SI needs to address two MSC CR v2.0 requirements.</p> <p>First, CR v2.0 SA2.5.6 requires that as part of the evaluation of the effectiveness of HCRs, "...teams shall include consideration of the current levels of exploitation in the UoA, such as measured by the fishing mortality rate or harvest rate, where available". MSC CR v2.0 SA2.5.6 guidance (GSA2.5.2-7) states that "Evidence that current F is equal to or less than <math>F_{MSY}</math> should usually be taken as evidence that the HCR is effective".</p> <p>Evidence to support this is provided by the 2015 assessment which states that fishing mortality has generally been increasing through time, with <math>F_{current}</math> (2009-12 average) estimated to be 0.39 times the fishing mortality that will support MSY. Across the grid of model runs <math>F_{current}/F_{MSY}</math> ranged from 0.13-0.62, indicating that overfishing is not occurring (WCPFC-SC 2015a).</p> <p>Second, in relation to Sla, above, MSC CR v2.0 SA2.5.5b, requires that where HCRs are recognised as 'available "A description of the formal agreement or legal framework that the management body has defined, and the indicators and trigger levels that will require the development of HCRs" shall be provided.</p>		

		<p>As noted at Sla, CMM 2014-06 sets out elements of harvest strategies to be developed and implemented. The WCPFC agreed to adopt a work plan at the 2015 Commission meeting, with potential revision in 2017, with application to skipjack, bigeye, yellowfin, Pacific Bluefin, and South and North Pacific albacore tunas. Work to establish reference points and harvest control rules has been in progress over recent years through the Management Objectives Workshop (MOW) process. Following discussions at WCPFC12 a work plan was agreed (WCPFC 2015a, Attachment Y). No additional trigger is required for the development of HCRs is required.</p> <p>The requirements detailed above are met and a score of 60 is awarded. SG80 refers to the tools 'in use' in the fishery. Given Sla finds HCRs are 'available', the tools are not considered to be in use and SG80 is not met.</p> <p>Note: this score is in agreement with the outcomes agreed at the MSC harmonisation meeting (Hong Kong 21-22 April 2016).</p>
<b>References</b>	Hoyle et al. (2012); Harley et al. (2015a); WCPFC CMM 2014-04; Pilling et al. (2016); WCPFC (2015a)	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>60</b>
<p><b>CONDITION NUMBER:</b></p> <p><b>SI a) By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.</b></p> <p><b>SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties.</b></p> <p><b>SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.</b></p>		<b>2</b>

**Evaluation Table for PI 1.2.3 – Information and monitoring**

PI 1.2.3		Relevant information is collected to support the harvest strategy		
Scoring Issue		SG 60	SG 80	SG 100
a	<b>Range of information</b>			
	<b>Guide post</b>	<p><b>Some</b> relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy.</p>	<p><b>Sufficient</b> relevant information related to stock structure, stock productivity, fleet composition and other data is available to support the harvest strategy.</p>	<p>A <b>comprehensive range</b> of information (on stock structure, stock productivity, fleet composition, stock abundance, UoA removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available.</p>
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>Extensive data collection supports the harvest strategy and inform the stock assessment. Data used in the assessment consist of fishery-specific catch, effort and length-frequency data, tag release-recapture data, and conditional age-length observations.</p> <p>Available data suggest distinct North and South Pacific Ocean albacore tuna stocks, separated by the Equator. The distinction is supported by a range of fishery, tagging, genetic, and ecological data (Medley et al., 2011).</p> <p>Life-history parameters for South Pacific albacore are based on analyses of biological samples, collected over time from research and observer programmes. There has been considerable recent work on age and growth (Farley et al., 2013a, 2013b), which demonstrated that females most likely grow slower than males after the age of maturity, rather than having higher natural mortality as previously supposed. This has informed the recent stock assessments.</p> <p>All CCMs are required to provide catch and effort data to WCPFC, either in the form of logsheet data (from most coastal states) or aggregated by month/5° squares (from most distant water fishing states). Logsheets data is raised to best estimates of total catch by SPC Oceanic Fisheries Programme (OFP) to account for missing data. Data go back to 1960, although as expected, historical data are sparser and generally less reliable than more recent data.</p> <p>Abundance indices are primarily obtained from catch and effort data, particularly from the many longline fleets operating across the region, giving relatively long time series of information. An updated analysis of CPUE data was undertaken for the 2015 stock assessment (Tremblay-Boyer et al., 2015). The dataset used was a considerable improvement over those previously available e.g., the number of sets is about twice what was available for previous standardizations of CPUE for this species. However, there were still important components missing which may have hindered the estimation of robust indices of abundance (Tremblay-Boyer et al., 2015). Most notably, a lack of access to non-SPC-held Japanese operational data, which make up most of the effort in many of the stock assessments regions early in the time-series.</p> <p>Length-frequency data comes from various port sampling programmes (including New Zealand's) and some observer reports, and goes back to 1962. These data are weighted in the stock assessment according to spatial representation, to account for differences in length-frequency by geographic region.</p> <p>Length composition data from these fleets provides information.</p>		



		<p>Each CCM provides information to WCPFC annually on their active fleet, in their Part 1 annual reports. CMM 2015-02 includes a requirement for CCMs to inform the Commission annually of the number of vessels actively targeting albacore.</p> <p>WCPFC has a range of vessel monitoring systems in place (e.g., CMM 2014-02 (vessel monitoring), CMM 2014-03 (record of vessels), CMM 2015-07 (compliance and monitoring)).</p> <p>Limited tagging data are available for incorporation into the assessment. Data consists of tag releases and returns from a South Pacific Albacore Research Group tagging programme in the mid-1980s and SPC albacore tagging programmes conducted during the austral summers of 1990-1992 and 2009-2010 (Harley et al., 2015a). The more recent tagging data was conducted in New Zealand waters.</p> <p>The SPC OFP has undertaken environmental research as part of their ecosystem monitoring programme, focusing particularly on potential environmental drivers of tuna population dynamics.</p> <p>Observer coverage (providing external verification of logbook data and information about discards) is low, particularly for the longline fishery and particularly on the high seas. Observer coverage for the New Zealand troll fishery is also low.</p> <p>Overall, given the size and complexity of the fishery, there is an extensive range of data to support the harvest strategy, sufficient to meet SG80. However, these data are not comprehensive. Also, the assessment identifies some conflict between some of the data sources available for this assessment including conflicts between the length-frequency data and the CPUE series and between the troll length frequency samples and the age-length data (Harley et al. 2015a); SG100 is not met.</p>		
<b>b</b>	<b>Monitoring</b>			
	<b>Guide post</b>	Stock abundance and UoA removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule.	Stock abundance and UoA removals are <b>regularly monitored at a level of accuracy and coverage consistent with the harvest control rule</b> , and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.	<b>All information</b> required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of inherent <b>uncertainties</b> in the information [data] and the robustness of assessment and management to this uncertainty.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>This scoring issue relates to fishery removals specifically by those vessels covered under the UoA (approximately 3.5% of the overall removals over the last 5 years). The harvest control PI, above, achieved an overall score of 60. Nevertheless, it is appropriate to assess the available information at this scoring issue to support the current harvest strategy and available tools.</p> <p>New Zealand catch, fishing effort, fishing operation data, and vessel information are collected on logsheets provided by each permit holder to the Ministry for Primary Industries on Catch Effort Landing Returns (CELR). CELR forms are completed for each day of fishing for all gear types (e.g. handline, troll, purse seine and some longline) and Tuna Longline Catch Effort Returns (TLCER) forms are filled out for surface longlining for tunas, these data are recorded for each longline set. The forms are submitted monthly by the 15th of following month. Tuna landings data are compiled from either the Licensed Fish Receiver Returns (LFRR) filed monthly by each Licensed Fish Receiver and Monthly Harvest Returns (MHR) filed by the fishing permit holder.</p>		

		<p>Overall information available is summarized at Sla. New Zealand provides high quality data through its annual Part 1 submissions (MPI 2015a) as well as submission of catch, effort, landings, length frequency, length-weight and other data required to support the stock assessment. MPI (2015a) also comments on the availability of information on discards, recreational catch and customary fishing. These are considered overall to be negligible. Observer coverage of the UoA is very low.</p> <p>These data for the UoA are regularly monitored at a level consistent with existing tools. SG80 requirements are met.</p>	
<b>c</b>	<b>Comprehensiveness of information</b>		
	<b>Guide post</b>		There is good information on all other fishery removals from the stock.
	<b>Met?</b>		Y
	<b>Justification</b>	<p>The reference to 'other' fishery removals in this scoring issue relates to vessels outside or not covered by the unit of assessment. These other removals comprise the majority of the catch of South pacific albacore.</p> <p>The data described at Sla adequately describes the information relevant to this scoring issue. Catches are reported at an appropriate level of accuracy for the stock assessment. Data have been identified as missing, but these are generally related to operational data (fishing gear, target species and fishing activity) rather than catch. Discards, incidental mortality and recreational catch are not generally reported. New Zealand reports no evidence of discards in the troll fishery and low rates (average of 2.9%) in their longline fishery (MPI 2015a). As long as these sources of mortality remain constant and/or negligible, this lack of recording should not present a problem to the stock assessment. SG80 is met.</p>	
<b>References</b>	Harley et al. (2015a); Tremblay-Boyer et al. (2015); Medley et al. (2011); MPI (2015a); Farley et al. (2013a); Farley et al. (2013b)		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>			<b>80</b>
<b>CONDITION NUMBER (if relevant):</b>			

**Evaluation Table for PI 1.2.4 – Assessment of stock status**

PI 1.2.4		There is an adequate assessment of the stock status		
Scoring Issue		SG 60	SG 80	SG 100
<b>a</b>	<b>Appropriateness of assessment to stock under consideration</b>			
	<b>Guide post</b>		The assessment is appropriate for the stock and for the harvest control rule.	The assessment takes into account the major features relevant to the biology of the species and the nature of the UoA.
	<b>Met?</b>		Y	Y
	<b>Justification</b>	<p>The model used for the assessment is based on the MULTIFAN-CL (MFCL) software. Parameters of the model are estimated by maximizing an objective function consisting of likelihood (data) and “prior” information. MFCL was specifically developed to take advantage of the tuna fishery data available from the region. It is a complex and sophisticated model, and takes into account the biology of the species (e.g. by incorporating the results of research into age and growth by sex and region, maturity and fecundity at size and age etc.). The model is able to estimate a variety of reference points which are or might be used as limit and target reference points for management.</p> <p>The model is reviewed and revised regularly. Substantial changes were made in the 2015 assessment including: improvements to the MULTIFAN-CL modelling framework, a regionally disaggregated framework, access to operational data for construction of CPUE indices and regional weights, age-length data to improve growth estimation, and additional tagging data (WCPFC-SC 2015a). Further, the regional structure of the model was changed to cover the southern WCPFC convention area and reference points evaluated are for this area. This brings about better alignment with the other WCPFC tuna assessments. CPUE data is an important component of the assessment. An updated analysis of CPUE data was undertaken for the 2015 stock assessment (Tremblay-Boyer et al., 2015). The dataset used is seen to be a considerable improvement over those previously available.</p> <p>The catch from the UoA is predominantly juveniles and these data are an important input to the assessment.</p> <p>Overall, the assessment takes into account the major features relevant to the biology of the species. SG80 and SG100 requirements are met.</p>		
<b>b</b>	<b>Assessment approach</b>			
	<b>Guide post</b>	The assessment estimates stock status relative to generic reference points appropriate to the species category.	The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated.	
	<b>Met?</b>	Y	Y	
<b>Justification</b>	A limit reference point has been adopted and target reference point are under development. The assessment model produced estimates for a range of existing and potential reference points for the stock. SG60 and SG80 requirements are met.			
<b>c</b>	<b>Uncertainty in the assessment</b>			
	<b>Guide post</b>	The assessment identifies major sources of uncertainty.	The assessment takes uncertainty into account.	The assessment takes into account uncertainty and is evaluating stock status relative to

				reference points in a <b>probabilistic</b> way.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	<p>Substantial work is undertaken to address uncertainties in input data for the assessment. There is an ongoing process through the SPC OFP to address gaps in catch and effort data. As indicated above, the CPUE data was improved and re-analysed in 2015 (Tremblay-Boyer et al., 2015). There has been considerable recent work on age and growth (Farley et al., 2013a, 2013b). The assessment includes a detailed exploration of uncertainties in the model assumptions, via sensitivity analyses for various different model options (growth curves, natural mortality, steepness, effort creep and different treatment of the CPUE data set). The modelling approach enables evaluation of current and future stock status relative to uncertainties in a probabilistic way.</p> <p>The requirements of the SG60, SG80 and SG100 levels of this scoring issue are met.</p>		
<b>d</b>	<b>Evaluation of assessment</b>			
	<b>Guide post</b>			The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored.
	<b>Met?</b>			Y
	<b>Justification</b>	<p>SPC-OFP provides ongoing review of assessment assumptions and approaches for key tuna species including South Pacific albacore. Alternative hypotheses are continually being explored (within funding and time constraints) and assessments are updated and modified as required.</p> <p>As described at SIa, the 2015 assessment has been updated to reflect the availability of new data and new interpretations of existing data; and presents sensitivity analyses exploring the impact of options such as changing assumptions for fixed parameters or different treatments of the data. The three most significant changes were: (1) the use of a spatially explicit model covering the southern region of the WCPFC Convention area; (2) the inclusion of direct age-length observations and tagging data from the 2009-10 releases; and (3) changing natural mortality from 0.4 to 0.3 per annum for consistency with albacore stock assessments conducted elsewhere (Harley et al., 2015a).</p> <p>While the assessment will continue to be developed and improved, the exploration of alternative hypotheses and assumptions has been rigorous. SG100 is met.</p>		
<b>e</b>	<b>Peer review of assessment</b>			
	<b>Guide post</b>		The assessment of stock status is subject to peer review.	The assessment has been <b>internally and externally</b> peer reviewed.
	<b>Met?</b>		Y	N
	<b>Justification</b>	<p>The stock assessment is internally peer reviewed within the WCPFC system (by the Scientific Committee). A process of formal external peer review has been started and applied to some WCPFC stock assessments (e.g. bigeye, Ianelli et al., 2012) but not to albacore to date. However, recommendations from the bigeye external review have been followed and incorporated into the 2015 albacore assessment (Harley et al., 2015a). SG80 requirements are met but SG100 is not fully met.</p>		

<b>References</b>	Harley et al. (2015a); Tremblay-Boyer (2015); Farley et al. (2013a); Farley et al. (2013b); Ianelli et al. (2012); WCPFC-SC (2015a)
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>	<b>95</b>
<b>CONDITION NUMBER (if relevant):</b>	

**Evaluation Table for PI 2.1.1 – Primary species outcome**

<b>PI 2.1.1</b>		<b>The UoA aims to maintain primary species above the PRI and does not hinder recovery of primary species if they are below the PRI.</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	<b>Main primary species stock status</b>			
	<b>Guide post</b>	Main primary species are <b>likely</b> to be above the PRI  OR  If the species is below the PRI, the UoA has measures in place that are <b>expected</b> to ensure that the UoA does not hinder recovery and rebuilding.	Main primary species are <b>highly likely</b> to be above the PRI  OR  If the species is below the PRI, there is either <b>evidence of recovery</b> or a demonstrably effective strategy in place <b>between all MSC UoAs which categorise this species as main</b> , to ensure that they collectively do not hinder recovery and rebuilding.	There is a <b>high degree of certainty</b> that main primary species are above the PRI <b>and are</b> fluctuating around a level consistent with MSY.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	There are no main primary species. SG60, SG80 and SG100 requirements are met by default.		
	<b>Minor primary species stock status</b>			
<b>Guide post</b>			Minor primary species are highly likely to be above the PRI  OR  If below the PRI, there is evidence that the UoA does not hinder the recovery and rebuilding of minor primary species	
<b>Met?</b>			Y	
<b>Justification</b>	Catches other than albacore tuna are very low (<1% of the total). There are a number of species reported as caught in very small quantities. Only Barracouta, Ray's bream, kahawai, bigeye tuna, skipjack tuna and southern Bluefin tuna had catches exceeding 1 t in total over the 5-year period 2010-11 to 2014-15. Of these, bigeye tuna and southern Bluefin tuna have current stock levels below the PRI. Measures have been adopted through WCPFC and CCSBT intended to bring about recovery. The very low levels of catch by the troll fishery are unlikely to hinder recovery and rebuilding. SG100 requirements are met.			
<b>References</b>	Harley et al. (2015b); MPI (2016a); MPI (2016b)			
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>100</b>

<b>CONDITION NUMBER (if relevant):</b>	
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**Evaluation Table for PI 2.1.2 – Primary species management strategy**

<b>PI 2.1.2</b>	<b>There is a strategy in place that is designed to maintain or to not hinder rebuilding of primary species, and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch.</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Management strategy in place</b>		
<b>Guide post</b>	There are <b>measures</b> in place for the UoA, if necessary, that are expected to maintain or to not hinder rebuilding of the main primary species at/to levels which are likely to above the point where recruitment would be impaired.	There is a <b>partial strategy</b> in place for the UoA, if necessary, that is expected to maintain or to not hinder rebuilding of the main primary species at/to levels which are highly likely to be above the point where recruitment would be impaired.	There is a <b>strategy</b> in place for the UoA for managing main and minor primary species.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	There are no main primary species. Of the six minor species discussed at 2.1.1, Barracouta, Ray's bream, kahawai, bigeye tuna and southern Bluefin tuna are managed under NZ's QMS. Skipjack tuna (as well as bigeye and southern Bluefin tuna) are managed under Regional Fisheries Management Organisation responsibilities. These arrangements constitute a strategy for these non-target species taken at very low catch levels. SG60, SG80 and SG100 requirements are met.		
<b>b</b>	<b>Management strategy evaluation</b>		
<b>Guide post</b>	The measures are considered <b>likely</b> to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).	There is some <b>objective basis for confidence</b> that the measures/partial strategy will work, based on some information directly about the fishery and/or species involved.	<b>Testing</b> supports <b>high confidence</b> that the partial strategy/strategy will work, based on information directly about the fishery and/or species involved.
<b>Met?</b>	Y	Y	N
<b>Justification</b>	Ongoing monitoring of catches and requirements of fisheries management for NZ, WCPFC and CCSBT indicate there is an objective basis for confidence that the strategy is working. A management procedure involving testing has been adopted for southern Bluefin tuna but not for other species. SG60 and SG80 are met.		
<b>c</b>	<b>Management strategy implementation</b>		
<b>Guide post</b>		There is <b>some evidence</b> that the measures/partial strategy is being <b>implemented successfully</b> .	There is clear evidence that the partial strategy/strategy is being implemented successfully and is achieving its overall objective as set out in scoring issue (a).
<b>Met?</b>		Y	Y
<b>Justification</b>	Catches other than albacore have been less than 1% of total catch of the troll fishery over several years. The majority of species taken are managed under the QMS scheme. The management arrangements in place and monitoring of the		



		fishery provide clear evidence that the strategy is being implemented successfully. SG80 and SG100 requirements are met.		
<b>d</b>	<b>Shark finning</b>			
	<b>Guide post</b>	It is <b>likely</b> that shark finning is not taking place.	It is <b>highly likely</b> that shark finning is not taking place.	There is a <b>high degree of certainty</b> that shark finning is not taking place.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>There are minor catches of several shark species taken and reported in logbook data. Management of shark species in New Zealand is driven by the National Plan of Action for Sharks (NPOA-Sharks) 2013, which includes an objective to eliminate shark finning in NZ fisheries. Since 1 October 2014, it is illegal for a commercial fisher to remove the fins from any shark and discard the body of the shark at sea in New Zealand. The ban does allow shark fins to be landed attached to the body of the shark for non-QMS species and two QMS species (spiny dogfish and blue shark).</p> <p>For blue sharks, fishers will be allowed to remove the fins during processing but the fins must be stored and landed attached to the body of the shark (e.g. by being tied or sewn on). This is to allow a small fishery for blue shark meat to continue. A requirement for these fishers to land blue sharks with fins naturally attached would likely lead to all blue sharks being discarded (which would increase rather than decrease wastage, the latter being a key goal of prohibiting shark finning).</p> <p>For seven QMS species (elephant fish, ghost shark, Mako shark, pale ghost shark, porbeagle shark, rig, and school shark) fishers are able to land shark fins separately to the body of the shark but only in accordance with a gazetted fin to greenweight ratio.</p> <p>Following the implementation of the ban on shark finning a review of the first year of fisher compliance with the finning regulations was undertaken. This review indicated overall compliance with the new regulations was high.</p> <p>There has been no observer coverage of the fishery in recent years. The fishery has other elements that add assurance that shark finning does not occur. MPI has confirmed compliance with shark finning regulations. There is port sampling, inspections of licensed fish receivers and detailed analysis of data collected through the comprehensive reporting requirements of the QMS. Penalty provisions relating to breaches of Schedule 6 of the Fisheries Act 1996 include a maximum fine of \$250,000.</p> <p>Measures in place suggest it is highly likely that shark finning is not taking place. SG60 and SG80 are met. However, given the large number of vessels involved in the fishery and the lack of observer coverage, SG100 is not met.</p> <p>The NPOA-Sharks 2013 is due to be reviewed beginning in 2017 which will provide an opportunity for a high-level review of the effectiveness and implementation of the shark finning prohibition and associated regulatory framework.</p>		
<b>e</b>	<b>Review of alternative measures</b>			
	<b>Guide post</b>	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main primary species.	There is a <b>regular</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main primary species and they are implemented as appropriate.	There is a <b>biennial</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of all primary species, and they are implemented, as appropriate.
	<b>Met?</b>	Not relevant	Not relevant	Not relevant

	<b>Justification</b>	There are very low levels of non-target catch and even lower levels of this catch would not be used. The majority of species taken as non-target catch is managed under the QMS system.
<b>References</b>	See Table 5; NPOA-Sharks (2013); MPI (2016c); WCPFC-SC (2015c)	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>90</b>
<b>CONDITION NUMBER (if relevant):</b>		

**Evaluation Table for PI 2.1.3 – Primary species information**

<b>PI 2.1.3</b>	<b>Information on the nature and extent of primary species is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage primary species</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Information adequacy for assessment of impact on main primary species</b>		
<b>Guide post</b>	Qualitative information is <b>adequate to estimate</b> the impact of the UoA on the main primary species with respect to status.  OR  <b>If RBF is used to score PI 2.1.1 for the UoA:</b>  Qualitative information is adequate to estimate productivity and susceptibility attributes for main primary species.	Some quantitative information is available and is <b>adequate to assess</b> the impact of the UoA on the main primary species with respect to status.  OR  <b>If RBF is used to score PI 2.1.1 for the UoA:</b>  Some quantitative information is adequate to assess productivity and susceptibility attributes for main primary species.	Quantitative information is available and is <b>adequate to assess with a high degree of certainty</b> the impact of the UoA on main primary species with respect to status.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	Quantitative information is available to indicate that there are no main primary species. SG60, SG80 and SG100 requirements are met by default.		
<b>b</b>	<b>Information adequacy for assessment of impact on minor primary species</b>		
<b>Guide post</b>			Some quantitative information is adequate to estimate the impact of the UoA on minor primary species with respect to status.
<b>Met?</b>			Y
<b>Justification</b>	Catches of minor species are very low. The majority of the minor species are QMS species. The requirements of the QMS mean that there is some quantitative information to estimate the impact of the UoA. SG100 requirements are met.		
<b>c</b>	<b>Information adequacy for management strategy</b>		
<b>Guide post</b>	Information is adequate to support <b>measures</b> to manage <b>main</b> primary species.	Information is adequate to support a <b>partial strategy</b> to manage <b>main</b> Primary species.	Information is adequate to support a <b>strategy</b> to manage <b>all</b> primary species, and evaluate with a <b>high degree of certainty</b> whether the strategy is achieving its objective.
<b>Met?</b>	Y	Y	N
<b>Justification</b>	There are no main primary species, hence SG60 and SG80 are met by default. As indicated above, the majority of the minor species are QMS species. The requirements of the QMS provide information to support management of most primary species, however the lack of observer data prevents evaluation that there		

		<p>is a high degree of certainty that objectives are achieved, preventing SG100 being met.</p> <p>The collection of additional observer data would improve the adequacy of information in meeting SG100 requirements.</p>
<b>References</b>	See Table 5; <a href="http://fs.fish.govt.nz/Page.aspx?pk=81">http://fs.fish.govt.nz/Page.aspx?pk=81</a>	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>90</b>
<b>CONDITION NUMBER (if relevant):</b>		

**Evaluation Table for PI 2.2.1 – Secondary species outcome**

<b>PI 2.2.1</b>		<b>The UoA aims to maintain secondary species above a biologically based limit and does not hinder recovery of secondary species if they are below a biological based limit.</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	<b>Main secondary species stock status</b>			
	<b>Guide post</b>	<p>Main Secondary species are <b>likely</b> to be within biologically based limits.</p> <p>OR</p> <p>If below biologically based limits, there are measures in place expected to ensure that the UoA does not hinder recovery and rebuilding.</p>	<p>Main secondary species are <b>highly likely</b> to be above biologically based limits</p> <p>OR</p> <p>If below biologically based limits, there is either <b>evidence of recovery</b> or a <b>demonstrably effective partial strategy</b> in place such that the UoA does not hinder recovery and rebuilding.</p> <p>AND</p> <p>Where catches of a main secondary species outside of biological limits are considerable, there is either evidence of recovery or a, demonstrably effective strategy in place between those MSC UoAs that also have considerable catches of the species, to ensure that they collectively do not hinder recovery and rebuilding.</p>	<p>There is a <b>high degree of certainty</b> that main secondary species are within biologically based limits.</p>
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	There are no main secondary species. SG60, SG80 and SG100 requirements are met by default.		
<b>b</b>	<b>Minor secondary species stock status</b>			
	<b>Guide post</b>			<p>Minor secondary species are highly likely to be above biologically based limits.</p> <p>OR</p> <p>If below biologically based limits', there is evidence that the UoA does not hinder the</p>

				recovery and rebuilding of secondary species
	<b>Met?</b>			Y
	<b>Justification</b>	There are no secondary species. SG100 requirements are met by default.		
<b>References</b>	See Table 5			
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>				

**Evaluation Table for PI 2.2.2 – Secondary species management strategy**

<b>PI 2.2.2</b>	<b>There is a strategy in place for managing secondary species that is designed to maintain or to not hinder rebuilding of secondary species and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch.</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Management strategy in place</b>		
<b>Guide post</b>	There are <b>measures</b> in place, if necessary, which are expected to maintain or not hinder rebuilding of main secondary species at/to levels which are highly likely to be within biologically based limits or to ensure that the UoA does not hinder their recovery.	There is a <b>partial strategy</b> in place, if necessary, for the UoA that is expected to maintain or not hinder rebuilding of main secondary species at/to levels which are highly likely to be within biologically based limits or to ensure that the UoA does not hinder their recovery.	There is a <b>strategy</b> in place for the UoA for managing main and minor secondary species.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	There are no secondary species. Arrangement in place are sufficient to detect increased catches that would be considered secondary species. SG60, SG80 and SG100 requirements are met by default.		
<b>b</b>	<b>Management strategy evaluation</b>		
<b>Guide post</b>	The measures are considered <b>likely</b> to work, based on plausible argument (e.g. general experience, theory or comparison with similar UoAs/species).	There is <b>some objective basis for confidence</b> that the measures/partial strategy will work, based on some information directly about the UoA and/or species involved.	<b>Testing</b> supports <b>high confidence</b> that the partial strategy/strategy will work, based on information directly about the UoA and/or species involved.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	Ongoing monitoring of catches and requirements of fisheries management for NZ, WCPFC and CCSBT indicate there is an objective basis for confidence that the strategy is working. SG60 and SG80 are met. This information also supports that there is no requirement for formal testing of the strategy and SG100 requirements are met.		
<b>c</b>	<b>Management strategy implementation</b>		
<b>Guide post</b>		There is <b>some evidence</b> that the measures/partial strategy is being <b>implemented successfully</b> .	There is clear evidence that the partial strategy/strategy is being implemented successfully and is achieving its objective as set out in scoring issue (a).
<b>Met?</b>		Y	Y
<b>Justification</b>	Catches other than albacore comprise less than 1% of total catch of the troll fishery over several years. The majority of species taken are managed under the QMS scheme. No secondary species are taken. The management arrangements in place		

		and monitoring of the fishery provide clear evidence that the strategy is being implemented successfully. SG80 and SG100 requirements are met.		
<b>d</b>	<b>Shark finning</b>			
	<b>Guide post</b>	It is <b>likely</b> that shark finning is not taking place.	It is <b>highly likely</b> that shark finning is not taking place.	There is a <b>high degree of certainty</b> that shark finning is not taking place.
	<b>Met?</b>	Not relevant	Not relevant	Not relevant
	<b>Justification</b>	There are no secondary species hence scoring of this SI is not required.		
<b>e</b>	<b>Review of alternative measures to minimise mortality of unwanted catch</b>			
	<b>Justification</b>	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of <b>unwanted</b> catch of main secondary species.	There is a <b>regular</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of <b>unwanted</b> catch of main secondary species and they are implemented as appropriate.	There is a <b>biennial</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of <b>unwanted</b> catch of all secondary species, and they are implemented, as appropriate.
	<b>Met?</b>	Not relevant	Not relevant	Not relevant
	<b>Guide post</b>	There are very low levels of non-target catch and even lower levels of this catch would not be used. The majority of species taken as non-target catch is managed under the QMS system.		
<b>References</b>	See Table 5			
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>				



**Evaluation Table for PI 2.2.3 – Secondary species information**

<b>PI 2.2.3</b>		<b>Information on the nature and amount of secondary species taken is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage secondary species.</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	<b>Information adequacy for assessment of impacts on main secondary species</b>			
	<b>Guide post</b>	Qualitative information is <b>adequate to estimate</b> the impact of the UoA on the main secondary species with respect to status.  OR  <b>If RBF is used to score PI 2.2.1 for the UoA:</b>  Qualitative information is adequate to estimate productivity and susceptibility attributes for main secondary species.	Some quantitative information is available and <b>adequate to assess</b> the impact of the UoA on main secondary species with respect to status.  OR  <b>If RBF is used to score PI 2.2.1 for the UoA:</b>  Some quantitative information is adequate to assess productivity and susceptibility attributes for main secondary species.	Quantitative information is available and <b>adequate to assess with a high degree of certainty</b> the impact of the UoA on main secondary species with respect to status.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	Quantitative information is available to indicate that there are no main secondary species. SG60, SG80 and SG100 requirements are met by default.		
<b>b</b>	<b>Information adequacy for assessment of impacts on minor secondary species</b>			
	<b>Guide post</b>			Some quantitative information is adequate to estimate the impact of the UoA on minor secondary species with respect to status.
	<b>Met?</b>			Y
	<b>Justification</b>	There are no secondary species. Ongoing information collection is adequate to assess potential catches of secondary species and the impacts of these catches. SG100 is met.		
<b>c</b>	<b>Information adequacy for management strategy</b>			
	<b>Guide post</b>	Information is adequate to support <b>measures</b> to manage <b>main</b> secondary species.	Information is adequate to support a <b>partial strategy</b> to manage <b>main</b> secondary species.	Information is adequate to support a <b>strategy</b> to manage <b>all</b> secondary species, and <b>evaluate</b> with a <b>high degree of certainty</b> whether the strategy is <b>achieving its objective</b> .
	<b>Met?</b>	Y	Y	Y

	<b>Justification</b>	There are no secondary species, hence SG60, SG80 and SG100 are met by default. The collection of additional observer data would improve the adequacy of information.
<b>References</b>	See Table 5	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>		

Evaluation Table for PI 2.3.1 – ETP species outcome

<b>PI 2.3.1</b>	<b>The UoA meets national and international requirements for the protection of ETP species</b>			
	<b>The UoA does not hinder recovery of ETP species</b>			
<b>Scoring Issue</b>	SG 60	SG 80	SG 100	
<b>a</b>	<b>Effects of the UoA on population/stock within national or international limits, where applicable</b>			
	<b>Guide post</b>	Where national and/or international requirements set limits for ETP species, the effects of the UoA on the population/stock are known and <b>likely</b> to be within these limits.	Where national and/or international requirements set limits for ETP species, the <b>combined effects of the MSC UoAs</b> on the population/stock are known and <b>highly likely</b> to be within these limits.	Where national and/or international requirements set limits for ETP species, there is a <b>high degree of certainty</b> that the <b>combined effects of the MSC UoAs</b> are within these limits.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	Available information indicates that no endangered species are taken by the fishery. SG60, SG80 and SG100 requirements are met. New Zealand is a party to the Agreement for the Conservation of Albatrosses and Petrels (ACAP) which covers 29 species of these seabirds, the majority of which occur in New Zealand waters (and are legally protected). This Agreement requires New Zealand to take measures to achieve and maintain a favourable conservation status for albatrosses and petrels. A qualitative risk assessment of potential interactions of seabirds with commercial fisheries suggested a moderate risk for black petrels (Rowe 2013). However, Rowe (2013) concluded that interactions were possible but uncommon. Concern over this species was not raised with the assessors by the Department of Conservation and the species has not been a priority for the Conservation Service Programme. There has been limited observer coverage of the fishery, however, a total of 99 observer days over the period 2010-2015 revealed very low interaction with protected species and no interaction with black petrels.		
<b>b</b>	<b>Direct effects</b>			
	<b>Guide post</b>	Known direct effects of the UoA are likely to not <b>hinder recovery</b> of ETP species.	Known direct effects of the UoA are <b>highly likely</b> to not <b>hinder recovery</b> of ETP species.	There is a high degree of confidence that there are no significant detrimental direct effects of the UoA on ETP species.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	Available information indicates that no endangered species are taken by the fishery. SG60, SG80 and SG100 requirements are met.		
<b>c</b>	<b>Indirect effects</b>			
	<b>Guide post</b>		Indirect effects have been considered and are thought to be <b>highly likely</b> to not create unacceptable impacts.	There is a high degree of confidence that there are no significant detrimental indirect effects of the fishery on ETP species.
	<b>Met?</b>		Y	Y
	<b>Justification</b>	Given the low level of catch by the UoA overall and the lack of interaction with ETP species there is a high degree of confidence that there are no significant detrimental indirect effects of the fishery on ETP species. SG80 and SG100 are met.		

<b>References</b>	MPI email 2 June 2016, Rowe (2013)	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>		

**Evaluation Table for PI 2.3.2 – ETP species management strategy**

<b>PI 2.3.2</b>	<b>The UoA has in place precautionary management strategies designed to:</b>		
	<ul style="list-style-type: none"> <li>● meet national and international requirements;</li> <li>● ensure the UoA does not hinder recovery of ETP species.</li> </ul>		
	<p><b>Also, the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of ETP species.</b></p>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Management strategy in place (national and international requirements)</b>		
<b>Guide post</b>	There are <b>measures</b> in place that minimise the UoA-related mortality of ETP species, and are expected to be <b>highly likely to achieve</b> national and international requirements for the protection of ETP species.	There is a <b>strategy</b> in place for managing the UoA's impact on ETP species, including measures to minimise mortality, which is designed to be <b>highly likely to achieve</b> national and international requirements for the protection of ETP species.	There is a <b>comprehensive strategy</b> in place for managing the UoA's impact on ETP species, including measures to minimise mortality, which is designed to <b>achieve above</b> national and international requirements for the protection of ETP species.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	<p>No ETP species are reported as caught by the UoA and available information indicates very low levels of interaction. Key legislation for ETP species includes the Fisheries Act (1996), Wildlife Act (1953), Marine Mammals Protection Act (1978), and specific regulations for birds (relating to bycatch mitigation approaches). There is a requirement to report injury or mortality of protected species to the DoC (without offence). National Plans of Action have been implemented for seabirds and sharks. Environmental risk assessments have been undertaken for seabirds and are ongoing for sharks. New Zealand is a party to ACAP which requires New Zealand to take measures to achieve and maintain a favourable conservation status for albatrosses and petrels. There are also requirements under WCPFC for seabirds and sharks.</p> <p>Given the lack of interaction with ETPs, SG60, 80 and 100 are met by default.</p>		
<b>b</b>	<b>Management strategy in place (alternative)</b>		
<b>Guide post</b>	There are <b>measures</b> in place that are expected to ensure the UoA does not hinder the recovery of ETP species.	There is a <b>strategy</b> in place that is expected to ensure the UoA does not hinder the recovery of ETP species.	There is a <b>comprehensive strategy</b> in place for managing ETP species, to ensure the UoA does not hinder the recovery of ETP species
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	No ETP species caught by the UoA. SG60, 80 and 100 are met by default.		
<b>c</b>	<b>Management strategy evaluation</b>		
<b>Guide post</b>	The measures are <b>considered likely</b> to work, based on <b>plausible argument</b> (e.g. general experience, theory or	There is an <b>objective basis for confidence</b> that the measures/strategy will work, based on <b>information</b> directly	The strategy/comprehensive strategy is mainly based on information directly about the fishery and/or species involved, and a <b>quantitative analysis</b>

		comparison with similar fisheries/species).	about the fishery and/or the species involved.	supports <b>high confidence</b> that the strategy will work.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	No ETP species are caught by the UoA. SG60, 80 and 100 are met by default.		
<b>d</b>	<b>Management strategy implementation</b>			
	<b>Guide post</b>		There is some <b>evidence</b> that the measures/strategy is being implemented successfully.	There is <b>clear evidence</b> that the strategy/comprehensive strategy is being implemented successfully and is achieving its objective as set out in scoring issue (a) or (b).
	<b>Met?</b>		Y	Y
	<b>Justification</b>	No ETP species caught by the UoA. SG60, 80 and 100 are met by default.		
<b>e</b>	<b>Review of alternative measures to minimize mortality of ETP species</b>			
	<b>Guide post</b>	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species.	There is a <b>regular</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate.	There is a <b>biennial</b> review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality ETP species, and they are implemented, as appropriate.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	No ETP species caught by the UoA. Nevertheless, a Conservation Service Programme ("CSP") has operated under the administration of the Department of Conservation (DoC) since 1996 with the aim of avoiding, remedying or mitigating the adverse effects of commercial fisheries on protected species (DoC 2015). Each year, the CSP Annual Plan outlines the conservation services to be delivered. These services are subject to cost recovery from the commercial fishing industry and the Plan forms the basis for levying the commercial fishing industry under the Fisheries Act 1996. The CSP Research Advisory Group was established in December 2013 to provide guidance for the development of the Annual Plan. SG60, 80 and 100 are met.		
	<b>References</b>	DoC (2015)		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>				

Evaluation Table for PI 2.3.3 – ETP species information

<b>PI 2.3.3</b>	<b>Relevant information is collected to support the management of UoA impacts on ETP species, including:</b>		
	<ul style="list-style-type: none"> <li>● <b>Information for the development of the management strategy;</b></li> <li>● <b>Information to assess the effectiveness of the management strategy;</b></li> <li>and</li> <li>● <b>Information to determine the outcome status of ETP species.</b></li> </ul>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Information adequacy for assessment of impacts</b>		
<b>Guide post</b>	<p>Qualitative information is <b>adequate to estimate</b> the UoA related mortality on ETP species.</p> <p>OR</p> <p>If RBF is used to score PI 2.3.1 for the UoA:</p> <p>Qualitative information is <b>adequate to estimate productivity and susceptibility</b> attributes for ETP species.</p>	<p>Some quantitative information is <b>adequate to assess</b> the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species.</p> <p>OR</p> <p>If RBF is used to score PI 2.3.1 for the UoA:</p> <p>Some quantitative information is adequate to assess productivity and susceptibility attributes for ETP species.</p>	<p>Quantitative information is available to assess with a high degree of certainty the <b>magnitude of UoA-related impacts, mortalities and injuries and the consequences for the status</b> of ETP species.</p>
<b>Met?</b>	Y	Y	N
<b>Justification</b>	The lack of interaction with ETPs is largely based on observer data, however there has been no observer coverage for several years and historical coverage was at a low level. There is a possibility that low-level interactions between the fishery and some ETP species may have gone unreported or undetected. SG60 and SG80 requirements are met.		
<b>b</b>	<b>Information adequacy for management strategy</b>		
<b>Guide post</b>	Information is adequate to support <b>measures</b> to manage the impacts on ETP species.	Information is adequate to measure trends and support a <b>strategy</b> to manage impacts on ETP species.	Information is adequate to support a <b>comprehensive strategy</b> to manage impacts, minimize mortality and injury of ETP species, and evaluate with a <b>high degree of certainty</b> whether a strategy is achieving its objectives.
<b>Met?</b>	Y	Y	N
<b>Justification</b>	Available data indicates interaction with ETP species is negligible and information is adequate to support current approaches. However, the lack of recent observer coverage does not comprise a comprehensive strategy as required at SG100. SG60 and SG80 are met.		
<b>References</b>	Rowe (2013); MPI (2016c)		

<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>	<b>80</b>
<b>CONDITION NUMBER (if relevant):</b> <b>Recommendation 1: Despite low levels of ETP interactions seen in historic data, there should be an ongoing level of observer coverage that will provide information on potential interactions.</b>	



**Evaluation Table for PI 2.4.1 – Habitats outcome**

<b>PI 2.4.1</b>	<b>The UoA does not cause serious or irreversible harm to habitat structure and function, considered on the basis of the area covered by the governance body(s) responsible for fisheries management in the area(s) where the UoA operates.</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Commonly encountered habitat status</b>		
<b>Guide post</b>	The UoA is <b>unlikely</b> to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.	The UoA is <b>highly unlikely</b> to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.	There is <b>evidence</b> that the UoA is highly unlikely to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	The troll fishery operates in surface waters in the open ocean, hence there is no risk that the fishery will contact the seabed. Any impact on pelagic habitat is expected to be both transient and negligible. As a result, the fishery is highly unlikely to reduce any habitat structure and function to a point where there would be serious or irreversible harm. SG60, SG80 and SG100 requirements are met.		
<b>b</b>	<b>VME habitat status</b>		
<b>Guide post</b>	The UoA is <b>unlikely</b> to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.	The UoA is <b>highly unlikely</b> to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.	There is <b>evidence</b> that the UoA is highly unlikely to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.
<b>Met?</b>	Not relevant	Not relevant	Not relevant
<b>Justification</b>	There are no VMEs impacted by the fishery.		
<b>c</b>	<b>Minor habitat status</b>		
<b>Guide post</b>			There is <b>evidence</b> that the UoA is highly unlikely to reduce structure and function of the minor habitats to a point where there would be serious or irreversible harm.
<b>Met?</b>			Y
<b>Justification</b>	As per Sla. WWF describe troll gear as minimally damaging fishing gear with no or negligible interaction with the seafloor (WWF 2015).		
<b>References</b>	WWF 2015		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>			<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>			

**Evaluation Table for PI 2.4.2 – Habitats management strategy**

<b>PI 2.4.2</b>	<b>There is a strategy in place that is designed to ensure the UoA does not pose a risk of serious or irreversible harm to the habitats.</b>			
<b>Scoring Issue</b>	SG 60	SG 80	SG 100	
<b>a</b>	<b>Management strategy in place</b>			
	<b>Guide post</b>	There are <b>measures</b> in place, if necessary, that are expected to achieve the Habitat Outcome 80 level of performance.	There is a <b>partial strategy</b> in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above.	There is a <b>strategy</b> in place for managing the impact of all MSC UoAs/non-MSC fisheries on habitats.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	The strategy in place for managing impacts on habitat is operational – the fishery operates entirely at the surface in deep, oceanic water. The fishery does not contact the seabed and any pelagic habitat impacts will be imperceptible and highly transient. This would be supported by the (limited) observer coverage. SG60 and SG80 levels of performance are met. Also, the features of troll fishing constitute an operational strategy for managing the impact of all MSC UoAs/non-MSC fisheries on habitats, meeting SG100.		
<b>b</b>	<b>Management strategy evaluation</b>			
	<b>Guide post</b>	The measures are <b>considered likely</b> to work, based on plausible argument (e.g. general experience, theory or comparison with similar UoAs/habitats).	There is some <b>objective basis for confidence</b> that the measures/partial strategy will work, based on <b>information directly about the UoA and/or habitats</b> involved.	<b>Testing</b> supports <b>high confidence</b> that the partial strategy/strategy will work, based on <b>information directly about the UoA and/or habitats</b> involved.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	The UoA troll fishery operates entirely at the surface in open ocean waters and the gear does not contact the seabed nor impact on any pelagic habitat. This provides a plausible argument and an objective basis for confidence that the de facto strategy will work to achieve the outcome SG60 and SG80 levels.  No specific testing of the strategy has been undertaken, but the nature of the fishery and the environments in which it operates makes such testing unnecessary. SG100 is met.		
<b>c</b>	<b>Management strategy implementation</b>			
	<b>Guide post</b>		There is <b>some quantitative evidence</b> that the measures/partial strategy is being implemented successfully.	There is <b>clear quantitative evidence</b> that the partial strategy/strategy is being implemented successfully and is achieving its objective, as outlined in scoring issue (a).
	<b>Met?</b>		Y	Y
	<b>Justification</b>	The UoA troll fishery operates entirely at the surface in open ocean waters. The nature of the gear, the habits of the target species and the areas in which the fishery operates provide clear evidence that the strategy is being implemented successfully. Habitat impacts from the UoA are not monitored because there are no expected impacts. New Zealand fisheries management includes a high level of consultation with other agencies, including for prioritization of research needs.		

		There are avenues for research being directed to the fishery to achieve the objectives of SIa if required. SG80 and SG100 requirements are met.		
<b>d</b>	<b>Compliance with management requirements and other MSC UoAs'/non-MSC fisheries' measures to protect VMEs</b>			
	<b>Guide post</b>	There is <b>qualitative evidence</b> that the UoA complies with its management requirements to protect VMEs.	There is <b>some quantitative evidence</b> that the UoA complies with both its management requirements and with protection measures afforded to VMEs by other MSC UoAs/non-MSC fisheries, where relevant.	There is <b>clear quantitative evidence</b> that the UoA complies with both its management requirements and with protection measures afforded to VMEs by other MSC UoAs/non-MSC fisheries, where relevant.
	<b>Met?</b>	Not relevant	Not relevant	Not relevant
	<b>Justification</b>	There are no VMEs impacted by the fishery.		
<b>References</b>				
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>				

**Evaluation Table for PI 2.4.3 – Habitats information**

<b>PI 2.4.3</b>		<b>Information is adequate to determine the risk posed to the habitat by the UoA and the effectiveness of the strategy to manage impacts on the habitat.</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	<b>Information quality</b>			
	<b>Guide post</b>	<p>The types and distribution of the main habitats are <b>broadly understood</b>.</p> <p>OR</p> <p><b>If CSA is used to score PI 2.4.1 for the UoA:</b></p> <p>Qualitative information is adequate to estimate the types and distribution of the main habitats.</p>	<p>The nature, distribution and <b>vulnerability</b> of the main habitats in the UoA area are known at a level of detail relevant to the scale and intensity of the UoA.</p> <p>OR</p> <p><b>If CSA is used to score PI 2.4.1 for the UoA:</b></p> <p>Some quantitative information is available and is adequate to estimate the types and distribution of the main habitats.</p>	<p>The distribution of all habitats is known over their range, with particular attention to the occurrence of vulnerable habitats.</p>
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	<p>Interaction by the fishery is with the epipelagic zone which is not considered to be vulnerable as evidence exists that it is highly unlikely that the habitat is altered by the UoA. Oceanography and primary productivity around New Zealand has been well studied through historical and current projects, and remote sensing studies. This has allowed the distribution of habitat to be adequately described, and key areas identified. SG60, SG80 and SG100 requirements are met.</p>		
<b>b</b>	<b>Information adequacy for assessment of impacts</b>			
	<b>Guide post</b>	<p>Information is adequate to broadly understand the nature of the main impacts of gear use on the main habitats, including spatial overlap of habitat with fishing gear.</p> <p>OR</p> <p><b>If CSA is used to score PI 2.4.1 for the UoA:</b></p> <p>Qualitative information is adequate to estimate the consequence and spatial attributes of the main habitats.</p>	<p>Information is adequate to allow for identification of the main impacts of the UoA on the main habitats, and there is reliable information on the spatial extent of interaction and on the timing and location of use of the fishing gear.</p> <p>OR</p> <p><b>If CSA is used to score PI 2.4.1 for the UoA:</b></p> <p>Some quantitative information is available and is adequate to estimate the consequence and spatial attributes of the main habitats.</p>	<p>The physical impacts of the gear on all habitats have been quantified fully.</p>

	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	The extent of any interaction with troll gear and the epipelagic zone is known to be negligible and effectively unmeasurable – the gear is non-impacting is deployed in a very small percentage of the vast expanse of epipelagic zone.		
<b>c</b>	<b>Monitoring</b>			
	<b>Guide post</b>		Adequate information continues to be collected to detect any increase in risk to the main habitats.	Changes in habitat distributions over time are measured.
	<b>Met?</b>		Y	Y
	<b>Justification</b>	Interaction with the troll gear and the epipelagic zone is known to be negligible. New Zealand marine studies are ongoing, and include information collected from research surveys, satellite imagery, fishery distribution and other techniques. This allows changes in oceanography to be identified.		
<b>References</b>	Gordon et al. 2015; WWF 2015			
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>100</b>
<b>CONDITION NUMBER (if relevant):</b>				

**Evaluation Table for PI 2.5.1 – Ecosystem outcome**

<b>PI 2.5.1</b>	<b>The UoA does not cause serious or irreversible harm to the key elements of ecosystem structure and function.</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Ecosystem status</b>		
<b>Guide post</b>	The UoA is <b>unlikely</b> to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.	The UoA is <b>highly unlikely</b> to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.	There is <b>evidence</b> that the UoA is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.
<b>Met?</b>	Y	Y	N
<b>Justification</b>	<p>The South Pacific albacore stock is currently not overfished or experiencing overfishing (Harley et al., 2015a). The diet of albacore is well understood across their life history stages, while their predators when in their juvenile stages are also reasonably well known. They are an apex predator and as such play an important role in maintaining the health of an ecosystem, exerting substantial control over the population sizes of many species at lower levels of the food web. Consequently, they may contribute to the stability of marine ecosystems, and maintain biodiversity. No major impacts have been identified in relation to primary species, secondary species, ETP species and habitat. Key ecosystem elements relative to the scale and intensity of the fishery are, therefore, highly likely to be restricted to removals of the target species. The catch of albacore by the NZ troll fishery is approximately 3.2% of the total annual albacore catch in the WCPO over recent years. Extensive research has been carried out on tunas including albacore as top predators in the Pacific ecosystem and trophic status studies (Cox et al, 2002a, b; Kitchell et al., 1999, Sibert et al., 2006). Albacore is not considered to be a common forage species and research which considers albacore tuna as a top predator, suggests that the fishery is highly unlikely to adversely affect the diet of other species. SG60 and SG80 requirements are met.</p> <p>There is, however, limited evidence supporting this conclusion, in terms of direct information about the ecosystem and the impact of tuna fishing. SG100 is thus not met.</p>		
<b>References</b>	Cox et al. 2002a, 2002b; Kitchell et al. 1999; Sibert et al. 2006		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>			<b>80</b>
<b>CONDITION NUMBER (if relevant):</b>			

**Evaluation Table for PI 2.5.2 – Ecosystem management strategy**

<b>PI 2.5.2</b>	<b>There are measures in place to ensure the UoA does not pose a risk of serious or irreversible harm to ecosystem structure and function.</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	<b>Management strategy in place</b>		
<b>Guide post</b>	There are <b>measures</b> in place, if necessary which take into account the <b>potential impacts</b> of the fishery on key elements of the ecosystem.	There is a <b>partial strategy</b> in place, if necessary, which takes into account <b>available information and is expected to restrain impacts</b> of the UoA on the ecosystem so as to achieve the Ecosystem Outcome 80 level of performance.	There is a <b>strategy</b> that consists of a <b>plan</b> , in place which contains measures to <b>address all main impacts of the UoA</b> on the ecosystem, and at least some of these measures are in place.
<b>Met?</b>	Y	Y	N
<b>Justification</b>	<p>There is evidence, given the use of troll gear, the negligible quantities of non-target species, the status of the albacore stock (Harley et al., 2015a) and small area of the epipelagic zone in which the fishery operates, that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.</p> <p>A partial strategy is unlikely to be necessary, however, the features of the fishery and how it operates within the ecosystem can be considered to constitute an operational/partial strategy. New Zealand’s operational plan for albacore (MPI 2010) outlines environmental objectives, including to “Implement an ecosystem approach to fisheries management, taking into account associated and dependent species”. SG60 and SG80 requirements are met.</p> <p>The strategy in place does not meet the SG100 requirement of ensuring that measures in place are based on well understood functional relationships between the UoA and the components and elements in the ecosystem.</p>		
<b>b</b>	<b>Management strategy evaluation</b>		
<b>Guide post</b>	The <b>measures</b> are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/ ecosystems).	There is <b>some objective basis for confidence</b> that the measures/partial strategy will work, based on some information directly about the UoA and/or the ecosystem involved	<b>Testing</b> supports <b>high confidence</b> that the partial strategy/strategy will work, based on information directly about the UoA and/or ecosystem involved
<b>Met?</b>	Y	Y	N
<b>Justification</b>	No ecosystem impacts of the fishing on the UoA have been identified and it is considered highly unlikely that the fishery poses a risk to key elements of the ecosystem. Plausible argument therefore suggests that the SG60 and SG80 requirements are being met through the current partial strategy. There has been no testing to support SG100 requirements.		
<b>c</b>	<b>Management strategy implementation</b>		
<b>Guide post</b>		There is <b>some evidence</b> that the measures/partial strategy is being	There is <b>clear evidence</b> that the partial strategy/strategy is being <b>implemented</b>

			<b>implemented successfully.</b>	<b>successfully and is achieving its objective as set out in scoring issue (a).</b>
	<b>Met?</b>		Y	Y
	<b>Justification</b>	Ongoing stock assessments have shown that the partial strategy represented by the albacore management approach is successful in maintaining population sizes, and hence ecosystem role; the UoA only represents a small percentage of South Pacific albacore removals. The UoA also takes negligible quantities of non-target species and has very low levels of interaction with ETPs. Clear evidence is available that the partial strategy is being implemented successfully and is achieving its objective as set out in Sla. SG100 is met.		
	<b>References</b>	MPI 2010; Sibert et al. 2006		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>85</b>
<b>CONDITION NUMBER (if relevant):</b>				



**Evaluation Table for PI 2.5.3 – Ecosystem information**

PI 2.5.3		There is adequate knowledge of the impacts of the UoA on the ecosystem.		
Scoring Issue		SG 60	SG 80	SG 100
<b>a</b>	<b>Information quality</b>			
	<b>Guide post</b>	Information is adequate to <b>identify</b> the key elements of the ecosystem.	Information is adequate to <b>broadly understand</b> the key elements of the ecosystem.	
	<b>Met?</b>	Y	Y	
	<b>Justification</b>	Albacore is an important commercial and recreational target fish species. A body of knowledge is available from studies on albacore as a top predator in the Pacific ecosystem and from trophic status studies (Cox et al, 2002a, b; Sibert et al, 2006). Available information is adequate to broadly understand the key elements of the ecosystem; SG80 is met.		
<b>b</b>	<b>Investigation of UoA impacts</b>			
	<b>Guide post</b>	Main impacts of the UoA on these key ecosystem elements can be inferred from existing information, but <b>have not been investigated</b> in detail.	Main impacts of the UoA on these key ecosystem elements can be inferred from existing information, and <b>some have been investigated in detail</b> .	Main interactions between the UoA and these ecosystem elements can be inferred from existing information, and <b>have been investigated in detail</b> .
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	The South Pacific albacore is currently not overfished or experiencing overfishing (Harley et al., 2015a). There are negligible quantities of non-target species taken in the fishery. Main interactions between the fishery and key ecosystem elements (trophic structure and function) identified can be inferred from existing information and have been investigated, though not in detail (Cox et al., 2002a, b; Sibert et al., 2006). SG60 and SG80 are met.		
<b>c</b>	<b>Understanding of component functions</b>			
	<b>Guide post</b>		The main functions of the components (i.e., P1 target species, primary, secondary and ETP species and Habitats) in the ecosystem are <b>known</b> .	The impacts of the UoA on P1 target species, primary, secondary and ETP species and Habitats are identified and the main functions of these components in the ecosystem are <b>understood</b> .
	<b>Met?</b>		Y	Y
	<b>Justification</b>	The impacts of the fishery on P1 target species are understood through regular assessments. No impacts of the UoA on primary, secondary, ETP species or habitats are identified. SG80 and SG100 requirements are met.		
<b>d</b>	<b>Information relevance</b>			
	<b>Guide post</b>		Adequate information is available on the impacts of the UoA on these components to allow some of the main	Adequate information is available on the impacts of the UoA on the components <b>and elements</b> to allow the

			consequences for the ecosystem to be inferred.	main consequences for the ecosystem to be inferred.
	<b>Met?</b>		Y	Y
	<b>Justification</b>	Available information on the impacts of the UoA on the components and elements, described above, indicate there are no 'main' consequences for the ecosystem. SG80 and SG100 are met.		
<b>e</b>	<b>Monitoring</b>			
	<b>Guide post</b>		Adequate data continue to be collected to detect any increase in risk level.	Information is adequate to support the development of strategies to manage ecosystem impacts.
	<b>Met?</b>		Y	Y
	<b>Justification</b>	Monitoring of the albacore and other highly migratory stocks and fisheries is ongoing, and results are reported on annually. No ecosystem impacts have been identified that result from the UoA and strategies to manage ecosystem impacts are, therefore, not required. Increased observer coverage for the fishery is desirable, however it is not necessary for this SI. SG80 and SG100 are met.		
<b>References</b>		Harley et al. 2015a; Cox et al. 2002a, 2002b; Kitchell et al. 1999; Sibert et al. 2006		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>95</b>
<b>CONDITION NUMBER (if relevant):</b>				

**Evaluation Table for PI 3.1.1 – Legal and/or customary framework**

<b>PI 3.1.1</b>	<p><b>The management system exists within an appropriate legal and/or customary framework which ensures that it:</b></p> <ul style="list-style-type: none"> <li>● <b>Is capable of delivering sustainability in the UoA(s); and</b></li> <li>● <b>Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and</b></li> <li>● <b>Incorporates an appropriate dispute resolution framework.</b></li> </ul>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	Compatibility of laws or standards with effective management		
<b>Guide post</b>	There is an effective national legal system <b>and a framework for cooperation</b> with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2	There is an effective national legal system and <b>organised and effective cooperation</b> with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.	There is an effective national legal system and <b>binding procedures governing cooperation with other parties</b> which delivers management outcomes consistent with MSC Principles 1 and 2.
<b>Met?</b>	Y	Y	Y
<b>Justification</b>	<p>At the regional level, the Western and Central Pacific Fisheries Commission (WCPFC) Convention is consistent with the principles and provisions of the United Nations Convention on the Law of the Sea (UNCLOS), the United Nations Fish Stock Agreement (FSA) and Highly Migratory Species (HMS) as well as a range of other relevant international and regional fisheries instruments. These reflect the current international laws and standards relevant to the management of migratory species and the ecosystem and include specific references to the precautionary approach. The Commission seeks input from recognised international law experts to ensure that decision-making is informed in relation to compliance with international law and protocols. All WCPFC members (including New Zealand) are legally bound to apply the precautionary approach as parties to the WCPFC Convention.</p> <p>At the national level the NZ government is responsible for ensuring management measures applied within NZ waters are compatible with those of the WCPFC, and fishing is carried out in accordance with any measures put in place by WCPFC.</p> <p>The Ministry for Primary Industries (MPI) is responsible for the utilisation of New Zealand's fisheries resources while ensuring sustainability in accordance with its governing legislation - the Fisheries Act 1996. Under the Fisheries Act, sustainability means:</p> <p>(a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations, which addresses P1 and</p> <p>(b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment, which addresses P2.</p> <p>Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being. The Fisheries Act binds the Crown. Decisions made under power given by the Act are judicially reviewable by the Courts in the event of disputes. Procedures and processes that apply to disputes about the effects of fishing on the fishing activities of any person that has a current fishing interest provided for under the Act, are set out under Part 7 of the Fisheries Act. MPI's fisheries management responsibilities extend to the 200-nautical mile limit of the NZ EEZ. MPI provides management, licensing research and compliance and education services for commercial, recreational and customary fishing. MPI assists the Minister of Primary Industries in the administration of the relevant Acts.</p> <p>There is an effective national and international legal system and binding procedures governing cooperation with other parties that delivers management</p>		

		outcomes consistent with MSC Principles 1 and 2. This SI meets SG60, SG80 and SG100.		
<b>b</b>	Resolution of disputes			
	<b>Guide post</b>	The management system incorporates or is subject by law to a <b>mechanism</b> for the resolution of legal disputes arising within the system.	The management system incorporates or is subject by law to a <b>transparent mechanism</b> for the resolution of legal disputes which is <b>considered to be effective</b> in dealing with most issues and that is appropriate to the context of the UoA.	The management system incorporates or is subject by law to a <b>transparent mechanism</b> for the resolution of legal disputes that is appropriate to the context of the fishery and has been <b>tested and proven to be effective</b> .
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>At the regional level, The WCPFC Convention (WCPFC 2000) follows closely the provisions of the UNFSA, including application of the UNFSA dispute settlement provisions for disputes between WCPFC Members (Article 31). The convention calls for parties to promote the peaceful settlement of disputes. If a dispute concerning the interpretation or application of this Convention involving a fishing entity cannot be settled by agreement between the parties to the dispute, the dispute shall, at the request of either party to the dispute, be submitted to final and binding arbitration in accordance with the relevant rules of the Permanent Court of Arbitration.</p> <p>The WCPFC has had no legal challenges do date. The transparent decision making required under Article 21 of the Convention helps prevent disputes through annual Commission meetings, representation by stakeholders at the meetings, use of scientific advice, and negotiations at technical and policy levels on issues of importance. The WCPFC has a consensus-based decision-making process, with provision for a two-chambered voting process requiring a 75% majority in both chambers if all efforts to reach a decision by consensus have been exhausted. If necessary, a decision may be reviewed by a panel at the request of a Member (Article 20).</p> <p>At the national level the Fisheries Act provides opportunities to negotiate and resolve disputes. The Minister may appoint a Dispute Commissioner and the Minister makes the final determination. The consultation process is an attempt to avoid unresolved disputes by ensuring all interested parties have an opportunity to participate and have an input into decisions. There have been occasions when there has not been a satisfactory outcome and then this has gone to litigation and the Court has made a decision.</p> <p>Overall, the management system incorporates transparent mechanisms for the resolution of legal disputes which are considered to be effective in dealing with most issues and that are appropriate to the context of the fishery, meeting SG60 and SG80 requirements. Because the WCPFC management system has not been tested, the overall management system does not meet SG100 requirements.</p>		
<b>c</b>	Respect for rights			
	<b>Guide post</b>	The management system has a mechanism to <b>generally respect</b> the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with	The management system has a mechanism to <b>observe</b> the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the	The management system has a mechanism to <b>formally commit</b> to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with

		the objectives of MSC Principles 1 and 2.	objectives of MSC Principles 1 and 2.	the objectives of MSC Principles 1 and 2.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	<p>The WCPFC recognizes, throughout the Convention, the needs of small island developing States, and territories and possessions, in the Convention Area whose economies, food supplies and livelihoods are overwhelmingly dependent on the exploitation of marine living resources. Part XIII of the Convention lays out specific requirements. The Convention specifically recognizes that small island developing States may be dependent on the exploitation of marine living resources, including for meeting the nutritional requirements of their populations; and recognizes the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and fish workers, as well as indigenous people in developing States Parties.</p> <p>At the national level MPI is responsible for the administration of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, which implements the 1992 Fisheries Deed of Settlement under which historical Treaty of Waitangi claims relating to commercial fisheries have been fully and finally settled. The Ministry is also responsible for the Maori Fisheries Act 2004, which provides that the Crown allocates 20% of quota for any new quota management stocks brought into the QMS to the Treaty of Waitangi Fisheries commission. For non-commercial fisheries, the Kaimoana Customary Fishing Regulations 1998 and the Fisheries (South Island Customary Fishing) Regulations 1998 strengthen some of the rights of Tangata Whenua to manage their fisheries.</p> <p>These regulations let iwi and hapū manage their non-commercial fishing in a way that best fits their local practices, without having a major effect on the fishing rights of others.</p> <p>The management system therefore has a mechanism to formally commit to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2. This meets the SG60, SG80, and SG100.</p>		
	<b>References</b>	Fisheries Act 1996; Treaty of Waitangi (Fisheries Claims) Settlement Act 1992; Deed of Settlement 1992; Maori Fisheries Act 2004; Customary Fisheries Regulations 1998; UNCLOS (Part v), WCPFC 2000; Medley and Powers 2015		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>90</b>
<b>CONDITION NUMBER (if relevant):</b>				

### Evaluation Table for PI 3.1.2 – Consultation, roles and responsibilities

<b>PI 3.1.2</b>		<b>The management system has effective consultation processes that are open to interested and affected parties.</b>		
		<b>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	Roles and responsibilities			
	<b>Guide post</b>	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are <b>generally understood</b> .	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are <b>explicitly defined and well understood for key areas</b> of responsibility and interaction.	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are <b>explicitly defined and well understood for all areas</b> of responsibility and interaction.
	<b>Met?</b>	Y	Y	Y
	<b>Justification</b>	<p>Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction at the WCPFC and national levels, as well as support organisations FFA and SPC.</p> <p>The WCPF Convention provides information on the functions, roles and responsibilities of member states (in particular, Articles 23 and 24) and the committees formed under Commission control (Scientific Committee and Technical and Compliance Committee). Key areas include providing catch and monitoring data to the Secretariat, taking part in various meetings sharing information and making decisions, meeting the requirements for conservation and other recommendations for WCPFC and applying appropriate levels of control and surveillance.</p> <p>There are extensive, regular formal and informal consultation processes at the WCPFC, and FFA and other regional &amp; international fora and national levels, including consultation with bilateral partners and domestic stakeholders. FFA plays an important role as a conduit for Pacific nations.</p> <p>MPI is charged with consistently monitoring the fishery resource, and making timely and appropriate policy advice on all aspects of fisheries management to the Government. The Ministry is also responsible for carrying out the Government's policies to manage and conserve fisheries, and to actively encourage compliance of fisheries regulations by all fishers.</p> <p>The Department of Conservation (DOC) is the central government organisation charged with conserving the natural and historical heritage of New Zealand. The department is responsible for marine reserves, seabirds, and for marine mammals such as dolphins, whales, sea lions and fur seals.</p> <p>At both the national and international level the functions, roles and responsibilities of organisations and individuals involved in the management process are explicitly defined and well understood for all areas of responsibility and interaction so SG100 is considered met for the fishery.</p>		
<b>b</b>	Consultation processes			
	<b>Guide post</b>	The management system includes consultation processes that <b>obtain</b>	The management system includes consultation processes that <b>regularly</b>	The management system includes consultation processes that <b>regularly</b>

	<b>relevant information</b> from the main affected parties, including local knowledge, to inform the management system.	<b>seek and accept</b> relevant information, including local knowledge. The management system demonstrates consideration of the information obtained.	<b>seek and accept</b> relevant information, including local knowledge. The management system demonstrates consideration of the information and <b>explains how it is used or not used.</b>
<b>Met?</b>	Y	Y	N
<b>Justification</b>	<p>At the regional level the WCPFC annual meetings and the annual meetings of its committees provide extensive, regular formal and informal consultation processes. The WCPFC regularly consults with FFA and other regional and international fora that include national governments.</p> <p>Other organisations have access to all the main management bodies as formal observers or informally. These processes seek and accept information, and demonstrate consideration of the information. Scientific reports state exactly what information is being used, how it is used, and justification is provided for all information which is rejected.</p> <p>However, information used by management other than the scientific information is not so clearly reported. For example, WCPFC tuna management measures CMM-2008-01 (replaced by 2012-01, 2013-01 and 2014-01) and CMM-2010-05 attempt to restrict fishing effort and therefore fishing mortality on bigeye, yellowfin and albacore. However, limits are vague, and public information may not be available that clearly justifies the limits applied when the decision was made (Medley and Powers 2015). SG60 and SG80 are met but not SG100.</p> <p>At the national level, Section 12 of the 1996 Act includes a range of specific consultation requirements. MPI is required to consult with those classes of persons having an interest (including, but not limited to, Maori, environmental, commercial and recreational interests) in the stock or the effects of fishing on the aquatic environment in the area concerned; Section 12 only relates to certain sections of the 1996 Act.</p> <p>However, there are other sections of the 1996 Act that require the Minister or MPI Chief Executive to consult with stakeholders before making a decision. MPI has a well-defined process for stakeholder consultation. The consultation process:</p> <ul style="list-style-type: none"> <li>sets out best practice process for how MPI will meet its obligations under Section 12 of the Fisheries Act 1996 and for other decisions requiring consultation with fisheries stakeholders;</li> <li>helps to ensure a consistent approach across all MPI business groups when consulting with fisheries stakeholders; and</li> <li>sets out minimum performance measures where appropriate, e.g., a minimum period for stakeholder consultation.</li> </ul> <p>Within this process, it is necessary to identify who has an interest; and who are representative of those having an interest. MPI must provide an initial consultation plan and the manner of consultation, including the timeframe for the consultation and the decision. MPI must distribute the decision, and subsequently review the process to assure that the consultation met all requirements.</p> <p>When management changes are proposed to meet sustainability requirements, MPI prepares a discussion document that provides the Ministry's initial proposals for issues needing decision and a range of management options. A record of all consultations is documented which includes summaries of the basis for decisions, and comments from all participating stakeholders. Information in letters, emails, and in Final Advice papers for management actions demonstrate the consideration of stakeholder input and use or non-use of that information.</p> <p>Explanations on how information is used or not used are conveyed by letters, emails and in Final Advice papers is evidence that consultation occurs on a regular basis and that information provided by stakeholders is often taken into account.</p>		

		<p>The national management system therefore includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information and explains how it is used or not used. This meets the SG60, SG80, and SG100.</p> <p>Therefore, the overarching management system regularly seeks, accepts, and considers information, including local knowledge, meeting the SG 60 and SG80, but at regional level it does not consistently explain its use or non-use so does not reach SG100.</p>	
<b>c</b>	<b>Participation</b>		
	<b>Guide post</b>		<p>The consultation process <b>provides opportunity</b> for all interested and affected parties to be involved.</p> <p>The consultation process provides <b>opportunity and encouragement</b> for all interested and affected parties to be involved, and <b>facilitates</b> their effective engagement.</p>
	<b>Met?</b>		Y
	<b>Justification</b>	<p>At regional level the WCPFC has a comprehensive governance structure which, in addition to member participation, allows participation by non-members and territories, with particular opportunities for Cooperating non-members, and allows observers to participate in meetings of the Commission and its subsidiary bodies, including the SC, the TCC and the Finance and Administration Committee.</p> <p>All relevant Small Island Developing States are members through the participation of the Pacific Islands Forum Fisheries Agency or cooperating non-members.</p> <p>Attendance at Commission and related meetings is comprehensive, and logistic and financial support is provided to ensure attendance, meaningful involvement and interaction in the cooperative management.</p> <p>The WCPFC supports extensive consultation processes.</p> <p>At the national level MPI has a well-defined process for stakeholder consultation.</p> <p>There is evidence of the MPI seeking stakeholder views throughout the year using, for example, the Initial Position Paper process, the Working Group, and fisheries planning meetings.</p> <p>As part of the consultation process, stakeholders are given the opportunity to provide feedback on the delivery of the process itself. The feedback is evaluated and used to fine-tune future consultation processes. Stakeholders are encouraged to be involved.</p> <p>The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement. MPI have also set up an Environmental Engagement forum.</p> <p>There is sufficient evidence to conclude that all interested parties have the opportunity and are encouraged to participate in consultation processes. Formal arrangements in place facilitate engagement. SG80 and SG100 requirements are met at the international and national levels</p>	
	<b>References</b>	<p>Fisheries Act 1996; WCPFC 2000; WCPFC CMM 2008-01; WCPFC CMM 2010-05; Medley and Powers 2015</p>	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>			<b>90</b>
<b>CONDITION NUMBER (if relevant):</b>			



### Evaluation Table for PI 3.1.3 – Long term objectives

<b>PI 3.1.3</b>		<b>The management policy has clear long-term objectives to guide decision-making that are consistent with MSC fisheries standard, and incorporates the precautionary approach.</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	<b>Objectives</b>			
	<b>Guide post</b>	Long-term objectives to guide decision-making, consistent with the MSC fisheries standard and the precautionary approach, are <b>implicit</b> within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC fisheries standard and the precautionary approach are <b>explicit</b> within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC fisheries standard and the precautionary approach, are <b>explicit</b> within <b>and required by</b> management policy.
	<b>Met?</b>	Y	Y	P
	<b>Justification</b>	<p>At the regional level, Long-term objectives are explicit within the WCPFC Convention. For example, Article 2 specifies that the Commission has the objective to “ensure through effective management, the long-term conservation and sustainable use of highly migratory fish stocks in the WCPO in accordance with the 1982 Convention and Agreement [UNCLOS and FSA respectively]”.</p> <p>Article 5 of the Convention then provides principles and measures for achieving this conservation and management objective. More specifically Article 5(c) requires the Commission to apply the precautionary approach in decision-making and Article 6 outlines the means by which this will be given effect, including through the application of the guidelines set out in Annex II of the FSA.</p> <p>Article 10 of the Convention is consistent with MSC principles and objectives in specifying long term objectives of “maintaining or restoring populations...above levels at which their preproduction may become seriously threatened”.</p> <p>Evidence that these objectives are guiding, or are starting to guide decision-making is provided in various Commission reports and in CMMs. Commission reports also indicate that explicit action is being undertaken through CMMs to support achievement of objectives, however this is yet to result in target reference points being formulated for all managed stocks. Additionally, while there is a requirement for the WCPFC to apply the precautionary principle during decision-making it has historically struggled to do so for some stocks (e.g. bigeye tuna).</p> <p>At the national level, long-term fishery and environmental objectives are included within both NZ fisheries and environmental legislation and these guide decision making.</p> <p>In regard to information principles, Section10 of Fisheries Act states: “All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following information principles: (a) Decisions should be based on the best available information: (b) Decision makers should consider any uncertainty in the information available in any case: (c) Decision makers should be cautious when information is uncertain, unreliable, or inadequate: (d) The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act.”</p> <p>Fisheries 2030 sets the strategic direction for the management and use of New Zealand’s fisheries resources. One of the principles guiding Fisheries 2030 is “Precautionary approach: particular care will be taken to ensure environmental sustainability where information is uncertain unreliable or inadequate.</p> <p>The National Highly Migratory Fisheries Plan sets out clear long term management objectives for use outcome, environment outcome and governance conditions. At</p>		

		<p>both the national and international level, management objectives, including the application of the precautionary approach are explicit in policy and legislation. Overall, clear explicit objectives incorporating the precautionary approach and ecosystem-based management meet the MSC Principles and Criteria, meeting SG60, SG80 and the first part of SG100 However, there are elements of the management system at regional level where it is not yet clear that the precautionary approach is applied in practice across all policy for all stocks.SG100 is only partially met.</p>
<b>References</b>	<p>WCPFC, SC and TCC meeting records; WCPFC Rules of Procedure; Medley and Powers 2015; Fisheries Act 1996; MPI 2015b;</p>	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>90</b>
<b>CONDITION NUMBER (if relevant):</b>		

### Evaluation Table for PI 3.2.1 Fishery-specific objectives

<b>PI 3.2.1</b>	<b>The fishery-specific management system has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2.</b>			
<b>Scoring Issue</b>	SG 60	SG 80	SG 100	
<b>a</b>	<b>Objectives</b>			
	<b>Guide post</b>	<b>Objectives</b> , which are broadly consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are <b>implicit</b> within the fishery-specific management system.	<b>Short and long-term objectives</b> , which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are <b>explicit</b> within the fishery-specific management system.	<b>Well defined and measurable short and long-term objectives</b> , which are demonstrably consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery-specific management system.
	<b>Met?</b>	Y	Y	P
	<b>Justification</b>	<p>There are clear objectives to guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach in the WCPFC Convention. Fishery-specific objectives relating to P1 and P2 outcomes are set out in various WCPFC CMMs related to target fish stocks (including CMM 2014-01; CMM 2014-04; CMM 2014-07), sea turtles (CMM 2008-03), seabirds (CMM2012-07), sharks (CMM 2014-05; CMM 2013-08; CMM 2011-4; CMM 2010-07), whale sharks (CMM 2012-04), cetaceans (CMM 2011-03).</p> <p>WCPFC members also report against a number of indicators as part of their obligations through Part 2 Annual Reporting. These include short and long term conceptual and operational objectives.</p> <p>Some objectives (particularly in some earlier CMMs) are not well defined enough to be operational or measurable. To date, the WCPFC has not yet formally adopted precautionary and ecosystem-based target reference points for all major tuna and billfish species.</p> <p>Well defined and measurable objectives are set out in the NZ Albacore Operational Management Plan for albacore tuna. However, the current status of the plan is 2010-2015 and although there is a commitment to update/review this plan, at the time of writing this had not been completed.</p> <p>This SI meets the SG60 and SG80 but only partially meets the SG100.</p>		
<b>References</b>	MPI 2015a; MPI 2010; WCPFC Convention; WCPFC CMMs			
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>			<b>90</b>	
<b>CONDITION NUMBER (if relevant):</b>				

### Evaluation Table for PI 3.2.2 – Decision-making processes

<b>PI 3.2.2</b>	<b>The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery.</b>		
<b>Scoring Issue</b>	SG 60	SG 80	SG 100
<b>a</b>	Decision-making processes		
<b>Guide post</b>	There are some decision-making processes in place that result in measures and strategies to achieve the fishery-specific objectives.	There are <b>established</b> decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.	
<b>Met?</b>	Y	Y	
<b>Justification</b>	<p>At the WCPFC level, decision-making processes are open, seek to apply the precautionary approach and use the best available information and are well documented.</p> <p>If consensus is the general rule for decision-making by Commission Members during the annual meetings. If consensus cannot be reached, voting, grounds for appealing decisions, conciliation and review are all part of the established decision-making process, as described in Article 20 of the Convention.</p> <p>The decision-making processes are operationalised through the processes of the Scientific Committee, the Technical and Compliance Committee and the Commission itself. The information used to inform decision making is published. Conservation and Management Measures are binding, but Resolutions are non-binding. All management measures apply equally inside EEZ and on high seas. Flag states enforce management measures on their own vessels and coastal states within their own EEZ.</p> <p>At the national level the Fisheries Act (specifically Sections 10, 11, and 12) clearly lays out the requirements for decision-making, and requires basing all decisions on the best available information (Section 10). The annual operational plan, implements the procedures for decision making. The MPI prepares an Initial Position Paper (IPP) that provides the Ministry's initial proposals for issues needing decision. Subsequently, the Ministry will provide a Final Advice Paper (FAP) to the Minister for Primary Industries. The FAP will summarise the Ministry's and stakeholder's views on proposals and make recommendations to the Minister. A copy of the FAP and the Minister's letter setting out his final decisions will be posted on the MPI website as soon as these become available.</p> <p>Altogether, these processes result in measures and strategies to achieve the fishery-specific objectives, reaching the SG60 and SG80.</p> <p>At both regional and national level SG60 and GG 80 is met</p>		
<b>b</b>	Responsiveness of decision-making processes		
<b>Guide post</b>	Decision-making processes respond to <b>serious issues</b> identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take some account of the wider implications of decisions.	Decision-making processes respond to <b>serious and other important issues</b> identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.	Decision-making processes respond to <b>all issues</b> identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.
<b>Met?</b>	Y	Y	N

	<b>Justification</b>	<p>WCPFC decision-making processes allow consideration of serious and important issues through its committees (SC and TCC) and at the Commission itself. Stock assessments and studies presented at the SC (predominantly by SPC) identify serious issues, such as overfishing (e.g. Bigeye tuna) at the regional level. These issues are addressed through regionally agreed CMMs. A series of measures to control catch and effort within the WCPF Convention area were taken in 2013. Resolutions provide transparent response to the scientific, technical, social, and cultural issues. For skipjack and yellowfin tunas, the responses effectively address main issues, e.g., CMM 2014-01. CMM 2014-06 recognizes the need for improved harvest control rules, and set a path for the improvements.</p> <p>At national level although management decision-making can be shown to respond to serious and important issues, a very large number of 'issues' are identified during research and monitoring. Management does not respond formally to all of these. However, response may be informal or through discussion at various fora, such as working groups. All issues are addressed through such mechanisms, although this may not be to the satisfaction of all stakeholders. The assessment team does not have full evidence that decision-making processes respond to all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.</p> <p>Overall, decision-making processes at regional and national levels are adequate for the stocks being considered, dealing with serious and important issues and meeting SG60 and SG80 requirements. These decision-making processes use a precautionary approach, and are based on best available scientific information, but WCPFC and national processes do not clearly respond to all issues in a timely transparent and adaptive manner. SG100 is not met.</p>		
<b>c</b>	<b>Use of precautionary approach</b>			
	<b>Guide post</b>		Decision-making processes use the precautionary approach and are based on best available information.	
	<b>Met?</b>		Y	
	<b>Justification</b>	<p>The WCPFC Convention requires that the members of the Commission, directly and through the Commission, apply the precautionary approach. The Convention requires that Commission be more cautious when information is uncertain, unreliable or inadequate and does not use the absence of adequate scientific information as a reason for postponing or failing to take conservation and management measures (Medley and Powers 2015).</p> <p>In all cases, decisions are required to be based on the best scientific information available, and the Commission makes adequate provision for this to be achieved.</p> <p>At the national level the Fisheries Act requires that MPI must follow the precautionary approach. Section 10 of the Fisheries Act Information principles states:</p> <p>“All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following information principles: (a) Decisions should be based on the best available information: (b) Decision makers should consider any uncertainty in the information available in any case: (c) Decision makers should be cautious when information is uncertain, unreliable, or inadequate: (d) The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act.</p> <p>Therefore, evidence exists that decision making uses the precautionary approach and best available information, meeting the SG80</p>		

<b>d</b>	<b>Accountability and transparency of management system and decision-making process</b>			
	<b>Guide post</b>	Some information on the fishery's performance and management action is generally available on request to stakeholders.	<b>Information on the fishery's performance and management action is available on request,</b> and explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.	Formal reporting to all interested stakeholders <b>provides comprehensive information on the fishery's performance and management actions</b> and describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>At the regional level information and recommendations from research, monitoring, evaluation and performance review are published formally. Reports of WCPFC plenary sessions are published formally and are publicly available. Annual (Part 1) reports are submitted by members providing detailed reporting on catch, fleet size and other issues relating to the fishery. The WPPFC SC and TCC papers and reports on the web provide a high level of public access and transparency, showing how scientific information is used to inform management actions, which are then monitored for effectiveness and discussed at the Commission.</p> <p>This reporting represents good practice. However, while reports are available, it is not clear that they represent all information that is used in decision making. There is no formal, detailed explanation linking the information provided to the decision that results. In an international context, it is recognized that it is very difficult to give full explanations for all decisions, since this might undermine co-operation. Decisions are often negotiated outcomes with the trade-offs not always apparent. At the WCPFC level, SG60 and SG80 requirements are met.</p> <p>At the national level MPI provide a wide range of information to stakeholders. The documents include the Fisheries Act, Plenary documents, the National Fisheries Plan, the Annual operating plan Statements of Intent, Initial Position Papers, press releases and reports. MPI provides formal reports consistent with formalised reporting and consultation processes such as the IPP/FAP process, the Stakeholder Consultation Process Standard or the National Fisheries Plan. SG100 is met.</p> <p>Overall, SG60 and SG80 requirements are met at WCPFC and national levels. However, information is not comprehensive for all elements of the management system at the regional level and SG100 is not met.</p>		
<b>e</b>	<b>Approach to disputes</b>			
	<b>Guide post</b>	Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability for the fishery.	The management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges.	The management system or fishery acts proactively to avoid legal disputes or rapidly implements judicial decisions arising from legal challenges.
	<b>Met?</b>	Y	Y	Y

	<b>Justification</b>	<p>The WCPFC dispute mechanism is set out in Article 31 of the Convention. The WCPFC has a consensus-based decision-making process, with provision for a two-chambered voting process requiring a 75% majority in both chambers if all efforts to reach a decision by consensus have been exhausted. WCPFC (the Commission) has not been subject to any court challenges to date.</p> <p>WCPFC members are party to all decisions at the WCPFC level, including participation in the Scientific Committee, and WCPFC general sessions where regional level final decisions are taken.</p> <p>Disputes/disagreements are typically resolved through WCPFC meetings (being members of WCPFC and agreeing to abide by WCPFC provisions) and the members have avoided legal disputes. The management system acts proactively to avoid legal disputes at the regional level by the prompt incorporation of CMMs into national legislation and the implementation of measures to support such legislation.</p> <p>At the national level</p> <p>Section VII Disputes Resolution of the Fisheries Act states that the section (a) applies to disputes about the effects of fishing (excluding fish farming) on the fishing activities of any person who has a current fishing interest provided for or authorized by or under this Act; but (b) does not apply to disputes about ensuring sustainability or about the effects of any fishing authorised under Part 9.”</p> <p>Section VII further requires that the Minister publicly set out an approved statement of procedure for the resolution of such disputes. The Minister of Fisheries published in 1998 the dispute resolution procedures. The Minister’s approved statement of procedure for the resolution of disputes consists of four steps, with each step in turn involving specific actions to be undertaken by the parties to the dispute to give effect to the requirements of Section VII of the Act:</p> <ul style="list-style-type: none"> <li>Dispute summary report by the party identifying the report</li> <li>Production and distribution of Initial Assessment Report demonstrating the dispute is about the effects of fishing, and does not involve issues associated with ensuring sustainability</li> <li>Negotiation and attempts at resolution</li> <li>Prepare an Outcome Report with conclusion of the process including resolution or not of the dispute.</li> </ul> <p>The parties to the dispute may make recommendations that involve sustainability or customary fishing that would require action beyond the authority of the Minister. The principles in the Fisheries Act require decision-makers to act:</p> <ul style="list-style-type: none"> <li>in accordance with law</li> <li>reasonably and</li> <li>fairly, in accordance with the principles of natural justice.</li> </ul> <p>Decisions that do not follow requirements are open to legal challenge. Legal challenges are uncommon in the fisheries, in part because of the collaborative decision making.</p> <p>Therefore, the management system proactively acts to avoid disputes. Lack of judicial decisions does not provide direct evidence of rapid implementation, but the requirements of the Fisheries Act and MPI strongly suggest this would be the case. The fishery reaches the SG60, SG80, and SG100.</p>
<b>References</b>	Fisheries Act 1996; WCPFC Convention; WCPFC CMMs and Resolutions; Medley and Powers 2015	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>85</b>
<b>CONDITION NUMBER (if relevant):</b>		

### Evaluation Table for PI 3.2.3 – Compliance and enforcement

<b>PI 3.2.3</b>		<b>Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.</b>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	MCS implementation			
	<b>Guide post</b>	Monitoring, control and surveillance <b>mechanisms</b> exist, and are implemented in the fishery and there is a reasonable expectation that they are effective.	A monitoring, control and surveillance <b>system</b> has been implemented in the fishery and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.	A <b>comprehensive</b> monitoring, control and surveillance system has been implemented in the fishery and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>At the regional level, WCPFC aims to ensure compliance through VMS, IUU vessel listing, port state controls, observers, logbooks and transshipment monitoring. Enforcement of these measures falls to the member States. Addressing IUU fishing over the huge area of the WCPO is a major challenge. With most of the fishing taking place in national waters, the broad strategy of the WCPFC compliance program is to focus on controlling high seas fishing, strengthening the exercise of control by coastal state CCMs, and monitoring compliance with CCM obligations throughout the range of application of Commission measures. Compliance failures by vessels are addressed by the application of the WCPFC IUU listing procedure. Compliance failures by CCMs, rather than vessels, are currently addressed through Commission processes of monitoring, reporting and accountability (i.e. Compliance Monitoring Scheme (CMM 2014-07)).</p> <p>Powers and Medley (2015) conclude that gaps in the measures described above demonstrate that the international aspects of monitoring, control, and surveillance (MCS) are not comprehensive.</p> <p>At the national level, many of the CMMs established by WCPFC put clear obligations on parties as the flag States. Ultimately, it is the flag State that is responsible to the relevant RFMO for any failure to ensure that its measures are implemented and for the resulting violations of those measures by that State's vessels.</p> <p>At the national level, there is a comprehensive monitoring control and surveillance system that has been implemented. It includes a compulsory satellite vessel monitoring system (VMS) with an on-board automatic location communicator (ALC) government observers are also periodically placed on board and accurate record keeping and recording requirements to establish auditable and traceable records. Other measures include fishing permit requirements;</p> <ul style="list-style-type: none"> <li>● fishing permit and fishing vessel registers;</li> <li>● vessel and gear marking requirements;</li> <li>● fishing gear and method restrictions;</li> <li>● vessel inspections;</li> <li>● control of landings (e.g. requirement to land only to licensed fish receivers);</li> <li>● auditing of licensed fish receivers;</li> <li>● control of transshipment;</li> <li>● monitored unloads of fish;</li> <li>● information management and intelligence analysis;</li> <li>● analysis of catch and effort reporting and comparison with VMS, observer, landing and trade data to confirm accuracy;</li> <li>● boarding and inspection by fishery officers at sea; and</li> </ul>		



	<ul style="list-style-type: none"> <li>aerial and surface surveillance.</li> </ul> <p>MPI has a sophisticated fishery outreach programme of informed and assisted compliance, in which Enforcement agents work with the industry in a proactive way to ensure understanding of regulations and to prevent infractions (Gary Orr, MPI Compliance Directorate, pers. comm. 2014).</p> <p>In combination with at-sea and air surveillance supported by the New Zealand joint forces, vessel activity can be monitored and verified to ensure compliance with regulations and with industry-agreed codes of practice. The high level of surveillance ensures that a low number of violations results from compliance, and not just from lack of coverage.</p> <p>Therefore, a comprehensive strategy that demonstrates a high capability for enforcement meets the SG60, SG80, and SG100</p>			
<b>b</b>	<b>Sanctions</b>			
	<b>Guide post</b>	Sanctions to deal with non-compliance exist and there is some evidence that they are applied.	Sanctions to deal with non-compliance exist, <b>are consistently applied</b> and thought to provide effective deterrence.	Sanctions to deal with non-compliance exist, are consistently applied and <b>demonstrably</b> provide effective deterrence.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>At regional level, although conservation measures are set by WCPFC, enforcement falls to member States. Compliance failures by vessels are addressed by the application of the WCPFC IUU listing procedure. Compliance failures by member States, rather than vessels, are currently addressed through Commission processes of monitoring, reporting and accountability under the Compliance Monitoring Scheme (CMM 2014- 07).</p> <p>To date, no trade sanctions have been applied against non-compliant member States, although theoretically these may be possible (Medley and Powers 2015).</p> <p>Sanctions are applied only to fishing entities, such IUU vessels and vessels that are detected as being non-compliant with resolutions. WCPFC notifies Flag States of non-compliant vessels, which the Flag States should order to withdraw from Commission Area. These sanctions appear to be applied consistently.</p> <p>At the national level under the Fisheries Act, in proceedings for an offence against this Act it is not necessary for the prosecution to prove that the defendant intended to commit the offence; rather, the defendant must show the contravention was due to the act or default of another person, or to an accident or to some other cause beyond the defendant's control; and the defendant took reasonable precautions and exercised due diligence to avoid the contravention. Upon conviction, the Fisheries Act allows for sanctions that may include prison time, fines from \$250 to \$500,000, forfeiture of quota, vessels, and other property. The industry, with its investment in the fishery through co-management, has a strong incentive to maintain its cooperative role through compliance with legal requirements.</p> <p>MPI uses 'informed and assisted compliance' help minimize infractions. Most fishermen follow the regulations; some engage in opportunistic non-compliance that is usually easily detected by enforcement agents, and a few will actively seek advantage with illegal fishing. Checking and feedback of minor infractions hold the second group in line; but only severe sanctions, up to loss of fishing permits and vessels, will deter the last group. Enforcement personnel report that compliance is very high in the albacore troll fishery.</p> <p>Together, this information demonstrates that international and national systems provide for consistent sanctions thought to provide effective compliance. This meets the SG60 and SG80. Information such as enforcement effort and violations detected at the regional is not available to demonstrate effective deterrence, and thereby this indicator does not reach SG100.</p>		
<b>Compliance</b>				

<b>c</b>	<b>Guide post</b>	Fishers are <b>generally thought</b> to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery.	<b>Some evidence exists</b> to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.	There is a <b>high degree of confidence</b> that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>WCPFC has a permanent working group on compliance (the TCC) with a role to review and monitor compliance with WCPFC management measures. The working group also recommends measures to promote compatibility among the national fisheries management measures, addressing matters related to compliance with fisheries management measures, analyse information on compliance and report the findings to the WCPFC, which will in turn inform the members and non-members. An annual report is produced as part of the compliance review. Identified infringements are reported. Not all fisheries comply and clearly there is some noncompliance by some vessels as reported by the TCC. However, reporting on compliance is not as complete as other RFMOs, at least in the public domain (Medley and Powers 2015).</p> <p>At the national level the industry complies with reporting requirements, traceable documentation, effective surveillance, catch documentation audits, and checks against past catch. Kazmierow et al. (2010) surveyed fishermen on compliance decision making, and found generally good compliance.</p> <p>SG60 and SG80 are met but it cannot be said that “there is a high degree of confidence” at the regional level so SG100 is not met.</p>		
<b>d</b>	Systematic non-compliance			
	<b>Guide post</b>		There is no evidence of systematic non-compliance.	
	<b>Met?</b>		Y	
	<b>Justification</b>	The high level of meeting reporting requirements, observer coverage, and ongoing monitoring by enforcement agents demonstrates no evidence of systematic non-compliance. This meets the SG80.		
<b>References</b>	Kazmierow et al. (2010); Medley and Powers 2015; WCPFC 2014a; WCPFC TCC minutes; Fisheries Act 1996			
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>80</b>
<b>CONDITION NUMBER (if relevant):</b>				

### Evaluation Table for PI 3.2.4 – Monitoring and management performance evaluation

<b>PI 3.2.4</b>		<p><b>There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives.</b></p> <p><b>There is effective and timely review of the fishery-specific management system.</b></p>		
<b>Scoring Issue</b>		SG 60	SG 80	SG 100
<b>a</b>	Evaluation coverage			
	<b>Guide post</b>	There are mechanisms in place to evaluate <b>some</b> parts of the fishery-specific management system.	There are mechanisms in place to evaluate <b>key</b> parts of the fishery-specific management system	There are mechanisms in place to evaluate <b>all</b> parts of the fishery-specific management system.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>WCPFC has mechanisms in place to evaluate the management system as demonstrated by the various committees and working groups that meet regularly and report their findings to the Commission. The WCPFC Secretariat submits a report on compliance of members with the reporting provisions of the Commission (CMM 2013-02). Progress with implementation of CMMs is monitored through the reporting provisions within the CMMs themselves, or the members Annual Reports to the Commission. Stock assessments conducted by the SPC are subject to peer review by other members of the Scientific Committee and occasional external review.</p> <p>New Zealand All aspects of MPIs performance is evaluated in relation to their role in managing fisheries including</p> <ul style="list-style-type: none"> <li>• compliance services, including education, enforcement and prosecution</li> <li>• observer services</li> <li>• purchasing research and registry services</li> <li>• providing oversight and quality assurance of scientific research</li> <li>• collecting catch effort, area, method and other fisheries information</li> <li>• monitoring delivery of contracted and devolved fisheries registry services and</li> <li>• Discharging the Crown’s obligations under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, the Māori Fisheries Act 2004 and the Māori Commercial Aquaculture Claims Settlement Act 2004.</li> </ul> <p>The annual review for Highly Migratory species 2014-2015 provides a record of the annual reviews of fisheries. This contains progress against key focus areas and business as usual tasks, and summary of key indicators for the fishing year.</p> <p>SG80 is met at both regional and national level however it is difficult to say that ALL parts of the fishery- specific management system are evaluated at regional level so SG100 is not met.</p>		
<b>b</b>	Internal and/or external review			
	<b>Guide post</b>	The fishery-specific management system is subject to <b>occasional internal</b> review.	The fishery-specific management system is subject to <b>regular internal</b> and <b>occasional external</b> review.	The fishery-specific management system is subject to <b>regular internal</b> and <b>external</b> review.
	<b>Met?</b>	Y	Y	N
	<b>Justification</b>	<p>At the regional level, WCPFC does not have a regular program of external review. However, in 2008 the Commission agreed that an independent performance review be undertaken, which was completed in 2011 (FAO 2015) A schedule of responses and actions were developed in response to the recommendation of the review,</p>		

		<p>which were considered by WCPFC in 2012. A recent Independent Review of the Commission’s Transitional Science Structure and Functions recommended periodic external review of the stock assessments, which has been adopted by the WCPFC (MRAG, 2009). As specified in scoring element (a) an annual report is provided to the Commission by the Secretariat on compliance of members with the reporting provisions of the Commission. Internal review is also conducted by the WCPFC through assessing the implementation and performance of CMMs through the reporting provisions within the CMMs themselves or the annual reports of member countries to the Commission. Stock assessments undertaken by SPC or CSIRO are subject to peer-review and occasional external review.</p> <p>At the national level, there are reviews to encompass all parts of the management system. Progress against the objectives in the National Fisheries Plan and the Annual Operational Plan is reviewed annually and reported in the Annual Review Report. MPI conducts an extensive review of performance of the fisheries that incorporates consultations with industry and other stake holders. Parts of the management system, specifically science and enforcement, undergo external review. Although the internal review is very comprehensive and parties external to MPI participate, there is no explicit separate external review of the management system.</p> <p>The SG60 and SG80 are met but as there is not regular external review SG100 is not met.</p>
<b>References</b>	MPI 2015b; WCPFC 2012; WCPFC 2015; MRAG 2009	
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>		<b>80</b>
<b>CONDITION NUMBER (if relevant):</b>		

## Appendix 1.2 Risk Based Framework (RBF) Outputs

Not used

## Appendix 1.3 Conditions

**Table A1.3: Condition 1**

<b>Performance Indicator</b>	<b>PI 1.2.1 There is a robust and precautionary harvest strategy in place</b>
<b>Score</b>	70
<b>Rationale</b>	<p>See evaluation table for PI 1.2.1.</p> <p>Note: the score for this PI is in agreement with the outcomes agreed at the MSC harmonisation meeting (Hong Kong 21-22 April 2016). As discussed in the report, there has been progress in satisfying the requirements for this PI. CMM 2014-06 has been adopted, defining the approach for a harvest strategy with harvest controls and reference points to be adopted. A work plan for implementation was accepted at the 2015 WCPFC Commission meeting (see Appendix 6).</p>
<b>Condition</b>	SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for albacore tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.
<b>Milestones</b>	<p>At the first annual surveillance audit and subsequent surveillance audits, the client will provide evidence that it is actively working to ensure that the harvest strategy for WCPO albacore tuna is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving the management objectives reflected in the target and limit reference points. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC 2015 agreed work plan (Appendix 6). As required by the work plan, a target reference point for South Pacific albacore will be adopted by the 2016 Commission meeting. Score 70.</p> <p>At the fourth surveillance audit, the client will provide evidence that the harvest strategy is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving management objectives reflected in in PI 1.1.1 SG80. Score 80.</p>
<b>Client action plan</b>	<p>In order to demonstrate that the harvest strategy for albacore tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80, the client will:</p> <p><u>Year 1 (2017)</u> Engage with MPI's Highly Migratory Species and International Fisheries Management teams towards prioritising the further development, by the FFA's FFC Sub-committee on South Pacific Tuna &amp; Billfish Fisheries and by WCPFC's Scientific Committee, of harvest strategy elements for South Pacific albacore fisheries as prescribed by CMM2014-06.</p> <p><u>Year 2 (2018)</u> Further promote the need for analyses, modelling and management strategy evaluations to be undertaken by WCPFC's service providers in order for the elements of the harvest strategy to be available for consideration by the WCPFC in December 2018.</p>

	<p>Collaborate with industry sectors and NGOs towards encouraging the WCPFC to agree on and adopt the required elements for a harvest strategy for the albacore stock.</p> <p><u>Year 3 (2019)</u> Engage with MPI's Highly Migratory Species and International Fisheries Management units and, where necessary, in collaboration with FFA members and WCPFC delegates from other major countries fishing the stock, in advance of the annual WCPFC meeting, towards developing an albacore harvest strategy in line with the CMM 2014-06 work Plan</p> <p><u>Year 4 (2020)</u> Provide evidence that the harvest strategy is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving management objectives reflected in in PI 1.1.1 SG80.</p>
<b>Consultation on condition</b>	<p>The client will consult and coordinate with the New Zealand Ministry for Primary Industries, other members of the WCPFC, FFA and SPC as required. The client will also consult with other stakeholders in fishing for South Pacific albacore, including environmental and industry NGOs as appropriate.</p> <p>A letter written specifically to support the Client Action Plan from MPI has been provided and can be found in Appendix 1.4.</p>

**Table A1.3: Condition 2**

<b>Performance Indicator</b>	<b>PI 1.2.2 There are well defined and effective harvest control rules in place</b>
<b>Score</b>	60
<b>Rationale</b>	<p>See evaluation table for PI 1.2.2.</p> <p>Note: the score for this PI is in agreement with the outcomes agreed at the MSC harmonisation meeting (Hong Kong 21-22 April 2016). This condition is carried over due to lack of progress in the formalisation of the harvest strategy at WCPFC.</p> <p>MSC CR v2.0 section GSA2.5.2 states that "In cases where the stock has not yet been reduced and 'available' HCRs are scored as meeting the 60 level, the condition assigned to this PI may allow longer than the normal five-year time period for delivery." MSC have also provided further comment on HCRs with their notice of 16 December, 2015 "Interpretation on Harvest Control Rules (HCR)". MSC CR v2.0 lays out two conditions for acceptance of HCR being available sufficient to justify scoring at the SG60 level. These conditions and a description of how they are met are presented in the evaluation table for PI 1.2.2.</p> <p>As discussed in the report, there has been progress in satisfying the requirements for this PI. CMM 2014-06 has been adopted, defining the approach for a harvest strategy with harvest controls and reference points to be adopted. A work plan for implementation was accepted at the 2015 WCPFC Commission meeting (see Appendix 6).</p>
<b>Condition</b>	<p>SI a) By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.</p> <p>SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties.</p>

	<p>SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.</p>
<p><b>Milestones</b></p>	<p>At the first annual surveillance audit and subsequent surveillance audits, the client will provide evidence that it is actively working to ensure that well defined harvest control rules taking into account the main uncertainties are in place for albacore tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC 2015 agreed work plan (Appendix 6). Score 60.</p> <p>By the fourth surveillance audit, the client will provide evidence that well-defined harvest control rules taking into account the main uncertainties are in place for albacore tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. Score 80.</p>
<p><b>Client action plan</b></p>	<p>In order to demonstrate that well defined HCRs are in place for albacore that ensure the exploitation rate is reduced as the PRI is approached and that are expected to keep the stock fluctuating around a target level consistent with (or above) MSY, the client will:</p> <p><u>Year 1 (2017)</u> Engage with MPI's Highly Migratory Species and International Fisheries Management teams towards ensuring that:</p> <ul style="list-style-type: none"> <li>● Meetings of the WCPFC Scientific Committee prioritise the analyses required for the development of harvest control rules for albacore in accordance with the agreed Work Plan for the adoption of harvest strategies under CMM2014-06.</li> <li>● Meetings of the FFA's FFC Sub-committee on South Pacific Tuna &amp; Billfish Fisheries implement initiatives to facilitate the adoption HCRs for albacore, in particular:             <ul style="list-style-type: none"> <li>○ Seek support from FFA and Tokelau Arrangement members for the adoption of a pragmatic approach to setting country allocations towards achieving the objective of a target reference point.</li> <li>○ Encourage WCPFC's Secretariat to promote the adoption by the Commission of high seas limits for South Pacific albacore fisheries towards setting a global TAC/TAE for the stock.</li> </ul> </li> </ul> <p><u>Year 2 (2018)</u> Engage with MPI's Highly Migratory Species and International Fisheries Management teams towards ensuring that initiatives are undertaken to promote completion of the management strategy evaluation of candidate HCRs for consideration by the Commission in December 2018.</p> <p>Collaborate with industry sectors and NGOs towards encouraging the WCPFC to agree on and adopt HCRs for the albacore stock.</p> <p><u>Year 3 (2019)</u> Engagement with MPI's Highly Migratory Species and International Fisheries Management teams, and where necessary in collaboration with FFA members and WCPFC delegates from other major countries fishing the stock, in advance of the annual WCPFC meeting, to seek support for the adoption of harvest control rules for albacore.</p> <p><u>Year 4 (2020)</u> a) Demonstrate that well defined HCRs are in place that ensure the exploitation rate is reduced as the PRI is approached, and that are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.</p>



	<p>b) Provide evidence that the HCRs are likely to be robust to the main uncertainties.</p> <p>c) Demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.</p>
<p><b>Consultation on condition</b></p>	<p>The client will consult and coordinate with the New Zealand Ministry for Primary Industries, other members of the WCPFC, FFA and SPC as required. The client will also consult with other stakeholders in fishing for South Pacific albacore, including environmental and industry NGOs as appropriate.</p> <p>A letter written specifically to support the Client Action Plan from MPI has been provided and is available within Appendix 1.4.</p>

## Appendix 1.4 Letter of support for conditions

Ministry for Primary Industries  
Manatū Ahu Matua



04/10/16

Rob Tilney  
Clement & Associates Ltd  
PO Box 6764, Wellesley Street  
Auckland, 1141  
New Zealand

Dear Mr Tilney

### MPI support for Action Plans in MSC Assessment of the New Zealand South Pacific albacore tuna troll fishery

Thank you for contacting the Ministry for Primary Industries (MPI) regarding the Marine Stewardship Council (MSC) assessment of the New Zealand South Pacific albacore tuna troll fishery.

Sustainable management of South Pacific albacore tuna is a priority for the New Zealand government in its participation in the Western and Central Pacific Fisheries Commission (WCPFC) and in our domestic management of the stock.

In 2014 New Zealand was fully supportive of the WCPFC Conservation and Management Measure (CMM) to develop and implement a harvest strategy approach for key fisheries and stocks in the Western and Central Pacific Ocean (CMM2014-06). New Zealand sees use of harvest strategies as fundamental to sustainable management of tuna stocks in the WCPFC area.

In 2015 the WCPFC agreed on a work plan for the adoption of Harvest Strategies. According to the work plan a number of steps will be progressed from 2015-2018.

<https://www.wcpfc.int/system/files/Workplan%20for%20the%20adoption%20of%20Harvest%20Strategies%20under%20CMM%202014-06.pdf>

New Zealand is also a signatory to the Tokelau Arrangement, a sub-regional arrangement to control the management of South Pacific albacore in the Exclusive Economic Zones of its members. New Zealand fully participates in the negotiation and development of improved management arrangements as a member of the group.

MPI notes that this process and the performance indicators outlined in the WCPFC Harvest Strategy work plan are referenced in the draft Client Action Plans for the Tuna Management Association in the MSC assessment document. MPI confirms that the proposed steps in the Client Action Plans (PI 1.2.1 and PI 1.2.2) align with the planned WCPFC process in the harvest strategy work plan.

MPI is committed to continuing to work with all parties in the context of the WCPFC process to progress the harvest strategy for South Pacific albacore tuna in line with the work plan.

Yours sincerely

Grant Bryden  
Acting Director International Policy  
Ministry for Primary Industries

*Growing and Protecting New Zealand*

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International Policy Directorate  
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## Appendix 2 Peer Review Reports

### Peer Reviewer 1

#### Summary of Peer Reviewer Opinion

<b>Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?</b>	Yes	<b>CAB Response</b>
<p><u>Justification:</u></p> <p>Yes, with exception of the minor points mentioned below, in particular the need to include consideration of the ACAP Annex 1 species black petrel in P2.3. Otherwise the scoring and supporting report is well researched and written.</p>		See below for comment re ACAP and black petrel

<b>Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCR 7.11.1 and sub-clauses]</b>	Yes	<b>CAB Response</b>
<p><u>Justification:</u></p> <p>Both conditions have been aligned with the outcomes agreed at the MSC harmonisation meeting (Hong Kong 21-22 April 2016). They both have a reasonable timeframe (four years) for the complex, multi-agency approach which is required. The positive support of the MPI (Appendix 1.4) is noted.</p>		No comment necessary

If included:

<b>Do you think the client action plan is sufficient to close the conditions raised? [Reference FCR 7.11.2-7.11.3 and sub-clauses]</b>	Yes	<b>CAB Response</b>
<p><u>Justification:</u></p> <p>The client action plan appears to reflect the needs of the conditions and associated milestones well. These are aligned with the overall WCPFC CMM process to develop and implement a harvest strategy approach for key fishes and stocks, inc. their workplan over 2015 – 2018.</p>		No comment necessary

**Table 15 For reports using one of the default assessment trees:**

<b>Performance Indicator</b>	<b>Has all available relevant information been used to score this Indicator? (Yes/No)</b>	<b>Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)</b>	<b>Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)</b>	<b>Justification</b> Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.  Note: Justification to support your answers is only required where answers given are 'No'.	<b>CAB Response</b>
1.1.1	Yes	Yes	NA	NA	
1.1.2	NA	NA	NA	NA	
1.2.1	Yes	No	Yes	Given the justification given in Scoring Issue a (e.g. the statement " <i>Whilst progress has been made in developing a harvest strategy, concerns over the effectiveness of current measures in restricting effort and lack of progress on some aspects of the harvest strategy lead the team to conclude that there is insufficient evidence that the elements of the harvest strategy are working together towards achieving stock management objectives</i> ", I cannot see how SG 80 is met at scoring issue b. This will meet SG 60. The above said, I do recognise that SZLC, CSFC & CFA Cook Islands EEZ south Pacific albacore longline fishery does reach SG 80 for Sib, so the current score is in harmony.	A score of 80 was agreed at the 2016 Hong Kong harmonisation meeting. This is largely based on 1) that management objectives (in terms of stock status) are being achieved and 2) there is evidence that the harvest strategy management measures have made at least some contribution to that.
1.2.2	Yes	Yes	Yes	NA	

1.2.3	Yes	Yes	NA	NA	
1.2.4	Yes	Yes	NA	NA	
2.1.1	Yes	Yes	NA	NA	
2.1.2	Yes	Yes	NA	NA	
2.1.3	Yes	Yes	NA	NA	
2.2.1	Yes	Yes	NA	NA	
2.2.2	Yes	Yes	NA	NA	
2.2.3	Yes	Yes	NA	NA	
2.3.1	No	No	NA	The report does not refer to the <a href="#">Agreement on the Conservation of Albatrosses and Petrels</a> (ratified by NZ in 2001) which includes the Black petrel ( <i>Procellaria parkinsoni</i> ) as an Annex 1 species. As recognised by the main text, Rowe (2013) suggests that this species is moderately at risk to the troll fishery. This should be reflected in the scoring of 2.3.1.	Reference to ACAP has been added to the report and further justification to support the current score has been included. The assessors conclude the current scoring is appropriate.
2.3.2	No	No	NA	The report does not refer to the <a href="#">Agreement on the Conservation of Albatrosses and Petrels</a> (ratified by NZ in 2001) which includes the Black petrel ( <i>Procellaria parkinsoni</i> ) as an Annex 1 species. As recognised by the main text, Rowe (2013) suggests that this species is moderately at risk to the troll fishery. This should be reflected in the scoring of 2.3.2.	Reference to ACAP has been added to the report and further justification to support the current score has been included. The assessors conclude the current scoring is appropriate.

2.3.3	No	No	NA	The report does not refer to the <a href="#">Agreement on the Conservation of Albatrosses and Petrels</a> (ratified by NZ in 2001) which includes the Black petrel ( <i>Procellaria parkinsoni</i> ) as an Annex 1 species. As recognised by the main text, Rowe (2013) suggests that this species is moderately at risk to the troll fishery. This should be reflected in the scoring of 2.3.3.	See above. The assessors have recommended that there should be observer coverage to provide further information from the fishery. The assessors conclude the current scoring is appropriate.
2.4.1	Yes	Yes	NA	NA	
2.4.2	Yes	Yes	NA	NA	
2.4.3	Yes	Yes	NA	NA	
2.5.1	No	Yes	NA	The SZLC, CSFC & CFA Cook Islands EEZ south Pacific albacore longline fishery scores this at 80, citing insufficient evidence to score art SG 100. Give that this fishery has similar target catch levels to the fishery under assessment, it is suggested that the 100 score is reviewed again.	The NZ fishery uses troll gear and is likely to have less impact overall than the Cook Islands longline fishery. However, whilst the assessors believe the fishery is highly unlikely to disrupt key elements underlying ecosystem structure and function, we agree that there is limited evidence to support this conclusion. The score has been revised to 80.
2.5.2	Yes	Yes	NA	NA	
2.5.3	Yes	No	NA	Scoring Issue 2.5.3b does not meet SG 100. Therefore, the overall PI score should be less than 100.	Agree. The score should be 95 and the report now reflects this.
3.1.1	Yes	Yes	NA	NA	

3.1.2	Yes	No	NA	Scoring Issue 3.1.2c: further evidence that the consultation process actively <u>encourages</u> and <u>facilitates</u> stakeholder engagement might be useful to fully justify this meeting SG 100.	At national there is MPI have a consultation process that is inclusive of all stakeholders and encourages them to participate and be involved. Meetings and workshops are organised which facilitates SH engagement. At regional level The WCPFC management system includes consultation processes that regularly seek and accept relevant information, including from SHs. The management system demonstrates consideration of the information obtained, All interested parties have the opportunity and are encouraged to participate in consultation processes, meeting SG100. At regional level this score is harmonized with other WCP albacore south fisheries
3.1.3	Yes	Yes	NA	NA	
3.2.1	Yes	Yes	NA	NA	
3.2.2	Yes	Yes	NA	NA	
3.2.3	Yes	No	NA	Scoring Issue 3.2.3a: the reference to the Powers & Medley paper (2015) suggests that “ <i>gaps in the measures described above demonstrate that the international aspects of monitoring, control, and surveillance (MCS) are not comprehensive</i> ”. This suggests that SG 100 cannot be fully met.	Agree. The score for 3.3.2a has been revised to 80 and the overall score for this PI is now 80 (not 85). The changes have been made to the report

3.2.4	No	Yes	NA	<p>Scoring Issue 3.2.4b: the statement that “A recent Independent Review of the Commission’s Transitional Science Structure and Functions recommended periodic external review of the stock assessments, which has been adopted by the WCPFC (MRAG, 2009)” should be supported by a recent reference (2009 cannot be considered as recent).</p>	<p>Agree “recent” has been removed and text revised. The scoring does not change. WCPFC has undertaken an independent review of its performance, consistent with the Kobe Course of Actions for the period 2011 to 2013 (Anon. 2012). As a result, the Commission established several working groups to address the different recommendations of the report, which can be found on the WCPFC website. The review panel was comprised of four external experts and three internal members. There is a high level of internal review through WCPFC processes. CMMs are often reviewed and updated, for example CMM 2008-01 (for bigeye, yellowfin and skipjack tuna) which has been strengthened and replaced by further CMMs. An independent review (MRAG, 2009) has been conducted of the Commission’s science structure and functions resulting in overhauling of the operation of the SC and adoption of a peer review process and other changes to the data and science functions.</p>
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## Peer Reviewer 2

### Summary of Peer Reviewer Opinion

<p><b><i>Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?</i></b></p>	<p><b>Yes/No</b>  <b>YES</b></p>	<p><b>CAB Response</b></p>
<p><u>Justification:</u></p> <p>This is a very well written report. The team did an excellent job of documenting the thoughtful justifications for the scoring in P1. My only concern was the determination of the final score for PI 2.5.3, I believe that it should be 95 vice 100, because Slb was scored only at the 80 level, and not the 100 level.</p>		<p>Agree. The score should be 95 and the report now reflects this.</p>

<p><b><i>Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCR 7.11.1 and sub-clauses]</i></b></p>	<p><b>Yes/No</b>  <b>YES</b></p>	<p><b>CAB Response</b></p>
<p><u>Justification:</u></p> <p>There are two conditions and one recommendation proposed by the assessment team. The conditions are reasonable and will bring the scores for the relevant PIs to the SG 80 levels. The team requires milestones be evaluated at the first and fourth annual surveillances. In light of the fact that the two conditions are related to the two conditions on PIs 1.1.2 and 1.2.2 in the previous assessment under MSC v.1.3, that were not closed out, I would have preferred to see concrete milestones for every year to ensure that the fishery is moving forward toward closing out the condition, rather than waiting until the fourth audit.</p>		<p>The initial milestone states “At the first annual surveillance audit and subsequent surveillance audits....”. This is then followed by the milestone for the 4<sup>th</sup> audit. Annual requirements are reflected in the client action plan. The assessors conclude this is adequately addressed.</p>

If included:

<p><b><i>Do you think the client action plan is sufficient to close the conditions raised? [Reference FCR 7.11.2-7.11.3 and sub-clauses]</i></b></p>	<p><b>Yes/No</b>  <b>YES</b></p>	<p><b>CAB Response</b></p>
<p><u>Justification:</u></p> <p>The client action plan is detailed and provides for specific progress on an annual basis that can be used to evaluate progress meeting and closing out the conditions.</p>		<p>No comment necessary</p>

**Table 16 For reports using one of the default assessment trees:**

<b>Performance Indicator</b>	<b>Has all available relevant information been used to score this Indicator? (Yes/No)</b>	<b>Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)</b>	<b>Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)</b>	<b>Justification</b> Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.  Note: Justification to support your answers is only required where answers given are 'No'.	<b>CAB Response</b>
1.1.1	Yes	Yes	N/A	This PI was scored at 100, and the evidence indicates with a high degree of certainty that the stock is well above the PRI and that the stock is fluctuating around or above MSY.	No comment necessary.
1.1.2	Not scored	Not scored			
1.2.1	Yes	Yes	Yes	MSC defines a harvest strategy as 'the combination of monitoring, stock assessment, harvest control rules and management actions, which may include an MP or an MP (implicit) and be tested by MSE (MSC CR v2.0). The elements of the harvest strategy for the NZ albacore troll fishery, as described in the justification, would be expected to achieve stock management objectives reflected in PI 1.1.1 SG80. The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives. The PI was scored at 70, and the condition (SIa scored at 60) states that by the fourth surveillance audit, demonstrate that the harvest strategy for albacore tuna is responsive to the state of the stock and the elements of the harvest strategy work	No comment necessary.

				together towards achieving stock management objectives reflected in PI 1.1.1 SG80. The milestones for the condition provide for objective review by the team at the end of the first and fourth audits. The client action plan provides for annual progress step that should bring the fishery to the required output by the fourth annual audit. This is appropriate and will bring the fishery's performance to SG80 level.	
1.2.2	Yes	Yes	Yes	This PI addresses if there are well defined and effective harvest control rules (HCRs) in place. The justification for scoring SIs a and c at the SG 60 level are well documented based on the FCR v.2, and the recent harmonization meetings in Hong Kong. The milestones for the condition provide for objective review by the team at the end of the first and fourth audits. The multi-aspect condition should bring the score for this PI to the SG80 level in 4 years. The milestones for the condition provide for objective review by the team at the end of the first and fourth audits. The client action plan provides for annual progress steps that should bring the fishery to the required output by the fourth annual audit.	No comment necessary.
1.2.3	Yes	Yes	N/A	This PI ensures that relevant information is collected to support the harvest strategy. It was scored at 80, and the justifications support the requirements for the SG80 level.	No comment necessary.
1.2.4	Yes	Yes	N/A	This PI ensures that there is an adequate	No comment necessary.

				assessment of the stock status. The PI was scored at the 95 level. All that was missing was an external review of the stock assessment (Sle), otherwise this PI would score at the SG100 level.	
2.1.1	Yes	Yes	N/A	There are no main primary species, and overall PI score at 100 is appropriate.	No comment necessary.
2.1.2	Yes	Yes	N/A	Catches other than albacore have been less than 1% of total catch of the troll fishery over several years, so there are no main primary species. Overall, this Pi was scored at 90, and this is appropriate.	No comment necessary.
2.1.3	Yes	Yes	N/A	Again, there are no primary main species, so by default, the scores for Sla are at the 100 level. Overall the PI was scored at 90, and this is appropriate.	No comment necessary.
2.2.1	Yes	Yes	N/A	There are no secondary main or minor species, so by default, the scores for this PI are at the 100 level. This is appropriate.	No comment necessary.
2.2.2	Yes	Yes	N/A	There are no secondary main or minor species, so by default Sla is scored at the SG100 level. Overall the PI was scored at 100, and this is appropriate	No comment necessary.
2.2.3	Yes	Yes	N/A	Again, there are no secondary main or minor species, so by default Sla is scored at the SG100 level. Overall the PI was scored at 100, and this is appropriate	No comment necessary.
2.3.1	Yes	Yes	N/A	No ETP species are taken by the fishery, so	No comment necessary.

				the PI was scored at 100 and this is appropriate	
2.3.2	Yes	Yes	N/A	No ETP are taken in this fishery, and there is a Conservation Service Programme (“CSP”) that has operated under the administration of the Department of Conservation (DoC) since 1996 with the aim of avoiding, remedying or mitigating the adverse effects of commercial fisheries on protected species (DoC 2015). It provides regular review should the fishery have ETP interactions in the future. Overall this PI was scored at 100, and it is appropriate	No comment necessary.
2.3.3	Yes	Yes	N/A	This information PI was scored at 80 due to the lack of recent observer coverage and data. It is an appropriate score. The certifiers provided a recommendation for more recent observer coverage, and this is appropriate.	No comment necessary.
2.4.1	Yes	Yes	N/A	This troll fishery is highly unlikely to reduce any habitat structure and function to a point where there would be serious or irreversible harm. This Pi was appropriately scored at 100	No comment necessary.
2.4.2	Yes	Yes	N/A	The certifiers note that the strategy in place for managing impacts on habitat is operational – the fishery operates entirely at the surface in deep, oceanic water. This PI was scored at 100, and it is appropriate.	No comment necessary.
2.4.3	Yes	Yes	N/A	The certifiers note that the extent of any interaction by troll gear with the epipelagic	No comment necessary.

				zone is known to be negligible and effectively unmeasurable. Therefore, this information PI was scores at 100, and this is appropriate.	
2.5.1	Yes	Yes	N/A	The certifiers note that there is evidence that the albacore fishery is highly unlikely to disrupt relevant key elements (predator–prey, prey–predator relationships) underlying ecosystem structure and function to a point where there would be a serious or irreversible harm, therefore this PI was scores at 100, and this is appropriate.	No comment necessary.
2.5.2	Yes	Yes	N/A	This ecosystem management strategy PI was scored at 85, and this is appropriate.	No comment necessary.
2.5.3	Yes	Yes	N/A	This ecosystem information PI was scored at 100, but perhaps it is should be 95. SIb was not scored at the 100 level, and according to the V.2 FCR 7.10.2.3, a PI score of 100 can only be awarded if all SI meet the 100 level	Agree. The score should be 95 and the report now reflects this.
3.1.1	Yes	Yes	N/A	This management system PI was scored at 90, and that is appropriate and supported by the evidence presented.	No comment necessary
3.1.2	Yes	Yes	N/A	This consultation roles and responsibilities PI was scored at 90, and this is appropriate, and is supported by the evidence presented.	No comment necessary
3.1.3	Yes	Yes	N/A	This is a management objectives PI with a single SI. The fishery was scored at meeting the SG 60 and 80 level requirements, but only partially met the SG 100 level requirements. The PI was scored at 90, and this is appropriate, and evidence presented	No comment necessary

				supports the scoring.	
3.2.1	Yes	Yes	N/A	This is a fishery specific management objectives PI, again with a single SI. The fishery was scored at the SG 60 and 80 level requirements, but only partially met the SG 100 level requirements. The PI was scored at 90, and this is appropriate, and evidence presented supports the scoring.	No comment necessary
3.2.2	Yes	Yes	N/A	This is decision making processes PI, with five SIs. The fishery was scored overall at 85 for this PI, and this is appropriate, and the evidence presented supports the scoring.	No comment necessary
3.2.3	Yes	Yes	N/A	This is a compliance and enforcement management PI with four SIs. The fishery was scored overall at 85 for this PI, and this is appropriate, and the evidence presented supports the scoring.	No comment necessary
3.2.4	Yes	Yes	N/A	This is a monitoring and management performance evaluation PI, with two SIs. The fishery was scored overall at 85 for this PI, and this is appropriate, and the evidence presented supports the scoring.	No comment necessary

### **General Comments on the Peer Review Draft Report**

Again as noted previously, this is an extremely well written report. The background section was comprehensive, and well documented with references. The scoring was fair, and the justifications were clear, and well documented also.



## Peer Review report for harmonisation process

### Summary of Peer Reviewer Opinion

<b>Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?</b>	Yes	CAB Response
<u>Justification:</u> The harmonization process has effectively synergized the scoring with agreement between CABs where there was disagreement or inconsistency		

<b>Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCR 7.11.1 and sub-clauses]</b>	Yes	CAB Response
<u>Justification:</u> I have not reviewed all the conditions for each assessment as there are numerous assessments and numerous conditions. Conditions relate primarily to the HCR – my task was to review the harmonization process and to provide a technical review of the process. The most essential aspect relating to the conditions set by each CAB for each assessment was that there is consistency across all UoA. In this regard the UoA (Skipjack, YFT, Albacore (North and South) as well as the UoC were effectively aligned with some minor issues to resolve – none of which would make a material difference to the outcomes. The conditions were also aligned and consistent across all UoCs. The only aspect I would emphasize is that because the timing of assessments differs between clients, similar conditions may however have different timelines – this might contradict the milestones required, particularly for a new client / assessment. This was however recognized by the CABs and the team undertaking the harmonization who as far as possible agreed to align the timelines set when similar conditions had been set for different clients. In most cases the conditions required the RFMO to adopt Conservation Measures pertinent to the conditions set.		

If included:

<b>Do you think the client action plan is sufficient to close the conditions raised? [Reference FCR 7.11.2-7.11.3 and sub-clauses]</b>	Yes/No N/A	CAB Response
<u>Justification:</u> I did not address client action plans but in all cases the CABs reported that there was alignment and consistency for each UoC		

### Performance Indicator Review

Please complete the appropriate table(s) in relation to the CAB's Peer Review Draft Report:

**Table 17: Skipjack tuna**

<b>Performance Indicator</b>	<b>Has all available relevant information been used to score this Indicator? (Yes/No)</b>	<b>Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)</b>	<b>Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)</b>	<b>Justification</b> Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.  Note: Justification to support your answers is only required where answers given are 'No'.	<b>CAB Response</b>
1.1.1	Yes	Yes	N/A	Pre-harmonized PNA/Trimarine/Solomon Is/Japan P&L. Aggregate 100	
1.1.2	Yes	Yes	N/A	Aligned and scoring rationales agreed (aggregate 85 or 90?)– noted interpretation relating to V1.3/2 and Fam2.0 with updated in PCR needed for new CMM on TRP	
1.1.3	-	-	-	-	
1.2.1	Yes	Yes	Yes	All aligned aggregate = 70 with some adjustment needed in text of Jap P&L	
1.2.2	Yes	Yes	Yes	Pre-Harmonized Aggregate = 60 and aligned with IA response re “availability” in SI a.	
1.2.3	Yes	Yes	N/A	All aligned Aggregate = 90	
1.2.4	Yes	Yes	N/A	Pre-Harmonized all aligned and consistent	

**Table 18: Yellowfin tuna**

<b>Performance Indicator</b>	<b>Has all available relevant information been used to score this Indicator? (Yes/No)</b>	<b>Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)</b>	<b>Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)</b>	<b>Justification</b> Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.  Note: Justification to support your answers is only required where answers given are 'No'.	<b>CAB Response</b>
1.1.1	Yes	Yes	N/A	Harmonized (PNA, Walker, Trimarine & Solomon Is.) OK with consensus except. Stochastic projections agreed score 90	
1.1.2	Yes	Yes	N/A	Aligned / harmonized with consensus – agreed with CMM objectives interpreted as Target Ref Pt (TRP)	
1.1.3	-	-	-		
1.2.1	Yes	Yes	Yes	Aggregate = 70 agreed. Some suggestions to improve the assessment in future incl. weighting “coastal” fishery. Biomass trend (down) possible concern future assessment.	
1.2.2	Yes	Yes	Yes	Aggregate 60. Aligned and revised scoring using V2.0. Scored SI b (agreed)	
1.2.3	Yes	Yes	N/A	Aggregate 80 – general agreement and harmonised – one dif. with WS pulled score down – relates to data quality otherwise no material impact on outcome	

1.2.4	yes	Yes	N/A	Aggregate = 95 agreed – no consensus re “reviews” agreed no material impact but flagged for future	
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**Table 19: Albacore - north**

<b>Performance Indicator</b>	<b>Has all available relevant information been used to score this Indicator? (Yes/No)</b>	<b>Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)</b>	<b>Will the condition(s) raised improve the fishery’s performance to the SG80 level? (Yes/No/NA)</b>	<b>Justification</b> Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.  Note: Justification to support your answers is only required where answers given are ‘No’.	<b>CAB Response</b>
1.1.1	Yes	Yes	N/A	Pre Harmonised AAFA&WFOA (V1.2) and CHMSF (V1.3) and Jap. Pole and line (V1.3). 100 aggregate	
1.1.2	Yes	Yes	Yes related condition for 1.2.2 needs harmonising	Pre Harmonised – aggregate = 70 Noted slightly diff. justifications used but scores consistent	
1.1.3	-	-	-	-	
1.2.1	Yes	Yes	N/A	SI d problematic (not 100 agreed for all CABs – need clarity on outcome re “HS is periodically reviewed) agreed agg. is 80	
1.2.2	Yes	Yes	Yes	Pre Harmonised aggregate of 60. Critically applied IA judgement for HCR and aligned SG60 based on “availability” agreed.	
1.2.3	Yes	yes	N/A	SI b Jap P&L and CHMSF score lower due to pop dynamics diffs. Aggreg. Score of 90	

				agreed	
1.2.4	Yes	Yes	N/A	Not clear to PR on final outcome as SI e score lower for AAFA/WFOA aggregate of 100 (was it 90 or 95 finalised? – makes not material difference)	

**Table 20: Albacore - south**

<b>Performance Indicator</b>	<b>Has all available relevant information been used to score this Indicator? (Yes/No)</b>	<b>Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)</b>	<b>Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)</b>	<b>Justification</b> Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.  Note: Justification to support your answers is only required where answers given are 'No'.	<b>CAB Response</b>
1.1.1	Yes	Yes	N/A	Pre-harmonized 5 assessments OK [NZ Alb, AAFA&WFOA, Fiji, SZLC,HNSFCn&CFA Cook Isl) Walker Seafood] Scored at 100 consistent	
1.1.2	Yes	Yes	Yes (conditions need change for NZ and Fiji at next audit otherwise OK)	With one exception (70) all scored 75 needing condition relating to stock rebuilding. Agreement between CABs to harmonize at 75 OK	
1.1.3	-	-	-	-	
1.2.1	Yes	Yes	Yes	Noted NZ and AAFA scored 80 (pass) but CABs agreed on aggregate 70.	
1.2.2	Yes	Yes	Yes	Pre-harmonized [NZ Alb, AAFA&WFOA, Fiji, SZLC, HNSFCn&CFA Cook Isl) Walker Seafood] Aggregate score of 60 – conditions milestones will be aligned for most recent work plans	
1.2.3	Yes	Yes	N/A	AAFA score higher – aggregate of 80 agreed – some disagreement but does not affect outcome.	

1.2.4	Yes	yes	N/A	There is some difference in scoring issue d – was not clear – likely aggregate score is 80 (precautionary not 100) otherwise aligned aggr. Score 90	
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**Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary) can be added below and on additional pages**

Herewith my general comments:

I think the process is effective and achieved its goals. Harmonization was accomplished with only minor outstanding issues, none of which would have a material effect on the outcome. I expected there to be big differences between the rationales provided by each CAB – however this was not the case. The harmonization process allowed for constructive debate and interrogation of each CAB. This is certainly a process missing at times in the teams when undertaking individual assessments – if the designated assessors for the different principles do not have broad background in the other disciplines there is often (in my view) a tendency to accept scoring of a particular PI without much questioning the rationale.

Although the meeting of CABs to discuss harmonization was constructive, I would think the process could be streamlined in a different manner (rather than through direct personal interaction) – although this is effective, it is also costly – so I assume MSC would in the long term try and streamline the process through appropriate electronic methods.

The harmonization process in this case focused on PIs 1.2.1 (Harvest Strategy) and the Harvest Control Rules (1.2.2) particularly on the SG60 scoring issue (a). I was satisfied that the interpretation of “Generally understood” or “Available” issues were effectively addressed in the alignment process. There was much discussion around the IA “Echebstar” ruling – although the interpretation of this SI may still come to the fore in future, I think the harmonization process effectively ensured that the rationale developed addressed the intent of the SI (HCRs design and application).

One area I think was not adequately addressed was the communication with Interested and Affected Parties – e.g. the client base – the responses from the clients or IAPs present suggested they were not entirely happy with the way they were incorporated into the process – this is an aspect that was discussed but could also easily be resolved once the timing of the harmonization process was sorted out. There is a definite need when harmonizing to ensure the clients are informed and that appropriate interaction is maintained. This is particularly important for fisheries (UoC) for which older versions of the methodology have been applied (V1.3) and which have been adapted to the new version for P1.2.2.

An area of concern raised by the PNA representative related to Chain of Custody – “Eligibility” criteria is problematic (at least for the PNA) and interpretation of product from “Free schools” as opposed to “FAD associated” products. The suggestions were that CABs are inconsistent in applying CoC in this case and that the only real solution was increased independent monitoring to separate catches when the same vessels used different targeting practices.



## Appendix 3 Stakeholder submissions

No written submissions were received specific to this assessment prior to the site visit.

Verbal submissions from stakeholders including the Department of Conservation and NIWA are reported as below. The stakeholders have confirmed that these are accurate records of the meetings held.

### Meeting Record – Department of Conservation and Acoura: NZ Albacore troll and NZ Skipjack purse seine.

<b>Attendees:</b>	Jo Akroyd Acoura Lead Assessor and P3 expert Kevin McLoughlin P1 and P2 expert Ian Angus, Dept. of Conservation Igor Debski Dept. of Conservation Kristopher Ramn Dept. of Conservation Katie Clemens-Seely Dept. of Conservation Adrian Gutteridge MSC Observer
<b>Date:</b>	31st May 2016
<b>Time / Location:</b>	Department of conservation Head Office Wellington
<b>Subjects Discussed:</b>	Principle 2

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The Team Leader made introductions. The purpose of the meeting, how information is to be used and confidentiality issues were outlined.  
MSC Principles, Criteria and procedures were explained

#### Discussion in brief as follows:

##### Albacore:

Mention of anecdotal reports of greater albatross (called kites by some fishermen)  
Observer tasking; DOC role in this e.g. focus on ETP.  
2013/14 report on observer program indicated catch of single Australasian gannet and fleshfooted shearwater caught by troll fishery and released alive.  
DOC has joint role with MPI in observer planning; they purchase observer time for their priorities.  
There is a good process for setting priorities for individual fisheries but then have to prioritize across fisheries with limited budget. Troll tends to miss out.

Mention of Level 1 / Level 2 risk assessment (L1 is broader view based on expert opinion).

What is in place for review of approaches e.g. in relation to 2.3.2:  
Not a regular formal process. DOC has established a strategic priorities group (DOC, industry, eNGOs, interested stakeholders).  
There is the possibility to feed concerns into this group to change priorities. Group has been running for 2 years and no one has put forward concerns to date.  
DOC annual plan is developed with 2 strategic meetings per year.

##### Review of information:

MPI and DOC undertake reporting on bycatch (does not cover all fishing methods)  
DOC looks as gaps/issues to prioritize

### Skipjack (Discussed in relation to other NZ Skipjack fishery which shared the site visit)

Spinetail devil ray is primary concern.  
DOC funded Malcolm Francis's (NIWA) tagging work.  
8.2% of observed sets contain devil rays (~20% during peak season).  
Many come up alive and are reported as released alive by industry. Tagging work raises doubts about this.

Code of practice is under development. Malcolm Francis has produced reports sent to fishing fleet.

Purse seine nets are required to have an aperture. Not designed for devil rays. Original code of practice was for dolphins and porpoises. Code of practice has been extended. Looking to have this signed off within months.

Interpretation of voluntary? For example, if set around a school and see devil rays, then is it still voluntary if the set continues.

The code has been developed collaboratively with industry (as has the tagging work). Mitigation approaches considered in the code of practice are very much based on avoidance.

Asked about reporting rates of listed species from fishery compared with observer data. Nothing specific from this fishery. Suggestion that across all fisheries the reporting level from a fishery is about 25% of that from observers.

A meeting taking place tomorrow to look at re-classification of species.

Question re purse seine net being in contact with sea floor. Not really looked at. Kris did spend time as an observer on a purse seiner and did occasionally see some benthos and reef species. Difficult to make a call on potential impact.

A project is underway on habitat and fishing but not well advanced.

Seabird level 1 risk assessment mentioned lights causing strike of storm petrel species due to disorientation. Observer coverage from the fishery is reasonable. No reports of bird strike have been made.

Also, looking to consider wider fishing effects on seabirds in the Hauraki Gulf (not sure if this is in the region of purse seining).

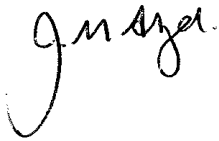
## **Information**

DOC has provided the audit team with published report and links to various reports to assist the team with assessment


The Acoura Team wishes to thank the Department of Conservation for providing time and information to assist with the MSC assessments of these two fisheries

The above notes reflect an accurate record of the main issues discussed

Jo Akroyd  
Lead Assessor Acoura



Signed -  
Date 11<sup>th</sup> July 2016  
Department of Conservation  
Kris Ramm Science Advisor

Signed  \_\_\_\_\_

Date 11/7/2016

## Meeting Record – NIWA and Acoura: Re assessment NZ troll caught Albacore and assessment NZ skipjack purse seine fishery

**Attendees:** Malcolm Francis; NIWA  
Jo Akroyd; Acoura Lead Assessor P3 expert  
Kevin McLoughlin; Acoura P1 and P2 expert  
Adrian Gutteridge – MSC Observer

**Date:** Monday 30th May 2016  
**Time / Location:** 1500hrs NIWA – Allen Building

**Subjects Discussed:** Principle 2  
Introductions were made by the Team Leader. The purpose of the meeting, how information is to be used and confidentiality issues were outlined.  
MSC Principles, Criteria and procedures were explained

### Discussion in brief as follows:

Bycatch/discards very low in both the albacore and skipjack fisheries.

### Troll:

Albacore 2012/13 troll catches were about 4000 t of albacore and other species summed to about 50 t.

There is a good level of shed sampling but this does not help with discards.

Small catches of barracouta, kahawai and Ray's bream (see Griggs reference)

Ray's bream – issue of there being 2 species. Unsure of the distribution but most of the catch is likely to be *Brama australis* rather than *Brama brama*.

Only 1 Mako shark taken in 6 observer trips on troll.

### Purse seine:

MF has reviewed an updated IUCN Redlist assessment for spinetailed devilray.

These have low productivity (1 pup at a time and probably at 2-3 year intervals); growth rate is reasonable.

There are fisheries in some regions targeting them for their gill rakers for the Chinese market (e.g. Indonesia, Philippines, Sri Lanka); partially due to increase in demand but also affected by protection of manta rays.

They have been protected in NZ since 2010. All rays are discarded but there appears to be a high mortality rate.

Working with DoC on electronic tagging program. Low catches last year and only 1 tag put out.

In total, 10 tags have been put out; 5 deaths within a few days; 2 failed to produce data and 3 alive.

Those brailed from the net appear to have better survival than those entangled in the bunt.

Seasonal availability; caught in NZ waters in summer after coming from the tropics. There is a hot spot near the shelf edge of the North Island between Great Barrier Is and Bay of Islands (also a hot spot for tuna purse seining).

Between 2005 and 2014, rays were recorded in 8.2% of observed purse seine sets. This increased to 24.3% in the region of the hotspot.

There have been 2 periods of observer coverage (late 70s/early 80s and since 2005) which have indicated similar levels of interaction with devilrays.

Information from elsewhere in the Pacific is poor.

Devilrays appear to scare tuna and result in more 'skunked' sets.

**Mitigation possibilities:**

Some vessels are starting to use a cargo net over the fish hold to 'sieve' the catch and allow the devilrays to be released in better condition.

Spotter planes can sometimes see devilrays and so could avoid setting there.

Fishing could be restricted in the hotspot area.

Depth considerations – most tuna occurs in depths shallower than 200m but devilrays are more common in deeper water.

**Habitat interaction:**

There are some indications that the purse seine nets occasionally come in contact with the bottom.

Skipjack purse seiners in NZ do not set around objects.

The foot print of any bottom contact will be small. Most fishing takes place in featureless sand/mud areas.

Observer data has suggested some catch of bottom living stingrays but there could be misidentification.

Some reports from the NZ purse seine fishery report manta rays but observer data point to these being devilrays. There are no confirmed captures of manta rays.

If there has been some benthos or bottom species caught in the net this could be difficult for observers to monitor due to the volume of tuna in the catches.

If needed, might be able to estimate % weight composition of devilrays in catches using average weight information.

The range of devilrays is not well known and whether migratory or not, e.g. whether all might be moving to Indonesian water and so be susceptible there.

In NZ, the fringe of the stock is being impacted.

Check Kevin Bailey 1980s report on bycatch across the Pacific).

**Seabirds:**

See Abraham's report. Very little from troll or purse seine.

**Ecosystem modelling in the region:**

There is a project examining the Tasman Bay/Golden Bay area which is close to the South Island area of the fishery that may be of interest

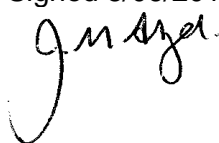
**Information**

A number of published papers, covering the topics discussed were provided to the Acoura team by Dr Francis.

The Acoura Team wishes to thank Dr Francis for providing time and information to assist with the MSC assessments of these two fisheries

The above notes reflect an accurate record of the main issues discussed

Signed 8/06/2016



Jo Akroyd  
Lead Assessor Acoura

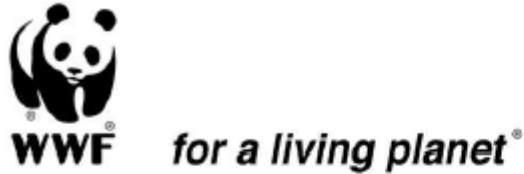
Signed



Malcolm Francis  
NIWA

## Appendix 3.1 Harmonisation Stakeholder Submissions

### WWF Submission to Pilot Harmonisation Meeting



WWF Global Fisheries Programme  
Smart Fishing Initiative (SFI)  
Moенckebergstraße 27  
20095 Hamburg  
Germany  
p: +49 40 530200-310  
Fax: +49 40 530200-313  
[www.panda.org/smartfishing](http://www.panda.org/smartfishing)

Email to:  
MRAG Americas  
SAI Global  
SCS Global  
Acoura  
MEP

21 March 2016

RE: Pilot Process for Harmonisation of Pacific Tunas

Dear CAB,

Thank you for inviting WWF to participate in the upcoming MSC pilot process for harmonisation of Principle 1 scores for Western and Central Pacific tuna stocks.

WWF is committed to improving the way that Regional Fisheries Management Organizations (RFMOs) address sustainability issues in tuna fisheries. We view credible ecolabelling schemes as powerful tools for effecting such change. However, WWF believes that this pilot process is not consistent with the FAO Guidelines for the Ecolabelling of Fish<sup>1</sup>. WWF does not recognize the current pilot harmonisation process as valid for ensuring that tuna fisheries will attain or maintain certification against the MSC standard.

WWF takes this position for the following reasons, among others:

- 1) The proposed exercise is nominally a "pilot process" (i.e. for experimental purposes) and the MSC Board explicitly approved this initiative only as a "limited trial over 2016-2017." Therefore, it does not carry the weight of a *bona fide* assessment process within the MSC certification scheme, with sufficient review and stakeholder consultation, and the results should not be applied as such;
- 2) An independent facilitator will be appointed (with no specification given to the process of this appointment) to oversee a harmonized scoring processes and will ultimately be empowered to provide "a decision that CABs must accept." However, this will undermine the authority of the CABs in making certification decisions as defined in ISO 17065 (clause 7.6.1), and more generally it could serve to erode stakeholder confidence in the objectivity and impartiality of related fishery assessments;

- 3) MSC as the standard setter has become so directly involved in the processes revolving around the certification of one industry sector (MSC is described in the pilot process document as observer, facilitator, and covering costs of expert participation). This could be perceived as unmitigated

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<sup>1</sup> Clauses 2.4, 46, 54-56, 63, 111 and various others

conflict of interest, which would undermine MSC's consistency with ISEAL Credibility Principle 6: Impartiality:

- 4) We persist in asserting that assessment teams should assess the existence of harvest control rules (HCRs) in a fishery based on *prima facie* evidence according to the requirements already established in FCR2.0 (Outlined by WWF CAB Advisory 1)- not by referencing the MSC's "interpretation" (16 Dec 2015), because this recent annotation to the MSC Standard was not done in accordance with ISEAL requirements (e.g. see ISEAL Standard Setting Code).

WWF recognizes that the MSC is eager to see more consistent scoring of Principle 1 for tuna RFMOs. However, we believe that, in the first instance, an assessment team's job is to assign accurate scores. Much like the difference between accuracy and precision, we would argue that it is more important to reach the *correct* conclusion than it is to reach the *same* conclusion as everyone else did and every time.

We draw your attention to the relevant Independent Adjudication decision against Acoura Marine:  
*"Ultimately, I cannot accept that the CR's goal of ensuring consistency in outcomes should trump proper application of the CR's substantive scoring requirements. That overlapping fisheries subject to harmonization may have been certified based upon a prior CAB's scoring of PI 1.2.2 cannot automatically make it right for the scoring of future fisheries. Otherwise, harmonization becomes a rationale for perpetuating error. Consistency is one thing where matters of technical judgment are at issue but quite another where what is at stake is misapplication of scoring requirements as a matter of law, and the notion that, because a CAB may have proceeded in error in the past, the error must be carried forward into the future would scarcely be a very uplifting mantra for the MSC. While the fishery client and the Foundation suggest that it is "unfair" effectively to call into question certifications previously made for other fisheries, I see no alternative, in order to maintain the integrity of the assessment process, to setting aside a scoring determination that I find to be based upon an incorrect application of the MSC's scoring requirements."*

Based on Principle 1 scoring and rationale provided by various CABs to date, which have been recognized by many including MSC as incorrect but accepted application of the MSC standard, we are incredibly concerned that the proposed harmonisation process will result in scoring decisions for tuna fisheries that are based on continued misapplication of the MSC requirements. This will consequently lower the sustainability bar for tuna fisheries and their management systems and effectively lower the integrity and credibility of the MSC. Our concerns are only heightened by the proposed removal of key aspects of stakeholder engagement in any harmonized scoring decisions.

We hope your assessment team gives primacy to accuracy over precedent when reviewing the objective evidence for the effective management of tuna stocks. We hope you will set aside scoring determinations that are based upon an incorrect application of the MSC's scoring requirements. And going forward, we will encourage MSC to use their pilot experiments as a learning tool to more clearly define and elaborate thresholds in their normative documents (e.g. ISO 17007) so that the scheme will yield greater precision.

In addition to our concerns about the interpretation and application of the standard, we feel that the procedure laid out for the harmonization process is very unclear. In particular, it is very unclear to us how decisions will be made in the face of an anticipated lack of consensus both within the expert groups and with stakeholders. Especially with the appointment of an independent expert to potentially provide binding arbitration, and only a 15-minute opportunity each for stakeholders to voice their concerns, and no opportunities to provide input on peer reviewers, meeting attendees, facilitation, and decision-making, we do not see any assurance that stakeholder views will truly be considered in accordance with the ISEAL code.



Notwithstanding our concerns presented above, we do look forward to our continued engagement with your team in the 'normal' steps of MSC fishery assessments such as commenting on the appointment of expert

team members, participating in site visits, reviewing public comment draft reports, reviewing final assessment reports, and attending surveillance audits. To assist CABs in scoring Principle 1 during 'normal' assessments we have developed WWF CAB Advisory 1 and WWF CAB Advisory 1 Background (attached).

Should your team choose to incorporate the results from the MSC pilot processes (or any other informal activities) within the 'normal' assessment framework, we will endeavor to provide our review and comments at the relevant stage (e.g. PCDR) and where appropriate and relevant voice our objection to those conclusions (e.g. Final Report), as provided for in the existing and credible MSC assessment framework.

Regards,



Alfred Schumm  
Leader  
WWF Smart Fishing Initiative

On behalf of the Tuna Programme Manager, Alfred "Bubba" Cook, WWF Western and Central Pacific (WCP), and the WWF Western and Central Pacific (WCP) Tuna Working Group representing:

TRAFFIC  
WWF Australia  
WWF China  
WWF Coral Triangle  
WWF European Programme Office  
WWF Indonesia  
WWF Japan  
WWF Korea  
WWF New Zealand  
WWF Pacific Programme Office  
WWF Philippines  
WWF Solomon Islands  
WWF US

## References

FAO Guidelines for the ecolabelling of fish and fishery products from marine capture fisheries, revision 1, 2009

ISEAL Code of Good Practice: Setting Social and Environmental Standards v5.0. 20 p.

ISEAL Credibility Principles. June 2013, Version 1.0, 18 p.

ISO 17007 Conformity assessment – Guidance for drafting normative documents suitable for use in conformity assessments. First Ed. 2009-09-15.

ISO/IEC 17065 Conformity assessment – Requirements for bodies certifying products, processes, and services. First Ed 2012-09-15, 34 p.

MSC CAB Update - Scheme Document Feedback Form, Scoring Harvest Control Rules, Fisheries Updates, 2014

MSC Independent Adjudicator Final Remand: In the matter of objections to the final report and determination on the proposed certification of the Echebatar Indian ocean purse seine skipjack, yellowfin and bigeye tuna fishery under the MSC principles and criteria for sustainable fishing 2015.

MSC Interpretation on Harvest Control Rules (HCRs) Version: Final, as distributed to CABs, 16 December 2015, 3 p.

MSC (2016) Pilot processes for harmonization. Marine Stewardship Council, 18 January 2016, 18 p.

WWF CAB Advisory 1, 2015 (attached)

WWF CAB Advisory 1 Background, 2015 (attached)

## **CAB Response (Agreed by all CABS)**

### **CAB response to WWF Harmonization Comments**

After the CABS received the WWF harmonization comments, we jointly prepared the response below. As a group, we compete at the business level, but cooperate and collaborate on issues of common interest that do not have a competitive aspect. On that basis, we offer these thoughts to WWF on the engagement of WWF in the MSC process. The CABS have long appreciated the engagement of WWF in the MSC process, which, while it has always been robust, has also always been constructive. We are, however, starting to sense a shift in the tone of some WWF interactions with the MSC process in a direction that we find less constructive. As those at the sharp end of the process, we would be the first to admit that the MSC process is not perfect. We strongly believe, however, that it is the best game in town as far as driving change on the water. We recognize that a few assessments have contained errors in the past, and this harmonization process (among other things) is part of MSC's ongoing effort to improve. We, the CABS, believe that the shift in the relationship between WWF and those involved in MSC has the potential to be detrimental to all parties – and more importantly to the achievement of our joint objectives around more sustainable and better managed fisheries. We would be open to any discussions that might help to continue a positive working relationship, and if you have suggestions as to what form that should take, we would like to hear from you.

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### **From: WWF Advisory 001: Background How the MSC Fisheries Standard Establishes Essential Elements of a Harvest Control Rule**

#### **WWF**

It should further be noted that at this stage we base our clarifications exclusively on text from valid MSC scheme documents. We have not attempted to incorporate the myriad of informal communications from MSC relating to HCRs, nor the varied interpretations arising from numerous fisheries experts.

#### **CAB response**

The CABS contend that the guidance and interpretations are an integral part of the MSC process. While the CR take precedent over the guidance and interpretations, the CR cannot be used in isolation. The guidance and interpretations must be used unless the CAB has a good justification for not doing so. Therefore, the CR, guidance, and interpretations work together to form the basis of the CAB scoring. Because the MSC is an 'expert' system, differences in interpretation can and do happen, requiring guidance and interpretations.

#### **WWF**

The MSC definition is 'normative' and it is altogether unambiguous in stating that an HCR must consist of rules which have been pre-agreed. In apparent contradiction, MSC guidance on p.411 suggests that HCRs should "...achieve a 60 score in cases where they can be shown to have been applied in some way in the past, but have not been explicitly defined or agreed." It stretches credulity to suggest that an HCR which is neither agreed nor defined can still be considered a 'rule' in any common sense of the word. However, since requirement trumps guidance, the answer is unambiguous. WWF recognizes the validity of the MSC definition and not the latter instance of qualifying guidance, which also fundamentally diverges from the common understanding of HCRs as it relates to fisheries management in general.

#### CAB response

From MSC Interpretations Log (<http://msc-info.accreditation-services.com/questions/what-are-the-msc-requirements-on-harvest-control-rules-hcrs-including-generally-understood-and-available-multiple-questions/>)

"The Certification Requirements Table SA5 are explicit and definitive in this regard. The definition of HCRs currently given in the MSC vocabulary applies at the SG80 level, not at the SG60 level."

Rather, it stretches credulity that WWF does not accept the explicit descriptions of the SG60, 80, and 100 scoring issues and the guidance for generally understood.

#### WWF

The MSC definition clearly states that an HCR must consist of well-defined rules. In contrast, MSC guidance on p.411 (as cited above) implies that HCRs need not be explicitly defined. Similar to above, WWF concludes that the MSC definition is valid and takes priority over any auxiliary guidance.

#### CAB Response

This is an unfortunate definition, but cannot realistically over-ride the language of the scoring guideposts in Table SA2.5.

#### WWF

Or to put it in more technical terms: given a set of clear audit criteria, any suitably trained auditor will evaluate the objective evidence and make an unambiguous decision as to whether or not an auditee complies with the standard. Given the same evidence, every auditor should reach the same conclusion.

#### CAB Response

In the case of MSC fishery assessments, suitably trained means sufficient knowledge and experience to evaluate fisheries against the CR. The requirements for MSC assessors, in this case P1, address the expertise needed to conduct the assessments. The whole premise of the MSC assessments requires expert judgement and refutes the contention that a simple set of audit criteria can reach the correct conclusion. For this reason, CABs hire well-trained assessors with the education, experience, and training to conduct MSC assessments.

#### From CAB Advisory: 001: How the MSC Fisheries Standard Establishes Essential Elements of a Harvest Control Rule

##### Step 1

Establish whether or not HCRs exist for the fishery under assessment. Any presumed HCR must meet MSC's definition which is:

*"A set of well-defined pre-agreed rules or actions used for determining a management action in response to changes in indicators of stock status with respect to reference points."* (MSC-MSCI Vocabulary, V1, 1st October 2014).

Are actions or rules triggered when indicators change in relation to RPs?

Are those actions or rules 'well-defined'?

#### CAB Response

The requirements of the SG for scoring issues of PI 1.2.2 take precedence over this definition, as the PIs are the core of the MSC assessment process. With the combination of guidance and

interpretation logs, the intent is very clear. Therefore, Step 1 is too limited, as it must allow for reaching the SG60 level.

GSA 2.4 issue a provides an alternate view of HCR: "In data-poor fisheries which are managed without such input/output controls, management may comprise only technical measures such as size limits, gear restrictions, closed seasons and closed areas. In these cases, the specific terms of the technical measures are usually set and fixed for a relatively long period of time (several years), based on occasional strategic stock assessments, that are shown to deliver defined target and/or limit reference points. Such an arrangement may be regarded as equivalent to a dynamic HCR operating over a longer time scale in cases where some indicators are monitored to confirm that the HCRs are delivering the intended targets for the stock." There is no reason that these mechanistic measures cannot be applied to fisheries not data poor, as a way to simplify the management of the fisheries.

#### **Step 2**

Are there well defined HCRs? As established in Step 1

#### **CAB Response**

Same as for Step 1.

#### **Step 3**

Proceed to assess the fishery against scoring issue (a):

#### **CAB Response**

The flow chart offers a good conceptual framework for making decisions, except that it does not accommodate the issues identified in the CAB Response to Step 1.

#### **Step 4**

Proceed to assess the fishery against scoring issue (c):

#### **CAB Response**

The flow chart offers a good conceptual framework for making decisions, except that it does not accommodate the issues identified in the CAB Response to Step 1.

#### **From WWF Letter to CABs**

WWF does not recognize the current pilot harmonisation process as valid for ensuring that tuna fisheries will attain or maintain certification against the MSC standard.

#### **CAB response**

CABs concur with MSC letter from Jim Humphreys (11 March 2016). The harmonization process has our support.

However, we believe that, in the first instance, an assessment team's job is to assign accurate scores. Much like the difference between accuracy and precision, we would argue that it is more important to reach the *correct* conclusion than it is to reach the *same* conclusion as everyone else did and every time.

#### **CAB Response**

The CABs also intend to reach the correct conclusion. That is the point of the harmonization. Furthermore, as we are sure you are aware, the MSC have set out clear and exhaustive harmonization requirements to ensure assessments by different auditors achieve the same

outcome. However, we intend to consider and apply as appropriate the guidance and interpretation to supplement the CR.

Based on Principle 1 scoring and rationale provided by various CABs to date, which have been recognized by many including MSC as incorrect but accepted application of the MSC standard, we are incredibly concerned that the proposed harmonisation process will result in scoring decisions for tuna fisheries that are based on continued misapplication of the MSC requirements. This will consequently lower the sustainability bar for tuna fisheries and their management systems and effectively lower the integrity and credibility of the MSC.

#### CAB Response

The CABs intend to use the language of the CR (either V1.3 or V2.0, depending on circumstances), the guidance to CR, and the interpretation log to reach a conclusion with regard to all performance indicators.

We stress that it is not within the remit of the CABs to question the terms set by the standard setter (MSC) but that we simply aim to apply the MSC Fisheries Certification Requirements as rigorously and consistently as possible. Our work comes under the repeated scrutiny of not only stakeholders such as yourselves, but also peer reviewers, MSC Technical Oversight, and ASI. We invite WWF to actively participate in the upcoming pilot harmonization meeting and look forward to a constructive cooperation.

## Appendix 3.2 PCDR Stakeholder Submissions

### ISSF



Susan Jackson  
ISSF President  
601 New Jersey Ave NW, Suite 220  
Washington DC 20001  
United States

Acoura  
Fisheries Department  
6 Redheughs Rigg  
South Gyle  
Edinburgh, EH12 9DQ  
United Kingdom

Washington, D.C., December 15, 2016

**RE: Public Comment Draft Report (PCDR) for the reassessment of the New Zealand albacore tuna troll fishery.**

Dear Sirs/ Madams,

The International Seafood Sustainability Foundation (ISSF) is a global partnership among leaders in marine science, the tuna industry and WWF, the world's leading conservation organization. This diverse group of stakeholders shares a common vision to promote the long-term conservation and sustainable use of tuna stocks and the ecosystems upon which they depend.

ISSF has reviewed the above-mentioned PCDR for the New Zealand albacore troll fishery and welcomes the opportunity to comment as a stakeholder on its MSC assessment. While we do not have any substantive comments on the scoring by the Assessment Team, we would like to make the following point as a Stakeholder interested in this fishery.

ISSF supports Conditions 1 and 2 established in the PCDR towards implementation by WCPFC of a robust Harvest Strategy and Harvest Control Rules for South Pacific albacore, but believes the Action Plan is weak, as it lacks concrete and easily measurable milestones in an annual basis.

Furthermore, ISSF believes it is essential that the New Zealand government be actively engaged in the process as a WCPFC CCM, and seeking support from other CCMs. To this end, ISSF welcomes the letter of support from the Ministry of Primary Industries (MPI)

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stating that the Ministry will support implementing the conditions of certification. ISSF, through its advocacy work at WCPFC and any other means as needed, is ready to assist the Client and MPI in this endeavor.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Susan Jackson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Susan Jackson  
President  
International Seafood Sustainability Foundation

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CAB Response: We thank ISSF for their continued interest in the MSC certification process of these tuna fisheries.

Achieving the required outcomes to meet the P1 conditions across the south Pacific albacore fisheries is difficult for a single fishery and the same problems apply to all fisheries within RFMOs seeking MSC certification. Similar conditions (and actions) have been put in place for other fisheries being certified within the WCPFC jurisdiction. It is acknowledged that actions such as engaging with the New Zealand Ministry for Primary Industries do not appear strong, but this is the major avenue open to the client. As noted by the ISSF correspondence, the New Zealand Government has indicated its support to achieve the necessary outcomes. A step forward over previous certifications for WCPFC fisheries is that a work plan has been agreed under CMM 2014-06 and evaluation of progress against this work plan will form an important component in examining progress in meeting the conditions



### MSC Technical Oversight

Main ID	SubID	Page Reference	Grade	Requirement Version	Oversight Description	Pi	CAB Comment
21039	25793	128-129	Guidance	*N/A	For PI 1.2.1 and PI 1.2.2. the condition rationale on Page 128 and 129 says:"This condition is carried over due to lack of progress in the formalisation of the harvest strategy at WCPFC." But for PI 1.2.1, this condition is not carried over for this fishery. Rather it is the first time it has been in place for this fishery based off the outcomes of Hong Kong. For PI 1.2.2, it is carried over but the report does not indicate that this is because the fishery adopted the 2014 CAB Notification for scoring 'available'. Scoring 'available' in this way allowed the condition to be carried into reassessment if 'available' criteria remain in place and the fishery adopts v2.0 fully. It would be helpful if the report could be more specific about these points.	1.2.1, 1.2.2	The report has been amended to reflect the guidance given.
21039	25799	53	Guidance	FCR_7.12.1.1 v2.0	Section 5.2 does not describe any systems used by the UoA to trace albacore back to the UoC.  It is understood that the UoC is the same as the UoA, and therefore this requirement may be unnecessary, but there is currently no rationale.		The certificate covers all New Zealand vessels permitted by the Ministry for Primary Industries to fish for albacore in the NZ fisheries waters using troll gear. There is no proposal to include any other fishing methods. The UoA is the same as the UoC. This

						fishery has robust systems in place to manage traceability though regulatory controls. Records are kept by the fisheries and the fishing companies that are the client group. These records are kept for 7 years
21039	25800	53	Minor	FCR_7.12.1.4 v2.0	<p>Table 12 is mostly clear on identifying the risks of mixing/substitution, except on the point below.</p> <p>The documentation mentioned in Table 12 has “information on catch area, species, amount of catch and vessel name. This documentation is passed along with the fish to the point of sale.”</p> <p>However, 10% of albacore landed in New Zealand is caught by gears outside the UoC. This creates a risk of mixing/substitution of certified and non-certified at landing and beyond e.g. auction.</p> <p>What systems are in place to ensure albacore caught with gears outside the UoC do not enter certified chains of custody?</p>	<p>The CAB determined that the systems in place for tracking and tracing in the UoA were sufficient to ensure all fish and fish products identified and sold as MSC certified originated from the original UoC. The fishery has been certified for 4 years and there has been no issues in the CoC audits or MSC surveillance records. The records demonstrating traceability are kept and maintained by fishers, and the fishing companies that are the client group. The 10% of albacore landed by longliners as bycatch are clearly identified at all stages. They are not landed into the same ports and are never mixed with troll caught albacore. Different companies e.g. the skipjack companies who land bycatch albacore do so with robust documentation as required by the Ministry of Primary Industries. At no time</p>

						are longline and troll caught albacore in the same place at the same time. At any stage of landing and processing the records are clear as to where the fish have been caught and by what method. Text has been added to Section 5 to better describe traceability
21039	25801	54	Guidance	FCR_7.12.2.1 v2.0	<p>It is clear that all albacore caught by vessels using troll gear and are permitted to fish in NZ EEZ is eligible to be sold as MSC certified.</p> <p>However, it is not clear that the "the various companies who sell the product as MSC certified" are not part of a certificate sharing agreement that restricts this product using the ecolabel/sold as MSC into the supply chain.</p>	<p>Please refer to the above comments. All troll caught albacore is part of the UoC as previously certified.</p> <p>The MSC certificate will apply to all NZ vessels permitted by the Ministry for Primary Industries to fish for albacore in the NZ waters using troll gear. As soon as the fish is landed it changes ownership and it enters the Chain of Custody held by the various companies who sell the product as MSC or not depending on their market requirements. There is no certificate sharing agreement.</p>

21039	25802	54	Guidance	FCR_7.12.2.1.b v2.0	<p>Section 5.3 states that "As soon as the fish is landed it enters the Chain of Custody held by the various companies who sell the product as MSC certified".</p> <p>This statement implies that CoC must begin on landing, and that the traceability assessment has not covered beyond landing. It raises two points:</p> <ul style="list-style-type: none"> <li>- The implication is that any intermediaries after landing are covered by the CoC-certified companies, for example, off-loaders or auctions. It would be helpful to know how these companies have been informed of the need for their certificate to cover these activities, or whether there are no intermediaries.</li> <li>- According to the FCR, the default is for CoC to begin at change of ownership. It may well be the case that for traceability or logistical reasons CoC should begin before change of ownership, but the rationale behind this is not currently described.</li> </ul>	<p>This fishery has been undergoing CoC audits for 4 years. The MSC certificate assessment covered in this report is up to the stage of landing at this point the fish changes ownership – refer default FCR. From that point on it enters CoC which is audited annually.</p> <p>The CAB determined that the point of landing was the point of ownership change and satisfied that systems are in place to ensure fish originates from the UoC.</p> <p>The fish is sold to fish traders who have CoC certification. No MSC albacore fish is sent to auctions or other off loaders. The text in Section 5 now states that change of ownership is at point of landing</p>
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## Appendix 4 Surveillance Frequency

**Table 4.1: Surveillance level rationale**

Year	Surveillance activity	Number of auditors	Rationale
1,2,3	Off-site audit	2 auditors off-site	The fishery has 2 conditions associated with only 1 Principle. The milestones for YRs 1,2 and 3 require evidence that the client is actively working to ensure certain things are happening.
4	On site audit	2 auditors on site	Year 4 milestone requires that the SG 80 has been achieved

**Table 4.2: Timing of surveillance audit**

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
1	October 2016	October 2016	Anniversary of certificate date and data available from previous season

**Table 4.3: Fishery Surveillance Program**

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 3	Off -site surveillance audit	Off-site surveillance audit	Off-site surveillance audit	On-site surveillance audit & re-certification site visit

## Appendix 5 Objections Process

No objections were raised for this fishery.



## Appendix 6 WCPFC work plan for South Pacific albacore as agreed at Commission meeting 2015.

Extracted from WCPFC 2015a, Attachment Y:

*Each harvest strategy developed in accordance with this CMM shall, wherever possible and where appropriate, contain the following elements:*

- a. Defined operational objectives, including timeframes, for the fishery or stock ('management objectives')*
- b. Target and limit reference points for each stock ('reference points')*
- c. Acceptable levels of risk of not breaching limit reference points ('acceptable levels of risk')*
- d. A monitoring strategy using best available information to assess performance against reference points ('monitoring strategy')*
- e. Decision rules that aim to achieve the target reference point and aim to avoid the limit reference point ('harvest control rules'), and*
- f. An evaluation of the performance of the proposed harvest control rules against management objectives, including risk assessment ('management strategy evaluation')."*

- 2015      **Record management objectives for the fishery or stock (a).**
- SC provide advice on implications of a range of Target Reference Points for South Pacific albacore.
  - Commission record **management objectives** for South Pacific albacore noting advice provided by the SC on a range of target reference points.
- 2016      **Record management objectives for the fishery or stock (a).**  
**Agree Target Reference Point (b).**  
**Agree acceptable levels of risk (c).**  
**Agree monitoring strategy (d).**  
**Develop harvest control rules (e).**  
**Management strategy evaluation (f)**
- SC provide advice on a monitoring strategy to assess performance against reference points.
  - SC provide advice on a range of performance indicators to evaluate performance of harvest control rules.
  - Commission record **management objectives** for South Pacific albacore noting advice provided by the SC.
  - Commission agree to **acceptable levels of risk** for breaching Limit Reference Point for south pacific albacore.
  - Commission agree a **Target Reference Point** for south pacific albacore.
  - Commission agree to a **monitoring strategy** to assess performance against reference points.
  - Commission agree performance indicators to evaluate **harvest control rules**
- 2017      **Develop harvest control rules (e).**  
**Management strategy evaluation (f).**
- SC provide advice on candidate harvest control rules based on agreed reference points.
  - Commission consider advice on progress towards **harvest control rules**.