



**Fisheries New Zealand**

Tini a Tangaroa

## National Fisheries Plan for Highly Migratory Species 2019



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The National Fisheries Plan for Highly Migratory Species 2019 (HMS Fisheries Plan) describes the overall strategic direction for the management of highly migratory species (HMS). HMS are fish that swim large distances. They are found in New Zealand and international waters. New Zealand's HMS fisheries are made up of:

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- ```
graph TD; FA[Fisheries Act 1996] --- J1(( )); TO[Treaty Obligations to Maori] --- J1; J1 --- J2(( )); J2 --- NP[National Plans Of Action + Threat Management Plans]; J2 --- FTS[Fisheries Treaty Strategy]; J2 --- HS[Harvest Strategy Standard]; NP --> P1[Part 1: National Fisheries Plan for Highly Migratory Species]; FTS --> P1; HS --> P1; P1 --> P2[Part 2: Annual Operational Plan]; P2 --> P3[Part 3: Annual Review Report]; P3 --> P2;
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- The flowchart illustrates the process for developing the National Fisheries Plan for Highly Migratory Species. It begins with the Fisheries Act 1996 and Treaty Obligations to Maori, which inform the National Plans Of Action + Threat Management Plans, the Fisheries Treaty Strategy, and the Harvest Strategy Standard. These three components then feed into Part 1: National Fisheries Plan for Highly Migratory Species, which includes Strategic Context, Management Objectives, and Stakeholder engagement. Part 1 leads to Part 2: Annual Operational Plan, which in turn leads to Part 3: Annual Review Report. There is a feedback loop between Part 2 and Part 3, with arrows indicating a continuous cycle.

# 1 Overview of the HMS Fisheries Plan

## 1.1 PURPOSE

This HMS Fisheries Plan establishes objectives for the management of New Zealand's HMS fisheries and strategies to achieve them. It also identifies performance indicators in order to monitor the achievement of these objectives. The HMS Fisheries Plan commences in 2019.

This plan, along with supporting management processes, will provide an integrated, transparent roadmap of what management and services will be provided in HMS fisheries. It will include those services required to meet relevant legislative obligations under the Fisheries Act 1996.

## 1.2 SCOPE

The HMS Fisheries Plan includes criteria and objectives to guide the management of New Zealand's HMS fisheries. The HMS Fisheries Plan mainly impacts those fisheries operating within the exclusive economic zone from 12-200 nautical miles, but where a national allocation has been made under a regional fisheries management organisation (RFMO), determination will include those areas appropriate to the RFMO.

The management of HMS fisheries encompasses target stocks, bycatch fish stocks, and the environmental impacts of fishing. In managing the stocks in the New Zealand context, consideration of the wider RFMO management settings and strategies needs to be taken into account. In some instances, this may impose constraints on the ability of New Zealand to manage its stocks in a manner appropriate to the wider New Zealand fisheries regime.

The plan has been prepared in a consultative collaborative process with tangata whenua and stakeholders from industry, the recreational sector, and environmental organisations. Fisheries New Zealand will amend and update the plan as appropriate.

## 1.3 STRUCTURE

The management of New Zealand's HMS fisheries consists of three parts, divided into longer-term objectives and shorter-term operational cycles.

### 1.3.1 The HMS Fisheries Plan

The HMS Fisheries Plan describes the overall strategic direction for New Zealand's HMS fisheries and provides:

- 1 Strategic Context
- 2 HMS Management Objectives
- 3 Profile of New Zealand's HMS fisheries

### 1.3.2 Annual Operational Plan

While the HMS Fisheries Plan provides a multi-year, overarching framework for the management of HMS fisheries, details of the day-to-day operational objectives that will be implemented for each individual fishery are specified in the Annual Operational Plan. The Annual Operational Plan also outlines the required services, delivery mechanisms, and service prioritisation issues for the upcoming financial year.

The Annual Operational Plan sets out:

- 1 How individual fisheries will be managed during the individual years which make up the term of the HMS Fisheries Plan;

- 2 Key tasks that will be undertaken to support the successful delivery of management and operational objectives;
- 3 Key performance indicators that will be used to monitor whether the delivery of the management and operational objectives is successful
- 4 The core services (for example, compliance, research, and regulatory) that are required in each fishing year to deliver management and operational objectives
- 5 In situations where there are limited resources and competing tasks and objectives, the operational plan also prioritises which services will be delivered, including a rationale for this prioritisation

The Annual Operational Plan will be produced before the start of each financial year, and will be publicly available through the Fisheries New Zealand website. Its production will be aligned with planning and prioritisation processes within Fisheries New Zealand.

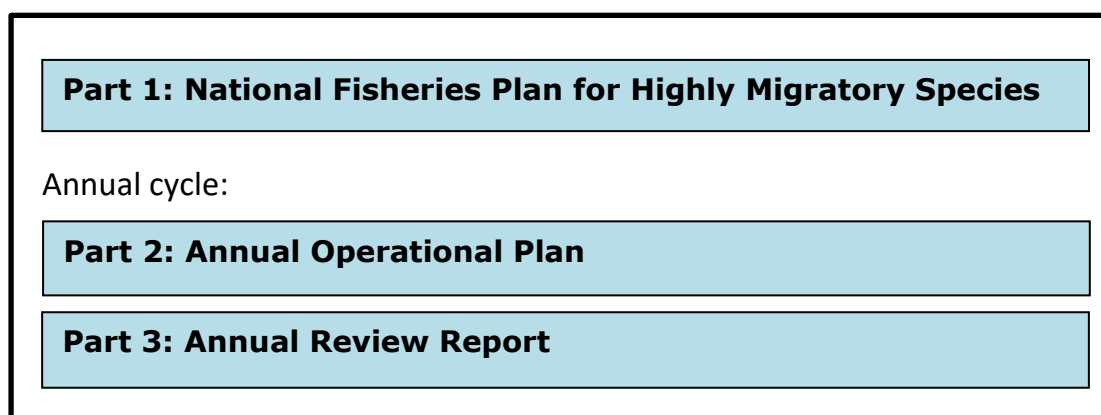
### 1.3.3 Annual Review Report

A formal annual review process is used to monitor the delivery of the tasks identified in the current Annual Operational Plan as well as overall performance of the fisheries in relation to some of the wider HMS management objectives.

The Annual Review Report will assess progress against performance indicators laid out for each Management Objective.

The Annual Review Report will be used to inform the development of the following year's Annual Operational Plan, and will be publicly available through the Fisheries New Zealand website.

HMS Fisheries Plan structure:



## 1.4 LEGAL STATUS

Section 11A of the Fisheries Act 1996 provides general guidance on what a fisheries plan may contain. Section 11A(2) states that a plan may relate to one or more stocks, fishing years, or areas, or any combination of these. Section 11A(3) states that the plan may include various items, including fisheries management objectives to support the purpose and principles of the Fisheries Act 1996.

Section 11A also provides the legal basis for development of the HMS Fisheries Plan and will guide its implementation through the Annual Operational Plan and Annual Review Report. Neither the management objectives, nor the tasks to support them, will diminish the legal requirement to ensure the

purpose and principles of the Fisheries Act 1996 are met. Over time, if there are conflicts between any part of the HMS Fisheries Plan and legislative obligations as set out in the Fisheries Act 1996, then the legislative requirements unequivocally take priority.

The Minister of Fisheries (the Minister) has approved the HMS Fisheries Plan under Section 11A of the Fisheries Act 1996. In approving this plan, the Minister has agreed to the following:

- The strategies and management objectives that will guide the management of New Zealand fisheries for HMS in the coming years
- The proposed implementation of the plan, including the development of Annual Operational Plans and Annual Review Reports.

## 2 Legislative Context

### 2.1 DOMESTIC LEGISLATION

The overarching legislation associated with the HMS Fisheries Plan is the Fisheries Act 1996.

Parts 1 and 2 of the Fisheries Act 1996 outline broad principles and obligations under which Fisheries New Zealand operates. In particular, Part 1, Section 5 draws attention to the following obligations:

- New Zealand's international obligations relating to fishing; and
- The provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

Part 2 of the Fisheries Act 1996 sets out the broad purpose and principles of the Fisheries Act 1996. In particular, Part 2, Section 8 of the Fisheries Act 1996 defines the purpose of the Fisheries Act 1996:

(1) The purpose of this Act is to provide for the utilisation of fisheries resources while ensuring sustainability.

(2) In this Fisheries Act, **ensuring sustainability** means-

(a) Maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and

(b) Avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment.

**Utilisation** means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being.

Part 2, Section 9 of the Fisheries Act 1996 establishes the following environmental principles that shall be taken into account:

- (a) Associated or dependent species should be maintained above a level that ensures their long-term viability;
- (b) Biological diversity of the aquatic environment should be maintained; and
- (c) Habitat of particular significance for fisheries management should be protected.

Section 10 of the Fisheries Act 1996 outlines information principles for decision makers as follows:

- (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; and
- (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 Fisheries Act 1996.

The Wildlife Act 1953 provides context to Section 9 of the Fisheries Act 1996 with regard to associated or dependant species: the majority of seabirds are protected under the Wildlife Act 1953. Whilst it is not illegal to accidentally kill seabirds as part of normal fishing operations, it is an offence not to report their capture or fail to utilise the mandatory mitigation tools.

## 2.2 INTERNATIONAL OBLIGATIONS

Under the United Nations Convention on the Law of Sea (1982) and its associated agreements, New Zealand has international obligations regarding the management of fish stocks, taking into account the effects on associated or dependant species.

These obligations are repeated in the subsequent 1995 United Nations Fish Stocks Agreement, and can now be considered binding on all countries as part of customary international law.

New Zealand also has general obligations relating to HMS as a signatory to various international agreements on the management of marine resources. Specific obligations also arise because of New Zealand's participation in relevant RFMOs. The duties of the RFMOs are laid out in the United Nation's Food and Agricultural Organisation's (FAO) Code of Conduct for Responsible Fisheries and the United Nations Fish Stocks Agreement.

Depending on the type of species, coastal states must provide for optimum utilisation of stocks within their jurisdiction, taking into account associated and dependant species, and must cooperate with other states in the management of trans-boundary and HMS fish stocks.<sup>1</sup>

This plan identifies how New Zealand will implement the commitments it has made that relate to the management of HMS under international agreements and through RFMOs. It also establishes key principles for how HMS fisheries shall be managed in New Zealand. In addition, New Zealand may advocate for RFMOs that develop conservation and management measures for HMS stocks to also apply these principles.

Fishing for HMS, both on the high seas and within exclusive economic zones, can often be subject to an obligation to cooperate with other countries in the management of those stocks throughout their range. RFMOs are the primary vehicle for cooperation between interested countries in the management of fisheries.

Two RFMOs are of direct relevance to the management of New Zealand fisheries for HMS:

- The Commission for the Conservation of Southern Bluefin Tuna (CCSBT); and
- The Western and Central Pacific Fisheries Commission (WCPFC).

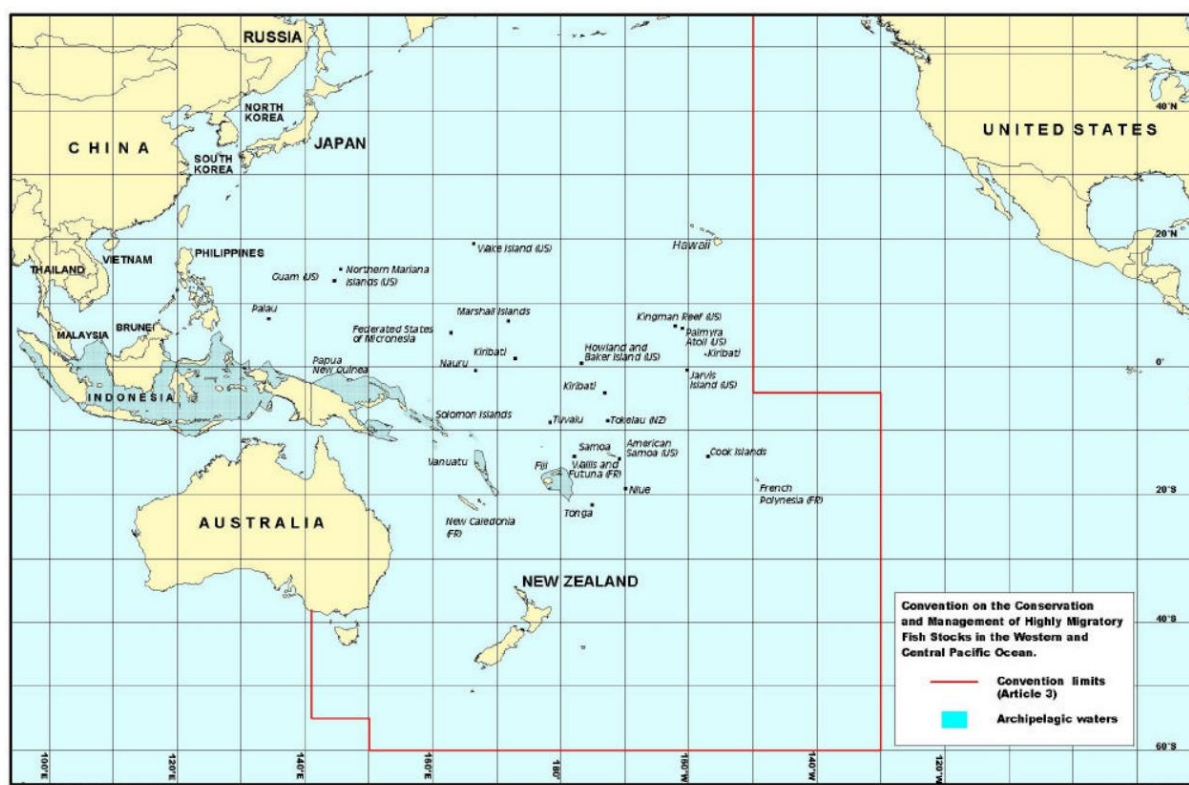
The mandate of CCSBT is to ensure, through appropriate management, the conservation and optimum utilisation of southern bluefin tuna. New Zealand is a founding member of CCSBT and a signatory to the convention. There is no specific convention area for CCSBT, and measures apply throughout the range where southern bluefin tuna is caught.

The mandate of WCPFC is to promote and effectively manage the long-term conservation and sustainable use of HMS in the western and central Pacific Ocean. New Zealand is a signatory to the convention. The WCPFC convention area is shown below (Figure 1).

---

<sup>1</sup> United Nation Convention on the Law of the Sea 1982 Articles 61 to 64. Agreement for the implementation of the provisions of the United Nation Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and HMS fish stocks. Article 8.





**Figure 1:** Western and Central Pacific Fisheries Convention Area (in red)

New Zealand is also party to the Agreement on the Conservation of Albatrosses and Petrels (ACAP). The purpose of that Agreement is much broader than only reducing the incidental mortality of seabirds through interactions with fishing operations. However, because fishing related mortality is a key threat for albatrosses and petrels, ACAP has been very active in this area.

## 2.3 TREATY OF WAITANGI SETTLEMENT OBLIGATIONS

Obligations under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (and individual iwi Deeds of Settlement) can be considered in two broad categories:

- Specific obligations relating to use (both commercial and non-commercial); and
- More general obligations relating to the right of tangata whenua to participate in fisheries management decisions and have their values and aspirations given particular regard.

Specific treaty obligations in the Fisheries Act 1996 provide for commercial elements of the settlement (through 20% of quota as new species enter the quota management system (QMS) and non-commercial elements through regulations providing for customary use). The more general obligations provide for tangata whenua input and participation, and having particular regard to kaitiakitanga<sup>2</sup>.

Nothing contained in a fisheries plan changes the Crown's obligations to Māori under the Treaty of Waitangi. The Crown's obligations are specified in legislation, including the Māori Fisheries Act 2004, the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, individual iwi treaty settlement protocols, and the Fisheries Act 1996.

<sup>2</sup> This obligation is contained in S12(1)(b) of the Fisheries Act 1996. Fisheries New Zealand considers that obligation to, "provide for the input and participation", is a more active duty than consultation generally requiring earlier engagement with tangata whenua (at the option definition stage, rather than the evaluation of options).

### 3 Strategic Context

The strategic direction for fisheries in New Zealand is shaped by a number of strategic documents including the Māori Fisheries Treaty strategy, Harvest Strategy Standard, National Plans of Action for sharks and seabirds, and relevant Threat Management Plans for protected species.

#### 3.1 FISHERIES SPECIFIC STRATEGY

The purpose of the Fisheries Act 1996 is focused on achieving a balance between sustainable utilisation of our fisheries resources, and maintenance of the marine environment. Specifically, the Fisheries Act 1996 implicitly recognises that:

- The biological realities of harvesting HMS stocks mean that the future value of these fisheries can only be assured if they are managed sustainably. Measures to increase value must always be considered in the context of ensuring long-term maintenance of both target and bycatch stocks.
- HMS target and key bycatch fish stocks exist as part of the broader aquatic environment, and this broader environment has value, including an intrinsic value, to New Zealanders. It also recognises that, while fishing activities may have an environmental impact, not all environmental impacts have an adverse effect on the aquatic environment (for example, an impact on an individual fish does not constitute an adverse effect on the aquatic environment).
- Avoiding or mitigating adverse effects on the aquatic environment will ensure that the long-term viability of associated or dependent species is assured, and that the biological diversity and functionality of marine communities is maintained.

These bullets are recognised in the strategic direction HMS fisheries through the adoption of two outcomes (see boxes below); use and environment. Both outcomes describe what it will mean to maximise the benefits from the sustainable use of our HMS fisheries resources, and to ensure that the health of the aquatic environment is maintained.

**Use Outcome: Fisheries resources are used in a manner that provides greatest overall economic, social, and cultural benefit**

**Environment Outcome: The capacity and integrity of the aquatic environment, habitats and species are sustained at levels that provide for future and current use**

Robust governance arrangements are necessary to ensure the successful delivery of the use and environment outcomes. These arrangements need to be well specified, transparent, and support cost-effective and accountable decision making. The management of HMS fisheries also needs to be well informed and collaborative to ensure that the fisheries are valued by all New Zealanders. Transparent governance structures are critical to ensure that management is credible, both nationally and internationally.

**Governance Conditions: Sound governance arrangements that are well specified, transparent, and which support cost-effective and accountable decision-making**

Sound governance is achieved through engagement with stakeholders at biannual meetings of the Fish Plan Advisory Group. Treaty partnership obligations are recognised through iwi fishery forums, and through engagement with Te Ohu Kaimoana.

Finally, the development of Annual Operational Plans and Annual Review Reports, which are made publically available, also contribute to accountable, responsive, and transparent fisheries management.

## 3.2 MĀORI RIGHTS AND INTERESTS

It is important to recognise that Māori have a relationship with HMS, and to provide for such relationships to be maintained. This is reflected through a number of management objectives within the HMS Fisheries Plan, including Management Objective 3 (to enhance Māori interests (including customary, commercial, recreational and environmental); and Management Objective 8 (to recognise and provide for Deed of Settlement obligations).

Equally, this relationship is relevant in the consideration of other objectives, including Management Objective 4 (maintaining a sustainable fishery for HMS within environmental standards) and Management Objective 5 (implementation of an ecosystem approach to fisheries management). Both of these objectives can help to further the relationship of Māori with HMS by ensuring HMS fisheries remain abundant within healthy ecosystems.

Beyond this plan, the Fisheries Treaty Strategy establishes an agreed plan for engagement with Māori on fisheries issues. The vision of the Strategy is summarised as, “Tangata whenua and the Crown working in partnership to provide for the utilisation of fisheries resources while ensuring sustainability, having particular regard to kaitiakitanga, with the Crown meeting its obligations to Māori.”

## 3.3 HARVEST STRATEGY STANDARD

The Harvest Strategy Standard (2008) applies to New Zealand fish stocks in the QMS. The Harvest Strategy Standard is a policy statement of best practice in relation to the setting of fishery and stock targets and limits for fish stocks in New Zealand's QMS. It is intended to provide guidance as to how fisheries law will be applied in practice by establishing a consistent and transparent framework for decision-making to achieve the objective of providing for utilisation of New Zealand's QMS by ensuring sustainability.

The Harvest Strategy Standard sets a framework to apply target and limit biological reference points to QMS fish stocks where relevant.

Fisheries New Zealand will generally rely on international organisations and agreements in which New Zealand participates to determine the status of HMS or other species or stocks under the purview of international organisations and agreements.

Where an international organisation or agreement has adopted harvest strategies and/or rebuilding plans that meet or exceed the minimum standards contained in the Harvest Strategy Standard, Fisheries New Zealand's approach will generally be to support those strategies. In other situations, Fisheries New Zealand representatives will promote development and adoption, by the international organisation or agreement, of harvest strategies that meet or exceed the standards set out in the Harvest Strategy Standard.

## 1.1 INTERNATIONAL OBLIGATIONS

In addition to legal obligations under the United Nations Convention on the Law of Sea and its subsidiary agreements, New Zealand is a signatory to a number of international agreements that are focused on maintenance of biodiversity and species conservation which are relevant to fisheries. These include the Convention on Biological Diversity, the International Convention on Trade in Endangered Species, and the Convention on Migratory Species. The Convention on Biological Diversity sets 20 targets, known as the Aichi Biodiversity Targets that Parties should be working towards as part of their implementation of the 2011-2020 Strategic Plan.

## 3.4 NATIONAL PLANS OF ACTION

As a member of the United Nations Food and Agriculture Organisation (FAO), New Zealand supports International Plans of Action<sup>3</sup> developed by the FAO. In line with the International Plans of Action, New Zealand has developed National Plans of Action for seabirds and sharks.

### 3.4.1 National Plan of Action for Seabirds

The National Plan of Action - 2013 to reduce the incidental catch of seabirds in New Zealand Fisheries (National Plan of Action for Seabirds 2013) builds upon and expands work outlined in the National Plan of Action for Seabirds 2004. The 2013 Plan sets out a long term objective that:

*New Zealand seabirds thrive without pressure from fishing related mortalities, New Zealand fishers avoid or mitigate against seabird captures and New Zealand fisheries are globally recognised as seabird friendly.*

The National Plan of Action for Seabirds 2013 also sets out high-level subsidiary and medium term objectives which focus on reducing the overall level of risk to seabird populations that are most impacted by the effects of fishing. These are complemented by objectives to reduce overall capture rates and will be achieved through the implementation of best practice measures. The objectives also recognise the need to undertake research and development to ensure that these measures undergo continual improvement and that monitoring needs are met.

The National Plan of Action for Seabirds 2013 is underpinned by a risk assessment approach. This identifies the seabird species most at risk from commercial fishing, as well as the fisheries that contribute the greatest risk to these seabirds. This allows for management actions to be prioritised to reduce the overall risk that commercial fishing poses to seabirds. These management actions, which give effect to the objectives of the National Plan of Action for Seabirds 2013 that are supported by this HMS Fisheries Plan, are outlined annually in the Annual Operational Plan. The National Plan of Action for Seabirds 2013 is being revised in 2019, and revised objectives and relevant actions will be incorporated into future Annual Operational Plans.

### 3.4.2 National Plan of Action for Sharks

The Ministry for Primary Industries (MPI) also published the National Plan of Action for the Conservation and Management of Sharks 2013 (National Plan of Action for Sharks 2013)<sup>4</sup>. New Zealand fisheries waters are home to at least 113 species of shark, of which more than 70 have been captured in fisheries. MPI developed the National Plan of Action for Sharks in conjunction with the Department of Conservation (DOC), the Ministry of Foreign Affairs and Trade (MFAT), and a range of stakeholders, all of whom have an interest in the conservation and management of sharks. The overarching goal of the National Plan of Action for Sharks 2013 is to:

*Maintain the biodiversity and the long-term viability of all New Zealand shark populations by recognising their role in marine ecosystems, ensuring that any utilisation of sharks is sustainable, and that New Zealand receives positive recognition internationally for its efforts in shark conservation and management.*

The National Plan of Action for Sharks 2013 sets out five-year goals and objectives, including maintaining biodiversity, maximising utilisation, maximising domestic and international stakeholder engagement, understanding non-fishing threats, and improving knowledge about sharks through research.

Some species of shark are managed commercially under the QMS (as targeted fisheries or bycatch) and commercial shark fisheries are subject to the QMS compliance and monitoring regime.

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<sup>3</sup> International plans of action are voluntary instruments devised within the framework of the FAO Code of Conduct for Responsible Fisheries. They apply to all States and entities and to all fishers. Four IPOAs have been developed to date, including IPOAs specific to seabirds and sharks. Each IPOA provides guidance for states in preparing their own specific national plans of action.

<sup>4</sup> The first National Plan of Action for Sharks was published in 2008 and reviewed in 2013. See: <http://www.fao.org/ipoa-sharks/en/> and <https://fs.fish.govt.nz/Page.aspx?pk=165>

New Zealand is committed to the humane treatment of sharks, and removal of fins from live sharks is illegal under the Animal Welfare Act 1999.

Shark species identified as being vulnerable are protected in New Zealand under the Wildlife Act 1953 or the Fisheries Act 1996 (which applies to New Zealand-flagged vessels and nationals on the high seas).

Shark finning (the removal of the fins from a shark and the disposal of the remainder of the shark at sea) has been prohibited since October 2014. It is unlawful to land the fins alone of any shark species. Instead, the full utilisation of dead sharks is encouraged, meaning that fins may be landed legally as a secondary product. Fisheries New Zealand's work on sharks is supported by a qualitative risk assessment<sup>5</sup>, which considered relative risks to shark populations for QMS, non-QMS, and protected shark species.

A revised National Plan of Action for Sharks will be produced during the lifetime of this Plan and relevant objectives and actions will be incorporated into future Annual Operational Plans.

## 4 Management Objectives of the HMS Fisheries Plan

The Management Objectives of the HMS Fisheries Plan are grouped under the use and environment outcomes and governance conditions as follows:

|             |   |                                                                                                 |
|-------------|---|-------------------------------------------------------------------------------------------------|
| Use Outcome | 1 | Support viable and profitable commercial HMS fisheries in New Zealand                           |
|             | 2 | Maintain and enhance world class game fisheries in New Zealand fisheries waters                 |
|             | 3 | Māori interests (including customary, commercial, recreational, and environmental) are enhanced |

|                     |   |                                                                                                               |
|---------------------|---|---------------------------------------------------------------------------------------------------------------|
| Environment Outcome | 4 | Maintain sustainable HMS fisheries within environmental standards                                             |
|                     | 5 | Implement an ecosystem approach to fisheries management, taking into account associated and dependent species |
|                     | 6 | Protect, maintain, and enhance fisheries habitat                                                              |

|                       |    |                                                                     |
|-----------------------|----|---------------------------------------------------------------------|
| Governance Conditions | 7  | Maintain an effective fisheries management regime                   |
|                       | 8  | Recognise and deliver Deed of Settlement obligations                |
|                       | 9  | Ensure New Zealand interests are taken into account internationally |
|                       | 10 | Contribute to Pacific capacity development                          |

There are sub-objectives under each Management Objective, and these are provided in the following section.

<sup>5</sup> Ford, R.B *et al.* (2018). Qualitative (Level 1) risk assessment of the impact of commercial fishing on New Zealand chondrichthyans: an update for 2017. New Zealand Aquatic Environment and Biodiversity Report No. 201, ISBN 978-1-77665-917-3. Available here: <https://www.mpi.govt.nz/dmsdocument/29807-aebr-2018201-qualitative-level-1-risk-assessment-of-the-impact-of-commercial-fishing-on-new-zealand-chondrichthyans-an-update-for-2017>

## 4.1 OVERVIEW OF MANAGEMENT OBJECTIVES

| OUTCOME       | MANAGEMENT OBJECTIVES |                                                                                                                                                               |
|---------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use           | 1                     | <b>Support viable and profitable commercial tuna fisheries in New Zealand</b>                                                                                 |
|               | 1.1                   | Support initiatives to add value to HMS fisheries                                                                                                             |
|               | 1.2                   | Negotiate favourable country allocations for New Zealand fishers                                                                                              |
|               | 1.3                   | Reduce administrative barriers to profitability in HMS fisheries                                                                                              |
|               | 1.4                   | Recognise importance of access to fisheries resources in New Zealand and the South Pacific region, and identify potential threats and opportunities           |
| Use           | 2                     | <b>Maintain and enhance world class game fisheries in New Zealand fisheries waters</b>                                                                        |
|               | 2.1                   | Maintain and enhance recreational catch rates for HMS game fisheries                                                                                          |
| Use           | 3                     | <b>Māori interests (including customary, commercial, recreational, and environmental) are enhanced</b>                                                        |
|               | 3.1                   | Take into account the views of relevant iwi and hapu in management of HMS                                                                                     |
|               | 3.2                   | Ensure abundant HMS for customary use                                                                                                                         |
| Environmental | 4                     | <b>Maintain sustainable HMS fisheries within environmental standards</b>                                                                                      |
|               | 4.1                   | Encourage management of HMS at specified target reference points                                                                                              |
|               | 4.2                   | Support the objectives of the National Plan of Action for Sharks                                                                                              |
|               | 4.3                   | Promote sustainable management of HMS fisheries through RFMOs                                                                                                 |
| Environmental | 5                     | <b>Implement an ecosystem approach to fisheries management, taking into account associated and dependent species</b>                                          |
|               | 5.1                   | Recognise value of HMS and their ecosystems, including predators, prey, and protected species                                                                 |
|               | 5.2                   | Improve the quality of information available on the capture of protected species                                                                              |
|               | 5.3                   | Avoid, remedy, or mitigate the adverse effects of fishing on associated and dependent species (including protected species), using a risk assessment approach |
|               | 5.4                   | Support the objectives of the National Plan of Action for Seabirds                                                                                            |
| Environmental | 6                     | <b>Protect, maintain, and enhance fisheries habitat</b>                                                                                                       |
|               | 6.1                   | Identify and, where appropriate, protect habitats of particular significance to HMS, especially within New Zealand fisheries waters                           |

|                   |           |                                                                                                                      |
|-------------------|-----------|----------------------------------------------------------------------------------------------------------------------|
| <b>Governance</b> | <b>7</b>  | <b>Maintain an effective fisheries management regime</b>                                                             |
|                   | 7.1       | Ensure transparency by providing stakeholders with relevant information and performance indicators for HMS fisheries |
| <b>Governance</b> | <b>8</b>  | <b>Recognise and provide for Deed of Settlement obligations</b>                                                      |
|                   | 8.1       | Implement Deed of Settlement obligations as they relate to HMS                                                       |
| <b>Governance</b> | <b>9</b>  | <b>Ensure New Zealand interests are taken into account internationally</b>                                           |
|                   | 9.1       | Influence international fora and ensure New Zealand interests are taken into account                                 |
|                   | 9.2       | Build and maintain strong relationships with other fishing nations, in order to influence international fora         |
| <b>Governance</b> | <b>10</b> | <b>Contribute to Pacific capacity development</b>                                                                    |
|                   | 10.1      | Contribute to the implementation of MPI's Memorandum of Understanding with NZAID on Pacific capacity development     |

The following section provides the following information for each objective:

- **Description:** What does this objective mean?
- **Current Status:** What is the current status of HMS fisheries in relation to the objective? Is the status quo acceptable? What are the primary obstacles to achieving the objective?
- **Management Initiatives:** What approach would be required in order to achieve the objective over time, bearing in mind the risks associated with not achieving the objective, and the cost-effectiveness of actions required to achieve it?
- **Key Performance Indicators:** How will performance be measured? Have any specific goals been set for the term of this plan?



## 4.2 MANAGEMENT OBJECTIVES TO SUPPORT USE OUTCOME

*Fisheries resources are used in a manner that provides greatest overall economic, social, and cultural benefit*

### Objective 1: Support viable and profitable commercial tuna fisheries in New Zealand

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Support initiatives to add value to HMS fisheries</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                          |
| <p>The New Zealand seafood sector is increasingly looking to produce high value products for sale on discerning domestic and international markets in order to increase profitability. Obtaining third-party certifications, such as the Marine Stewardship Council (MSC) certification, for specific fisheries is currently the primary way HMS fisheries have added value. At present, the MSC standard is the dominant independent certification for seafood.</p> <p>The financial return from the likes of MSC certification, particularly in terms of increased market prices, remains uncertain. However, third party certification is increasingly the minimum standard for entry into markets.</p>                                                                                                                                                                        |                                                          |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          |
| <p>Currently, New Zealand's albacore tuna troll fishery and Talley's skipjack tuna purse seine fishery are MSC certified. There are no additional species that are immediate candidates for MSC certification. Fisheries New Zealand will be supportive if any HMS fisheries undergo assessment for MSC certification in the future.</p> <p>In the future, Digital Monitoring may allow for improved data collection, which could be beneficial in attaining and maintaining certifications, such as the MSC certification.</p> <p>Fisheries New Zealand will continue to support industry initiatives to add value to HMS fisheries, including the development and use of innovative technologies.</p> <p>Key markets for HMS products include Japan for southern bluefin tuna, and canneries in Spain, Thailand, Vietnam and Mauritius for albacore tuna and skipjack tuna.</p> |                                                          |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                          |
| <ul style="list-style-type: none"> <li>▪ Discuss with industry potential HMS fisheries that could be MSC certified</li> <li>▪ Support industry investigation into other options for adding value to catch as desired (for example, other certifications, alternative markets)</li> <li>▪ Assist industry with certification processes, as necessary</li> <li>▪ Support development of innovative technologies</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                          |
| <ul style="list-style-type: none"> <li>▪ Continued access to key markets</li> <li>▪ New Zealand albacore tuna maintains MSC certification</li> <li>▪ New Zealand skipjack tuna maintains MSC certification</li> <li>▪ Development and use of innovative technologies in the fishery</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                          |



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| <b>1.2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Negotiate favourable country allocations for New Zealand fishers</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                         |
| <p>New Zealand's access and/or catch allocations for many HMS fisheries are set by RFMOs. The two RFMOs that the Fisheries New Zealand primarily engages in in relation to HMS are CCSBT and WCPFC.</p> <p>New Zealand actively participates in these RFMOs to ensure effective and sustainable fisheries management and development of HMS across the Pacific. New Zealand also works to negotiate, on behalf of its domestic fishing interests – both commercial and non-commercial – for favourable access and/or catch allocations.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                         |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                         |
| <p>WCPFC is increasingly interested in establishing harvest control rules for catch-based management, as well as continually reviewing and improving its Conservation and Management Measures. New Zealand takes an active role in these negotiations.</p> <p>Work is ongoing through the Pacific Islands Forum Fisheries Agency (FFA) process, with like-minded Pacific island countries to find ways to improve the management of south Pacific albacore tuna under the Tokelau Arrangement. New Zealand is actively promoting the establishment of a catch-based management system for albacore tuna that will balance its domestic fishing interests with the needs of the Pacific.</p> <p>Within CCSBT, New Zealand advocated for changes that now require members to account for all mortality of southern bluefin tuna, and for non-member catch to be taken into account when setting global catch allocation.</p> <p>Improvement of the international management and compliance regimes for southern bluefin tuna have contributed to an increasing stock estimate over recent years. New Zealand will look to ensure that, as the southern bluefin tuna stock rebuilds, New Zealand is given a fair national allocation.</p> |                                                                         |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                         |
| <ul style="list-style-type: none"> <li>▪ Advocate for allocations that take full account of New Zealand interests</li> <li>▪ Implement negotiated country allocations by reviewing domestic catch limits and other management controls as required</li> <li>▪ Review management arrangements for south Pacific albacore tuna and skipjack tuna as required</li> <li>▪ Promote New Zealand access and/or catch allocations for key species managed by WCPFC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                         |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                         |
| <ul style="list-style-type: none"> <li>▪ Maintenance of a country allocation for southern bluefin tuna based on proportional share of the global catch allocation (subject to sustainability)</li> <li>▪ Country allocations for HMS species reflect New Zealand's interests.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                         |

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| <b>1.3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Reduce administrative barriers to profitability in HMS fisheries</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                         |
| <p>The profitability of a fishery is affected by management decisions as well as factors beyond management control (for example, the cost of fuel, exchange rates, and market prices). Ensuring the overall profitability of the fishery is primarily the responsibility of the industry. However, Fisheries New Zealand can support this objective through cost-effective management of its services.</p>                                                                                                                                                                       |                                                                         |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                         |
| <p>In recent years, research costs in this fishery have remained low and Fisheries New Zealand will continue to support projects that best address the needs of the fishery in a cost-effective way.</p> <p>With the exception of albacore tuna and skipjack tuna, HMS fisheries are relatively high value, low volume fisheries. The levy allocation for HMS fisheries reflects this. Monitoring cost recovery levies and other costs is a business-as-usual task for Fisheries New Zealand, in collaboration with stakeholders through regular meetings and communication.</p> |                                                                         |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                         |
| <ul style="list-style-type: none"> <li>▪ Annually assess required services with respect to total fishery costs</li> <li>▪ If necessary, promote amendments to cost recovery rules and/or contribute to reviews, informing and consulting with stakeholders as required</li> <li>▪ Allow for stakeholder participation in high-level planning of services</li> <li>▪ Support the transition to Digital Monitoring where appropriate</li> </ul>                                                                                                                                    |                                                                         |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                         |
| <ul style="list-style-type: none"> <li>▪ Changes in annual levy costs</li> <li>▪ Economic indicators, such as export value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                         |

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| <b>1.4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Recognise importance of access to fisheries resources in New Zealand and the South Pacific region, and identify potential threats and opportunities</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                            |
| <p>Within the New Zealand exclusive economic zone, interest in HMS fisheries is shared by customary, recreational, and commercial fishers, as well as environmental groups and the general public, who will, at times, have differing objectives for areas of interest.</p> <p>In the South Pacific region, interest in HMS fisheries is shared by New Zealand commercial fishers and other international commercial fishers.</p>                                                                                                                         |                                                                                                                                                            |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                            |
| <p>New Zealand's fishing industry relies on access to fisheries resources within New Zealand and in the South Pacific region. Access to a wider area of fishing allows operators to extend their fishing season and allows greater flexibility to allocate effort at times of greatest potential economic return.</p> <p>Decisions on the wider marine environment have in the past impacted on HMS fisheries operations. It is important that, in those cases, these impacts are properly taken into account as part of the decision making process.</p> |                                                                                                                                                            |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>▪ Ensure that the views of HMS stakeholders are taken into account in matters relating to in-zone access</li> <li>▪ Advocate for continued access on the high seas, or as part of any wider regional management arrangements, as well for management actions considered necessary for the sustainability of HMS stocks and their critical habitats</li> <li>▪ Engage with relevant fora to advocate for New Zealand access regionally</li> </ul>                                                                   |                                                                                                                                                            |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>▪ Future decisions on in-zone access take into account views of HMS stakeholders</li> <li>▪ Access to regional HMS resources reflect interests of New Zealand</li> </ul>                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                            |

## Objective 2: Maintain and enhance world class game fisheries in New Zealand fisheries waters

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| 2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Maintain and enhance recreational HMS game fisheries |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                      |
| Fisheries New Zealand is responsible for monitoring non-commercial tuna and billfish game fisheries, as well as consulting and engaging with relevant recreational fishers and charter operators.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                      |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                      |
| <p>Non-commercial fisheries are monitored in a variety of ways. Recreational charter boats are subject to compulsory registration, activity reporting, and catch reporting for specified stocks, including southern and Pacific bluefin tunas. Monitoring also occurs through voluntary reporting, including through the long-standing game fish tagging programme, landed catch records from New Zealand Sport Fishing Council clubs, targeted logbook schemes, and boat ramp surveys. Information from recreational fisheries monitoring is used in stock assessments and other scientific research.</p> <p>Fisheries New Zealand takes into account recreational interests when making fisheries management decisions, and recognises the economic and inherent value of game fisheries to New Zealand. Fisheries New Zealand recognises the potential adverse effects of increasing fishing effort and catch in the southwest Pacific region on the availability of billfish and yellowfin tuna in New Zealand. Fisheries New Zealand will advocate for policies that maintain and enhance recreational catch rates of HMS, both domestically and internationally.</p> <p>In the past, when necessary, agreements between commercial and non-commercial fishers have been negotiated in areas of inter-sector conflict, with varying success. Participants in the Fish Plan Advisory Group have indicated their commitment to developing coordinated, collaborative responses to potential conflicts wherever possible.</p> |                                                      |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                      |
| <ul style="list-style-type: none"> <li>▪ Monitor trends using landed catch from New Zealand Sport Fishing Council records, tag and release data from the game fish tagging database, information from charter vessel reporting, and CPUE from logbook schemes</li> <li>▪ For striped marlin, if CPUE drops below the long-term mean for four consecutive years, a management review will be triggered</li> <li>▪ Review management of recreational fisheries as required</li> <li>▪ Monitor areas of potential inter-sector conflict and raise with the Fish Plan Advisory Group as required</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                      |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                      |
| <ul style="list-style-type: none"> <li>▪ Levels of reporting by New Zealand Sport Fishing Council clubs and amateur charter vessels</li> <li>▪ Inter-sector conflicts are resolved</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                      |

**Objective 3: Māori interests (including customary, commercial, recreational, and environmental) are enhanced**

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| <b>3.1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Take into account views of relevant iwi and hapu in management of HMS</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                              |
| Under section 12 of the Fisheries Act 1996, fisheries managers have a statutory obligation to provide for the input and participation of tangata whenua with an interest in the stock concerned and/or in the effects of fishing on the aquatic environment in the area concerned. In doing so, particular regard should be paid to kaitiakitanga.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                              |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                              |
| <p>Currently, Te Ohu Kaimoana (TOKM) participate in Fish Plan Advisory Group meetings, and Fisheries New Zealand works to encourage iwi groups to join and participate in stakeholder meetings.</p> <p>Fisheries New Zealand also provides an opportunity for iwi to input into both the Annual Operational Plan and Annual Review Report, as well as sustainability and regulatory rounds, through presentations at iwi fisheries forums.</p> <p>In 2016, MPI conducted an analysis of its performance on customary and Māori fisheries issues. Several areas for improvement were identified, including providing opportunities for input and participation earlier on in annual planning processes, and processes were put in place to monitor performance toward this objective quarterly. Following this exercise, we anticipate increased communication with input and participation from iwi and iwi fisheries forums on HMS issues.</p> |                                                                              |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                              |
| <ul style="list-style-type: none"> <li>▪ Provide opportunities for Māori to share knowledge on HMS</li> <li>▪ Engage with iwi through iwi fisheries forums, especially in order to provide for input and participation into annual planning, regulatory rounds, and sustainability rounds</li> <li>▪ Encourage consideration of interests in HMS fisheries during development of iwi fisheries plans, and incorporate feedback from iwi fisheries plans into planning and prioritisation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                              |
| <ul style="list-style-type: none"> <li>▪ Iwi are actively involved in long-term and annual planning processes for HMS fisheries</li> <li>▪ Fisheries New Zealand monitors the delivery of Treaty commitments, including section 12 statutory obligations, through the Strategic Outcomes for Māori register. The register outlines the specific commitments and responsibilities across the organisation</li> <li>▪ Fisheries management will also keep track of the iwi and/or iwi fisheries forums who input into the HMS Fisheries Plan and/or participate in the implementation of the plan</li> </ul>                                                                                                                                                                                                                                                                                                                                      |                                                                              |

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| <b>3.2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Ensure abundant HMS for customary use</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |
| Many iwi have a focus on inshore species when setting rohe moana <sup>6</sup> boundaries, although some rohe moana may extend into areas in which HMS are seasonally present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                              |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |
| <p>To date, little specific information has been collected on relationships of tangata whenua with HMS. However, research conducted during the development of the original HMS Fisheries Plans in 2010, and since the publication of those Plans, has suggested that customary fisheries for HMS are a low priority for iwi or iwi fisheries forums.</p> <p>With that in mind, pending expressions of interest from iwi or iwi fisheries forums, Fisheries New Zealand will focus on improving performance and assessment of performance against objective 3.1 (above). Management initiatives and topics for further research related to this objective will be explored as resources permit, guided by specific Māori customary interests in HMS fisheries.</p> <p>In addition to the above, the initiatives aimed at using HMS sustainably, and protecting relevant marine ecosystems and habitats, should also be considered in support of this objective.</p> |                                              |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                              |
| <ul style="list-style-type: none"> <li>▪ Work with iwi to increase consideration of any interests in HMS when customary tools are used (for example, in setting rohe moana boundaries)</li> <li>▪ Work to encourage kaitiaki/tangata tiaki to report HMS catches resulting from fishing activity authorised by customary permits under the Fisheries (Kaimoana Customary Fishing) Regulations 1998</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                              |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                              |
| <ul style="list-style-type: none"> <li>▪ Iwi take into account interests in HMS (as appropriate to individual iwi) when fishing under customary permits and when setting rohe moana boundaries</li> <li>▪ Māori customary interest in HMS is taken into account when reviewing any need for more active management using customary tools</li> <li>▪ Use of customary authorisations targeting HMS species</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              |

<sup>6</sup> Customary food gathering areas

## 4.3 MANAGEMENT OBJECTIVES TO SUPPORT ENVIRONMENT OUTCOME

*The capacity and integrity of the aquatic environment, habitats and species are sustained at levels that provide for current and future use.*

### Objective 4: Maintain sustainable HMS fisheries within environmental standards

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| 4.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Encourage management of HMS at specified target reference points |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                  |
| The Harvest Strategy Standard outlines that, where an international organisation or agreement has adopted harvest strategies and rebuilding plans that meet or exceed the minimum standards in the Harvest Strategy Standard, New Zealand will generally support those strategies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                  |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |
| <p>The WCPFC Convention provides for members of the Commission to determine stock-specific target reference points and the action to be taken if they are exceeded (Article 6(1)(a)). WCPFC has set limit reference points for bigeye tuna, yellowfin tuna, albacore tuna, and skipjack tuna. Interim target reference points have been established for skipjack tuna, and most recently, for albacore tuna.</p> <p>Work on an official 'Management Procedure' within CCSBT was aimed at formalising the management responses to a given stock level of southern bluefin tuna, by setting objectives and parameters. The Management Procedure has been used to guide the setting of the global southern bluefin tuna total allowable catch (TAC) for fishing years since 2012. The management procedure and the management objectives are being updated prior to the setting of the 2021-2023 quota block.</p> |                                                                  |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                  |
| <ul style="list-style-type: none"> <li>Advocate for the establishment of international targets and limits for all HMS</li> <li>Implement the targets in accordance with the Harvest Strategy Standard</li> <li>Advocate for CCSBT to adopt precautionary management objectives</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                  |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                  |
| <ul style="list-style-type: none"> <li>New Zealand contribution to the process at WCPFC to decide stock management targets and limits for key HMS that are consistent with the Harvest Strategy Standard</li> <li>New Zealand catch limits are consistent with identified targets and limits</li> <li>CCSBT adopts precautionary management objectives</li> <li>New Zealand catches do not exceed catch limits and/or allocations</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                  |

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| <b>4.2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Support the objectives of the National Plan of Action for Sharks</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                         |
| <p>New Zealand adopted a revised National Plan of Action for Sharks in January 2014, the National Plan of Action for Sharks 2013. Amongst other objectives, the National Plan of Action for Sharks 2013 established a risk-based approach to prioritising management actions to ensure sustainable management of shark species across New Zealand fisheries. The National Plan of Action for Sharks 2013 also defines medium and long-term objectives aimed at increasing information and improving management. HMS sharks (blue, porbeagle, and mako) are distributed throughout the Pacific.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                         |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                         |
| <p>At present, no estimates of sustainable yield are available for HMS sharks. However, in recent years, indicator-based analysis has been used to assess shark stock status. Most recently, analysis of distribution indicators for mako sharks and blue sharks, as well as distribution and CPUE indicators for porbeagle sharks, indicate that all three species show increasing or stable population trends since 2005. Within New Zealand, TACs are set at levels allowing for bycatch in associated longline fisheries.</p> <p>There are ongoing management commitments related to the decision to ban shark finning in 2014; primarily in relation to monitoring the effects of the ban on fisher behaviour and reporting. These obligations will carry-forward into this HMS Fisheries Plan.</p> <p>The first step in the assessment of the impact of HMS fisheries on shark populations is the collection of accurate information on catch and discard levels. This information is primarily supplied by QMS self-reporting documents and by observer reports. It is likely that electronic monitoring and reporting will increase the accuracy of this information.</p> <p>Given the level of international and domestic interest, the effective management of sharks is likely to require ongoing focus in years to come.</p> <p>A revised National Plan of Action for Sharks will be produced during the lifetime of this Plan, and relevant objectives and actions will be incorporated into future Annual Operational Plans.</p> |                                                                         |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                         |
| <ul style="list-style-type: none"> <li>▪ Regular review of shark fisheries, as outlined in the National Plan of Action for Sharks 2013</li> <li>▪ Contribute to and support the review of the National Plan of Action for Sharks 2013</li> <li>▪ Increase the collection of accurate information on catch and discard levels of sharks</li> <li>▪ Support electronic reporting initiatives that improve the accuracy of this information, and make use of any additional information on shark discards through Digital Monitoring</li> <li>▪ Annually monitor shark catches, using available observer data (for example, size composition and discard rates), fisher reporting, and anecdotal reports</li> <li>▪ Advocate for and input into Pacific-wide stock assessment for key HMS sharks</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                         |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                         |
| <ul style="list-style-type: none"> <li>▪ Performance against objectives of the National Plan of Action for Sharks</li> <li>▪ New Zealand compliance with international obligations relevant to sharks</li> <li>▪ Accuracy of reporting, in relation to level of catch and landing destination code</li> <li>▪ Information available on catch and discard levels of shark species</li> <li>▪ Indicator-based analysis of stock status</li> <li>▪ Levels of compliance with Schedule 6 release conditions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                         |



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| <b>4.3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Promote sustainable management of HMS fisheries through RFMOs</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                      |
| <p>Setting a TAC at a sustainable level (whether this limit is expressed through controls on catch and/or effort), and allocating rights to parts of the available catch are important steps for overall sustainable management.</p> <p>The WCPFC Convention provides for members of the Commission to determine stock-specific reference points and the actions to be taken if the reference points are exceeded.</p> <p>The harvest strategy workplan agreed at WCPFC in 2015 outlines a schedule for adopting or refining harvest strategies for skipjack tuna, bigeye tuna, yellowfin tuna, and South Pacific albacore tuna.</p> <p>CCSBT uses a management procedure to guide the setting of the global catch allocation, which is allocated to members. In addition to allocations for members, an amount is set aside for research and illegal, unreported, and unregulated fishing.</p> <p>CCSBT members are required to account for all fishing mortality of southern bluefin tuna (including commercial fishing, discards, recreational catches and artisanal fishing) from within their allocation.</p>                                                                                                                                                                                                                                                                                                                                                                                   |                                                                      |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                      |
| <p>Current controls adopted by WCPFC tend to set allocations by flag state outside of exclusive economic zones, while within the exclusive economic zones of Pacific Island countries, total allowable effort controls are used as a proxy.</p> <p>Limit reference points have been set for bigeye tuna, yellowfin tuna, albacore tuna, and skipjack tuna. Interim target reference points have been set for skipjack tuna and albacore tuna.</p> <p>New Zealand has been working with Pacific island countries through the Tokelau Arrangement to develop shared strategies for achieving sustainable management of the albacore tuna fishery.</p> <p>CCSBT sets a global catch allocation and country catch allocations every three years. New Zealand advocates strongly for a precautionary approach to managing the stock as a whole, and for fair allocation of catch between members.</p> <p>CCSBT has decided to develop a new management procedure to guide the setting of TACs for 2021 and onwards. The new management procedure will take into account changes in data availability, in particular, replacing the aerial survey with the gene tag/recapture program to monitor recruitment.</p> <p>As part of developing a new management procedure, CCSBT will also need to adopt new management objectives. These include a target reference point, a timeframe to meet the target reference point, and the certainty that the target reference point is met within the timeframe.</p> |                                                                      |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                      |
| <ul style="list-style-type: none"> <li>▪ Monitor New Zealand HMS fisheries for signs of stock contraction</li> <li>▪ Advocate for allocation of rights that provide for responsible development of New Zealand and Pacific fisheries</li> <li>▪ Actively participate in stock assessment reviews</li> <li>▪ Advocate for CCSBT to adopt precautionary management objectives</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                      |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                      |
| <ul style="list-style-type: none"> <li>▪ Management targets for HMS are consistent with the Harvest Strategy Standard</li> <li>▪ CCSBT adopts precautionary management objectives</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                      |

**Objective 5: Implement an ecosystem approach to fisheries management, taking into account associated and dependent species**

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>5.1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Recognise value of HMS and their ecosystems, including predators, prey, and protected species</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                      |
| <p>The Fisheries Act 1996 provides for the utilisation of fisheries while ensuring sustainability. Ensuring sustainability means maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations, and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment.</p> <p>The Fisheries Act 1996 requires that fisheries take into account that associated or dependent species should be maintained above a level that ensures their long-term viability. Long-term viability means there is a low risk of collapse of the species, and that the species has the potential to recover to a higher biomass level.</p>                                                      |                                                                                                      |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |
| <p>There are several domestic and international structures in place to protect vulnerable species, some of which are associated with HMS fisheries, including the Convention on the International Trade in Endangered Species (CITES), the Convention on Migratory Species (CMS), the Wildlife Act 1953, the Marine Mammals Protection Act 1978, and Schedule 4C of the Fisheries Act 1996.</p> <p>Parties to CMS recently adopted a non-binding Memorandum of Understanding for the conservation of migratory sharks, covering shark species listed in either appendix of CMS, including porbeagle and mako sharks. In 2015, New Zealand became a signatory to this agreement, which outlines various conservation and management measures for sharks.</p> |                                                                                                      |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      |
| <ul style="list-style-type: none"> <li>▪ Implement relevant conservation and management measures as required</li> <li>▪ Track relevant technological innovations for ecosystems based fisheries management, and look at how science and technology can better enable the monitoring and maintenance of biological diversity</li> <li>▪ Support DOC to maintain watching brief on international processes that identify species at risk (for example, CMS, and CITES) and participate in development of New Zealand position as appropriate</li> <li>▪ Monitor available information in relation to the values of HMS and their ecosystems</li> <li>▪ Raise awareness of non-extractive values of HMS amongst officials, fishers, and the public</li> </ul>  |                                                                                                      |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |
| <ul style="list-style-type: none"> <li>▪ Associated or dependent species are maintained above a level that ensures their long-term viability</li> <li>▪ Important forage species are not depleted</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |

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| <b>5.2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Improve the quality of information available on the capture of protected species</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                         |
| <p>Relatively low levels of observer coverage in HMS fisheries and, in some cases, the rarity of protected species interactions, limit our understanding of fishing-related threats to protected species.</p> <p>Fisheries Observers record interactions with protected species, including turtles and seabirds, to the species level where possible. Observers also collect biological data (for example, size, length, and age data; and stomach contents analysis), as well as information about gear configuration and use of mitigation measures.</p> <p>New Zealand has obligations to CCSBT and WCPFC to provide observer coverage as follows:</p> <ul style="list-style-type: none"> <li>• CCSBT – a target of 10% catch and effort</li> <li>• WCPFC – 100% coverage for purse seine vessels operating in the Convention Area, between 20° north and 20° south (observers are sourced from the WCPFC regional observer programme); for other methods operating on the high seas, a minimum of 5% coverage sourced either from the regional observer programme or, if fishing is adjacent to the New Zealand exclusive economic zones boundary, from the national observer programme</li> </ul> <p>Observer coverage is usually prioritised to meet this target, to observe areas or seasons of high risk, and to observe new vessels.</p> <p>In addition to observer reporting, fishers also report incidental captures of seabirds and turtles on non-fish bycatch forms.</p> |                                                                                         |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                         |
| <p>The delivery of fisheries services is planned well in advance, so there is often a time lag between the decision to increase and/or decrease observer coverage in a fishery and implementation of the decision. It is important that long-term information needs are considered during this planning process, and that those information needs are met through the appropriate spatial, temporal, and fleet distribution of observer coverage.</p> <p>In the future, Digital Monitoring may allow for improved data collection on bycatch interactions, which may advance understanding of protected species interactions in HMS fisheries.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                         |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                         |
| <ul style="list-style-type: none"> <li>▪ Monitor incidental catches of protected species (including comparison of observer and fisher reports of non-fish bycatch)</li> <li>▪ Plan observer coverage to provide representative coverage of the HMS fleet and meet obligations and requirements, and provide the observer coverage plan in Annual Operational Plan</li> <li>▪ Support Observer Services in providing observer coverage to meet target levels</li> <li>▪ Support the transition to Digital Monitoring</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                         |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                         |
| <ul style="list-style-type: none"> <li>▪ Levels of non-fish bycatch reporting is <math>\pm</math> 20% levels of observed non-fish bycatch reporting</li> <li>▪ Levels of observer coverage achieved</li> <li>▪ Representativeness of observer coverage across vessels, areas, seasons, target species</li> <li>▪ Reporting obligations under relevant RFMOs are met by New Zealand</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                         |

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| 5.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Avoid, remedy, or mitigate the adverse effects of fishing on associated and dependent species (including protected species), using a risk assessment approach</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                      |
| <p>The purpose of the Fisheries Act 1996 requires that adverse effects of fishing on the aquatic environment should be avoided, remedied, or mitigated. HMS fisheries are known to impact on some vulnerable incidental bycatch species.</p> <p>The National Plan of Action for Seabirds 2013 is underpinned by a risk assessment approach. This identifies the seabird species most at risk from commercial fishing, as well as the fisheries that contribute the greatest risk to these seabirds. This allows for management actions to be prioritised to reduce the risk that commercial fishing poses to seabirds.</p>                                                                                                                                                       |                                                                                                                                                                      |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                      |
| <p>Notwithstanding regulated measures, risk assessments have indicated that HMS fishing operations adversely impact some seabird and marine mammal populations. The latest risk assessment<sup>7</sup> identified that the surface longline fishery poses a substantial portion of risk to four of the top nine seabird species at 'high' or 'very high' risk from commercial fishing<sup>8</sup>.</p> <p>A southern hemisphere seabird risk assessment and work on identifying 'high risk areas' for seabirds is underway, and will likely be completed during the term of this plan.</p> <p>The National Plan of Action for Seabirds 2013 is being revised in 2019, and revised objectives and relevant actions will be incorporated into future Annual Operational Plans.</p> |                                                                                                                                                                      |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>▪ Contribute to and support the revision of the National Plan of Action for Seabirds 2013</li> <li>▪ Annually review mitigation requirements and specifications</li> <li>▪ Support the Protected Species Liaison Officer Programme work in the HMS fishery as required</li> <li>▪ Facilitate discussions on raising awareness and initiatives at stakeholder meetings</li> <li>▪ Monitor available information</li> <li>▪ Incorporate wider risk-based approach to associated species</li> </ul>                                                                                                                                                                                                                                          |                                                                                                                                                                      |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>▪ The percentage of the HMS fleet with risk management plans in place</li> <li>▪ Compliance rate for observed mitigation use</li> <li>▪ Improving of knowledge of effects of fishing on associated and dependent species</li> <li>▪ Stakeholder awareness of issues</li> <li>▪ Risk assessment work carried out, and outcomes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                      |

<sup>7</sup> Richard, Y., Abraham, E., Berkenbusch, K. (2017) [Assessment of the risk of commercial fisheries to New Zealand seabirds, 2006–07 to 2014–15](#).

<sup>8</sup> The surface longline fishery poses a substantial portion of the fisheries risk to the: black petrel, Gibson's albatross, northern Buller's albatross, and Antipodean albatross.

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| 5.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Support the objectives of the National Plan of Action for Seabirds</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                           |
| <p>The Fisheries Act 1996 requires that adverse effects of fishing on the aquatic environment should be avoided, remedied, or mitigated. Notwithstanding regulated measures, risk assessments have indicated that HMS fishing operations are adversely impacting some seabird species. The current level of observed seabird captures remains beyond the levels that both Fisheries New Zealand and industry consider acceptable.</p> <p>The current National Plan of Action for Seabirds 2013 seeks to ensure that capture rates are reducing towards negligible levels in all New Zealand fisheries. High level objectives to help achieve this, include a practical objective, a biological objective, research and development objectives, and an international objective. The HMS planning process, namely the Annual Operational Plans, contain actions towards achieving these objectives. National Plan of Action for Seabirds 2013 will be revised during the lifetime of this plan and revised National Plan of Action for Seabirds objectives will guide future Annual Operational Plans.</p>                                                                                                                                                                                                              |                                                                           |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                           |
| <p>Current regulatory mitigation focusses on preventing access to baited hooks. When setting longlines, a tori line must be used, as well as either setting lines at night or using line weighting. A number of voluntary practises also contribute to mitigation, for example, offal management. Poor levels of compliance with mandatory measures have been an issue in the surface longline fleet, and improving this has been and will continue to be a strong focus during the period covered by this plan.</p> <p>DOC's Protected Species Liaison Officer Programme turned its focus on the surface longline fleet in early 2017, with the aim of improving compliance and effectiveness of use of seabird mitigation practices. During the first year, Liaison Officers visited each vessel in the fleet twice and worked with operators to develop vessel-specific seabird management plans. During 2018, Liaison Officers visited each vessel in the fleet once and worked with operators to develop a revised and expanded protected species risk management plan.</p> <p>Finally, DOC and other industry players have been trialling various mitigation technologies, such as hook-shielding devices and improved tori lines. Fisheries New Zealand will provide support, as needed, to these efforts.</p> |                                                                           |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                           |
| <ul style="list-style-type: none"> <li>▪ Monitor seabird captures to determine if bycatch is reducing and if mitigation is being used effectively</li> <li>▪ Review mitigation requirements and specifications as required and in light of new information</li> <li>▪ Support innovation to reduce seabird interactions</li> <li>▪ Contribute to and support the revision of the National Plan of Action for Seabirds 2013</li> <li>▪ Support the Protected Species Liaison Officer Programme</li> <li>▪ Facilitate discussions on seabird initiatives at stakeholder meetings</li> <li>▪ Ensure compliance actions are taken in cases where breaches have been identified</li> <li>▪ Provide for the trial and use of alternative seabird mitigation strategies as appropriate</li> <li>▪ Support seabird initiatives at RFMOs, for example defining 'high risk areas'</li> <li>▪ Assist Pacific islands to develop National Plan of Action for Seabirds (See objective 13.1)</li> <li>▪ Communicate and collaborate bilaterally on seabird initiatives as necessary</li> </ul>                                                                                                                                                                                                                                      |                                                                           |

### Key Performance Indicators

- Performance against objectives of the National Plan of Action for Seabirds
- If seabird proxy targets are met:
  - Risk management plans in place on all surface longline vessels
  - Levels of non-fish bycatch reporting is  $\pm 20\%$  levels of observed non-fish bycatch reporting
  - 100% compliance rate for observed mitigation use
- Use rates of voluntary mitigation practices and innovation in mitigation gear

**Objective 6: Protect, maintain, and enhance fisheries habitat**

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| <b>6.1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Identify and, where appropriate, protect habitats of particular significance to HMS, especially within New Zealand fisheries waters</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                            |
| <p>Habitats of significance are not well defined, but are likely to include spawning, feeding, and nursery areas. Limited information is available on such habitats within New Zealand fisheries waters.</p> <p>Some HMS, such as hammerhead sharks, may use some New Zealand harbours, but the key HMS target species are not thought to spawn or pup within New Zealand fisheries waters, making this a lower priority area for this plan.</p> |                                                                                                                                            |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                            |
| <p>Although current knowledge is limited, the significance of habitats within New Zealand fisheries waters is likely low for most species. Nonetheless, it may be appropriate for New Zealand to support projects to identify and, where appropriate, protect habitats of significance outside of New Zealand fisheries waters. For example, some HMS stocks may benefit from protection at their spawning grounds.</p>                          |                                                                                                                                            |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                            |
| <ul style="list-style-type: none"><li>▪ Monitor availability of information in this field including research undertaken by other agencies</li><li>▪ If necessary, undertake work to evaluate available information</li><li>▪ Improve knowledge about where and when HMS species spawn and grow to maturity</li></ul>                                                                                                                             |                                                                                                                                            |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                            |
| <ul style="list-style-type: none"><li>▪ Improving of knowledge on habitats of significance</li></ul>                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                            |

## 4.4 MANAGEMENT OBJECTIVES TO SUPPORT GOVERNANCE CONDITIONS

*Sound governance arrangements that are well specified, transparent, and which support cost-effective and accountable decision-making*

### Objective 7: Maintain an effective fisheries management regime

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| 7.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Ensure transparency by providing stakeholders with relevant information and performance indicators for HMS fisheries |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                      |
| This objective ensures stakeholders have access to information that will allow them to assess how HMS fisheries are managed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                      |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                      |
| <p>The Fish Plan Advisory Group meets twice a year to review the implementation of the HMS Fisheries Plan and the Annual Operational Plan. This consultation is currently the primary way stakeholders have a say in the way that HMS fisheries are managed. Additionally, the HMS Fisheries Plan, Annual Operational Plan, and Annual Review Report are available to the public through the Fisheries New Zealand website.</p> <p>Fisheries New Zealand holds workshops twice a year with the commercial surface longline fleet, and takes part in the Tuna Management Association annual general meeting. Fisheries New Zealand uses these meetings to discuss issues of high importance or urgency to fishers and/or fisheries managers.</p> <p>Fisheries New Zealand also arranges ad-hoc meetings with stakeholders when necessary (for example, to discuss inter-sector conflicts). As well, the 'Pelagic Update', which is a brief newsletter, is circulated to HMS stakeholders twice a year.</p> <p>It may be useful to consider increased digital communications and/or social media communications to increase engagement with some stakeholder groups, specifically environmental non-profits and the general public.</p> |                                                                                                                      |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                      |
| <ul style="list-style-type: none"> <li>▪ Provide information to the public on research developments, management measures, or codes of practice for HMS as appropriate</li> <li>▪ Make Annual Operational Plans and Annual Review Reports available to public through Fisheries New Zealand website</li> <li>▪ Produce articles for Fisheries New Zealand website, the Pelagic Update, and national media to publicise HMS research and management updates</li> <li>▪ Arrange for the Fish Plan Advisory Group to meet semi-annually to review implementation of the fisheries plan and Annual Operational Plan</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                      |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                      |
| <ul style="list-style-type: none"> <li>▪ Attendance and representation of stakeholders at the Fish Plan Advisory Group meetings</li> <li>▪ Provision of documentation and information to stakeholders and the wider public through a recognised consultation process</li> <li>▪ Two Fish Plan Advisory Group workshops are held per year</li> <li>▪ Two Longline Workshops are held per year</li> <li>▪ Attendance at Tuna Management Association meetings (when requested)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                      |



## Objective 8: Recognise and provide for Deed of Settlement obligations

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 8.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Implement Deed of Settlement obligations as they relate to HMS |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                |
| <p>The Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 establishes both specific obligations relating to commercial and non-commercial use of fisheries, and more general obligations relating to the right of tangata whenua to participate in fisheries management decisions and to have particular regard given to their values and aspirations (kaitiakitanga). This framework also allows for the development of protocols with iwi as part of individual Deeds of Settlement. To date, no Deed of Settlement protocols include specific requirements in relation to HMS. Nonetheless, the protocols generally establish principles that govern interactions between Fisheries New Zealand and iwi bodies.</p>                                                             |                                                                |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                |
| <p>Te Ohu Kaimoana has outlined its view that introducing remaining HMS (notably albacore tuna and skipjack tuna) into the QMS would contribute further to implementation of commercial aspects of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.</p> <p>In addition, many iwi have developed iwi fisheries plans that represent their views as part of other planning processes (for example, for local government). In the future, iwi fisheries plans are likely to provide additional guidance for HMS fisheries management, particularly if efforts are made to ensure consideration is given to possible interests in HMS during the development of such plans. Such documents will be reviewed to identify any items of relevance to Annual Operational Plans.</p> |                                                                |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                |
| <ul style="list-style-type: none"> <li>Annually review the Deed of Settlement protocols and iwi fisheries plans to identify any items of relevance, and incorporation of this material as appropriate into planning and prioritisation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                |
| <ul style="list-style-type: none"> <li>Criteria set out in individual Deed of Settlement protocols are met</li> <li>Consideration of HMS fisheries during the drafting processes of iwi fisheries plans</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                |

## Objective 9: Ensure New Zealand interests are taken into account internationally

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 9.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Influence international fora and ensure New Zealand interests are taken into account |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                      |
| <p>RFMOs (CCSBT, WCPFC) and other international agreements (for example, CMS) can directly influence fishing in New Zealand's exclusive economic zone, and New Zealand vessels on the high seas. Participation at these fora, where New Zealand can advocate for favourable outcomes, is hugely valuable, and requires attendance at annual or subsidiary meetings.</p> <p>New Zealand must be well-informed about the range of domestic interests (commercial, cultural, environmental, and social) to ensure they are taken into account within international negotiations. Being well-informed also allows better assessment of the likely impacts of measures.</p> |                                                                                      |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                      |
| <p>To date, New Zealand domestic interests have been identified through regular contact, including briefings and debriefings for annual and subsidiary meetings, and stakeholder participation on delegations.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                      |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                      |
| <ul style="list-style-type: none"> <li>▪ Hold briefings and debriefings with fisheries stakeholders before and after both CCSBT and WCPFC annual and subsidiary meetings as required</li> <li>▪ Advocate for RFMOs and associated fora to take into account New Zealand interests</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           |                                                                                      |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                      |
| <ul style="list-style-type: none"> <li>▪ Stakeholder views incorporated into New Zealand negotiating positions</li> <li>▪ Outcomes at RFMOs and international fora take into account New Zealand interests</li> <li>▪ Outcomes at RFMOs and international fora efficiently communicated to stakeholders</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>9.2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Build strong relationships with other fishing nations, in order to influence international fora</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                        |
| <p>Opportunities to build relationships with other nations that fish for HMS occur across various international engagements and meetings. New Zealand's active role in these engagements, particularly in the Pacific, have forged strong relationships with our international counterparts. Positive relationships help to ensure New Zealand's views and positions are taken into consideration in the development and agreement of international measures.</p> |                                                                                                        |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                        |
| <p>Engagement and support for Pacific Island countries occurs via multiple approaches including the Memorandum of Understanding on Pacific Capacity Development (see Management Objective 10), bilateral arrangements directly with countries, and through strategic relationships with regional fora such as WCPFC, CCSBT, FFA, the Pacific Community (SPC), and Te Vaka Moana.</p>                                                                              |                                                                                                        |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                        |
| <ul style="list-style-type: none"> <li>▪ Attend relevant international fisheries meetings</li> <li>▪ Engage with regional groupings including FFA, SPC, and Te Vaka Moana</li> <li>▪ Hold bi-lateral and multi-lateral meetings to build strategic connections with international partners</li> </ul>                                                                                                                                                             |                                                                                                        |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                        |
| <ul style="list-style-type: none"> <li>▪ Support by members of New Zealand's initiatives at international fora</li> </ul>                                                                                                                                                                                                                                                                                                                                         |                                                                                                        |

## Objective 10: Contribute to Pacific capacity development

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 10.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Contribute to the implementation of MPI's Memorandum of Understanding with New Zealand Aid on Pacific capacity development</b> |
| <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                   |
| <p>Fisheries New Zealand has been delivering assistance to Pacific island countries' fisheries administrations under a Memorandum of Understanding, "Pacific Economic Development, Pacific Fisheries Management and Development Initiative: Phase II", with the Ministry of Foreign Affairs and Trade (MFAT) since 2012. It is resourced at Fisheries New Zealand, by way of funding from MFAT.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                   |
| <b>Current Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |
| <p>The assistance that Fisheries New Zealand provides aims to improve governance and support the development of fisheries management and monitoring, control, and surveillance (MCS) systems and processes. This will improve the on-going ability of Pacific island countries to sustainably manage their fisheries resources, both shared and in-zone. Fisheries New Zealand employs a bottom-up approach across the region through practical capability building of fisheries administration staff. This lays a foundation for progress towards the overall goal of the Memorandum of Understanding to maximise the economic and developmental benefits, through sustainable management and utilisation of Pacific fisheries resources.</p>                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |
| <b>Management Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                   |
| <ul style="list-style-type: none"> <li>▪ Strategically plan with Pacific island countries' fisheries administrations building capacity for governance frameworks in relation to fisheries management</li> <li>▪ Use secondments, attachments, and workshops to support fisheries management capacity development in Pacific island countries' fisheries administrations</li> <li>▪ Engage with FFA and SPC to support institutional planning and capacity building where appropriate, including assistance to implement Pacific initiatives funded through MFAT</li> <li>▪ Coordinate and provide technical fisheries management advice for both offshore and coastal fisheries, as well as customary management frameworks</li> <li>▪ Provide technical MCS and Enforcement advice that will build capacity of Pacific partners to design their own MCS frameworks to support fisheries management</li> <li>▪ Provide advice to the Administrator of Tokelau on the management of Tokelau's offshore fisheries as and when required</li> </ul> |                                                                                                                                   |
| <b>Key Performance Indicators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |
| <ul style="list-style-type: none"> <li>▪ Provision of advice to Pacific Island countries on strengthening governance</li> <li>▪ Provision of fisheries management advice to Pacific partners with which New Zealand has bilateral arrangements</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   |

## 5 Profile of New Zealand's HMS Fisheries Sector

This section provides an overview of the HMS fisheries sector, recent trends in the fishery, its current operation and its challenges.

### 5.1 KEY TRENDS

- Export earnings from the seafood sector have remained flat for over a decade;
- World renowned game fisheries and expanding interest in sport fishing;
- It is increasingly apparent that third party certification is becoming the minimum standard for entry into certain markets;
- A greater public focus on the negative impacts of fishing on non-fish and non-target species (bycatch);
- Purse seine, longline, and troll remain the most popular methods of fishing for HMS; and
- The New Zealand fishing fleet has considerably reduced since 2001, and the gap between the number of larger and smaller vessels is expected to continue increasing over the years to come.

### 5.2 HMS

#### 5.2.1 Biological Overview

##### Large Tunas

The distribution of tuna in New Zealand fisheries waters is seasonal and is influenced by both short and long term environmental factors. Stock status can also influence availability in New Zealand fisheries waters. Catch rates of southern bluefin tuna, for example, have been affected by the overall status of the stock in recent years. Evidence of a long term decline in the availability of yellowfin tuna in New Zealand fisheries waters may also be related to the level of fishing effort on the stock as a whole or environmental changes.

While there are known fishing grounds for tuna species such as bigeye and southern bluefin, the timing and detail of their distribution can vary from year to year. The key spawning and juvenile grounds for these species, which are areas of importance for fisheries management, are generally outside of New Zealand fisheries waters.

Southern bluefin tuna consist of a single stock primarily distributed between latitudes 30°S and 45°S. Southern bluefin tuna caught in the New Zealand exclusive economic zone appear to represent the easternmost extent of a stock whose centre is in the Indian Ocean. A range of size classes are present in New Zealand fisheries waters (and taken by the commercial fishery), including both mature and juvenile fish. The estimated age of maturity is around 12 years, by which stage the fish may be as large as 165cm.

Bigeye tuna is distributed broadly across the Pacific Ocean, in both the Northern and Southern Hemispheres. Individuals found in New Zealand fisheries waters are mostly adults.

##### Billfish

Swordfish range from latitudes 50°North to 45°South in the western Pacific Ocean and from 45°North to 35°South in the eastern Pacific Ocean. Spawning takes place in the tropical waters of the western Pacific and to a lesser extent the equatorial waters of the central Pacific. The New Zealand fishery, which is based generally on mature fish, is assumed to be part of a south-west Pacific stock.

Striped marlin range from 45°North to 40°South in the Pacific and from continental Asia to 45°S in the Indian Ocean. Within the Western and Central Pacific Convention area there is generally considered to

be a northern and a southern hemisphere stock. Most striped marlin caught in New Zealand fisheries waters are relatively large (70 kilograms and heavier), and are believed to be mature.

### **Albacore tuna**

Two albacore tuna stocks (north and south Pacific) are recognised in the Pacific Ocean, although there is some movement of fish between the two stocks. For the south Pacific stock, most catches occur in longline fisheries in the exclusive economic zones of other south Pacific states and territories, in high seas areas, and in a New Zealand-based troll fishery.

Adult albacore spawn in tropical and sub-tropical waters between latitudes 10°South and 25°South during the austral summer, with juveniles recruiting to surface fisheries in New Zealand coastal waters about two years later. Albacore tuna are found in most waters around New Zealand. From this region, albacore tuna appear to gradually disperse to the north, however may make seasonal migrations between tropical and sub-tropical waters.

Albacore tuna is an 'apex' or 'top' predator when fully grown. Albacore tuna prey on fish and squid, particularly lancetfish and lantern fish, as well as crustaceans. Adult albacore tuna have few natural predators. Nonetheless, smaller albacore tuna are probably an important food source for other pelagic species, including blue and mako sharks.

### **Skipjack tuna**

Skipjack tuna are typically a schooling species, with juveniles and adults forming large schools at or near the surface in tropical and warm-temperate waters to at least 40°South in New Zealand fisheries waters. Skipjack tuna movement is variable but is thought to be influenced by large-scale oceanographic conditions (as well as other factors such as availability of food and potentially overall stock size).

Individuals found in New Zealand fisheries waters are mostly juveniles, which also occur more broadly across the Pacific Ocean, in both the northern and southern hemisphere. Individual tagged skipjack tuna have shown movements of over several thousand nautical miles but also exhibit periods of residence around islands in the central and western Pacific. They migrate to warmer waters for the winter months. Spawning occurs year-round in tropical waters.

## **5.3 FISHERY INFORMATION**

### **5.3.1 Fleet Configuration**

Approximately 170 domestically owned and operated vessels (mostly 12 to 25 metres) make up the main part of the domestic commercial New Zealand tuna fishing fleet. These vessels fish using troll or longline gear, with some switching between gear types seasonally, or operating for part of the year in non-tuna fisheries.

Following the development of domestic longlining in the early 1990s, the number of vessels in the domestic tuna fleet operating in New Zealand fisheries waters peaked in 2001, and has subsequently declined after introduction of longline target and bycatch species into the QMS in 2004.

Two New Zealand-flagged large purse seiners and several smaller capacity purse seine vessels have fished in the exclusive economic zones of Pacific Island States, and on the high seas of the equatorial western and central Pacific Ocean since 2000. These vessels have traditionally also fished part of the year within New Zealand fisheries waters targeting free swimming (unassociated) schools of skipjack tuna.

No foreign licensed tuna longline vessels have fished in New Zealand fisheries waters since 1995. A small fleet of foreign-owned longline vessels on charter to a New Zealand fishing company operated in New Zealand fisheries waters from the late 1980s to 2016. These longline vessels almost exclusively targeted southern bluefin tuna. The vessels left the fleet after legislation changes, requiring foreign vessels operating in New Zealand fisheries waters to be flagged to New Zealand.

In general, it is expected that larger players will continue to buy quota, increasing the gap between larger and smaller firms over the years to come. Recent economic conditions have also resulted in further

decreases in participation in domestic longlining. These conditions include a variable New Zealand dollar, increasing input costs, and a static market value for the fish product.

### **5.3.2 Fishing Patterns**

The key target species in the longline fishery is southern bluefin tuna. The southern bluefin tuna fishery begins in the first quarter of the year off the west coast of the South Island and gradually shifts during the second quarter of the calendar year, mostly off the east coast of the North Island. The remainder of the year the fishery targets swordfish, bigeye tuna, and other species off the east coast and northeast tip of the North Island.

The albacore tuna troll fishery is based mainly on the west coast of the North and South Islands, and operates between December and May each year. Catches can vary markedly from year to year, depending largely on the availability of albacore tuna in New Zealand fisheries waters.

The purse seine fishery within New Zealand fisheries waters occurs on both the east and west coast of the North Island between January and May. The amount of catch and effort in a given year depends on the presence of the larger purse seine vessels that sometimes move down from the tropics to fish within New Zealand fisheries waters during the summer, as well as the availability of skipjack tuna.

### **5.3.3 Catch Composition**

The catch by species taken within and beyond New Zealand fisheries waters is summarised in Table 1. Since 2010, skipjack tuna catches taken by purse seine have comprised the greatest part of the catch of tuna species, both inside and outside New Zealand fisheries waters. Outside New Zealand fisheries waters, yellowfin tuna catch (by purse seine) makes up most of the balance, but are rarely part of the purse seine catch inside New Zealand fisheries waters where the tuna purse-seine fishery exclusively targets free schools of skipjack tuna.

Albacore tuna are the second largest component of the tuna catch, and are taken mostly by troll gear, but also as bycatch in longline fisheries. Troll gear also takes a small amount of skipjack tuna with occasional catches of other tuna species. Swordfish are almost exclusively caught in longline fishing operations.

**Table 1:** Estimated whole weight (tonnes) of tuna and swordfish landed by New Zealand flagged vessels active in the WCPFC Convention Area, for years 2011 to 2017 (0 refers to catches < 500 kilograms). NZFW refers to catches within New Zealand fishery waters (up to 200 nautical miles off the coastline), and Extra Territorial (ET) refers to catches outside this area. The 2017 figures are preliminary. Note: the estimates presented in this Table may differ from those estimated by the SPC due to differences in the estimation procedures used for the purse seine catch.<sup>9</sup>

|                           |              | Calendar year |              |              |              |              |             |             |
|---------------------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|-------------|
|                           |              | 2011          | 2012         | 2013         | 2014         | 2015         | 2016        | 2017        |
| Albacore                  | NZFW         | 3205          | 2990         | 3142         | 2257         | 2648         | 2185        | 2141        |
| <i>Thunnus alalunga</i>   | ET           | 0             | 0            | 0            | 0            | 0            | 0           | 0           |
|                           | <b>Total</b> | <b>3205</b>   | <b>2290</b>  | <b>3142</b>  | <b>2257</b>  | <b>2648</b>  | <b>2185</b> | <b>2141</b> |
| Bigeye                    | NZFW         | 174           | 154          | 110          | 122          | 81           | 177         | 97          |
| <i>Thunnus obesus</i>     | ET*          | 125           | 95           | 92           | 190          | 20           | 23          | 60          |
|                           | <b>Total</b> | <b>299</b>    | <b>250</b>   | <b>202</b>   | <b>312</b>   | <b>101</b>   | <b>200</b>  | <b>157</b>  |
| Pacific bluefin           | NZFW         | 28            | 13           | 24           | 12           | 16           | 18          | 14          |
| <i>Thunnus orientalis</i> | ET           | 0             | 0            | 0            | 0            | 0            | 0           | 0           |
|                           | <b>Total</b> | <b>28</b>     | <b>13</b>    | <b>24</b>    | <b>12</b>    | <b>16</b>    | <b>18</b>   | <b>14</b>   |
| Skipjack                  | NZFW         | 10840         | 9881         | 13312        | 11245        | 12351        | 5268        | 5120        |
| <i>Katsuwonus pelamis</i> | ET           | 9999          | 8016         | 10456        | 8137         | 6362         | 2802        | 4307        |
|                           | <b>Total</b> | <b>20839</b>  | <b>17897</b> | <b>23768</b> | <b>19382</b> | <b>18712</b> | <b>8070</b> | <b>9427</b> |
| Swordfish                 | NZFW         | 739           | 687          | 778          | 583          | 715          | 757         | 507         |
| <i>Xiphias gladius</i>    | ET           | 0             | 0            | 0            | 0            | 0            | 0           | 0           |
|                           | <b>Total</b> | <b>739</b>    | <b>687</b>   | <b>778</b>   | <b>583</b>   | <b>715</b>   | <b>757</b>  | <b>507</b>  |
| Yellowfin                 | NZFW         | 3             | 2            | 1            | 2            | 16           | 57          | 10          |
| <i>Thunnus albacares</i>  | ET*          | 966           | 1042         | 925          | 942          | 262          | 37          | 387         |
|                           | <b>Total</b> | <b>968</b>    | <b>1044</b>  | <b>925</b>   | <b>944</b>   | <b>278</b>   | <b>94</b>   | <b>397</b>  |

\* The ET estimates for yellowfin tuna also include some bigeye tuna as these are not always separated on purse seine logbooks completed by fishers.

### 5.3.4 Recreational HMS Fisheries

Most game fish in New Zealand are large migratory oceanic species. They are usually only available in New Zealand fisheries waters for part of the year. The main game fish season runs from late December to April and focuses, in the North Island, on striped marlin, blue marlin, and yellowfin tuna. Fishing for yellowtail kingfish and swordfish can extend the game fish season beyond the warmest months. Black marlin and shortbill spearfish are also occasionally caught in New Zealand fisheries waters.

Game fishers in different parts of New Zealand target other tuna species, mainly albacore tuna and skipjack tuna while small numbers of bigeye and Pacific bluefin tuna are caught as target or bycatch species. Also, the recreational southern bluefin tuna fishery has shown a dramatic increase in landings during the 2017 season.

New Zealand anglers catch HMS shark species as bycatch. The vast majority are released, or tagged and released. Fishing club catch tallies are therefore likely to underestimate the actual recreational catch of sharks.<sup>10</sup>

<sup>9</sup> WCPFC Country Report

<sup>10</sup> J. Holdsworth, K. Walshe, T. Sippel. Characterisation of the New Zealand Recreational Game fish Fishery. 2005.



## 5.4 ECONOMIC CONTEXT

HMS fisheries have both a commercial and a non-commercial (recreational) value.

Recreational fishing generates significant economic benefits to New Zealand. A recent study of economic activity associated with recreational fishing estimated nearly a billion dollars a year in expenditure, contributing \$570 million to GDP and over 8,000 full time equivalent jobs.<sup>11</sup>

The key revenue driver for the commercial fishery is export earnings. The main markets are China, Australia, USA and Japan.<sup>12</sup> Exports provide around 99% of total revenues for the sector, while the domestic market remains very limited. For over a decade, the total value of export earnings of seafood in New Zealand dollars has remained relatively flat.<sup>13</sup>

Seafood, comprising both wild-capture and aquaculture product, was New Zealand's seventh ranked export earner for the year ending December 2018. The total value of seafood exports over this period was NZ\$ 2.0 billion<sup>14</sup> out of a total, main commodity export value of NZ\$57.5 billion. However, New Zealand supplies less than 0.5% of global seafood production and less than 1% of global seafood trade.

New Zealand does not set the price of seafood in the global seafood commodity market because it supplies a relatively small proportion in each export category. Other limiting factors include the value of the New Zealand dollar in relation to other currencies and the market or cannery price. Costs include compliance costs and government levies.

### 5.4.1 Economic Context by Fishery

#### Large Tuna Fishery

The large pelagic species are generally high value species. Longline-caught tunas, such as southern bluefin tuna, Pacific bluefin tuna, and bigeye tuna, continue to fetch the highest prices. While the return for these species is high, there is a high cost involved in getting longline-caught species to overseas markets, and at times, fishers may make a net loss if fish do not meet market quality standards.

#### Billfish Fishery

Game fishing is a highly valued pastime for many New Zealanders and international visitors. The fishery for striped marlin and swordfish makes up a large proportion of the multi-million dollar recreational game fishery in New Zealand. The marlin fishery is one of the few examples in New Zealand of a fishery indirectly allocated entirely to the recreational sector. Other HMS fisheries are shared between sectors to varying degrees.

The potential for growth and high value returns to New Zealand from incoming tourists' spending on game fishing relies on reasonable catch rates. Game fishing is an important part of the social and economic wellbeing of regional and coastal towns in New Zealand, drawing visitors and revenue into low income areas such as Northland and the East Cape.

#### Albacore Tuna Fishery and Skipjack Tuna Fishery

Most albacore tuna and skipjack tuna caught in New Zealand fisheries waters or caught by New Zealand vessels is exported frozen, with only a small amount sold domestically. They are primarily sent to canneries in a variety of markets, including Spain, Thailand, Vietnam and Mauritius. The values of albacore tuna and skipjack tuna are considerably lower than that of large tuna.<sup>15</sup>

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<sup>11</sup> [Recreational Fishing in New Zealand: A Billion Dollar Industry, 2016. New Zealand Marine Research Foundation.](#)

<sup>12</sup> Statistics New Zealand

<sup>13</sup> Statistics New Zealand

<sup>14</sup> Includes export of commodities from harmonised system (HS) classification group 03 (fish, crustaceans, molluscs, other aquatic invertebrates); HS 16 (preparations of fish, crustaceans, molluscs, other aquatic invertebrates); HS 1504 (fats and oils and their fractions, of fish or marine mammals, whether or not refined, but not chemically modified); HS 2301.20 (flours, meals and pellets of fish, crustaceans, molluscs, other aquatic invertebrates); and HS 0511.91 (products of fish, crustaceans, molluscs, other aquatic invertebrates; dead animals from chapter 3, unfit for human consumption).

<sup>15</sup> For the latest information on global tuna prices see the FFA website [www.ffa.int/trade\\_news](http://www.ffa.int/trade_news).

The albacore tuna troll fishery and Talley's skipjack purse seine fishery are MSC certified. The albacore troll fishery was first certified in 2011, and was re-certified in 2017. Talley's skipjack purse seine fishery was first certified in 2017. Both certifications run for a period of four years. The financial returns, in terms of increases market price, remains uncertain. However, it could be the minimum standard for entry into some markets in the near future.

### **5.4.2 Government Costs**

Some governance and service costs are recovered directly from the commercial fishing industry. The costs recovered include levy charges for compliance and registry services, observer coverage, and research.

Government recover on average around \$1.2 million per year from industry for HMS stocks. The total levy charges are usually the highest for southern bluefin tuna (which some years can account for up to around 50% of the costs recovered for HMS stocks), followed by bigeye tuna, albacore tuna, swordfish, and skipjack tuna. For QMS species, costs are recovered per quota share, and for non-QMS species, costs are recovered per landed tonne.

### **5.4.3 Third Party Certification**

Many food retail chains overseas, particularly in the USA, Europe and Asia, are committed to responsible sourcing policies for food. This trend for verification and traceability is increasingly popular and has led to demand for independent verification to confirm that fish are sourced legally from well-managed and sustainable fisheries.

Third-party certification means that an independent organisation<sup>16</sup> has reviewed the fishery or product, often through a comprehensive assessment process to verify that it meets an agreed standard.

At present, the MSC standard is the world leader in third-party certification of fisheries.<sup>17</sup> After a fishery is assessed and meets the MSC standard, a five-year certificate is issued, subject to annual surveillance audits.

To date, two HMS fisheries are certified. The New Zealand albacore tuna troll fishery was certified in 2011 and re-certified in 2017, whilst the skipjack tuna purse seine fishery was certified for the first time in 2017.

## **5.5 ENVIRONMENTAL MANAGEMENT**

### **5.5.1 HMS Fisheries and the Environment**

Most HMS are 'apex' or 'top' predators when fully grown. They consume a range of fish and squid species. Adults of the species have few natural predators, although juveniles are likely to be an important food source for various other HMS. Apex predators are thought to play a crucial role in maintaining the health of an ecosystem, in part because they may exert substantial control over the sizes of the populations of many species on lower levels of the food web. Consequently, they may contribute to the stability of marine ecosystems, and maintain biodiversity.

Tuna longline fisheries catch a range of bycatch or non-target species, including pelagic sharks and other fish bycatch, many of which have catch limits within New Zealand fisheries waters. Juvenile skipjack tuna and albacore tuna are often caught as bycatch in large tuna fisheries.

When albacore tuna is targeted by trolling in New Zealand fisheries waters it makes up over 99% of the total catch, with bycatch accounting for less than 1%. Of this limited bycatch, the main species include skipjack tuna, yellowfin tuna, bigeye tuna, Ray's bream, kahawai, and several species of shark. Various other species are also caught from time to time, but in small quantities.

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<sup>16</sup> This means an organisation that is independent from both the standard setting body, and the operation and management of the fishery being assessed

<sup>17</sup> More information on the Marine Stewardship Council may be found at [www.msc.org](http://www.msc.org)

Of the HMS fisheries, longline fishing is the most likely to result in interactions with non-fish bycatch. Strategies have been developed to mitigate interactions with seabirds, marine mammals and sea turtles. Troll fishing has limited or no incidental interactions with seabirds, marine mammals, and marine reptiles.

HMS fisheries are not known to have significant adverse effects on benthic habitats.

### 5.5.2 Sharks

The primary document that deals with the impacts of fishing on sharks in New Zealand is the National Plan of Action for Sharks 2013<sup>18</sup>. Sharks are an important apex predator and, in recent years, public concern for the conservation and welfare of sharks has increased.

Pelagic sharks are at risk of being caught in longline fishing operations. The most commonly bycaught shark species in New Zealand's longline fishing operations are blue, mako, and porbeagle sharks, with the majority being blue sharks.

In October 2014, New Zealand banned the practice of shark finning (retaining the fins of sharks while disposing of the rest of the body at sea).

Some key facts about the shark fin ban:

- Previous to 2014, live shark finning was banned/non-existent in New Zealand.
- HMS sharks are managed sustainably under the QMS.

New Zealand implemented its shark fin ban using a combination of fins naturally attached, fins artificially attached using plastic ties, and official shark to fin ratios at the time of landing.

Specific provision has been made to allow the release of HMS sharks in the QMS, subject to the condition that they are alive and likely to survive release. This provision allows for the release of juvenile sharks which have little or no commercial value and large sharks that can be dangerous to handle.

As of 1<sup>st</sup> October, 2014, a change to Schedule 6 of the Fisheries Act 1996 means that certain pelagic sharks (blue shark, mako, and porbeagle) can be returned to the sea either dead or alive, with specific codes for each state when they are returned. This change is meant to support the shark finning ban as it provides a legal option for fishers who accidentally catch a shark for which they have no market.<sup>19</sup>

Large reductions in longline effort, coupled with the shark finning ban and Schedule 6 changes, have resulted in reductions in landings of the major bycatch species. Research thus far has been unsuccessful in finding an efficient and effective way to mitigate shark bycatch.

### 5.5.3 Seabirds

The primary document that deals with the impacts of fishing on seabirds in New Zealand is the National Plan of Action for Seabirds 2013<sup>20</sup>.

Incidental capture by commercial fishing operations is a significant threat to many seabird species globally. This has been acknowledged to be of serious concern since the early 1990s.

New Zealand has the most diverse seabird community in the world, including the greatest number of albatrosses and petrels. DOC's *New Zealand Threat Classification System*<sup>21</sup>, has ranked species according to the threat of extinction. A number of species with the highest ranking are captured in the surface longline fishery (for example, black petrel and Gibson's albatross).

Fisheries New Zealand monitors seabird bycatch as part of its at-sea observer programme. Observations are used to calculate total estimated captures. This information is further used to model

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<sup>18</sup> [National Plan of Action for Sharks](#)

<sup>19</sup> [Eliminating shark finning in New Zealand](#)

<sup>20</sup> [National Plan of Action for Seabirds](#)

<sup>21</sup> [New Zealand Threat Classification System](#)

risk from fishing to each seabird species. According to the most recent MPI risk assessment<sup>22</sup>, a number of species are at 'medium', 'high' or 'very high' risk from commercial fishing. Of the species with these risk rankings, the surface longline fishery poses a substantial portion of the fisheries risk to four<sup>23</sup>.

Surface (pelagic) longlines are set near the surface to target species such as tuna or swordfish. For extended periods of time during deployment of the gear, the baited hooks are in diving range of seabirds. This puts the seabirds at risk from being fatally hooked or tangled in the line when they attempt to take the bait. This risk can be exacerbated if, for environmental or operational reasons, hooks are pulled up towards the surface, for example, by seabirds diving and retrieving hooks.

Mandatory mitigation focusses on preventing access to the baited hooks. Line weights increase hook sink rates and tori lines and night setting reduce the availability or visibility of the baits. A number of voluntary practises also contribute to mitigation. For example, offal management to avoid attracting birds to the vessel and dyeing baits blue to hide them from view.

There is also risk of seabird capture during hauling if uneaten baits have remained on the hooks. Seabirds captured on the haul are usually able to be released alive, however there is the possibility of subsequent unseen mortality.

There is relatively low observer coverage in the surface longline fishery (a target of 10% of fishing effort per annum). This has led to uncertainty around bycatch information, resulting in high estimations of total incidental seabird captures.<sup>24</sup>

The estimated total incidental seabird captures in the surface longline fishery has fallen from over 2,000 in the 2003/04 fishing year to well below 1,000 in the 2017/18 fishing year<sup>25</sup>. Results from the latest risk assessment are used in identifying and managing seabird interactions and this Plan supports a continuation of the trend in reducing seabird captures in HMS fisheries, in line with National Plan of Action for Seabirds 2013.

Improving seabird bycatch information and mitigation is an ongoing agenda for New Zealand, as well as CCSBT and WCPFC.

#### **5.5.4 Turtles**

The estimated total incidental turtle captures in the surface longline fishery has fluctuated since the 2003/04 fishing year when there was 35, to 2015/16 fishing year when there was 61<sup>26</sup>. From 2003/04 to 2016/17, there have been 24 observed captures of sea turtles in New Zealand surface longline fisheries, all of which were released alive. No turtle catches have been observed or reported from the purse seiners that operate within New Zealand fisheries waters.

Members of WCPFC have committed to implementing international guidelines to reduce sea turtle mortality, enhance the implementation of mitigation measures and report available information on sea turtle interactions (CMM 2008-03). New Zealand has issued its surface longline vessels with turtle de-hooking and line cutting equipment to improve the handling of any turtles that are caught.

#### **5.5.5 Marine Mammals**

The environmental impacts of HMS fisheries on marine mammals are relatively small. In the 2016/17 fishing year, there were 32 observed captures of New Zealand fur seal in surface longline fisheries. No estimates of total captures were made. The most recent fur seal capture in the skipjack tuna purse seine fishery was in 2008. Dolphins are occasionally encountered in the purse seine fishery. An industry code of practice has been developed to mitigate any impact.

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<sup>22</sup> Richard, Y., Abraham, E., Berkenbusch, K. (2017) [Assessment of the risk of commercial fisheries to New Zealand seabirds](#), 2006–07 to 2014–15.

<sup>23</sup> The surface longline fishery poses a substantial portion of the fisheries risk to the: black petrel, Gibson's albatross, northern Buller's albatross and Antipodean albatross.

<sup>24</sup> Richard, Y., Abraham, E., Berkenbusch, K. (2017) [Assessment of the risk of commercial fisheries to New Zealand seabirds](#), 2006–07 to 2014–15.

<sup>25</sup> <https://psc.dragonfly.co.nz>

<sup>26</sup> <https://psc.dragonfly.co.nz>

### 5.5.6 Benthic Interactions

Surface Longline Fisheries have no impact on the benthic environment. The method of purse seining, the most common fishing method for the skipjack tuna fishery, does not have adverse effects on benthic habitats so long as the net depth is appropriate for the water depth. However, benthic species have been known to have been taken in purse seine nets, indicating that purse seine vessels may sometimes fish in shallower waters (relative to their net depth). Purse seine fishing for skipjack tuna usually occurs some distance off the coast. Shallow water extends offshore for considerable distances on the west coast of the North Island, and in this area there is some risk of benthic impacts, although operators report using shallower nets than those used in tropical fisheries.

## 6 Engagement with Partners and Stakeholders

### 6.1 TANGATA WHENUA

Fisheries are a traditional source of economic and cultural wealth for Māori. Being able to provide fish or shellfish to feed whanau (family) or manuhiri (guests) has always been part of the cultural heritage of tangata whenua, or 'people of the land'. Commercial fisheries have also been important, as seafood was traded widely among tribal groups and, later, with European settlers. Māori traditionally ate a wide variety of seafood. No specific records have been found to date of fishing for some HMS, but they were nonetheless potentially part of customary catches, given the distance offshore that Māori fished, and the quality of their fishing materials. Māori have past, present, and future interests in HMS fisheries.

Kaitiakitanga can be generally understood as guardianship, protection, or preservation. It is a way of managing the environment, based on the traditional Māori worldview. It is a broad notion that is intimately connected to other Māori values and principles, which together make up tikanga. Each iwi (including their hapu) may express these values in different ways. (For more information, see Appendix 1, Tikanga: Examples of Māori Principles and Practices)

In 2009, MPI began a process to support tangata whenua, through iwi fisheries forums, to develop iwi fisheries plans as a vehicle to express their kaitiakitanga aspirations and objectives relating to fisheries. These iwi fisheries plans are then given regard in fisheries management decisions, as fisheries plans will incorporate relevant objectives and prioritisation information from iwi fisheries plans. Iwi fisheries forums and iwi fisheries plans are key tools for ensuring tangata whenua have effective input and participation at the appropriate levels of fisheries management decision making, early on in the decision-making process. Iwi fisheries plans provide for input from individual iwi and hapu by communicating objectives that reflect their environmental, commercial, and customary fisheries interests.

Te Ohu Kaimoana participates in Fish Plan Advisory Group meetings, and Fisheries New Zealand works with Te Ohu Kaimoana to encourage iwi groups to join and participate in stakeholder meetings. Te Ohu Kaimoana is also supported to engage with iwi groups where the limited size of their HMS quota portfolio means that either membership or active participation in stakeholder meetings is not feasible.

Fisheries New Zealand also provides an opportunity for iwi to input into both the Annual Operational Plan and Annual Review Report, as well as sustainability and regulatory rounds, through regular presentations at the relevant iwi fisheries forums.

## 6.2 ENVIRONMENTAL STAKEHOLDERS

A number of environmental non-governmental organisations (eNGO) are stakeholders in HMS fisheries. These include international eNGOs, such as World Wide Fund for Nature (WWF), Birdlife International, and Greenpeace, who are also involved in international fora, such as WCPFC.

In recent years, public and eNGO attention has increasingly focused on the effects of fishing on non-targeted species, especially protected species, including seabirds, sharks, and marine mammals. eNGOs also advocate for sustainable management of fisheries resources in New Zealand and throughout the Pacific region. Environmental stakeholder interests in New Zealand's HMS fisheries are best provided for through continued involvement in our semi-annual Fish Plan Advisory Group meetings. eNGO representatives also regularly participate in fisheries science working groups and other working groups established to contribute to specific management goals such as the Seabird Advisory Group in support of the National Plan of Action for Seabirds 2013.

## 6.3 COMMERCIAL FISHING INDUSTRY

There are around 1,100 commercial fishing vessels registered in New Zealand and around 200 Licensed Fish Receivers and processors. In the HMS fishery, in the 2016-17 fishing year, there are around 130 vessels operating. Most of these vessels land to a small subset of Licensed Fish Receivers that understand the processes associated with landing, processing, and exporting high value tunas, and understand the reporting requirements required specifically for southern bluefin tuna under its international catch documentation scheme.

As of 2017, around 1,300 individuals and companies own quota in New Zealand fisheries, totalling around 650,000 tonnes. In HMS fisheries, the Licensed Fish Receivers tend to own the majority of quota, whilst many HMS fishers purchase Annual Catch Entitlement (ACE) to cover catches.

Fisheries New Zealand works with commercial stakeholders in the management of HMS fisheries. This ensures industry and Fisheries New Zealand resources are targeted at common objectives. Fisheries New Zealand continues to engage with the commercial stakeholders through our semi-annual Fish Plan Advisory Group meetings, Longline Workshops, industry meetings, and other working groups established to contribute to specific management goals.

In recent years, efforts have begun to establish an industry collaborative body under Fisheries Inshore New Zealand for the tuna longline fishery. A Memorandum of Understanding between Fisheries Inshore New Zealand and the HMS Committee, a group that represents the views of HMS quota owners and fishers, has been established. This collaborative body promotes clear communication between commercial operators and Fisheries New Zealand, as well as provide continued engagement from industry on national and stock-specific issues in order to contribute to the successful management of HMS fisheries.

## 6.4 RECREATIONAL FISHERS

Although recreational fishing is only a small component of the HMS fisheries sector, there are certain HMS fisheries where recreational fishers have an active interest in how these fisheries are managed. Game fishing is a highly valued pastime for many New Zealanders and visitors to New Zealand. Game fish such as billfish, tuna, and sharks make up a multi-million dollar recreational game fishery in New Zealand.

There is a broad mix of people involved in the game fish fishery in New Zealand. The increased strength and reliability of trailer boats and improved electronics (communication, sounders, and GPS) has led to an increase in the number of people involved in deep sea and offshore recreational fishing over the past few decades.

To account for this interest, Fisheries New Zealand will ensure that the recreational sector is involved in key management decisions through participation in HMS Fisheries Science Working Groups and Fish Plan Advisory Group meetings. Fisheries New Zealand also benefits from receiving data on game fisheries collected as part of fishing club records compiled by the New Zealand Sport Fishing Council, the Game Fish Tagging Programme<sup>27</sup>, and game fisher logbooks.

<sup>27</sup> <http://bluewatermarine.co.nz/project/gamefish-tagging/>



## 6.5 PUBLIC

There is an increasing international and domestic focus on managing the undesirable effects of fishing on the environment. Pelagic longlining and trolling are not fishing methods that have a benthic impact.<sup>28</sup> The public interest in HMS fisheries is therefore generally related to the effects of fishing on non-fish and non-target species.

## 7 Services to Support Implementation

Successful implementation of the HMS Fisheries Plan is a Fisheries New Zealand-wide responsibility and requires input and commitment of resources from across Fisheries New Zealand. A primary focus of the HMS Fisheries Plan is to provide planning tools to ensure that Fisheries New Zealand's resources and activities are transparently and efficiently directed towards achieving agreed objectives. This section of the HMS Fisheries Plan provides information on other areas of MPI from which services are required to achieve these objectives.

The key services that will contribute to the delivery of the HMS Fisheries Plan include:

1. Compliance services
2. Information and Monitoring services
3. Observer services
4. Registry services
5. Corporate services

### 7.1 COMPLIANCE SERVICES

An extensive regulatory regime under the Fisheries Act 1996 constrains fishing activities. In addition, there is also a range of legislative rules that govern labour, the environment, protected species, and food safety. Changes to any of the laws, regulations, rules or policies in respect of the harvesting, production, processing, preparation, distribution, packaging or labelling of HMS fisheries products may have a significant business impact.

Fisheries compliance operates using the voluntary, assisted, directed, and enforcement (VADE) model of informed and assisted compliance<sup>29</sup>. The application of the VADE model is reflected in the collaborative arrangement between Fisheries New Zealand and industry with respect to fisheries management in the compliance arena.

Past compliance action has detected offending that includes the likes of misreporting of shark discards under Schedule 6 and non-compliance with seabird mitigation measures. The penalties for offending are high and can result in vessel forfeiture, imprisonment and monetary penalties.

There are also compliance services that will not be driven by the HMS Fisheries Plan although there will be linkages between such activity and the on-going management of HMS fisheries. These services include targeted investigative activity (likely to be fishery specific) to support prosecution cases.

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<sup>28</sup> Accidental benthic contact may occur from time to time during purse seine fishing, but is limited (such contact impedes rather than improves the fishing operation).

<sup>29</sup> [www.planning.org.nz/Attachment?Action=Download&Attachment\\_id=750](http://www.planning.org.nz/Attachment?Action=Download&Attachment_id=750)

## 7.2 INFORMATION AND MONITORING

Data and information are key inputs into the management of HMS fisheries. The availability of appropriate information defines the ability to meet many of the objectives of the HMS Fisheries Plan. Fisheries New Zealand will continue to engage with stakeholders and maintain a medium term research and monitoring plan to ensure that data and information is available to:

- A. Monitor key fisheries against stock specific harvest strategies
- B. Monitor biomass trends for bycatch species
- C. Assess fishery performance against environmental standards, such as the National Plan of Action for Seabirds 2013 and the National Plan of Action for Sharks 2013
- D. Enable more timely responses to sustainability and environmental impact issues

## 7.3 DIGITAL MONITORING

In 2016, MPI began a process to introduce a new digital system for tracking, monitoring and reporting of commercial fishing.

From 1 October 2017 trawlers over 28 metres in length were required to comply with electronic reporting requirements. The Geospatial Position Reporting regulations replaced the existing Fisheries (Satellite Vessel Monitoring) Regulations 1993, with which this class of vessel was already required to comply.

For the trawlers over 28 metres, the information required to be provided under Electronic Reporting does not differ substantially from that reported under previous reporting requirements. The key difference is that catch effort reports are provided on a daily basis rather than at the conclusion of a trip.

Details of the rollout of Digital Monitoring are available on the Fisheries New Zealand website.<sup>30</sup>

## 7.4 OBSERVER SERVICES

The maintenance of Fisheries New Zealand and industry's international and domestic reputation as effective fisheries managers and responsible fishers is considered essential to the continued prosperity of New Zealand's commercial fishing sector.

Observer coverage on HMS vessels is planned in accordance with a number of factors including the biological data requirements of individual fish stocks, international obligations, compliance-based risk profiles, protected species monitoring requirements and ministerial directives. The objectives of HMS observer coverage differ according to target species, fishing area and fishing method with observer duties prioritised according to the specific needs of the fishery.

The principal functions of the Fisheries New Zealand Fisheries Observer Programme are to collect information for fisheries research, fisheries management, and fisheries enforcement, including the collection of biological samples for stock assessment and monitoring interactions with protected species. Fisheries Observers also monitor adherence with regulatory and non-regulatory measures and they have the ability to collect information on vessel safety and employment, and about compliance with maritime rules relating to pollution.

Internationally, the current delivery model for observers in New Zealand is well regarded. It is considered to be effective, credible and have the integrity necessary to deliver impartial monitoring data.

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<sup>30</sup> <https://www.fisheries.govt.nz/protection-and-response/sustainable-fisheries/strengthening-fisheries-management/fisheries-change-programme/electronic-catch-and-position-reporting/>



## 7.5 REGISTRY SERVICES

The Fisheries Act 1996 provides for a range of QMS administration activities (registry services). These activities include: the collection and management of statutory catch reporting from commercial fishers, permitting, vessel registration, cost recovery, quota and ACE trading. Registry services are delivered by an external agency (FishServe) to Fisheries New Zealand<sup>31</sup>, either under a devolved delivery model where Fisheries New Zealand specifies the quality of service that is funded directly from quota holders; or under contract where Fisheries New Zealand funds the delivery of service and recovers these costs from industry through cost recovery levies.

Reporting on fisheries landings, together with Monthly Harvest Returns and Licensed Fish Receiver Returns is the key mechanism for auditing catch against Total Allowable Commercial Catch (TACC) limits. Balancing catch against ACE both at a fisher level and at a fishery level is fundamental to the operation of the QMS.

## 7.6 OTHER SERVICES

MPI provides legal, policy and communication support as necessary to deliver on the HMS Fisheries Plan. These services include:

**External communications:** Preparing media information and public briefing documents to ensure management activity is transparent, and providing media support around sustainability and management decisions.

**Legal:** Providing expert knowledge and legal opinion on the interpretation of the relevant fisheries legislation to support policy development and management interventions.

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<sup>31</sup> FishServe is the trading name of a privately owned company called Commercial Fisheries Services Ltd. It is a wholly owned subsidiary of Seafood New Zealand Ltd.

## 8 Appendix 1: Tikanga: Examples of Māori Principles and Practices

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The suffix “tanga”     | The suffix “tanga” added to a base word converts the base word into a process word changing it from a noun to verb.                                                                                                                                                                                                                                                                                                  |
| Tikanga                | The Māori way of doing things; correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, reason, plan, practice, convention. It is derived from the word tika meaning ‘right’ or ‘correct’.                                                                                                                                                                                                  |
| Kaitiakitanga          | The root word in kaitiakitanga is tiaki, which includes aspects of guardianship, care and wise management. Kaitiakitanga is the broad notion applied in different situations. The prefix kai denotes the agent by which the tiaki is performed. Kaitiaki therefore stands for a person and/or other agent who performs the tasks of guardianship. Kaitiakitanga is the practice of guardianship.                     |
| Kotahitanga            | Collective action and unity. Kotahi means one; with tanga added as the suffix it means oneness.                                                                                                                                                                                                                                                                                                                      |
| Manaakitanga           | Manaakitanga implies a duty to care for others, in the knowledge that at some time others will care for you. This can also be translated in modern Treaty terms as “create no further grievances in the settlement of current claims.”                                                                                                                                                                               |
| Whanaungatanga         | Whanaungatanga is the process through which Māori, through their kinship ties, meet their obligations towards each other and to the natural world. It is the basic cement that holds things Māori together.                                                                                                                                                                                                          |
| Rangatiratanga         | Rangatiratanga is the process of exercising mana at the level of <i>Iwi</i> or <i>hapu</i> depending upon the issue at hand. If an issue is of interest to the <i>Iwi</i> as a whole, then members of the <i>Iwi</i> , through their mandated representative structures, would expect to be involved. The same principle applies at the <i>hapu</i> and whanau level.                                                |
| Mana                   | Mana can be described as the enduring, indestructible power of the gods. In modern times mana has taken on various meanings.                                                                                                                                                                                                                                                                                         |
| Mauri                  | Everything in the natural world possesses mauri, a “special power possessed by <i>lo</i> which makes it possible for everything to move and live in accordance with the conditions and limits of its existence. Everything has mauri, including people, fish, animals, birds, forests, land, seas and rivers: the mauri is that power which permits these living things to exist within their own realm and sphere.” |
| Whakapapa              | Whakapapa or genealogy, is a fundamental principle that permeates the whole of Māori culture. However, it is more than just a genealogical 'device'. It is in fact a paradigm of cultural discourse and provides the basis for establishing, enhancing, and even challenging relationships between individuals, whanau (families), hapu (local tribal entities) and iwi (regional tribal bodies).                    |
| Rohe Moana             | A marine area under the authority of an iwi or kaitiaki.                                                                                                                                                                                                                                                                                                                                                             |
| Tangata Kaitiaki/Tiaki | Any person appointed as Tangata Kaitiaki or Tangata Tiaki under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 or the Fisheries (South Island Customary Fishing) Regulations 1999, being a member of the Tangata Whenua or a tangata whenua organisation or their notified representative.                                                                                                              |

## 9 Appendix 2: Highly Migratory Species

### 9.1.1 As listed in Annex 1 of the United Nations Convention on the Law of the Sea

Albacore tuna: *Thunnus alalunga*.  
 Bluefin tuna: *Thunnus thynnus*.  
 Bigeye tuna: *Thunnus obesus*.  
 Skipjack tuna: *Katsuwonus pelamis*.  
 Yellowfin tuna: *Thunnus albacares*.  
 Blackfin tuna: *Thunnus atlanticus*.  
 Little tuna: *Euthynnus alletteratus*; *Euthynnus affinis*.  
 Southern bluefin tuna: *Thunnus maccoyii*.  
 Frigate mackerel: *Auxis thazard*; *Auxis rochei*.  
 Pomfrets: Family Bramidae.  
 Marlins: *Tetrapturus angustirostris*; *Tetrapturus belone*; *Tetrapturus pfluegeri*; *Tetrapturus albidus*; *Tetrapturus audax*; *Tetrapturus georgei*; *Makaira mazara*; *Makaira indica*; *Makaira nigricans*.  
 Sail-fishes: *Istiophorus platypterus*; *Istiophorus albicans*.  
 Swordfish: *Xiphias gladius*.  
 Sauries: *Scomberesox saurus*; *Cololabis saira*; *Cololabis adocetus*; *Scomberesox saurus scombroides*.  
 Dolphin: *Coryphaena hippurus*; *Coryphaena equiselis*.  
 Oceanic sharks: *Hexanchus griseus*; *Cetorhinus maximus*; Family Alopiidae; *Rhincodon typus*; Family Carcharhinidae; Family Sphyrnidae; Family Isurida.  
 Cetaceans: Family Physeteridae; Family Balaenopteridae; Family Balaenidae; Family Eschrichtiidae; Family Monodontidae; Family Ziphiidae; Family Delphinidae.

### 9.1.2 As listed on Schedule 4B of the Fisheries Act 1996

Frigate mackerel (*Auxis thazard*)  
 Mahi mahi (*Coryphaena hippurus*, *Coryphaena equiselis*)  
 Ray's bream (*Brama brama*)  
 Swordfish (*Xiphias gladius*)

Marlin, sailfish, and spearfish:

|                                                          |                                                              |
|----------------------------------------------------------|--------------------------------------------------------------|
| Atlantic sailfish ( <i>Istiophorus albicans</i> )        | white marlin ( <i>Tetrapturus albidus</i> )                  |
| black marlin ( <i>Makaira indica</i> )                   | longbill spearfish ( <i>Tetrapturus pfluegeri</i> )          |
| blue marlin ( <i>Makaira nigricans</i> )                 | Mediterranean spearfish ( <i>Tetrapturus belone</i> )        |
| Indo-Pacific sailfish ( <i>Istiophorus platypterus</i> ) | roundscale spearfish ( <i>Tetrapturus georgei</i> )          |
| striped marlin ( <i>Tetrapturus audax</i> )              | short billed spearfish ( <i>Tetrapturus angustirostris</i> ) |

Sharks:

|                                                  |                                                 |
|--------------------------------------------------|-------------------------------------------------|
| bigeye thresher ( <i>Alopias superciliosus</i> ) | shortfin mako ( <i>Isurus oxyrinchus</i> )      |
| blue shark ( <i>Prionace glauca</i> )            | silky shark ( <i>Carcharhinus falciformis</i> ) |
| bronze whaler ( <i>Carcharhinus brachyurus</i> ) | smooth hammerhead ( <i>Sphyrna zygaena</i> )    |

|                                                      |                                          |
|------------------------------------------------------|------------------------------------------|
| Galapagos shark ( <i>Carcharhinus galapagensis</i> ) | tiger shark ( <i>Galeocerdo cuvier</i> ) |
| longfin mako ( <i>Isurus paucus</i> )                | Family Alopiidae                         |
| oceanic white tip ( <i>Carcharhinus longimanus</i> ) | Family Carcharhinidae                    |
| Porbeagle shark ( <i>Lamna nasus</i> )               |                                          |

Tuna:

|                                                  |                                                    |
|--------------------------------------------------|----------------------------------------------------|
| albacore tuna ( <i>Thunnus alalunga</i> )        | little tuna ( <i>Euthynnus alletteratus</i> )      |
| Atlantic bluefin tuna ( <i>Thunnus thynnus</i> ) | Pacific bluefin tuna ( <i>Thunnus orientalis</i> ) |
| bigeye tuna ( <i>Thunnus obesus</i> )            | skipjack tuna ( <i>Katsuwonus pelamis</i> )        |
| blackfin tuna ( <i>Thunnus atlanticus</i> )      | southern bluefin tuna ( <i>Thunnus maccoyii</i> )  |
| kawakawa ( <i>Euthynnus affinis</i> )            | yellowfin tuna ( <i>Thunnus albacares</i> )        |

# List of Abbreviations & Acronyms

|                                           |                                                                                                                                                                   |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Schedule 6                                | A schedule of the Fisheries Act 1996 that outlines provisions for the return of specified quota management species to the sea                                     |
| ACAP                                      | Agreement on the Conservation of Albatrosses and Petrels                                                                                                          |
| ACE                                       | Annual Catch Entitlement                                                                                                                                          |
| B <sub>MSY</sub>                          | The average stock biomass that results from taking an average catch of MSY under various types of harvest strategies                                              |
| CCSBT                                     | Commission for the Conservation of Southern Bluefin Tuna                                                                                                          |
| CITES                                     | Convention on International Trade in Endangered Species of Wild Fauna and Flora                                                                                   |
| CMS                                       | Convention on Migratory Species                                                                                                                                   |
| CPUE                                      | Catch per unit effort                                                                                                                                             |
| DOC                                       | Department of Conservation                                                                                                                                        |
| eNGO                                      | Environmental Non-Governmental Organisation                                                                                                                       |
| FAD                                       | Fish Aggregating Device                                                                                                                                           |
| FAO                                       | Food and Agriculture Organisation of the United Nations                                                                                                           |
| FFA                                       | Forum Fisheries Agency, a pan-Pacific body that provides expertise, technical assistance and other support to its members on tuna resources and their management. |
| HMS                                       | Highly migratory species                                                                                                                                          |
| MCS                                       | Monitoring, control, and surveillance                                                                                                                             |
| MEY                                       | Maximum Economic Yield                                                                                                                                            |
| MFAT                                      | Ministry of Foreign Affairs and Trade                                                                                                                             |
| The Minister                              | The Minister of Fisheries                                                                                                                                         |
| MOU                                       | Memorandum of Understanding                                                                                                                                       |
| MPI                                       | Ministry for Primary Industries                                                                                                                                   |
| MSC                                       | Marine Stewardship Council                                                                                                                                        |
| National Plan of Action for Seabirds 2013 | National Plan of Action to Reduce the Incidental Catch of Seabirds in New Zealand Fisheries                                                                       |
| National Plan of Action for Sharks 2013   | National Plan Of Action for the Conservation and Management of Sharks                                                                                             |
| NZAID                                     | New Zealand Agency for International Development                                                                                                                  |
| QMS                                       | Quota Management System                                                                                                                                           |
| RFMO                                      | Regional Fisheries Management Organisation                                                                                                                        |
| SPC                                       | Pacific Community                                                                                                                                                 |
| TAC                                       | Total Allowable Catch                                                                                                                                             |
| TACC                                      | Total Allowable Commercial Catch                                                                                                                                  |
| WCPFC                                     | Western and Central Pacific Fisheries Commission                                                                                                                  |
| WWF                                       | World Wide Fund for Nature                                                                                                                                        |