
Fishing Rules

Section Detail Report

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Overview

This paper describes the New Zealand fishing rules, their establishment and how the commercial fishing industry and governing bodies operate within this framework. This includes the legislative framework, complying with the rules of a Quota Management System (QMS) and any conformance or verification measures applied to the commercial fishing industry. The specific content of what is within the scope of this paper, or otherwise, is detailed in the *Scope of this Report* section below.

Key facts

- The New Zealand fishing rules were established, and are supported, through a legislative framework of legislation, regulations and Gazette notices.
- The QMS, introduced through this legislation, creates quota as a property right. Quota represents a quota owner's share of a fishery. There are always 100 million shares per fish stock.
- The value of a quota share is determined from the Total Allowable Commercial Catch (TACC) set by the Government as a portion of the Total Allowable Catch (TAC) for each fish stock.
- Each fishing year an Annual Catch Entitlement (ACE) is generated from quota holdings. The amount of ACE generated for an individual is determined by the number of quota shares they hold.
- Members of the commercial fishing industry must comply with the New Zealand fishing rules through measures such as vessel registrations, permits and licences. As well as balancing their catch and providing accurate reporting on their catch, effort and landing activities.
- An approved service delivery organisation and a service delivery agency (currently one organisation) acts under contract to the Government. This organisation provides the registry, data management and administrative services of the Fisheries legislation to the commercial fishing industry.
- Conformance and verification measures are ensured through Government programmes of surveillance and discrepancy reviews. The Fisheries legislation allows for various enforcement and penalty regimes which are applied depending on the severity of offending.
- New Zealand operates in an international context to co-manage highly migratory species and high sea fishing. New Zealand also supports fisheries management measures of the Pacific Island nations and fisheries management in a global setting of shared interests.
- Future initiatives aim to increase monitoring through electronic surveillance and to move towards considering ecosystem-based fisheries management in the context of setting catch limits.

Key statistics

- The New Zealand Exclusive Economic Zone (EEZ) is the 4th largest in the world.
- As of 30 September 2018, the systems supporting the QMS must manage annual catch entitlements of 590,067 tonnes across 1,297 quota share owners, 922 permit holders and 1,094 vessels.
- Maori are guaranteed 20% of all quota (i.e. 20 million shares) for any new fish stock introduced into the QMS.
- Fishing permits are issued for a period of up to five years.

- Vessel registrations can be issued for a period of up to five years.
- FishServe processed approximately 110,000 Catch Effort returns, over 12,000 Monthly Harvest Returns, almost 2,500 Licenced Fish Receiver Returns and received nearly 48,000 electronic reports last fishing year.
- The Ministry observer programme plans more than 11,500 days at sea each year.
- The Ministry conducts more than 1,000 commercial vessel inspections per year.
- The Ministry employs more than 220 honorary fisheries officers.
- Penalties for serious offending range from up to five years imprisonment, fines up to \$500,000 and forfeiture of all equipment including vessels, fishing gear and forfeiture of quota shares.

Scope of this report

The scope of this report covers a number of key areas as they pertain to Fishing Rules in New Zealand. The first section, *The New Zealand approach*, largely focuses on the QMS, with particular attention paid to the legislative framework from which it emerged, and the main goals in its establishment. The founding components of the QMS are also detailed, with the relationships between TAC, TACC, Quota and ACE and how each begets the other, clearly defined. From an operational perspective, the mechanisms used to monitor the QMS are briefly touched upon, including how reported catch data are reconciled from hook to landing and the technology required to support this. These mechanisms are dealt with in more detail in the *Complying with the New Zealand Approach* section.

This section describes the respective roles played by the industry, FishServe, the Ministry for Primary Industries and its newly established principal adviser, Fisheries New Zealand. Specific compliance obligations are detailed, from permitting, vessel registration and reporting requirements for commercial fishers to current initiatives underway in this area.

The following section, *Conformance and verification measures*, describes the checks and balances in place to deter commercial fishers from activities deemed non-compliant, such as over-fishing or using illegal fishing methods. This section also describes the systems in place for both internal and external entities to monitor their current position in relation to these regulatory measures, e.g. providing commercial fishers with the ability to check their reported catch against their ACE via an online fisheries management system.

The final section of the report, *Comparability to international best practice*, describes New Zealand's fisheries policy (with a focus on the QMS in particular) against the backdrop of fisheries policies around the world. Associated measures for determining success within an international context are also detailed (fish stock levels, etc.) and it concludes with a description of New Zealand's participation in various bilateral and multi-lateral arrangements, particularly those that relate to the Pacific, and its high seas.

Out of scope

Although sustainability warrants its own section within the OpenSeas portal, it is not possible to discuss the QMS, its associated compliance and conformance measures and comparability to international best practice, without touching upon its relevance in maintaining sustainable fisheries.

Explicitly out of scope, however, are the following:

- Recreational and customary fishing

- Maritime operational or crew health and safety requirements >> remit of *Workplace Health & Safety Section Detail Report*
- What happens to commercially caught fish beyond their landing >> remit of *Traceability and Food Safety Section Detail Reports*
- Aquaculture and Fish Farmers
- MSC certification of specific stocks >> remit of species profiles.

The New Zealand approach

Introduction

In 1978 New Zealand declared an Exclusive Economic Zone (EEZ) comprising over 4 million square kilometres, the 4th largest in the world.¹ Despite this, and similar to issues facing many other nations, New Zealand's fish stocks were under pressure from both domestic inshore fishing and foreign offshore fishing. The establishment of the EEZ enabled the New Zealand Government to introduce catch limits for the offshore fisheries (those outside the 12-mile territorial sea limit).² The inshore fisheries were managed mainly via restrictions on various input controls that were placed on fishing permits, such as legal fishing methods, conservation areas and fish sizes.³

By the early 1980's commercial fishing had had a considerable impact on some of New Zealand's major inshore fisheries stocks and a permit moratorium was introduced.⁴ With the dawning realisation that current measures had become inadequate as a means of conserving inshore fish stocks and had led to a "race-to-fish", more comprehensive initiatives were sought.⁵

The Fisheries Act of 1983 established a regional fisheries management framework, and when the Government passed the Fisheries Amendment Act in 1986, they introduced a solution in which private catch rights would be established in all major commercial fisheries.⁶ Thus, the introduction of New Zealand's first QMS heralded a new approach to the conservation of New Zealand's major fishery stocks and a joint willingness to improve the economic efficiency of the seafood industry. The commercial fishing industry supported this change, acknowledging reduced catch limits would have long-term benefits for the fish stocks, and restructuring of the industry would allow for sufficient economic returns from these smaller catches.⁷

Specifically, the intended objectives of the QMS were to⁸:

- Use catch limits to maintain fish stocks at sustainable levels
- Provide economic incentives to restructure the industry through the introduction of quota
- Enable quota to be tradeable
- Allocate quota based on previous catch history
- Track catch taken by the industry to monitor performance and fish stock levels
- Allow quota owners to catch their entitlement and avoid the "race-to-fish."

The intent of this section is to shed further light on some of the constituent elements of the New Zealand QMS, as well as touch upon the wider legislative framework from which it emerged.

¹ FAO (2005).

² Connor (2001).

³ Connot (2001).

⁴ Connot (2001).

⁵ Kerr, Newell & Sanchirico (2003).

⁶ Kerr, Newell & Sanchirico (2003).

⁷ Straker, Kerr & Hendy (2002).

⁸ Ministry for Primary Industries (2017).

The Legislative Framework

All rules pertaining to commercial fishing within New Zealand are mandated by a number of key pieces of legislation, beginning with the Fisheries Act in 1983. It was this act of parliament which introduced the groundwork for the establishment of a quota management system.

The Fisheries Amendment Act 1986 refined the original 1983 Act and heralded the introduction of individual transferable quota (ITQ). This established the QMS, making New Zealand world leading in the introduction of comprehensive catch-rights based fisheries management.⁹ Aspects of the Fisheries Act 1996, which came into effect in October 2001, further refined New Zealand fisheries management by separating the right to harvest from the ownership rights of quota. This distinction created the QMS in its current form today.

The legislation is supported by regulations which define the more technical aspects of an Act.¹⁰ Fishing regulations enable restrictions on certain input controls, such as net sizes, fishing methods and limits on vessel numbers in specified controlled fisheries.

To better understand the relationship between these legislative tiers within the context of New Zealand's commercial fisheries, the aforementioned Fisheries Act 1996 provides a useful example.

The Act states that methods of fishing may be restricted for the purpose of sustainability while the Fisheries (Commercial Fishing) Regulations 2001 specify which exact fishing methods are to be restricted.¹¹

The final tier of the legislative framework is the Gazette notice. The Act empowers certain decisions (such as sustainability measures) to be given effect by Notice in the Gazette, an implementation mechanism with considerable flexibility.

Redressing Te Tiriti o Waitangi

The Treaty of Waitangi is considered New Zealand's founding document and was signed in 1845 by the indigenous Māori people of New Zealand and the British Crown. The signing of the Treaty of Waitangi led to the establishment of a New Zealand Government, and in return, the Māori were guaranteed full rights to their lands, forests and fisheries.¹²

The establishment of the QMS was seen as infringing Māori rights to fisheries given under the Treaty of Waitangi. Following a period of negotiation, legislation was enacted to resolve these grievances.¹³ The Māori Fisheries Act 1989, The Deed of Settlement 1992, the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 and the Māori Fisheries Act 2004. Māori were given quota totaling 10% of the TACCs for all existing species subject to the QMS, together with shareholdings in fishing companies and a cash settlement. They were also guaranteed 20% of all quota for any fish stock subsequently introduced into the QMS.¹⁴

Te Ohu Kai Moana Trust was established by the Māori Fisheries Act 2004 to hold the settlement quota and administer the Māori settlement assets. In recent years, they have also come to support the advancement of Māori interests in the future development of fisheries.¹⁵

⁹ Lock & Leslie (2007).

¹⁰ New Zealand Legislation (2017).

¹¹ Fisheries Act 1996 Section 298.

¹² Ministry for Culture and Heritage (2017).

¹³ Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, Preamble (d).

¹⁴ Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, Preamble (f) and (l).

¹⁵ Te Ohu Kai Moana (2017)

The Establishment of the QMS

The Fisheries Amendment Act 1986 established New Zealand's individual transferable quota system and, at this time, 26 species were introduced to a new way of fisheries management.¹⁶ Since this original inception, New Zealand's fisheries management has undergone a significant number of reforms to refine the approach. Quota was originally allocated as a fixed tonnage with the Crown buying and selling quota if changes in the TACC were required. A change to make quota a proportional share of the TACC transferred the sustainability risks (and benefits) in any fish stock to those that held quota. In October 2001, when aspects of the Fisheries Act 1996 came into effect, annual catch entitlements (ACE) were introduced. ACE became the amount of catch the industry is entitled to take on an annual basis and is allocated in proportion to the number of quota shares held. The move to proportional quota shares as the property right provided quota holders with the incentive to protect the quality and value of their fish stocks for the future. This introduction finalised the constituent elements of the QMS as it is known today.¹⁷

Under the Fisheries Act 1996, a species introduced into the QMS is subdivided into separate fish stocks, defined by Quota Management Areas (QMAs), each of which is managed independently to ensure sustainability of the stock. QMAs are determined for each species based on the biological understanding of the species distribution at the time of its introduction in the QMS or for the purposes of fisheries management.¹⁸

The starting point for determining the QMA boundaries for each species are the 10 Fisheries Management Areas (FMAs) which define New Zealand's EEZ. Due to the nature of fish populations, some QMAs incorporate multiple FMAs while others cover only part of a single FMA, leading to a varying number of QMAs per species. For example, some species, such as hoki, have only a single QMA while others, such as paua, have eight.¹⁹

¹⁶ Ministry for Primary Industries (2017).

¹⁷ Fisheries Act 1996.

¹⁸ Lock & Leslie (2007).

¹⁹ Clement Group (2017).

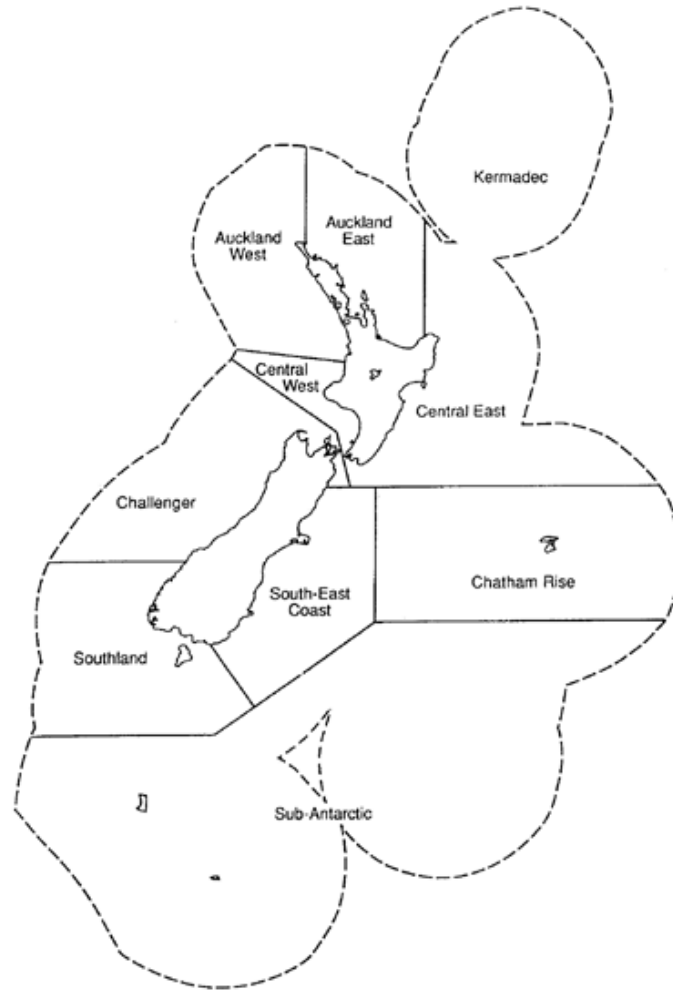


Figure 1. New Zealand's FMAs within the EEZ boundary

When a species has been introduced into the QMS and stock areas defined, 100,000,000 quota shares per stock are generated. The Ministry for Primary Industries (the Ministry) must determine the initial allocation of these shares.

Te Ohu Kai Moana, acting as a Trust for Māori fisheries rights, receives 20,000,000 quota shares, being 20%, of any new stock introduced into the QMS. The remaining 80,000,000 quota shares were previously allocated to the Government and distributed to the commercial fishing industry members with regard to previous catch histories, current involvement in the industry, and overseas person status.²⁰

Future allocations of the 80,000,000 Government shares (with the exception of Schedule 4C and 4D stocks), will be determined by a Government tender process.²¹ Quota aggregation limits and foreign ownership restrictions will still apply.²²

As of 31 March 2019 there are now 98 species or species groups divided into 642 separate stocks in the QMS.²³

²⁰ Fisheries Act 1996 Sections 44, 45 & 47.

²¹ Lock & Leslie (2017).

²² Fisheries Act 1996 Sections 56-59.

²³ Ministry for Primary Industries (2018).

Quota as a Property Right

For each defined fish stock, the Minister of Fisheries sets an annual Total Allowable Catch (TAC). The setting of the TAC is based on scientific assessment of the stock and is intended to be the maximum amount of fish that can be sustainably harvested, known as the maximum sustainable yield (MSY).²⁴

The Total Allowable Commercial Catch (TACC) is derived as a portion of the TAC and is the total amount of catch that the commercial fishing industry may take for that fish stock. The TACC is used to determine the value of a quota share in each fish stock, known as the quota weight equivalent (QWE).

For example, the stock of Blue Cod in QMA5 is known as BCO5. The TAC for BCO5 is 1,452,000 kg and the TACC is 1,239,000 kg. As there are always 100,000,000 quota shares for each stock, we can calculate the value of a single BCO5 quota share by dividing the TACC by 100,000,000.

$$1,239,000 \div 100,000,000 = 0.01239$$

The QWE for a BCO5 quota share is 0.01239kg. This means each quota share of BCO5 is worth 0.01239 kg of ACE.

If a quota owner holds 15,000,000 quota shares of BCO5, they hold 15% of the available quota shares. Therefore, at the start of each fishing year, they will receive 15% of the TACC as ACE, as this is in proportion to their quota holdings.

There are aggregation limits on the total number of quota shares each person may hold. For most species, a person is only allowed to hold the number of quota shares of which their total QWE is less than 35% of the combined TACC for every stock of that species.²⁵

Quota shares may be bought or sold at any time through quota transfers. The act of which confers the property rights over that quota accordingly. Whoever holds the quota shares as of the first day of a fishing year will receive the ACE allocation for those shares. Much like the property rights linked to an individual's house, mortgages may be taken out over quota, with the shares viewed as security against the loan. Defaulting on a mortgage confers ownership of the mortgaged shares to the mortgagee.²⁶ Mortgaged shares cannot be transferred without first discharging the mortgage.

Annual Catch Entitlement (ACE)

At the start of each fishing year, ACE is generated from quota shares in each fish stock and is allocated to quota owner accounts. ACE is the catch entitlement in an individual fishing year and represents the total amount of commercial fish that is available to be caught. The sum of all ACE equals the TACC for each fish stock. At the end of each fishing year, all ACE expires.

The amount of ACE generated is determined by the QWE calculated from the TACC that has been set for a given stock for that fishing year. For example:

If the TACC for SNA1 is 4,500,000kg, then the value of one quota share, known as the QWE, will be 0.045kg. If a person owns 10,000 SNA1 quota shares at the beginning of the fishing year, they will be allocated 450kg of SNA1 ACE, as per the following calculation:

$$0.045\text{kgs} \times 10,000 = 450\text{kgs of ACE}$$

This is the equivalent of 0.01% of the TACC, as they hold 0.01% of the total quota shares for SNA1.

²⁴ Kerr, Newell & Sanchirico (2003).

²⁵ Fisheries Act 1996 Section 59.

²⁶ Fisheries Act 1996 Sections 136 & 139.

A commercial fishing permit holder may target any fish stock regardless of whether they hold ACE or not, with the exception of stocks where a minimum ACE holding is required. These stocks are listed in the Eighth Schedule of the Fisheries Act 1996 and are considered high-value stocks. Permit holders must demonstrate a commitment to these fisheries by holding the specified minimum amount of ACE in these stocks before they can target them.²⁷

ACE can be bought and sold through ACE transfers. Once transferred the ACE belongs to the account holder unless sold again and expires after the final balancing at the end of the fishing year. ACE can be traded up to 15 days after the end of the fishing year before the final balancing.

At the end of the fishing year, if an ACE holder has caught less than their ACE holdings, they may be entitled to an under-fishing ACE allocation in the next fishing year. This is allocated in addition to the ACE generated from any quota shares they own.

ACE holders are granted up to a maximum of 10% of the ACE they held at the end of the fishing year or the difference between their ACE and the reported catch for that year, whichever is the lesser.²⁸ Stocks listed in Schedule 5A of the Fisheries Act or those stocks where the TACC has been reduced for the next fishing year do not have under-fishing rights and no additional under-fishing ACE is allocated.²⁹

Alternatively, if an ACE holder has caught more than their ACE holdings at the end of the fishing year, they will have to pay a deemed value (DV). DVs are discussed further in the *Conformance and Verification Measures* section of this paper.

Supporting the QMS

The New Zealand government employs a cost recovery model, which seeks to pass on some of the associated costs of funding the QMS to the industry benefiting from having the QMS.

Introduced within the 1995 Fisheries (Cost Recovery Levies) Order, the then Ministry of Fisheries (now the Ministry for Primary Industries) determined that where a cost would be incurred that otherwise would not be if the commercial fishery did not exist, then that was suitable grounds upon which to charge cost recovery levies.³⁰

Cost recovery levies are mostly charged to quota holders, being the group most likely to benefit from the services provided by the Government and having an interest in the continued success of the QMS.³¹ Failure to pay the cost recovery levy can lead to quota being caveated and associated permits and licences suspended.³²

Aside from funding, critical to the success of the QMS is the ability to accurately capture commercial catch and balance this against ACE holdings. In order to do this, fishing permit holders are required to provide detailed catch reports including information regarding when and where the fish were landed. All fish taken commercially from New Zealand waters must be landed to a Licensed Fish Receiver (LFR) in New Zealand,³³ with some limited exceptions.

LFRs must provide their own reports detailing the catch landed to them, and these reports are compared against those of the permit holders for discrepancy checks. Further information on permitting, LFRs, and discrepancy checks can be found in the following sections of this paper.

²⁷ Fisheries Act 1996 Schedule 8.

²⁸ Fisheries Act 1996 Section 67A.

²⁹ Fisheries Act 1996 Schedule 5A.

³⁰ Lock & Leslie (2007).

³¹ Ministry for Primary Industries (2017).

³² Fisheries Act 1996 Sections 268 & 269.

³³ Fisheries Act 1996 Section 191.

Having such processes in place and comprehensive technology to support it is a critical aspect of managing the QMS. As of 30 September 2018, the systems supporting the QMS must manage 99 quota species, 641 quota stocks; and annual catch entitlements of 590,067 tonnes across 1,297 quota share owners, 922 permit holders and 1,094 vessels, as well as the associated catch reporting.³⁴ How this is achieved is discussed in the next section *Complying with the New Zealand Approach*.

Complying with the New Zealand approach

Introduction

Complying with the fishing rules of the QMS and fishing legislation is the responsibility of the commercial fishing industry, with oversight and enforcement provided by the Government. Industry participants are responsible for accurately reporting their catch, ensuring they hold valid fishing permits and their vessels are registered. They must balance their catch against the ACE they hold and face penalties for being in breach. It is in the best interests of the industry to ensure they comply with the fishing rules so that fish stocks are not depleted, thus maintaining their industry, the value of quota and livelihoods for future years.

Government Agency

Under the new Labour led Government of 2017, the Ministry for Primary Industries formed Fisheries New Zealand in early 2018, to act as the principal adviser for New Zealand fisheries management. Fisheries New Zealand operates under the Fisheries Act 1996 and other legislation relating to fisheries management, with a focus on sustainability of New Zealand's fish stocks, aquaculture and aquatic environment for future generations to come.

The Ministry for Primary Industries remains responsible for strategic policy and compliance.

Service Delivery Options

Seafood NZ (SNZ) is the peak industry body focused on strategic initiatives and sustainable seafood to support the seafood export industry, currently responsible for \$1.8 billion in export dollars.³⁵ SNZ established Commercial Fisheries Services Ltd (FishServe), as a wholly owned subsidiary of SNZ for the purposes of providing cost effective delivery of administrative services under the Fisheries Act 1996 subject to standards and specifications and monitoring by the Ministry.

FishServe began providing registry, data management and fisheries administration services to the industry in August 1999, after signing a contract with the Ministry to provide these services under a unique set of service delivery arrangements.

With governance provided by the Government, the Fisheries Act 1996 also provides for the devolution of certain services to an approved service delivery organisation. On the 1st October 2001, the responsibility for delivering those services devolved to the designated Approved Service Delivery Organisation (ASDO), operating as FishServe.

The services provided by FishServe are either performed under contract to the Ministry or are devolved to the ASDO as follows:

³⁴ FishServe Information Request (2017).

³⁵ Seafood New Zealand (2019).

Contracted (Crown Responsibility)	Devolved (ASDO Responsibility)
Quota Allocation	Quota <ul style="list-style-type: none"> • Register Management • Property Rights Transfers • Caveats and Mortgages
Fishing Permits	ACE <ul style="list-style-type: none"> • Register Management • Property rights transfers • Annual Allocations
Crown Revenue Management <ul style="list-style-type: none"> • Cost Recovery levies • Deemed Value invoicing • Debt management 	Client Registration/Management
Aquaculture Registers	ACE Balancing <ul style="list-style-type: none"> • Monthly Harvest Return Processing • Calculating Catch against ACE
Foreign Licensed Access and Special Approvals	Licensed Fish Receiver Licensing Returns processing
High Seas Fishing Permits	Fishing Vessels <ul style="list-style-type: none"> • Register Management • Certificates of registration
Catch Effort Returns <ul style="list-style-type: none"> • Data Entry • Validation • Overdue management 	

Figure 2. Services provided by FishServe

Governance and Integrity of Services

To ensure FishServe is removed from inappropriate influence and can maximise its service efficiency, its constitution determines that it must have an independent chair. None of its directors may be industry sector representative executives, and only one director may be a director of its parent company, SNZ.

This governance was intended to unburden FishServe from the potential influence of individual industry participants and industry politics at large.

To give both the Government and the industry confidence that the services are being delivered with integrity and to a minimum quality standard, a performance framework underpins the provision of all services. This framework includes standards and specifications set by the Government to determine information, process and performance minimums. FishServe must operate in accordance with these specifications and report monthly to the Ministry on any discrepancies.

The Government has a regulatory penalty regime which it may impose for any breach of standards and specifications. In the history of its operation, FishServe has never been penalised under the regulations for a breach of standards.

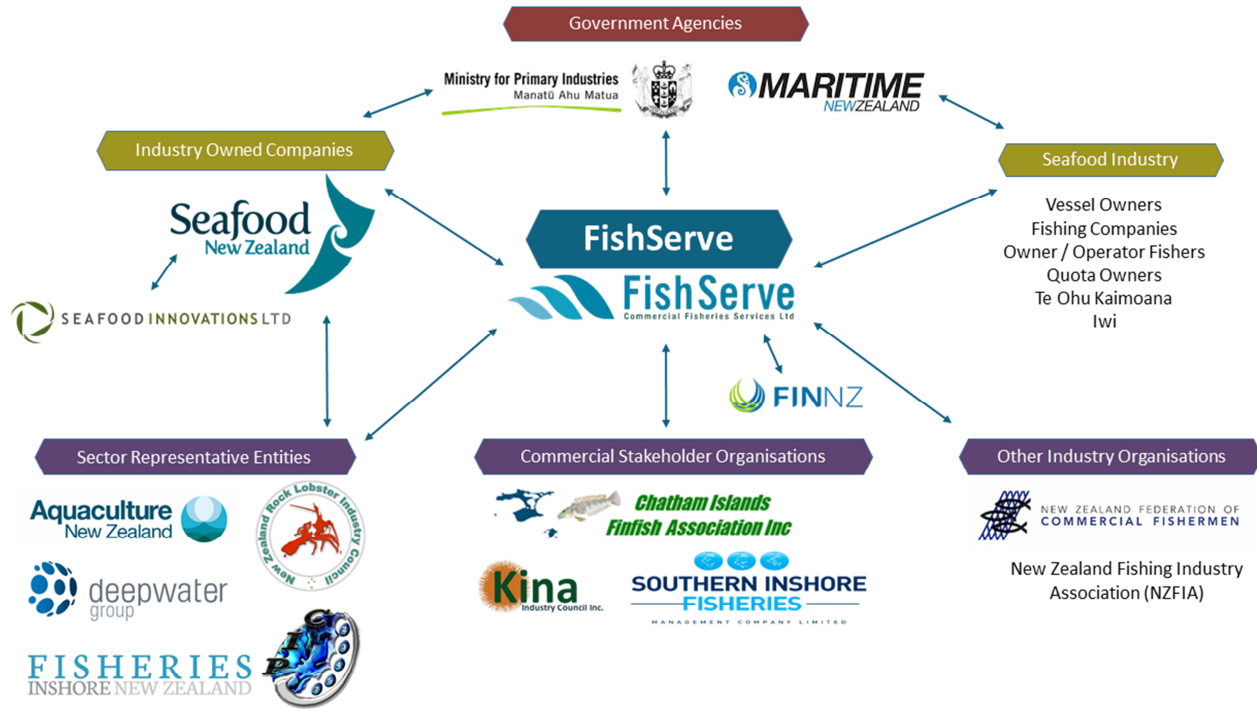


Figure 3. FishServe's relationship with the industry

Systems to support the industry

To meet the statutory requirements and industry needs, FishServe built and operates a Fisheries Management System, the latest version of which was released in 2016.³⁶

This system allows the recording and disseminating of all fisheries-related data within the industry and to Government, and the keeping of public registers. The system is available to all registered clients, or their approved agents, in real-time allowing business to be conducted at the industries convenience. Data is passed to the Ministry through automated data exchange allowing the Ministry a real-time data feed.

Members of the public are entitled to request information as stored on Public Registers defined by the Fisheries Act 1996. FishServe keeps these registers using the data it collects.

The system assists industry participants as much as possible in their compliance with the fishing rules through alerts such as returns due, reporting discrepancies, or permits and licences due to expire. Registered clients can also take advantage of value add services such as extracting reports, stakeholder services, and customisable features.

Using the Systems to Comply with the NZ Fishing Rules

To comply with the NZ fishing rules, industry participants must ensure they have the right to fish and then accurately report their fishing activities. Industry participants must register with FishServe to become a 'client' and are issued with a unique identifying client number. This client number is used on all licences and records pertaining to that participant's fishing activities.

³⁶ FINNZ (2017).

Fishing Permits

Permits must be issued to any applicant except those whose permit would be suspended on issue, or where the applicant is associated with another permit holder whose permit is already suspended.³⁷

Permits are issued for a period of up to 5 years, and once issued the permit must be in the client's possession when fishing, available for inspection by a fisheries officer.

A fishing permit authorises the taking of any quota stock, and any non-quota stock, with the exception of those stocks listed in Schedule 4C of the Fisheries Act 1996, unless these stocks are specifically named on the permit. Schedule 4C stocks are not part of the QMS but are monitored by the Ministry and restricted to those permit holders who have historical catch rights for those stocks. When a Schedule 4C stock is added into the QMS, then it is removed from this list and will be subject to the QMS rules.

A permit holder may fish without ACE except for those stocks listed in the Eighth Schedule for which minimum holdings apply. For all other stocks, a permit holder can fish before holding ACE but must balance their catch against ACE held by the 15th of the month after the fish is caught.

Permits can be issued with conditions such as methods that may be used, types of fish stocks that can be targeted, exemptions from prohibitions, or places that catch can be landed. These conditions are determined by the Ministry and can be changed at any point during the time period of that permit.³⁸

Vessel Registrations

Any vessel used by a permit holder to take fish for commercial purposes must be registered as a New Zealand fishing vessel. To be registered, a vessel must have a Maritime New Zealand (MNZ) number. Maritime NZ is a Government entity established in 1993 and is responsible for the safety, security and environmental protection of coastal and inland waterways. They develop and maintain the regulations that govern the operation of vessels and ports in New Zealand waters.³⁹

Commercial fishing vessels must comply with these regulations. A MNZ number indicates that the vessel meets the Maritime NZ requirements and, if over 24m in length, is also registered on the NZ Ship Register.

When registering their vessel with FishServe, vessel operators must provide identifying details of their vessel such as length, width, colour, and other identifiable features. The vessel operator and owner are recorded, along with crew details. No New Zealand flagged vessel owned or operated by an overseas person may be registered as a New Zealand fishing vessel unless a specific exemption is granted by consent under s103 of the Fisheries Act.⁴⁰

All vessels registered for commercial fishing in New Zealand, and any permit holders fishing without a vessel, must have a Geospatial Position Reporting device (GPR)⁴¹, although a transitional reporting exemption is currently in place that allows permit holders who are not yet required to report electronically, to continue to fish commercially without a registered GPR.⁴² GPRs, previously known as Automatic Location Communicators (ALCs), allow the Ministry to know the exact locations of commercial fishing vessels and permit holders fishing without a vessel. The Ministry compliance staff can compare actual location data from GPRs with positional information reported by vessel operators on their catch effort returns, or from their submitted electronic reports.

³⁷ Fisheries Act 1996 Section 91.

³⁸ Fisheries Act 1996 Section 92.

³⁹ Maritime NZ (2017).

⁴⁰ Fisheries Act 1996 Section 103.

⁴¹ Fisheries (Geospatial Position Reporting) Regulations 2017.

⁴² Fisheries (Transitional Reporting) Amendment Regulations 2018.

As with fishing permits, vessels can be registered for a period of up to 5 years. Once registered the vessel will be given a New Zealand fishing vessel registration number which must be painted on the side of the vessel. The vessel will keep this number as it's unique identifier, even if the vessel is sold or the registration lapses and is later renewed. A certificate of registration is printed and must be kept onboard the vessel and available for inspection by fisheries officers.

Landing Fish

Section 191 of the Fisheries Act 1996, restricts the disposal of commercially taken fish by commercial fisherman. Wharf sales (less than 10 kg for each transaction) are permitted, but the majority of commercially taken fish must be landed to a Licenced Fish Receiver (LFR).⁴³ An LFR is licenced to receive fish for the purposes of sale from commercial fishers. Fish taken in New Zealand's fisheries water must be landed in New Zealand unless specific approval is granted to land to an overseas port.

A person wishing to become an LFR, must be a client of FishServe and apply for an LFR licence. An application must be provided with supporting documentation such as related registrations and approvals, like risk management plans and food control plans, along with accountant certifications, export registrations and a current inventory. All LFR licence applications must be approved by the Ministry who take into account the applicant's previous history and relationship to the fishing industry. Once approved an LFR licence is issued and does not expire unless revoked. The licence must be held on the main premises and be available for inspection.⁴⁴

An LFR licence holder must adhere to very specific legal requirements with regard to documentation, as well as completing annual stocktakes of inventory and annual audits of systems. The annual inventory return and annual audit report must be supplied to the Ministry within 21 days of the audit being completed. An LFR licence can be revoked if the licence holder fails to meet any of their reporting requirements.⁴⁵

Along with commercial fishing legislation, LFRs must also comply with the various food safety legislation and regulations, such as the Animal Products Act 1999, the Food Safety Act 2014 and the Australia New Zealand Food Standards Code. Compliance may involve the registration of food control plans, registered risk management programmes, food safety practices such as the correct labelling of products, and export certifications.

Reporting

The Ministry requires vessel operators to complete catch effort and landing returns for every vessel they either operate or use for fishing. It is the permit holder's responsibility that these returns are completed.⁴⁶ The data collected on these catch effort returns includes locations, methods used, duration, fish caught, quantities, by-catch, processing states, landed states. Catch landing returns record estimated landed weight by species and destination. LFRs are required to confirm the landed weights.

Catch effort and landing returns must be provided to FishServe, who is responsible for the data entry into the Ministry's catch effort system. Depending on the type of return, they must be submitted either within seven days of the end of the trip or by the 15th of the month following.⁴⁷ The Ministry use this data to supplement their fish stock research and to monitor discrepancies in catch data. Approximately 144,000 catch effort returns are processed per year.⁴⁸

As of 1 October 2017, as a result of the Ministry's Digital Monitoring initiative, all over 28m trawl vessels were required to submit their commercial fishing activities as electronic reports under the new Fisheries Reporting Regulations 2017. These

⁴³ Fisheries Act 1996 Section 191.

⁴⁴ Fisheries (Licensed Fish Receivers) Amendment Regulations (2001).

⁴⁵ Fisheries (Reporting) Regulations (2017).

⁴⁶ Fisheries (Reporting) Regulations (2017).

⁴⁷ Fisheries (Reporting) Regulations (2017).

⁴⁸ FishServe Information Request (2017).

vessels have been submitting electronic reports for each trawl, disposal, processing of catch, non-fish protected species capture and landing via electronic reporting systems built in compliance with the new regulations and in conjunction with a GPR.

From 14 January 2019 until 1 December 2019, all other permit holders will be phased into electronic reporting, from the paper catch effort returns, in stages based on the amount of ACE that was held by the permit holder on 30th September 2017.

⁴⁹

As at 30 September 2018, a total of 25,833 trawl reports, 9,944 disposal reports 7,986 processing reports, 2,071 non-fish protected species capture reports, and 688 landing reports have been received by FishServe.

In addition to either catch effort returns or electronic reports, a permit holder must provide monthly returns to FishServe, known as Monthly Harvest Returns (MHRs).⁵⁰ These returns record all fish stocks taken and their quantities caught in each calendar month. This information is balanced against the ACE held in each client's account, and clients can view their balances to ensure they have not overfished. Over 12,000 MHRs are processed per year.⁵¹

LFRs must also provide monthly returns to FishServe, known as Licenced Fish Receiver Returns (LFRRs).⁵² These returns record the permit holder, species and quantities landed to them during each calendar month. Almost 2,500 LFRRs are processed per year.⁵³

⁴⁹ Fisheries (Reporting) Amendment Regulations (2018).

⁵⁰ Fisheries (Reporting) Regulations (2017).

⁵¹ FishServe Information Request (2017).

⁵² Fisheries (Reporting) Regulations (2017).

⁵³ FishServe Information Request (2017).

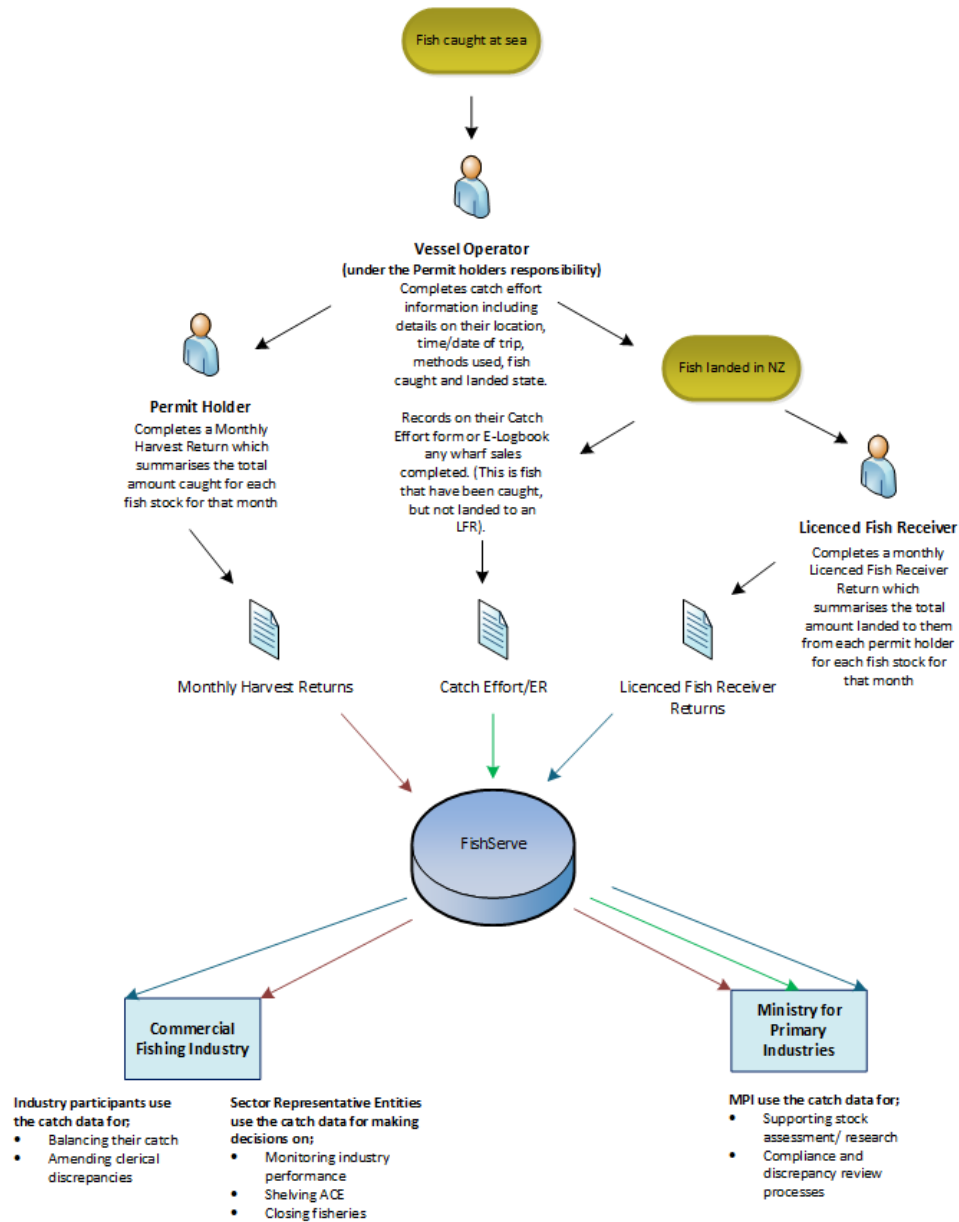


Figure 4. Dissemination of catch data in the New Zealand fishing industry

Sector Representative Entities

There are five main Sector Representative Entities (SREs); Aquaculture New Zealand, Deepwater Group, Fisheries Inshore New Zealand, New Zealand Rock Lobster Industry Council and Paua Industry Council, which are supported by the various stakeholders in each sector.⁵⁴ These SREs monitor their stocks and catch levels in addition to the monitoring the Ministry undertakes. Some take self-governing measures, such as split-stock reporting, shelving ACE or closing their industries as preventative steps to ensure no overfishing occurs. This helps maintain the health of their representative fish stocks and ensures compliance with the New Zealand fishing rules.

⁵⁴ Seafood New Zealand (2017).

Current Initiatives

Fisheries New Zealand began work on rolling out a new digital system for tracking, monitoring and reporting of commercial fishing and during 2017 changes were made to the reporting regulations to introduce the use of Digital Monitoring.

As of 1 October 2017 all over 28m trawl vessels transitioned successfully to electronic reporting.⁵⁵ All other permit holders are to follow suit in stages between 14 January 2019 and 1 December 2019.⁵⁶ It should be noted that these vessels had already implemented position reporting since 1994 and electronic reporting since 2010 with these data transmitted to Fisheries New Zealand to monitor fishing activity. The new system, however, provides Fisheries New Zealand with faster (daily) access to data, which will provide greater opportunity to target compliance risk, and as a consequence further reduce the potential for unreported catch and area misreporting.

Fisheries New Zealand continues to develop the Digital Monitoring project with the aim of introducing the use of cameras on board commercial fishing vessels in the future.⁵⁷ Further work is required before cameras can be introduced, including clarifying camera specifications and how they can be introduced.

Conformance and Verification Measures

Introduction

In 2012, the Ministry was established as the New Zealand Government department responsible for overseeing, protecting, regulating and sustaining New Zealand's natural resources. The department was formed from a previous merger of Ministry of Fisheries (MFish) and the Ministry of Agriculture and Forestry (MAF), with the New Zealand Food Safety Authority (NZFSA).⁵⁸ The merger meant the establishment of one department that could fully focus on New Zealand's primary industries.

Amongst a wide-ranging remit that includes traceability, scientific research to determine population sizes and environmental protection, the Ministry provides the governance and enforcement of the fishing rules within the commercial fishing industry and other fishing and aquaculture sectors.

Overfishing

A civil penalty regime applies to incentivise compliance with catch limits. Should a permit holder catch more fish than they are entitled to, they must attempt to buy in more ACE to cover their catch before the 15th of the month after the catch occurred. If this is not possible, and a breach is outstanding at the time the monthly statement process is run, the permit holder will receive a fine known as a deemed value.

Deemed values are set by the Ministry at a level to make overfishing unprofitable, but also not to deter the industry from landing their overcatch.⁵⁹ The deemed values are reviewed each year by the Ministry.⁶⁰ Stocks have an interim rate which applies throughout the fishing year, and an annual rate which applies at the end of the fishing year. Annual deemed values may be set at differential rates based on the percentage of overcatch.

⁵⁵ Fisheries (Reporting) Regulations (2017).

⁵⁶ Ministry for Primary Industries (2018).

⁵⁷ Fisheries (Reporting) Amendment Regulations (2018).

⁵⁸ Carter (2012).

⁵⁹ Fisheries Act 1996 Section 75.

⁶⁰ Fisheries (Total Allowable Catch, Total Allowable Commercial Catch, and Deemed Value Rates) Amendment Notice (No 2) 2016.

For example, Permit Holder A caught 57kg of KIN3 (Kingfish), but only holds 21kg of ACE. This puts Permit Holder A in breach by 36kg.

The deemed values for KIN3 in the Oct 2016/2017 fishing year are⁶¹;

Fish stock	Interim	Annual 100-120%	Annual 120-140%	Annual 140-160%	Annual 160-180%	Annual 180-200%	Annual 200%+
KIN3	8.0000	8.9000	10.6800	12.4600	14.2400	16.0200	17.8000

Permit Holder A must pay an interim deemed value of; $36 \times 8.00 = \$288.00$

If by the 15th of October 2017 (15 days after the end of the fishing year), Permit Holder A has still overfished, they will need to pay an annual deemed value. Any interim deemed value that has been paid is credited back to their account and an annual deemed value charged instead.

For example, using the above details, if Permit Holder A was still overfished at the end of the fishing year, they have caught 271.43% of their ACE (171.43% overcatch). KIN3 has an annual deemed value applied at a differential rate in 20% increments up to a maximum of 200%. 20% of the 21kgs of ACE held is 4.2kgs. The differential annual deemed value will be calculated in increments of 4.2kgs until the 36kgs of overcatch is accounted for.

Permit Holder A must pay;

Annual 100-120%: $4.2 \times 8.90 = \$37.38$

Annual 120-140%: $4.2 \times 10.68 = \$44.86$

Annual 140-160%: $4.2 \times 12.46 = \$52.33$

Annual 160-180%: $4.2 \times 14.24 = \$59.81$

Annual 180-200%: $4.2 \times 16.02 = \$67.28$

Annual >200%: 15 (the remainder of the 36kgs overcatch) $\times 17.80 = \$267.00$

Total annual deemed value to pay: Sum of the above = $\$528.66$ (excluding GST)

Permit Suspensions and Prohibitions

If the deemed values for a permit holder are greater than \$1,000 and are not paid by the due date of the invoice, the permit holder's permit will be suspended.⁶² This means they no longer have the right to fish under that permit until the deemed values have been paid or total less than \$1,000.

Some stocks have overfishing thresholds, which is the maximum amount by which you can overfish your ACE for a particular stock. These are specified in legislation along with any prescribed tolerance level.⁶³ If a permit holder breaches this threshold by the tolerance level or more, they will immediately receive a permit prohibition. A permit prohibition is a condition placed on their permit, meaning they are no longer entitled to fish in the geographical area, defined by the QMA, in which the overfishing occurred. Unless ACE is brought in to balance their account, the prohibition from the overfished stock remains until the end of the fishing year.⁶⁴

⁶¹ FishServe (2017).

⁶² Fisheries Act 1996 Section 79.

⁶³ Fisheries (Over-Fishing Thresholds for Quota Management Stocks) Order (2001).

⁶⁴ Fisheries Act 1996 Section 78.

For example, SUR5 (Sea Urchin/Kina in QMA5) has an overfishing threshold of 5% in excess of a permit holder's ACE, and a tolerance level of 25kg.

If Permit Holder A has 1,000kg of ACE and overfishes this by 6% that is 60kg of overcatch. This is over the threshold and tolerance level, and so Permit Holder A would be automatically prohibited from fishing in QMA5.

If Permit Holder B has 400kg of ACE and overfishes this by 6% that is 24kg of overcatch. This is over the threshold limit, but within the tolerance level, so Permit Holder B would not receive a prohibition.

Minor Offending

Minor offending includes non-payment of cost recovery levies, non-payment of FishServe levies or other minor offences such as late reporting. Penalties for such offences range from suspensions of fishing permits and licences to infringement fines and withholding of services from FishServe.⁶⁵

Serious Offending

A criminal penalty regime applies to all offending other than catch balancing. Industry performance against the fishing legislation and regulations is monitored by the Ministry. Not complying with the New Zealand fishing rules is considered serious offending and damaging for the future of the industry. Serious offences include; misreporting, dumping fish overboard, trucking (catching fish in one QMA but reporting it caught in another), using illegal gear or techniques, or fishing within a prohibited area.

Under the Fisheries Act 1996, if a party is successfully prosecuted for serious offending, the Court is entitled to apply penalties ranging from up to five years imprisonment, fines up to \$500,000, and forfeiture of all equipment including vessels, fishing gear and forfeiture of quota shares.⁶⁶

In case of repeat serious offending, that person can be banned from the fishing industry by being prohibited from holding any licence, approval, permission or fishing permit, engaging in any fishing activity, or deriving any financial benefit from activities associated with fishing.⁶⁷ This ban can be applied for a period of up to 3 years.

The Ministry has various programmes of work and processes in place to identify any illegal fishing activity.

Observers

The Ministry runs an observer programme, which places personnel onboard vessels for the purposes of fisheries research, management and enforcement. Observers collect information on all fishing activity including catch effort data, all aspects of vessel operation, quantity and condition of fish taken, effects on aquatic environments, and the processing, transporting and landing of fish.⁶⁸ They are an important part of monitoring compliance with the fishing rules and collecting information for further investigations.

Vessel operators are notified at least five days in advance of the intent for observers to be placed onboard their vessel. It is an offence for the vessel to be put to sea without the observers if notice has been served. Vessel operators must ensure the observers onboard their vessels have access to all necessary operations in order to complete their duties.⁶⁹

⁶⁵ Fisheries Act 1996 Sections 260 & 269.

⁶⁶ Fisheries Act Part 13.

⁶⁷ Fisheries Act 1996 Section 257.

⁶⁸ Fisheries Act 1996 Section 223.

⁶⁹ Fisheries Act 1996 Section 224.

The observer programme plans more than 11,500 days at sea each year.⁷⁰ The Future of our Fisheries project plans to increase this monitoring to all fishing vessels through the use of technology.⁷¹ If this work is approved by Cabinet, then the observer programme could change significantly in the future.

Fisheries Officers

Any officer in command of a vessel or aircraft of the New Zealand defence force, or any New Zealand police officer is deemed to be a fisheries officer.⁷² The Ministry may also appoint honorary fisheries officers for specified areas. These positions are unpaid but are usually filled by volunteers with an interest in the sustainability of New Zealand's fisheries. The Ministry currently employs more than 220 honorary fishery officers who are focused on non-commercial fisheries.⁷³

Fisheries officers patrol New Zealand's coastline and EEZ, investigating suspicious behaviour. Officers are entitled to enter and search any vessel, vehicle or premise and examine any belongings, equipment or documents where they believe an offence has been committed in terms of the Fisheries Act. Persons involved are required to answer any questions of a fisheries officer and produce any documents requested such as fishing permits, vessel certificates of registration and LFR licences.⁷⁴

Fisheries officers can issue infringement notices, prosecute those involved, and seize boats and equipment used in fishery-related offences.

Legislative Powers

As discussed in *The New Zealand Approach*, the Ministry can also add input controls on fisheries management through regulations and Gazette notices, such as closing areas at risk of overfishing or limiting the approved fishing methods.⁷⁵ These controls are used to balance the needs of fish stocks against the impacts of commercial fishing. There are also emergency provisions in legislation that provide a mechanism to address disease outbreaks, serious declines in abundance or significant adverse changes in the environment.

For example, in November 2016 a 7.8 magnitude earthquake hit New Zealand.⁷⁶ The seabed around Kaikoura was lifted up to 2m in places exposing the previously underwater environment and drastically impacting the paua, rock lobster and seaweed marine life.⁷⁷

⁷⁰ Ministry for Primary Industries (2017).

⁷¹ Ministry for Primary Industries (2016).

⁷² Fisheries Act 1996 Part 11.

⁷³ Ministry for Primary Industries (2017).

⁷⁴ Fisheries Act 1996 Part 11.

⁷⁵ Fisheries Act 1996 Section 297.

⁷⁶ GeoNet NZ (2017).

⁷⁷ Howe & Morrah (2016).



Figure 5. Exposed paua and seaweed following the November 2016 earthquake off Kaikoura. Photo credit: MPI

The Minister for Primary Industries acted immediately to close the fisheries.⁷⁸ Once surveying was able to be completed, the rock lobster industry was reopened, but the shellfish and seaweed industries were shut for the remainder of the fishing year.⁷⁹ The fishing industry supported this closure for the rebuilding of stocks and future sustainability of fisheries in this area.

The ability in legislation to create changes to the fishing rules as and when needed, and the cooperation of the industry to focus on long-term sustainability, allows for a dynamic approach to best protect both the marine resources and the economic future of the commercial fishing industry.

Profiling

The Ministry conducts risk profiling of certain fisheries and clients where suspected offending is occurring, or the stocks are particularly vulnerable to offending. Where a risk profile identifies areas of compliance concern, the Ministry takes action to manage that area.

This may include increased fisheries patrols, or the Ministry may also undertake surveillance operations where suspected illegal activity is occurring. Coordinated surveillance and information gathering operations often include the New Zealand Defence Force acting in their roles as fisheries officers.

Vessel Inspections

The Ministry conducts more than 1,000 commercial vessel inspections per year.⁸⁰ These may include pre-fishing inspections to review permits, documentation and fishing gear while the vessel is still in port, as well as boarding inspections at sea, and post-trip inspections to review completed documentation.⁸¹

⁷⁸ MPI, Gazette Notice, Number MPI705 (2016).

⁷⁹ MPI, Gazette Notice, Number MPI720 (2017).

⁸⁰ Ministry for Primary Industries (2017).

⁸¹ Ministry for Primary Industries (2015).

Discrepancy Review Processes

The Ministry has an established discrepancy review process which includes the reconciliation of Catch Effort data against MHR data and then against LFRR data. Compliance staff are also able to analyse and compare positional information reported on catch effort returns with ALC/GPR data.⁸²

When a discrepancy is found and determined to be deliberate, surveillance operations and further investigation may be undertaken to determine the scope of the offending. Prosecutions and penalty regimes as allowed by the Fisheries Act 1996 will be enforced depending on the severity of the offending.⁸³

Comparability to International Best Practice

Introduction

New Zealand was world leading in the implementation of a catch-rights based quota management system in 1986. Today New Zealand continues to be one of the top regarded operators in the world for fisheries management.⁸⁴

Despite New Zealand's reputation for well-managed fisheries, there is always room for improvement. The New Zealand QMS is now 30 years old and the Fisheries Act 1996 is 20 years old.

Overarching Measures

New Zealand is a party to many international agreements that support global fisheries management.

Highly migratory and high seas stocks

New Zealand is a signatory to *The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*.⁸⁵ The Agreement sets out detailed minimum international standards for the conservation and management of straddling fish stocks and highly migratory fish stocks both within and beyond a country's EEZ. New Zealand abides by this agreement and the FAO Compliance Agreement to *Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas* through requiring all vessels fishing in the high seas to hold a High Seas Fishing permit. These permits are issued only under approval by the Ministry, must be for a New Zealand vessel registered under the Ship Registration Act and on the New Zealand fishing vessel register. High seas permits are issued for a period of 1 year and must be carried onboard the vessel at all times available for inspection by both New Zealand and foreign high seas inspectors.

Regional Fisheries Management Organisations

Regional Fisheries Management Organisations (RFMOs) are international bodies based on agreements between Government parties to establish fisheries conservation and management measures within defined convention areas or for particular migratory species. New Zealand is a member of four RFMOs; the South Pacific Regional Fisheries Management Organisation, the Western and Central Pacific Fisheries Commission, the Commission for the Conservation of Southern Bluefin Tuna, and the Commission for the Conservation of Antarctic Marine Living Resources (more on this below).⁸⁶

⁸² Ministry for Primary Industries (2015).

⁸³ Fisheries Act 1996 Part 13.

⁸⁴ Worm et al (2009) and Alder et al (2010).

⁸⁵ United Nations (2017).

⁸⁶ Ministry for Primary Industries (2017).

The Commission for the Conservation of Southern Bluefin Tuna (CCSBT), for example, has a Management Procedure (MP) in place for managing the stock biomass. Using the MP, an international total allowable catch is set and then divided into catch limits per country by agreement.⁸⁷

Protecting Antarctic Marine Resources

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) was established in 1982 with the objective of conserving Antarctic marine life in response to an increase in commercial interest. New Zealand is one of 25 members of the CCAMLR, which sets catch limits based on an ecosystem-based fisheries management (EBFM) model, to ensure a balanced approach to commercial fishing in Antarctic waters and preservation of the existing ecology.⁸⁸ Vessels operating under the CCAMLR must adhere to an onboard observer scheme and catch-effort data reporting requirements.

Law of the Seas

The United Nations Convention on the Law of the Seas (UNCLOS) is the international agreement that defines the ocean space and the rights and responsibilities of the nations with respect to that space. The agreement was formalised, and New Zealand was one of the original signing nations, in 1982. The agreement came into effect in 1994, being one year after the 60th nation ratified the agreement.⁸⁹ UNCLOS defines various areas such as territorial waters, internal waters, archipelagic waters, contiguous zone, EEZs and Continental shelves. Establishing these agreed areas, allows nations to establish fishing rules for their territories and protect their defined resources.⁹⁰

Committee on Fisheries

New Zealand is a member of the FAO Committee on Fisheries (COFI). The committee reviews programmes of work by the FAO in the areas of fisheries and aquaculture, and also reviews international fisheries and aquaculture problems with the intent to find possible solutions.⁹¹ For example, in the last session of the committee in Rome July 2016, amongst other things, the committee reviewed the FAO state of the world fisheries report and the progress in the implementation of the code of conduct for responsible fisheries and related instruments.⁹²

International Illegal Fishing Activity

Along with international agreements for best fishing practices and global catch limits, New Zealand also supports compliance measures in the fight against illegal fishing activity. New Zealand is a signatory to the FAO agreement on Port State Measures which aims to stop Illegal, Unreported and Unregulated (IUU) fishing activities and was adopted by the FAO conference in 2009.⁹³ The agreement entered into force in June 2016 and allows countries to conduct inspections of foreign vessels and deny vessels entry into ports.⁹⁴ New Zealand already had scope within the Fisheries Act 1996 to ban vessels suspected of undermining international conservation or management measures from entering New Zealand waters or ports. If the vessel had already entered New Zealand waters, they could be directed to leave,⁹⁵ but the Port State Measures agreement adds international weight to the New Zealand legislation. New Zealand also actively opposes IUU through air and surface monitoring patrols in the Pacific and Southern Oceans.⁹⁶

⁸⁷ Commission for the Conservation of Southern Blue Tuna (2017).

⁸⁸ Commission for the Conservation of Antarctic Marine Living Resources (2017).

⁸⁹ Advisory Board on Law of the Sea (2006).

⁹⁰ United Nations (2017).

⁹¹ FAO (2017).

⁹² FAO (2016). FAO (2017).

⁹³ Doullman & Swan (2012).

⁹⁴ Ministry for Foreign Affairs and Trade (2017).

⁹⁵ Fisheries Act 1996 Section 113ZD.

⁹⁶ Ministry for Foreign Affairs and Trade (2017).

Bilateral and Multilateral Arrangements

The Fisheries Act 1996 has the provision to allow foreign access to New Zealand fisheries through foreign fishing licences. These licences are only issued to operators of foreign owned and flagged fishing vessels on approval by the Minister. Since October 2001, no licences have been approved. The Fisheries Act 1996 also allows for a portion of the TACC to be available for foreign fishing vessels fishing within New Zealand's EEZ if not fully allocated.⁹⁷

Pacific Islands

New Zealand has strong cultural, social and economic ties with the Pacific Island nations. New Zealand supports Pacific nations to protect and utilise their fisheries resources through initiatives such as providing training and capacity development. Pacific Islands Forum Fisheries Agency (FFA) is an inter-governmental organisation tasked with supporting and enabling the members of the agency to achieve sustainable use of their offshore fisheries.⁹⁸

In 2015, New Zealand's Prime Minister pledged \$50 million dollars through the Pacific Islands Fisheries Forum to support the development of a catch-based management system in the Pacific Islands.⁹⁹ In 2016, 10 Pacific Fisheries Ministers visited New Zealand to learn about New Zealand's fisheries management and fishing industry training programmes.¹⁰⁰

The Niue Treaty was formed through the FFA and is an intergovernmental agreement on the monitoring, control and surveillance of fishing. Effectively this enhances the ability to enforce fisheries law and deter illegal activity.¹⁰¹ The New Zealand defence force assists with international compliance patrols in the EEZs of Pacific Island nations.¹⁰²

These initiatives aim to share New Zealand's knowledge of fisheries management and support the development of future fisheries management within New Zealand's neighbouring Pacific Island nations.

International Future – Ecosystem Approach to Fisheries Management

International best practise favours an Ecosystem Approach to Fisheries Management (EAFM).¹⁰³ Ecosystem considerations in marine science and management have been in place, but have been more explicitly addressed since the terms "ecosystem based management and "ecosystem approach to management" gained acceptance after the United Nations Conference on Environment and Development in 1992. EAFM takes a holistic approach to fisheries management that considers sustainability in ecological, social and economic terms.

New Zealand has committed to moving towards an ecosystem approach to fisheries management by 2020 under the Convention on Biological Diversity.¹⁰⁴

The Minister of Fisheries Stuart Nash acknowledges New Zealand is well set up to achieve this:

"New Zealand has committed to moving towards an ecosystem approach to fisheries management by 2020, as it is one of four targets under the Convention on Biological Diversity (CBD). An ecosystems approach is about adopting an integrated approach to managing the competing uses and values of New Zealand's fisheries resources and the ecosystems that support them.

We are well set up to achieve an ecosystems approach as many of our fisheries already consider and manage the impacts of fishing on other species, marine habitats and ecosystems, while also providing for New Zealanders' social, economic, and

⁹⁷ Fisheries Act 1996 Sections 81 – 83.

⁹⁸ Pacific Islands Forum Fisheries Agency (2014).

⁹⁹ Key (2015).

¹⁰⁰ Seafood New Zealand (2016).

¹⁰¹ Pacific Islands Forum Fisheries Agency, Niue Treaty (2012).

¹⁰² New Zealand Defence Force (2017).

¹⁰³ FAO (2018).

¹⁰⁴ Department of Conservation (2016).

cultural wellbeing. This is thanks largely to the Fisheries Act, which requires us to consider many components of an ecosystem based approach to fisheries management.”

The Fisheries Act 1996 embraces and enables an EAFM, including provisions that:

- Maintain the potential of fisheries resources to meet the reasonably foreseeable needs of future generations (s8);
- Avoid, remedy or mitigate adverse effects of fishing on the aquatic environment (s8);
- Maintain associated or dependent species above a level that ensures their long-term viability (s9);
- Maintain the biological diversity of the aquatic environment (s9);
- Protect habitats of particular significance to fisheries management (s9);
- Recognise and act cautiously in light of uncertainty (s10);
- Act in a manner consistent with New Zealand’s international obligations in relation to fishing and the provisions of the Settlement Act 1992 (s5);
- Have regard to the interdependence of stocks (s13)
- Consider social, cultural, and economic impacts of management options (s10 “information” includes scientific, customary Maori, social, or economic information under s2 Interpretation; s13);
- Implement participatory fisheries management processes (s12);
- Monitor fishing activity, including interactions with protected and non-target species;
- Specify necessary research requirements; and
- Enforce legislation.

Using the incentives and frameworks available under the rights based QMS and its supporting regulatory regime, for many fisheries significant progress has been made in addressing any adverse effects of fishing on the aquatic environment and associated and dependent species. A wide range of mitigation measures, gear modification and controls such as selective closures are in place. In some cases the approaches are codified in documents such as the seabird and shark National Plans of Action (NPOAs) and in other cases applied at the level of individual fisheries. These have been supported by extensive research on the affected species and the efficacy of measures and this research and the incremental improvement in mitigation approaches is ongoing and adaptive as new information becomes available or new risks become evident.

Other initiatives taken by rights holders to demonstrate fisheries are managed consistently with an ecosystem approach include use of third-party certification. Over 70% of the deepwater catch, or around half of New Zealand’s wild catch, has now been verified as meeting the highest international seafood sustainability standard, the Marine Stewardship Council (MSC) Fisheries Standard. The MSC adopts an ecosystem approach to fisheries management by assessing a fishery’s performance against 3 principles (stock status, environmental effects, and management).

The New Zealand Government has also established the Sustainable Seas National Science Challenge in 2014, which is set out for ten years with up to \$71.1 million in funding.¹⁰⁵ The long term aim of the challenge is to enhance the use of New Zealand’s marine resources while ensuring the marine environment is sustained and protected for the future.¹⁰⁶

For more information on EAFM and other New Zealand initiatives on sustainability, refer to the Managing for Sustainability Report.

¹⁰⁵ Sustainable Seas (2015).

¹⁰⁶ Ministry for Primary Industries (2016).

Appendix A: List of Acronyms

ACE	Annual Catch Entitlement
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
COFI	Committee on Fisheries
EAFM	Ecosystem Approach to Fisheries Management
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organisation of the United Nations
FMA	Fisheries Management Areas
ITQ	Individual Transferable Quota
IUU	Illegal, Unreported and Unregulated
LFR	Licensed Fish Receiver
LFRR	Licensed Fish Receiver Return
MHR	Monthly Harvest Return
MNZ	Maritime New Zealand
MP	Management Procedure
MPI	Ministry for Primary Industries
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
QMA	Quota Management Area
QMS	Quota Management System
QWE	Quota Weight Equivalent
RFMO	Regional Fisheries Management Organisation
SNZ	Seafood New Zealand
SRE	Sector Representative Entities
TAC	Total Allowable Catch
TACC	Total Allowable Commercial Catch
UNCLOS	United Nations Convention on the Law of the Seas

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Report Details

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Relevant legislation, regulation and statutes	Fisheries Act 1983 Fisheries Act 1986 Fisheries Act 1996 Māori Fisheries Act 1989 Deed of Settlement 1992 Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 Māori Fisheries Act 2004 All fisheries regulations cited and listed in References
Relevant regulatory agencies	Fisheries New Zealand www.fisheries.govt.nz Maritime New Zealand www.maritimenz.govt.nz Ministry of Foreign Affairs and Trade www.mfat.govt.nz