Ministry of
Fisheries
Te Tautiaki i nga tini a Tangaroa

Draft National Fisheries Plan for Freshwater

July 2011

New Zealand Government

Foreword

New Zealand's freshwater fisheries are of great value to us all. They contribute to our cultural and social traditions, to our nation's economy, and to our sense of overall well-being. We need to work to ensure these valuable resources are managed in a way that provides for benefits to continue and be enjoyed for many generations to come.

New Zealand's freshwater environment supports a number of species that are used and valued in different ways. The nature of the environment, its vulnerability to human impacts and the number of agencies with an interest presents unique challenges for fisheries management. Given these unique attributes, effective management requires a specific approach. However, there are also a number of commonalities with management of marine fisheries that drive a consistent approach to fisheries management planning across all inshore fisheries.

To this end, the Ministry of Fisheries has developed this draft National Fisheries Plan for Freshwater. The Plan provides for transparent and accountable management by setting out objectives and describing how performance against these objectives will be measured and how the objectives will be achieved.

The Plan has not been finalised. It will be trialled for one to two years and feedback and input will be collected to improve and finalise the Plan. This approach provides opportunities for the large number of tangata whenua and stakeholder representative groups to test and contribute to, not just the Plan itself, but also its supporting processes.

I am confident the National Fisheries Plan for Freshwater will bring more certainty for everybody involved in freshwater fisheries and will make management more transparent, more accountable and more accessible.

Gavin Lockwood
Acting Deputy Director General
Resource Management & Programmes
Ministry of Agriculture and Forestry/Ministry of Fisheries

1 July 2011

DRAFT

Ko Te Waiora

Ko te waiora	The tears of Ranginui
Na te Atua	Fall
Te waimaori	And fill the waterways
E rere ana	From the mountains
Mai te maunga ki te moana	To the sea
Na ko Marama	Marama
Pari mai te tai	Regulates
Whakamana nga	The flow of the tides
Uri o Tangaroa	Sustaining
Kei te ora tonu e	The children of Tangaroa
Ko te waitai	The breath of Papatuanuku
I piki ai ki runga rawa e	Rises
Ka whano mai	Returning
Ka whangaia	To feed
Te whenua	The land
Te Tautiaki	Te Tautiaki
I nga tini a Tangaroa	I nga tini a Tangaroa
Hei awhina	Will support
Hei whangaia	And replenish
Te moana	The sea
Hei awhina	Will support
Hei whangaia	And replenish
Te moana	The sea
Mo nga iwi	Together with the people
O te motu - HI! AUE HI!	Of this land – INDEED!

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Glossary of Terms

Annual Catch Entitlement (ACE)	Allocation of the **TACC** for a given fishing year. Initially distributed proportionally amongst **quota** owners, ACE can also be traded and transferred.
Associated or dependent species	Any non-harvested species taken or otherwise affected by the taking of any harvested species.
Aquatic environment	The natural and biological resources comprising any aquatic ecosystem, including aquatic life. These environments can include oceans, seas, coastal areas, inter-tidal areas, estuaries, rivers, lakes and other places.
Biological diversity	The variability among living organisms, including diversity within species, between species and of ecosystems.
Biomass	The size of a **stock** in units of weight.
B_{MSY}	The average **stock** biomass (or size) that results from taking an average catch of **maximum sustainable yield** under various types of harvest strategies.
Ensuring sustainability	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**.
Fisheries Management Area (FMA)	New Zealand's fisheries waters (the 200 nautical mile Exclusive Economic Zone, Territorial and Internal waters) are divided into ten Fishery Management Areas. These FMAs also inform the boundaries of most **Quota Management Areas (QMAs).**
Fisheries resources	Any one or more **stocks** or species of fish, aquatic life or seaweed.
Fish Stock or Stock	Any fish, aquatic life or seaweed of one or more species that are treated as a unit for the purpose of fisheries management.
Habitat	Includes all aspects of the **aquatic environment** that fisheries resources depend on directly or indirectly in order to carry on their life processes.
Hard limit	A specified **biomass** (or proxy) reference level below which a fishery should be considered for closure.
Harvest strategy	Identifies target, soft and hard biomass reference points and management actions associated with achieving the target and avoiding the limits.
Input controls	Controls on fishing effort, for example on how, when and where people can take fisheries resources.

Kaitiakitanga	The exercise of guardianship and, in relation to any **fisheries resources**, includes the ethic of stewardship based on the nature of the resources, as exercised by the appropriate tangata whenua in accordance with tikanga Mäori.
Long-term viability	In relation to the biomass level of a **stock** or species, means there is a low risk of collapse of the stock or species and the stock or species has the potential to recover to a higher biomass level.
Management Procedure	Tool used to guide the setting of catch limits. Specifies what data will be used, and how it will be used, to determine a catch limit.
Management Service(s) (or Service(s))	Management Services provided for the purposes of fisheries management, including changes to catch limits and rules, education, enforcement, monitoring and research.
Maximum Sustainable Yield (MSY)	In relation to any **stock**, means the greatest yield that can be achieved over time while maintaining the stock's productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock.
Maximum Constant Yield (MCY)	The greatest yield that can be produced over the long term by taking the same catch year-after-year, with little risk of **stock** collapse.
Output controls	Direct controls on the quantity of fish harvested.
Protected species	As defined in the Wildlife Act 1953 and the Marine Mammals Protection Act 1978, including all NZ seabirds; all marine mammals, some marine reptiles, black coral; some red corals, giant and black-spotted grouper, deepwater nurse, whale and white-pointer sharks, manta rays and spinetail devil rays.
Quota	Individual transferrable quota is a property right used to proportionally allocate the **TACC**. Each **QMS stock** has 100,000,000 tradable quota shares that determine the allocation of **ACE** amongst quota owners.
Quota Management Area (QMA)	The spatial boundaries for each **QMS stock**. These boundaries are aligned with **FMAs**, either directly or as a part or combination of FMA boundaries.
Quota Management System (QMS)	System of fisheries management for the main harvest species in New Zealand which includes the requirement to set a **TAC,** make allowances for customary Mäori interests, recreational interests and fishing-related mortality, and set a **TACC.**
Soft Limit	A specified **biomass** (or proxy) level that triggers a requirement for a formal, time constrained rebuilding plan.
Stock Status	A determination made about the current condition of the **stock** on the basis of stock assessment results.

Sustainability Measures	Any measure or action taken for the purpose of ensuring sustainability.
Target biomass	Generally a **biomass** (or proxy) level that management actions are designed to achieve with at least 50% probability.
Total Allowable Catch (TAC)	The total quantity of fishing-related mortality allowed for a **QMS stock** in a given fishing year.
Total Allowable Commercial Catch (TACC)	The total quantity of commercial catch allowed for a **QMS stock** in a given fishing year.
Utilisation	Conserving, using, enhancing and developing fisheries resources to enable people to provide for their social, economic and cultural wellbeing.

Summary of the National Fisheries Plan for Freshwater

Fisheries 2030 Goal

New Zealanders maximising benefits from the use of fisheries within environmental limits

Fisheries 2030 Outcomes

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 current and future use.

Management Approach

The National Inshore Freshwater Plan (the Plan) uses objective-based management to drive the delivery of Ministry of Fisheries' services for inshore freshwater fisheries and help meet the Government's goal and outcomes for the fisheries sector.

Freshwater stocks have been grouped into two 'groups' to facilitate objective setting to translate the *Fisheries 2030* goal and outcomes. The following tables describe the management approach used for each group in the areas of USE and ENVIRONMENT (Stock Sustainability). These two areas are closely entwined; without sustainable stock management, long-term use benefits will not be maintained. The management approach for ENVIRONMENT (Effects of fishing) is generic across all groups and listed at the end of this section.

<table>
<tr><th colspan="4">Group 1</th></tr>
<tr><td rowspan="2">USE</td><td rowspan="2">ENVIRONMENT
(Stock sustainability)</td><td>Stocks:
Longfin eels[1] (North Island & Chatham Islands: LFE 17, 20, 21, 22, 23),
Shortfin eels[2] (SFE 17,20,21, 22, 23),
Freshwater eels[3] (South Island ANG 11, 12, 13, 14, 15, 16)</td><td>Management approach:
All stocks in this Group are freshwater eel stocks and are managed within the Quota Management System (QMS). Freshwater eel stocks in this group are highly valued, in particular by customary Maori but also by commercial and amateur fishers.
The management approach for this Group is to maintain, and look for opportunities to further increase, the benefits derived from these stocks. Because the freshwater environment is governed by multiple authorities, this will involve working with those authorities to ensure eel habitats are healthy and support eel reproduction.</td></tr>
</table>

[1] LFE stocks include *Anguilla diffenbachii* only.

[2] SFE stocks include shortfin eel, *Anguilla australis* and Australasian longfin eel *Anguilla reinhardtii.*

[3] ANG stocks include longfin eel, *Anguilla diffenbachii* , shortfin eel, *Anguilla australis,* and, where relevant Australasian longfin eel, *Anguilla reinhardtii.*

Group 2			
USE	**ENVIRONMENT** (Stock Sustainability)	**Stocks:** All other freshwater fisheries resources subject to the Fisheries Act 1996	**Management approach:** Stocks in this Group are managed outside the QMS and include species highly valued by tangata whenua (for example koura,), and a number of introduced species with emerging commercial fisheries (for example, bullhead catfish). Overall fishing pressure on these stocks is relatively low. The management approach for this Group is to enable the utilisation of these species while ensuring fishing activities managed under the Fisheries Act are not threatening these resources.

All Groups		
ENVIRONMENT (Effects of Fishing)	**Management approach:** The management approach to the environmental effects of fishing is the same for both groups and involves minimising adverse effects of fishing on the aquatic environment by improving information, introducing voluntary or regulatory measures, and incentivising compliance with those measures. A key concern in the freshwater environment that this approach aims to address relates to the transfer of unwanted organisms as part of fishing activities.	

Fisheries 2030 Governance Conditions

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

Meeting the Governance Conditions

The Plan does not explicitly set management objectives for governance conditions. Rather, the Plan and the supporting processes have been designed to achieve these conditions.

The governance tactics set out in the Plan seek to:

GOVERNANCE	> deliver on the Treaty partnership by providing avenues for input into how inshore freshwater fisheries will be managed. > provide clear information on how we plan to manage inshore freshwater fisheries, how they are performing, and how we will prioritise and invest in these fisheries to improve their performance to meet objectives. > provide opportunities for tangata whenua and stakeholders to input into, and link their planning processes to, Ministry processes, and > demonstrate accountability through performance monitoring and focusing management activity towards rectifying gaps in performance where they arise and in a timely manner.

1. Introduction

The National Fisheries Plan for Freshwater (the Plan) specifies objectives to guide management of New Zealand's freshwater fisheries. Management in this context includes managing inshore freshwater stocks that are subject to the Fisheries Act 1996 (the Fisheries Act) and managing the environmental effects of fishing for these stocks.

When combined with its supporting processes, the Plan provides a transparent way of identifying and delivering management services to freshwater fisheries, where management services are the activities undertaken to achieve objectives.

The Plan is the first plan developed for the management of all freshwater fisheries resources that are subject to the Fisheries Act. This version of the Plan is a "baseline" and "draft" plan, in that it mostly represents current management of freshwater fisheries. It will be tested, updated and improved over its first one to two years of operation using input from tangata whenua and stakeholders.

The Plan is one of five plans covering all of New Zealand's wild fisheries (refer diagram in Appendix 2). The other plans are the National Fisheries Plans for Inshore Shellfish, Inshore Finfish, Highly Migratory Species, and Deepwater and Middle-depths.[4] A separate strategy and plan setting objectives for farmed fisheries (aquaculture) is under development.

1.1 Scope

The Plan covers all fisheries resources managed under the Fisheries Act that are primarily found in the freshwater environment. Not all freshwater fish are managed under the Fisheries Act 1996; some species such as "whitebait" and trout are currently managed under other legislation administered by other authorities.

'Freshwater fisheries', for the purposes of the Plan, include the stocks and fishing activities that are managed under the Fisheries Act 1996. The primary fisheries are for two freshwater eel species, shortfin eel, *Anguilla australis*, and longfin eel, *A. dieffenbachii*. A third eel species, the Australasian longfin, *A. Reinhardtii*, is relatively uncommon. Limited fisheries also exist for native species such as koura (freshwater crayfish) and introduced species such as brown bullhead catfish.

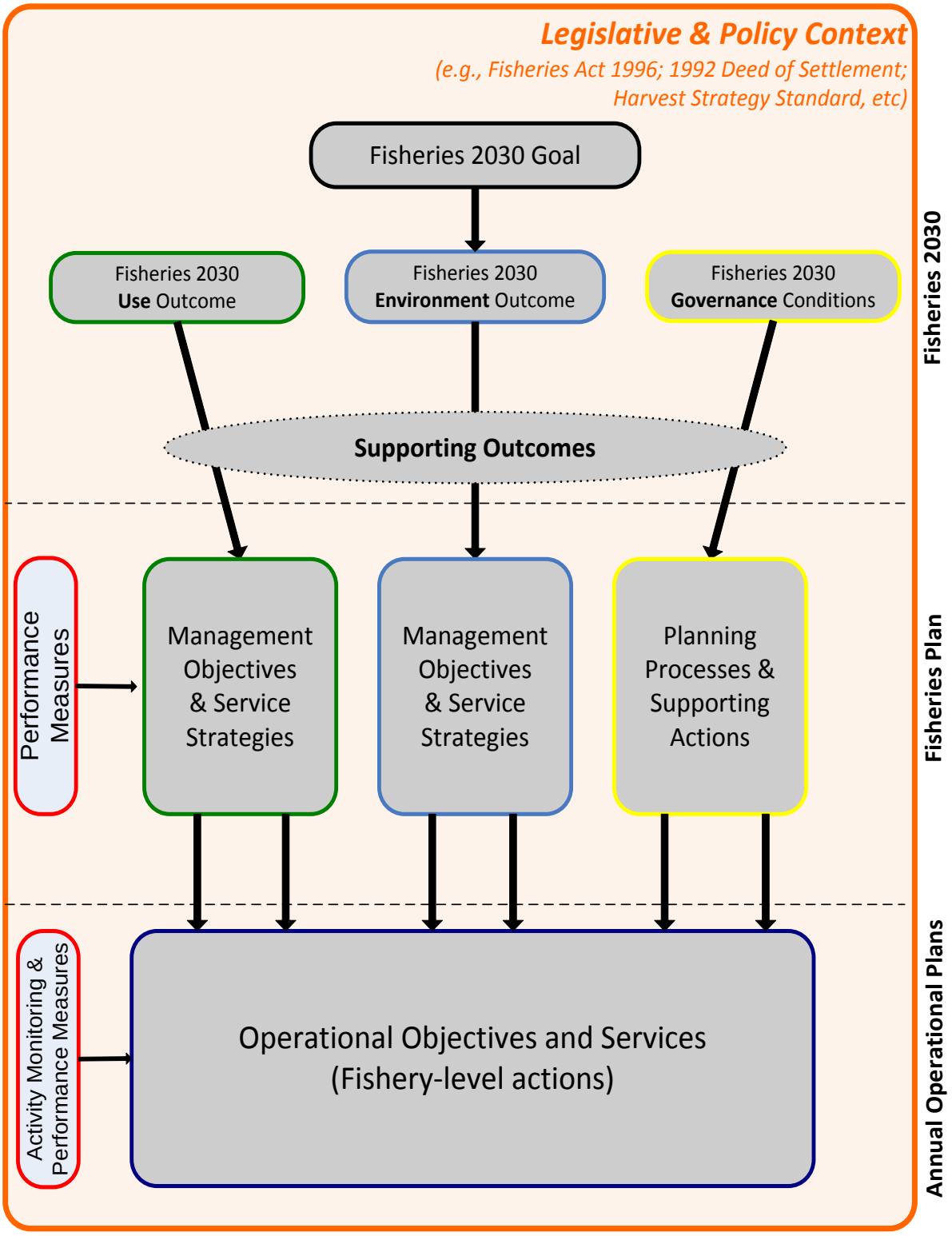
Further explanation of the species covered by the Plan is provided in the attached profile of New Zealand's freshwater fisheries (see Appendix 1).

1.2 Approach

The Plan uses objective-based management to drive delivery of Ministry services for freshwater fisheries so that the Plan's objectives and the Government's goals can be met (refer Figure 1).

[4] Other national fisheries plans can be found on the Ministry of Fisheries website: www.fish.govt.nz.

Figure 1: National Fisheries Plan – Approach



The approach used to develop the Plan ensures its objectives:

- link to, and directly assist achievement of, the Government's goal and outcomes for the fisheries sector, which are set out in *Fisheries 2030*[5]
- support the Minister of Fisheries and Aquaculture (the Minister) to meet all relevant statutory obligations
- enable performance to be comprehensively monitored and reported, and
- provide for integrated management by engaging tangata whenua and stakeholders in the Ministry's planning processes and by creating opportunities to link to the planning processes operated by tangata whenua, stakeholders and other agencies.

The Plan supports identification of service needs, and design and delivery of Ministry (and potentially other sector) services, which are captured in operational plans. To ensure the Plan's objectives are met, an annual planning cycle[6] provides for adaptation. Performance against objectives is checked and reported each year via an Annual Review Report, and adjustments to management services needed to address poor performance are captured and delivered via an Annual Operational Plan. Figure 2 illustrates the overall process with the outer circle representing the National Fisheries Plan and the inner circle representing the annual planning cycle.

Figure 2: Fisheries Plan – Adaptive Approach

The Plan does not set stock-specific objectives for each freshwater stock. Rather, it establishes objectives for *groups of* freshwater stocks, while providing for stock-specific harvest strategies where appropriate. Some individual freshwater species, stocks or fisheries may warrant

[5] *Fisheries 2030* can be found on the Ministry of Fisheries website: www.fish.govt.nz
[6] The annual planning cycle is described in more detail in Chapter 4.

development of targeted fisheries plans. Species-, stock-, or fishery-specific fisheries plans, when developed, will be included in the Plan as chapters.

1.3 Legal Status

Section 11A of the Fisheries Act provides for formal approval of plans such as the National Fisheries Plan for Freshwater. Where plans have been approved under s11A, the Minister must take the plans into account when making sustainability decisions.

The approval of fisheries plans under s11A does not diminish any legal requirements. If there are, or appear to be, conflicts between an approved plan and obligations set out in legislation, the statutory obligations unequivocally take priority. For example, nothing contained in a fisheries plan changes the Crown's obligations to Māori or the Fisheries Act requirement to consult with interested parties when making sustainability decisions.

This version of the Plan has not been approved under s11A of the Fisheries Act. Approval will be sought in the future after the Plan is further advanced with tangata whenua and stakeholder input.

1.4 Structure

The Plan is set out in the following sections:

Chapter 2: **Context – Situating the Plan**
Describes the strategic, legislative and policy context within which the Plan operates.

Chapter 3: **Management Approach**
Sets out the management objectives for the stocks covered in the Plan. Performance measures, key default service strategies and governance tactics are also specified.

Chapter 4: **Implementing the Plan**
Describes the planning and service delivery processes the Plan drives, and sets out how the Ministry of Fisheries (the Ministry) will engage with tangata whenua and stakeholders.

Appendix 1: **Profile of New Zealand's Freshwater Fisheries**

Appendix 2: **National Fisheries Planning – the wider context**

2. Context – Situating the Plan

In developing the Plan, the Ministry has been cognisant of the Government's goal and outcomes for the fisheries sector, statutory obligations, and the desirability of working collaboratively with others in the fisheries and natural resource management sectors to secure a healthy aquatic environment and freshwater fisheries that benefit all New Zealanders.

2.1 Government's Goal and Outcomes

The Government's goal and outcomes for the fisheries sector are set out in *Fisheries 2030.* By specifying a goal for the sector, *Fisheries 2030* provides increased certainty to interested parties about the Government's strategic focus as it relates to fisheries resources.

Fisheries 2030 sets a long-term goal of:

New Zealanders maximising benefits from the use of fisheries within environmental limits

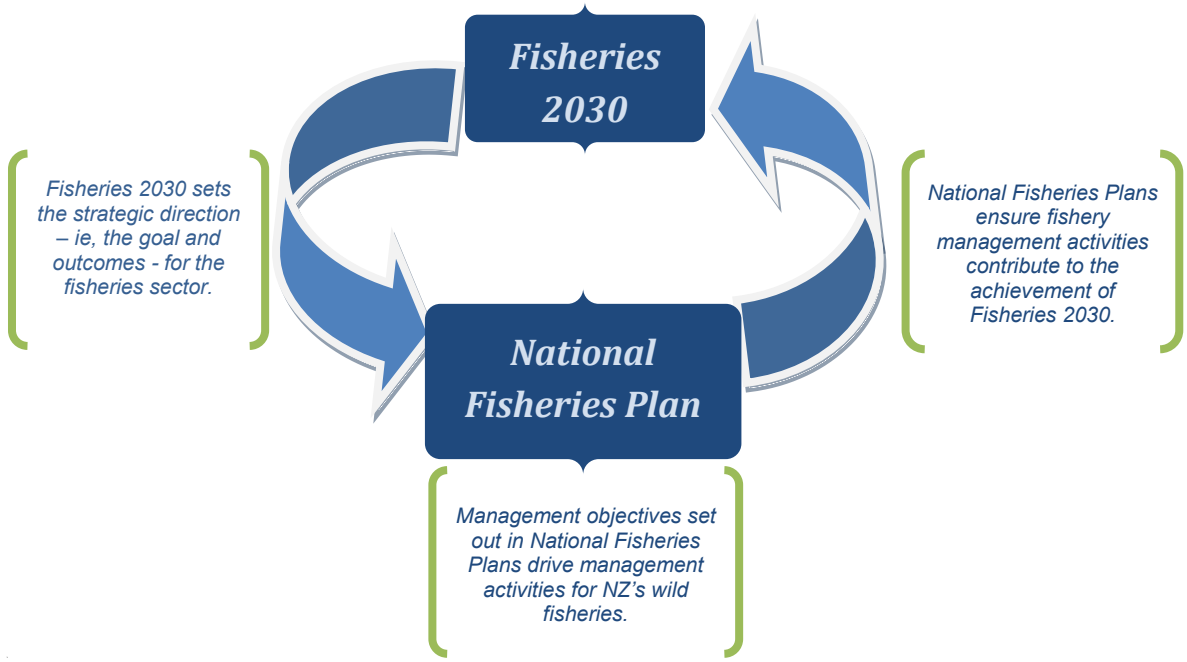
This goal encapsulates the ideal or aspirational state for New Zealand's fisheries. Two high-level outcomes, with an associated set of supporting outcomes, describe the goal in more detail. They are:

USE OUTCOME		Fisheries resources are used in a manner that provides greatest overall economic, social, and cultural benefit, including:
Supporting Use Outcomes	1	An internationally competitive and profitable seafood industry that makes a significant contribution to our economy.
	2	High-quality amateur fisheries that contribute to the social, cultural and economic well-being of all New Zealanders.
	3	Thriving customary fisheries, managed in accordance with kaitiakitanga, supporting the cultural well-being of iwi and hapū.
	4	Healthy fisheries resources in their aquatic environment that reflect and provide for intrinsic and amenity value.

Environment Outcome		**The capacity and integrity of the aquatic environment, habitats and species are sustained at levels that provide for current and future use, including:**
Supporting Environment Outcomes	5	Biodiversity and the function of ecological systems, including trophic linkages, are conserved.
	6	Habitats of special significance to fisheries are protected.
	7	Adverse effects on protected species are reduced or avoided.
	8	Impacts, including cumulative impacts, of activities on land, air or water on aquatic ecosystems are addressed.

The *Fisheries 2030* goal, use and environment outcomes, and supporting outcomes are deliberately high level and are not intended to be used to determine management services for individual fishstocks directly. Rather, *Fisheries 2030* sets the broad framework that forms the basis for, and drives management of, New Zealand's fisheries and aquaculture. Objectives-based management through fisheries plans is one way in which *Fisheries 2030* will be achieved (refer Figure 3).

Figure 3: Connection between *Fisheries 2030* and Fisheries Plans



In addition to the Use and Environment outcomes, *Fisheries 2030* sets out governance conditions that are required to ensure the *Fisheries 2030* goal is achieved. Governance involves both the nature of organisations with an interest in fisheries and the nature of the relationship between those organisations. This aspect of *Fisheries 2030* is discussed more in the later section, *Working with Others* (section 2.2).

Fisheries 2030 also sets out strategic objectives and actions. These objectives and actions do not determine services for individual stocks directly. However, many of the objectives and service strategies set out in the Plan directly reflect *Fisheries 2030* strategic objectives – for example, ensuring cost-effective management and services, ensuring sustainability of fishstocks and managing the impacts of fishing and aquaculture.

Fisheries 2030 recognises that it will take the whole sector, as well as the whole of Government, to deliver on the goal. The Ministry has captured its role in delivering on the *Fisheries 2030* Use and Environment outcomes in the following Ministry two outcomes:

> New Zealand is able to optimise the social, cultural and economic benefits from fisheries and aquaculture.

> Fishing is managed to support the health of the aquatic environment.

These outcomes reflect the scope of the Ministry's role and accountabilities. Although currently focused within the scope of the Ministry's role, the Plan links its objectives directly to *Fisheries 2030*, rather than Ministry, outcomes. Linking to *Fisheries 2030* provides explicit opportunities for others in the fisheries and natural resource sectors to discuss and link in their management activities when fisheries planning processes are undertaken. This supports achievement of *Fisheries 2030* and is likely to increase management efficiency by reducing or avoiding duplication of management activity and providing for complementary services to be aligned.

How *Fisheries 2030* Outcomes Drive Management of Freshwater Fisheries

The *Fisheries 2030* goal and outcomes acknowledge that New Zealanders benefit from the various uses of fisheries resources in different ways and recognise that we are constrained by the environmental impact fishing activities have on fishstocks and the aquatic environment.

Use

Achieving the Use Outcome means managing fishstocks and the aquatic environment in a manner that enables people to provide for their various use benefits, including social, economic and cultural benefits, and ensures that intrinsic values are maintained.

Securing benefits from the use of freshwater fisheries is a key focus of the Plan objectives. The Plan objectives reflect the need to consider all benefits. Freshwater fisheries are shared fisheries and meeting the aspirations of all fishing sector interests to maximise overall benefit is not always simple. Information on benefits differs in quality and quantity across sectors and is rarely directly comparable. The information processes used to review performance against objectives use best available information.

Intrinsic benefits are captured by objectives linked to the Environment Outcome. This outcome recognises the need to secure long-term sustainability of fishstocks and a healthy aquatic environment.

Environment

To achieve the Environment Outcome means managing stocks sustainably and protecting fish-stock habitat, including from the adverse impacts of fishing. Without managing stocks sustainably and protecting habitats there is no long-term opportunity to realise use benefits from stocks.

Managing stocks sustainably means ensuring they are harvested in a manner that maintains their potential to meet the reasonably foreseeable needs of future generations. The Plan sets objectives to ensure all freshwater stocks are monitored and harvested sustainably.

Protecting the environment in which stocks live means managing the impacts of fishing and non-fishing activities on biodiversity, associated or dependent species and habitats of significance to fisheries management. When managing the environmental effects of fishing, it is important to look not only at the direct effects arising from fishing for a single stock, but also at the cumulative effects that result from fishing across multiple stocks and areas. The objectives set out in the Plan reflect the need to consider environmental impacts broadly. The supporting annual planning and service delivery processes provide for consideration of how best to manage adverse effects, including assessing risk and identifying contributing fisheries across all of New Zealand's fisheries waters that

are contributing to the risk to allow targeting of management activity. The information processes used to review performance against objectives and to identify contributing fisheries are set out in policies and standards or, where no policy or standard exists, the best available information is used.

Non-fishing activities, such as land use activities, also affect the health of fishstocks and fish habitat. While the Ministry has no direct accountability for managing non-fishing activities, working with other government agencies – for example, through the Natural Resource Sector Network – provides opportunities to contribute to processes that manage non-fishing impacts and these opportunities are captured by the objectives set out in the Plan.

2.2 Governance

To be effective, management of freshwater fisheries needs to be well informed and collaborative, with all those in the sector demonstrating stewardship – that is, supporting and contributing to management and being accountable for their actions.

Fisheries 2030 Governance Conditions

The *Fisheries 2030* governance conditions are a statement about how fisheries sector participants will act to deliver on the high level goal and outcomes. They encompass both the nature of organisations and the nature of relationships between those organisations. The former acknowledges the wide range of institutions and participants involved in the delivery of *Fisheries 2030* outcomes, including government, Treaty partners, private companies, non-government organisations and other stakeholder groups. The nature of relationships between organisations refers to the particular forms of coordination. This recognises that governance involves relationships through networks and partnerships that result in complementary responses to fisheries management issues by the Ministry, our Treaty partners and stakeholders.

Governance Conditions		**Sound governance arrangements that are well specified, transparent and which support cost-effective and accountable decision-making**
Supporting Governance conditions	9	The Treaty partnership is realised through the Crown and Māori clearly defining their respective rights and responsibilities in terms of governance and management of fisheries resources.
	10	The public have confidence and trust in the effectiveness and integrity of the fisheries and aquaculture management regimes.
	11	All stakeholders have rights and responsibilities related to the use and management of fisheries resources that are understood and for which people can be held individually and collectively accountable.
	12	We have an enabling framework that allows stakeholders to create optimal economic, social and cultural value from their rights and interests.
	13	We have an accountable, responsive, dynamic and transparent system of management.

The Ministry has captured its role in delivering on the *Fisheries 2030* Governance Conditions in the following two Ministry outcomes:

> The Crown's fisheries and aquaculture obligations to Maori are delivered.

> There is increasing trust and confidence in our management of fisheries and aquaculture.

How Governance Conditions Affect Management of Freshwater Fisheries

How the Plan is finalised, operated and reviewed supports achievement of the *Fisheries 2030* governance conditions. The governance tactics seek to:

> deliver on the Treaty partnership by providing avenues for input into how inshore freshwater fisheries will be managed

> provide clear information on how we plan to manage freshwater fisheries, how they are performing, and how we will prioritise and invest in these fisheries to improve their performance to meet objectives

> provide opportunities for tangata whenua and stakeholders to input into and link their planning processes to Ministry processes, and

> demonstrate accountability through performance monitoring and focusing management activity towards rectifying gaps in performance in a timely manner.

2.3 Legislation and Policy

The fisheries management framework includes legislation, regulations, policies and standards. The fisheries planning process is an articulation of how freshwater fisheries management will be undertaken within this framework.

The key pieces of legislation relating to freshwater fisheries are:

> Fisheries Act 1996, and

> Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

The Ministry also administers the Fisheries (Quota Operations Validation) Act 1997 and the Maori Fisheries Act 2004 which have more of a supportive function and are not discussed here.

The Fisheries Act 1996

The Fisheries Act states the law relating to fisheries resources and how they should be managed, and recognises New Zealand's international obligations relating to fishing. Parts 2 and 3 of the Fisheries Act are of particular relevance to the Plan as they provide the legal context to the Use and Environment objectives set out in the Plan. Part 2 sets out the broad purpose and principles of the Fisheries Act:

> Purpose:
  - To provide for the utilisation of fisheries resources while ensuring sustainability.

> Environmental Principles:
  - Associated or dependent species should be maintained above a level that ensures their long-term viability.

- Biological diversity of the aquatic environment should be maintained.
- Habitat of particular significance for fisheries management should be protected.

> Information Principles:

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

Part 3 of the Fisheries Act outlines the measures the Minister may take to ensure sustainability, including:

> Setting total allowable catches (TACs) for quota management stocks in each quota management area as outlined in section 13.

> Making of regulations, for example, relating to the size, sex or biological state of fish that can be taken, where or when fishing can occur, and the fishing methods that can be used.

> Taking measures considered necessary to avoid, remedy, or mitigate any adverse effects of fishing on the relevant protected species.

Other parts of the Fisheries Act generally support, or relate to the application of, the QMS, excepting Part 7, which provides for resolution of disputes between fishery users,[7] and Parts 9 and 9A which provide for marine areas to be managed to recognise rangatiratanga or used for aquaculture.

The Plan is underpinned by, and operates in a way that is consistent with, the intent of the Fisheries Act. However, annual planning and service delivery processes may result in services that investigate changes to legislation to better allow the Plan's objectives and the goals reflected in *Fisheries 2030* to be met.

Treaty of Waitangi (Fisheries Claims) Settlement Act 1992

The Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (the Settlement Act) gives effect to the settlement of claims relating to Maori fishing rights. It makes better provision for Maori non-commercial traditional and customary fishing rights and interests, and for Maori participation in the management and conservation of New Zealand's fisheries. Obligations under the Settlement Act 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 particular regard given to their kaitiakitanga given particular regard.

[7] Specifically, Part 7 "...applies to disputes about the effects of fishing (excluding fish farming) on the fishing activities of any person who has a current interest provided for or authorised by or under..." the Fisheries Act. (s 114(a) of the Fisheries Act).

Fisheries management decisions provide the mechanism for the exercise of the specific rights.

The specific and general obligations relating to capture fisheries[8] arising from the Settlement Act are reflected in the Fisheries Act, which provides for the commercial elements of the settlement (through 20% of quota as new species enter the QMS) and the non-commercial elements (through regulations providing for customary use). The more general obligation to provide for tangata whenua input and participation in the setting of sustainability measures and to have particular regard to kaitiakitanga[9] requires systems and processes to allow:

> tangata whenua to express kaitiakitanga, particularly as it relates to fisheries management, and

> tangata whenua expressions of kaitiakitanga to be given particular regard when making decisions on sustainability measures for the fisheries.

In 2010, the Ministry decided it would support tangata whenua to develop Iwi and Forum Fisheries Plans as a vehicle for them to express their kaitiakitanga aspirations and objectives relating to fisheries. The Plan uses the Iwi Forums, and the Iwi and Forum Fisheries Plans, as the key vehicles for providing Māori opportunities to engage in fisheries management processes and to acknowledge and give regard to tangata whenua kaitiakitanga aspirations and objectives when making decisions on sustainability measures for the fisheries.

Policies and Standards

The Ministry's policies and standards provide further direction on how the Ministry will apply relevant legal obligations. Existing examples of policies and standards relevant to the management of inshore freshwater fisheries are the *Harvest Strategy Standard for New Zealand Fisheries* and the *QMS Introduction Process Standard*.[10]

These policies and standards are incorporated into the Plan objectives and/or into the annual planning and service delivery processes. New policies and standards will be incorporated as they are developed.

[8] Meaning 'wild', as distinct from 'farmed' fisheries.

[9] This obligation is contained in s 12(1)(b) of the Fisheries Act 1996. The Ministry considers that this 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).

[10] The *Harvest Strategy Standard for New Zealand Fisheries* and the QMS *Introduction Process Standard* can be found at www.fish.govt.nz

3. Management Approach

The Plan contains:

- management objectives that describe how *Fisheries 2030* will be met for freshwater fish stocks,
- performance measures that help to identify when the management objectives are or are not being met, and
- the set of default service strategies that will guide management activity for freshwater fish stocks over the life of the Plan.

3.1 Management Approach "Components"

Management Objectives

As noted above, management objectives are recorded in the Plan, and describe how the high level goal in *Fisheries 2030* will be achieved for a particular set of freshwater stocks (group). In line with *Fisheries 2030* outcomes, separate management objectives recognise different aims for use and environment, the latter comprising objectives relating to freshwater fish stock sustainability and management of the environmental effects of fishing.

The objectives in the Plan are not written using the language of relevant legal obligations, however all relevant legal obligation are *assumed* in the objective. For example, the stock sustainability objective for stocks in Group 2 is stated as, "Catch is at a level that is sustainable." The objective reflects that, for most of the stocks in this group, catch is the only information available to monitor and manage stock risks. If the assumed Fisheries Act obligation was made explicit in the objective, it would reads, "Catch is at a level that is sustainable and is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards a level at or above a level, that can produce the maximum sustainable yield" (s 13(2A) of the Fisheries Act).

Performance Measures

Performance measures have been developed for each management objective to assist the Ministry in determining whether the management objective is being met. These performance measures are more than a 'pass/fail' test. They provide a signal that there is a need to investigate further and to possibly take new action. For example, a fall in quota value for eels is a prompt for the Ministry to investigate further whether this decline is within the Ministry's control (for example, a sustainability issue) or whether other unrelated factors are influencing the fall in quota value, such as unfavourable exchange rates.

Performance measures may be direct (for example, a stock's quota value as a measure of commercial value) or indirect (for example, customary permit fulfilment as a measure of the benefits of customary fishing) depending on the type of information available.

Where performance measures are lacking or poor, services to establish measures will be captured in the Annual Operating Plan as resources allow.

Service Strategies

In addition to management objectives and performance measures, each group has a set of service strategies to signal the Ministry's preferred approach where an intervention or service is required. These describe, in general terms rather than in the operational terms which will be used in the Annual Operating Plan, the appropriate strategy for application or implementation of services, given the freshwater fishery characteristics and management imperatives for stocks in that group.

Service strategies do not comprehensively cover all services that will be applied to achieve management objectives. Rather, they provide high level direction for the key services that are driven by the Plan. It is implicit that generic services, such as those that support management of all stocks (for example, maintenance of the QMS) are required.

Summary

Read together, the management objectives, performance measures, and service strategies provide the management approach for each group of freshwater fish stocks.

3.2 The Fishstock Groups

The Plan is one of three components of an aligned approach to managing inshore fisheries (see appendix 2). Inshore fisheries comprise over 400 QMS stocks and numerous non-QMS stocks. This makes it impractical to translate *Fisheries 2030* goals and outcomes into stock–specific management objectives for each individual inshore stock covered in the Plan. Instead stocks have been grouped into 'groups' to facilitate multi-stock objective-setting and service delivery.

The grouping of fishstocks has been informed by initial application of a standardised categorisation methodology across all inshore fisheries.[11] The methodology categorises stocks according to their desirability to fishers (ie, potential level of fishing pressure) and their biological vulnerability. Following this, Ministry managers and scientists assessed initial results and applied their judgement to move stocks that sat awkwardly in their category – for example, where desirability to one sector group was particularly high – to a group that better reflected their characteristics.[12]

The categorisation was done on a stock, rather than species, basis due to regional differences in desirability to fishers. Consideration was then given to how and when management objectives and service strategies might differ across categories. However, the management objectives for all eel stocks are consistent, which has resulted in the grouping of all eel stocks into one group. The species that fall within "Group 2" currently have a very low level of harvest and require a different management approach. Should any of these species be introduced to the QMS in the future an additional group may need to be established.

The table below sets out the resulting freshwater fishstock groups.

[11] The methodology is described in *Categorisation of Inshore Fishstocks* (MFish 2010).
[12] The steps that resulted in the final stock groups are documented in the Appendices of *Categorisation of Inshore Fishstocks* (MFish 2010)

QMS stocks	Group 1
	Longfin eels[13] (North Island and Chatham Islands LFE 17, 20, 21, 22,23) Shortfin eels[14] (SFE 17,20, 21, 22, 23) Freshwater eels[15] (South Island ANG 11, 12, 13, 14, 15, 16)
Non- QMS stocks	Group 2 Non-QMS Species
	All other freshwater fisheries resources subject to the Fisheries Act 1996.

Moving Stocks Across Groups

Stocks are not constrained to groups indefinitely and this approach does not preclude moving stocks across groups, creating new groups, or consideration of unique stock-, species- or fishery-specific management objectives and service strategies.

Before moving a stock to a new group consideration will need to be given to the potential benefit and impacts across all sector interests. Also, where Ministry services are required to support the change, timing of service delivery will depend on competing priorities (refer Section 4, Implementing the Plan). This is different to applying a unique or different approach or service to achieve the management objectives of a particular group. The services required to achieve the management objectives associated with a particular group are expected to vary between stocks in the group.

[13] LFE stocks include *Anguilla diffenbachii* only.
[14] SFE stocks include shortfin eel, *Anguilla australis* and Australasian longfin eel *Anguilla reinhardtii.*
[15] ANG stocks include longfin eel, *Anguilla diffenbachii*, shortfin eel, *Anguilla australis,* and, where relevant Australasian longfin eel, *Anguilla reinhardtii.*

3.3 Group 1 Stock Objectives

Group 1 is comprised of all freshwater eel stocks in New Zealand. New Zealand's native freshwater eels are taonga to Maori, and are targeted by customary Maori, amateur and commercial fishers.

The management approach seeks to maintain or improve benefits from the utilisation of stocks in this Group and emphasises the importance of spawner escapement and the protection of eel habitats in ensuring sustainability. Performance measures and service strategies acknowledge the current limitations of the Ministry's role in the wider context of freshwater fisheries management and the need to engage with relevant authorities to address non-fishing impacts on the stocks such as habitat degradation and the construction of fish passage barriers.

USE:	Secure social, economic and cultural benefits from each stock.	
ENVIRONMENT (Stock sustainability):	Maintain adequate spawning biomass to provide for high levels of recruitment. Protect, maintain and enhance eel habitats.	
	Performance Measures	**Service Strategies**
USE	Trends in: > fulfilment of customary permits > amateur participation rates, and > real quota value are stable or increasing. Rolling 5-yr average Cost Recovery Levy (CRL)/Annual Catch Entitlement (ACE) value is not increasing.	a) Engage with relevant authorities to improve the quality of freshwater eel habitats. b) Minimise unnecessary administrative and regulatory barriers that restrict sector access to each fishery. c) Provide for value-adding initiatives of tangata whenua and stakeholders that increase overall benefit of a stock. d) Remove unnecessary administrative and regulatory barriers to the economic profitability of each commercial fishery. e) Evaluate alternative management approaches to optimise the fishery benefit/management cost ratio. f) Investigate, and where beneficial, establish more direct/higher quality performance measures.
ENVIRONMENT (Stock sustainability)	Stock size (or agreed indicator) is at or above an established target reference level with at least a 50% probability. Policy objectives for habitats of significance for the management of eel fisheries are met. Relevant resource management policy and planning documents include objectives, policies, and rules that protect habitats of significance for the management of eel fisheries.	a) Establish stock or fishery-specific harvest strategies consistent with the *Harvest Strategy Standard for New Zealand Fisheries*. b) Where no management procedure, a stock will be considered for catch limit review where there is a greater than 50% probability that stock size (or agreed indicator) is below the soft limit reference level. c) Incentivise compliance with size limits, closed areas, and gear restrictions. d) Establish a medium-term research program to support the harvest strategy. e) Secure accurate reporting of required catch and effort data important to stock monitoring. f) Improve the quality of information available to assist identification and management of habitats of significance for the management of eels. g) Adopt management measures to protect eel habitats where required. h) Engage with relevant authorities to ensure impacts from non-fishing activities on eel habitats are identified and managed.

3.4 Group 2 Stock Objectives

Group 2 is comprised of non-QMS freshwater fisheries resources that are subject to the Fisheries Act. The Group includes a number of native species that are highly valued by tangata whenua, for example koura (freshwater crayfish), bullies, and freshwater mussel. The Group also includes a number of introduced species with emerging commercial fisheries, such as goldfish and brown bullhead catfish.

Management objectives seek to enable the utilisation of these species while ensuring fishing activities managed under the Fisheries Act are not threatening these resources. Management measures are likely to vary in accordance with the range of species in this Group. For example, where an interest in fishing develops, introduced species are likely to require less constraint in terms of catch limits than native species. However, where demand or a significant increase in fishing of any stock becomes evident, consideration will be given to whether the stock should move into the QMS.

USE:	Enable utilisation of each stock.	
ENVIRONMENT (Stock sustainability):	Ensure catch is at a level that is sustainable.	
	Performance Measures	**Service Strategies**
USE	Management costs are stable or decreasing.	a) Minimise constraints on access to fisheries. b) Minimise management costs.
ENVIRONMENT (Stock Sustainability)	Catch is stable or fluctuates without trend. Catch does not exceed or fluctuate beyond the levels in the QMS Introduction Standard thresholds.	a) Apply the *QMS Introduction Process Standard*. b) Improve monitoring of non-QMS stocks if explicit risk or fisheries management need identified. c) Engage with relevant authorities to identify species that would be better managed under alternative frameworks.

3.5 Environmental Effects of Fishing

The effects of fishing on the aquatic environment are an important consideration in the way that fisheries are managed. In addition to impacts on stock sustainability, key concerns in the freshwater environment currently relate to the transfer of unwanted organisms as part of fishing activities. The management approach seeks to support policy objectives through the provision of information and adoption of management measures, where necessary.

ENVIRONMENT (Effects of fishing):	**Minimise adverse effects of fishing on the aquatic environment, including on biological diversity.**	
	Performance Measures	**Service Strategies**
ENVIRONMENT (Effects of Fishing)	Policy objectives for managing fishing effects on the aquatic environment are met.	a) Improve the quality of information available to assist management of the environmental effects of fishing. b) Adopt management measures (regulatory and voluntary) to manage environmental effects of fishing where required. c) Incentivise compliance with management measures (regulatory and voluntary) specifically designed to avoid, reduce or minimise environmental effects from fishing.

3.6 Meeting Governance Conditions

The Plan does not explicitly set management objectives for governance conditions. Rather, the Plan and the supporting processes have been designed to achieve these conditions. By specifying management objectives, performance measures and service strategies, the Plan supports clear accountability and transparency in decision-making. The Plan's supporting processes also contribute to accountability and transparency and provide for meaningful engagement and effective communication.

The table below summarises the fisheries planning processes, actions and tasks that assist achievement of the governance conditions in *Fisheries 2030*.

Governance Condition	Governance Tactic
The Treaty partnership is realised through the Crown and Māori clearly defining their respective rights and responsibilities in terms of governance and management of fisheries resources.	> Iwi Forums are established in a manner that enables iwi to engage meaningfully in fisheries planning and decision-making. > Iwi are supported to develop Iwi Fisheries Plans and Iwi Forum Fisheries Plans that link to Ministry Fisheries Plans easily. > Iwi Forums are engaged in freshwater fisheries planning processes (refer section 4). > Iwi have opportunities to input and participate in sustainability measure decisions. > Regard is given to kaitiakitanga, as set out in Iwi and Forum Fisheries Plans or otherwise, in advice to the Minister on sustainability measures.
The public have confidence and trust in the effectiveness and integrity of the fisheries and aquaculture management regimes.	> The effectiveness of management actions is demonstrated through annual monitoring and reporting on performance (the Annual Review Report). > Fisheries planning and decision-making processes are clearly specified and transparent. > Tangata whenua and Stakeholder forums enable tangata whenua and stakeholders to engage meaningfully in fisheries decision-making. > Tangata whenua and stakeholders have opportunities to contribute to sustainability measure decisions.
All stakeholders have rights and responsibilities related to the use and management of fisheries resources that are understood and for which people can be held individually and collectively accountable.	> Tangata whenua and Stakeholder forums are established to support good sector governance. > Fisheries planning and decision-making processes are clearly specified and transparent. > Opportunities for tangata whenua and stakeholders to contribute to priority setting, service specification and service delivery are provided. > Annual monitoring and reporting on performance supports identification of drivers of non-performance.
We have an enabling framework that allows stakeholders to create optimal economic, social and cultural value from their rights and interests.	> Opportunities for tangata whenua and stakeholders to optimise benefits are provided through clear and transparent development pathways. > Management objectives, performance measures and service strategies provide greater certainty for stakeholders. > Opportunities for tangata whenua and stakeholders to contribute to priority setting, service specification and service delivery are provided.
We have an accountable, responsive, dynamic and transparent system of management.	> The effectiveness of management actions are demonstrated through annual monitoring and reporting on performance. > The annual planning cycle provides for timely management intervention in response to change. > Fisheries planning processes and decision-making are clearly specified and transparent. > Engagement processes provide for the sharing of information about the state of fisheries.

In addition to the processes, actions and tasks set out above, the following activities support achievement of governance conditions:

- To support continuous improvement, structured feedback will be sought from tangata whenua and stakeholders annually on how effectively the plans and processes are operating and what adjustments could be made to improve their operation. Adjustments will be made to better meet governance conditions where cost-effective opportunities to do so are identified.
- Overall performance against governance conditions will also be reported on through *Fisheries 2030* monitoring. Information from this process will also be used to identify continuous improvement opportunities.

4. Implementing the Plan

The Plan is implemented through an annual planning and service delivery cycle. The Plan drives the annual cycle by establishing the management objectives, performance measures and service strategies that guide management activity over the life of the plan.

4.1 Annual Planning and Service Delivery Cycle

The annual cycle is illustrated in Figure 4; it generates two key documents:

- the Annual Review Report, and
- the Annual Operational Plan.

These are "implementation" focused documents. The Annual Review Report enables gaps in performance to be identified and acted upon. The Annual Operational Plan sets out the services that will be provided to meet objectives, including the services needed to address gaps in performance. The specified services are then delivered by service providers.

Annual Review Report

The Annual Review Report is made up of two parts:

- **Part One** records performance against the Plan objectives and any associated stock-specific performance measures (for example, target stock sizes or reference points).
- **Part Two** records performance in delivering the previous year's Annual Operational Plan.[16]

Together, Parts One and Two identify gaps in performance for further analysis. An analysis of performance, gaps in performance, and potential service options, in turn, enables new management actions and services, and necessary adjustments to existing services to be identified, for inclusion in the next Annual Operational Plan.

Annual Operational Plan

The Annual Operational Plan sets out the stock, fishery and cross-fishery management actions and services to be provided in the next financial year.

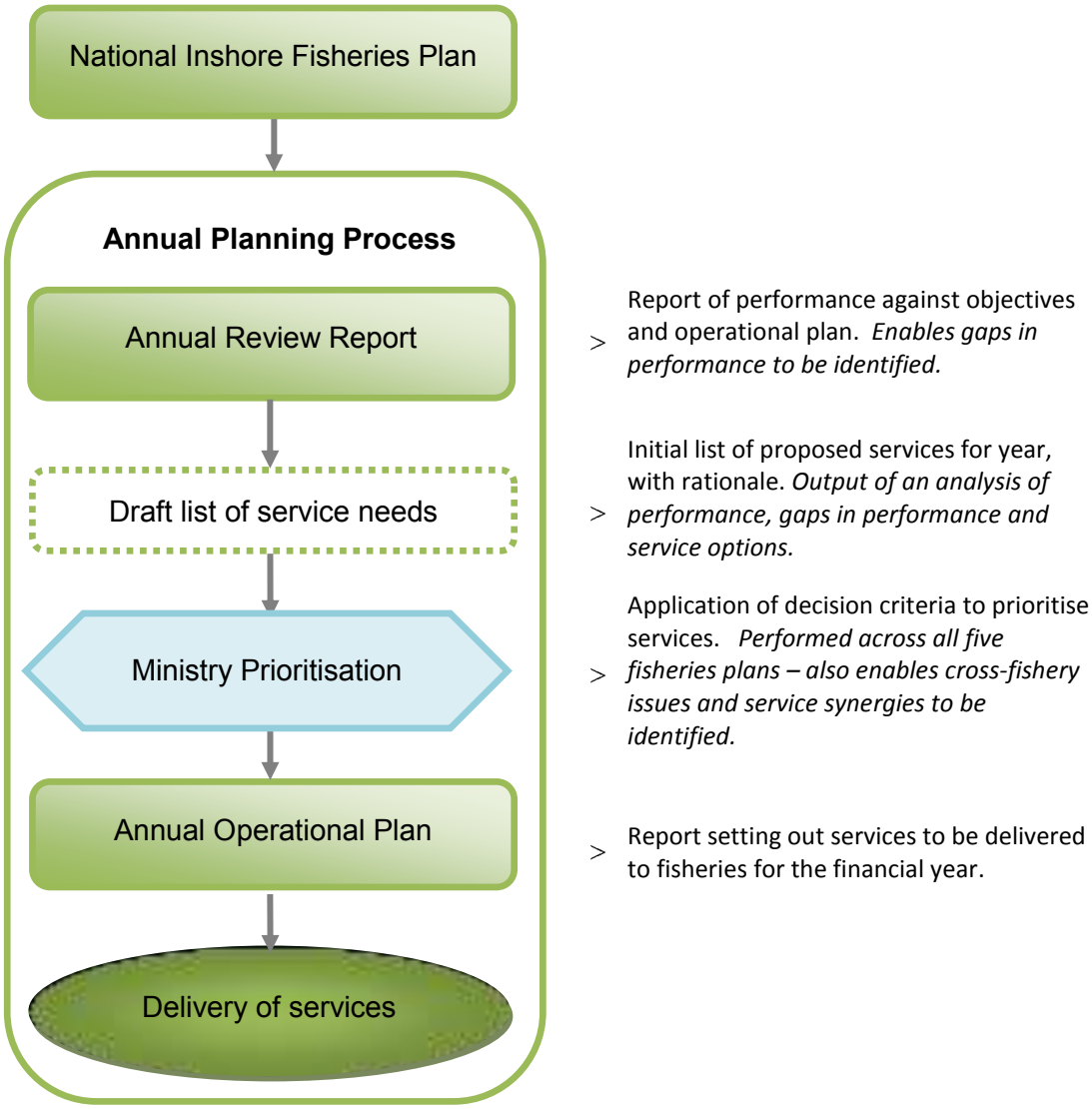
The services specified in the Annual Operational Plan are consistent with the high-level service strategies outlined in the Plan and are specified at a level that guides service delivery appropriately.

Prioritisation

Due to the need to operate within available resources, a prioritisation of proposed Ministry services occurs across all five national fisheries plans (ie, the Inshore Shellfish, Inshore Finfish, Inshore Freshwater, Highly Migratory Species and Deepwater & Middle-depth fisheries plans) before the Annual Operational Plan for the Freshwater Plan is finalised each year. The process for prioritising uses specified decision criteria.[17]

[16] The first Annual Review Report will only consist only of Part One, as there will be no Annual Operational Plan for the previous year to report against.
[17] Currently under development.

Figure 4: Annual Planning Cycle



Service Delivery

Identified services are delivered by the Ministry and external service providers. For example, the Ministry Field Operations Business Group would deliver compliance and enforcement services identified, whereas a research service may be delivered by an independent research provider or stakeholder entity.

4.2 Engaging with Others

Tangata whenua and stakeholders have opportunities to contribute to, and link their planning processes into, the annual planning cycle.

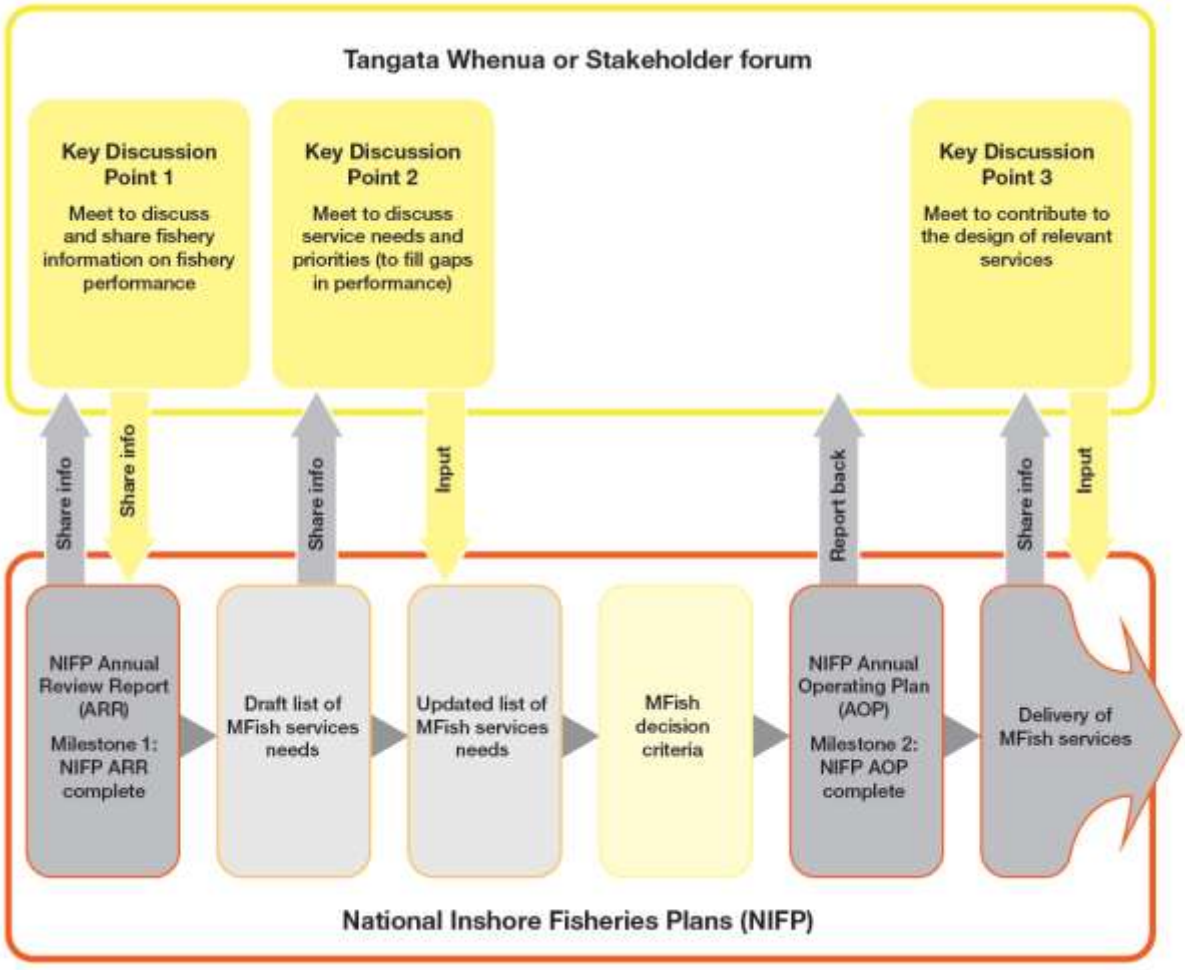
Primary engagement occurs through formal structures (tangata whenua and stakeholder "forums") and focuses on:

> In the national planning cycle: identification of management objectives, performance measures and service strategies for stock groupings. (These first national inshore plans are baseline, draft plans developed by the Ministry. They are being used to trial the new planning approach. At the end of the annual planning cycle, both the plans and the planning cycle will be reviewed, updated and improved with input from tangata whenua and stakeholders.)

> In the annual planning and service delivery cycle: (i) information sharing to inform performance reporting; (ii) discussions to support identification of services; and (iii) subsequent design of the services.

The key engagement points in the annual planning process are illustrated in Figure 5.

Figure 5: Engagement Model for Working with Others



None of the discussion points set out in Figure 5 replace, or are a substitute for, statutory consultation, where it is required by the Fisheries Act or other relevant legislation.

Secondary engagement occurs through less formal mechanisms. This engagement is focused towards gathering expert information and input to support the annual cycle and on working with other agencies to aid integrated management and secure efficient delivery of government services.

4.3 Tangata Whenua and Stakeholder "Forums"

The use of formal tangata whenua and stakeholder forums for primary engagement recognises that engagement should be efficient, focused and meaningful. They also seek to support and/or incentivise good sector governance. The forum structures used are listed and described below.

Tangata Whenua: 'Tier 1' Iwi Forums

The formal engagement structures for tangata whenua are Tier 1 Iwi Forums. Tier 1 Iwi Forums comprise representatives from Iwi:

- who each have robust governance structures in place to manage the full range of their fisheries interests
- whose combined rohe encompasses one or more Fisheries Management Area (or an area of a scale similar to a Fisheries Management Area), and
- who have developed an Iwi Forum Fisheries Plan.

An Iwi Forum Fisheries Plan sets out the fisheries goals of the forum in a way that can contribute to the fisheries plan annual planning cycle and can inform fisheries management decision-making.

Tier 1 Iwi forums are engaged at all the key discussion points shown in Figure 5 above.

Iwi that are not part of a Tier 1 Forum receive Ministry services to help them meet Tier 1 governance criteria and join a Tier 1 Forum, if they wish to do so. All Iwi receive opportunities to input into the design of planned services relating to sustainability measures for fisheries in their rohe. For Tier 2 Iwi Forums, this occurs in the form of a meeting. For Iwi who are not part of a forum, this occurs in writing.

Iwi that have developed individual Iwi Fisheries Plans as part of their iwi settlement but are not part of a Tier 1 Forum are engaged in the annual planning and service delivery cycle in writing. They are also invited to attend iwi forum meetings occurring in their region that are discussing services of relevance to their rohe and settlement.

Amateur Fishing Sector: Regional Recreational Fishing Forums

The formal engagement structures for the amateur fishing sector are Regional Recreational Fishing Forums. Regional Recreational Fishing Forums each comprise eight to ten individuals, mostly mandated by a local or regional fishing club or organisation, who have been appointed by the Ministry to the forum after a formal application process. Regional Recreational Fishing Forums encompass one or more Fisheries Management Areas.

Regional Recreational Fishing Forums are engaged at Key Discussion Points 1 and 3 shown in Figure 5 above.

A national meeting of regional recreational fishing forum representatives, which includes a member from each forum plus the presidents (or delegates) of national recreational fishing organisations, occurs annually and provides input into Key Discussion Point 2, particularly in respect of priorities.

Groups not represented on, and individuals not linked to, the regional forums will be encouraged to contact or liaise with recreational fishing forum representatives in their region (or their mandating group) to provide their input.

Commercial Fishing Sector: Inshore Fishing Industry Council & Constituent CSOs

The formal engagement structures for the commercial fishing sector are the Inshore Fishing Industry Council and its constituent Commercial Stakeholder Organisations (CSOs). The Inshore Fishing Industry Council is an industry forum that brings together the various CSOs that represent commercial fishing interests in inshore fisheries.

The Inshore Fishing Industry Council is the key engagement structure for Key Discussion Points 1 and 2 in Figure 5, whereas either the Inshore Fishing Industry Council or the relevant CSO(s) would be approached for service design discussions (Key Discussion Point 3), depending on the scope and nature of the service.

Individual commercial stakeholders will be encouraged to engage with their CSO(s) if wishing to contribute to the planning and service delivery discussions.

Environmental Interests: ENGO Forums

The Ministry has biannual meetings with Environmental Non-governmental Organisations (ENGOs). These meetings will be used to seek input into Key Discussion Points 1 and 2 above. An additional meeting may be requested where service design (Key Discussion Point 3) would benefit from input from ENGOs.

Environmentalists outside of these forums are encouraged to work with the ENGOs in order to have input into these Key Discussion Points.

Appendix 1: Profile of New Zealand's Freshwater Fisheries

New Zealand Freshwater Fisheries Overview

Freshwater fisheries resources are utilised and valued in both extractive and non-extractive ways. They are harvested for food, fished for sport and collected for the ornamental fish trade. They are valued for their contribution to fisheries and habitat enhancement and commercial fishing. Freshwater species are also taonga (treasure) for Māori. Traditionally, fishing locations were highly prized and often linked to the occupation or use of adjoining land. Waterways and aquatic life are integral to the mana of Māori and freshwater fishing for customary purposes is of ongoing significance in most areas around New Zealand.

Fisheries Management System Overview

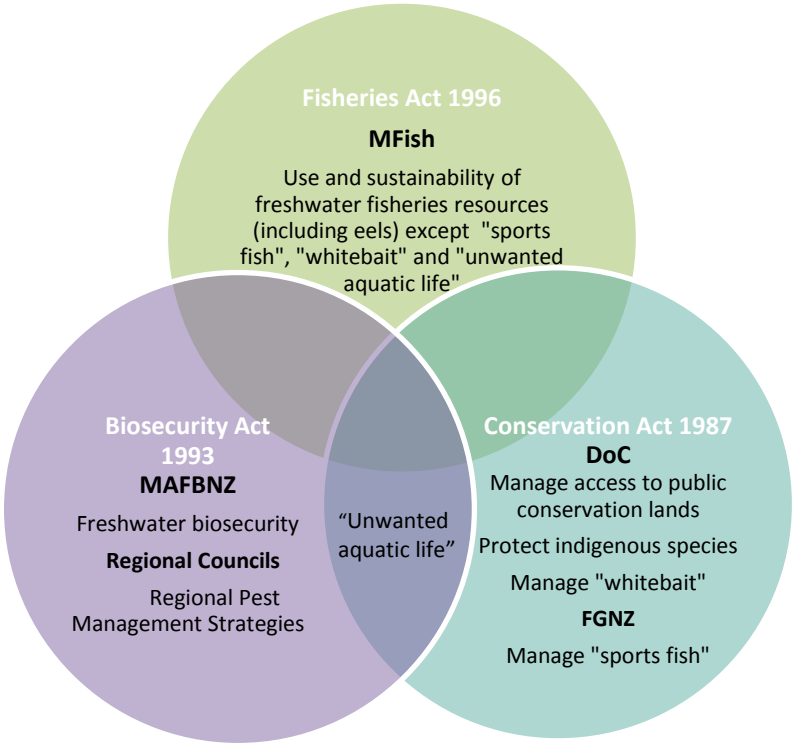
The freshwater fisheries management regime is characterised by a complex and sometimes overlapping regulatory environment. In this context, the Ministry of Fisheries (the Ministry) is responsible for the management of most freshwater species under the Fisheries Act. Exceptions include "sports fish,[18] "whitebait",[19] and "unwanted aquatic life"[20] as detailed below.

Fish & Game New Zealand (FGNZ) has a statutory mandate to manage New Zealand's freshwater "sports fish" fisheries including salmon and trout. The Department of Conservation (DOC) has responsibilities under the Conservation Act 1987, the most significant of which include managing "whitebait" and controlling access to waterways in DOC administered public lands. DOC also administers the Freshwater Fisheries Regulations 1983, which include provisions relating to both indigenous fish and "noxious fish". Under the Biosecurity Act 1993, the Ministry of Agriculture and Forestry (MAF) has statutory responsibilities in relation to freshwater biosecurity and regional councils have responsibilities for regional pest management strategies. This multifaceted framework is represented in Figure A1.

Of those freshwater species managed under the Fisheries Act, eels are the only species managed under the quota management system (QMS). The characteristics of eels pose particular challenges for fisheries management. Eels have a life history unique among fish that inhabit New Zealand waters, spending most of their lifecycle in freshwater or estuarine environments before migrating to an oceanic spawning ground. It is thought that each eel species forms a single biological stock, but, as most of their lives are spent within a certain catchment, a number of management stocks have been defined at a regional level. North and South Island eel stocks are listed in Schedule 3 of the Fisheries Act, which provides alternative options to the approach for setting a total allowable catch (TAC). Further flexibility is provided for the setting of the TAC of the Lake Ellesmere fishery, which can be increased within the fishing year[21].

[18] "Sports fish" means every species of freshwater fish that the Governor-General may declare, by Order in Council, to be sports fish for the purposes of the Conservation Act 1987.
[19] "Whitebait" includes the species Retropina retropina and juveniles of all species of the genus Galaxias.
[20] "Unwanted aquatic life" includes both "noxious fish" as identified in the third schedule of the Freshwater Fisheries Regulations 1983 and "unwanted organisms" as determined by a chief technical officer under the Biosecurity Act 1993.
[21] The Lake Ellesmere freshwater eel fishery (ANG 13) is listed on Schedule 2 of the Fisheries Act.

Figure A1: Framework for freshwater fisheries management in New Zealand



Freshwater species that are managed under the Fisheries Act but not within the QMS are not subject to commercial catch limits, with the exception of koura (freshwater crayfish) where commercial take is prohibited. Both QMS and non-QMS stocks may be subject to regulations providing method controls and area restrictions for both amateur and commercial fishers and daily bag limits for amateur fishers.

Environmental Context

New Zealand has a range of rich freshwater environments, including rivers, lakes, wetlands and estuarine systems, which support a myriad of freshwater flora and fauna. Freshwater species form an integral part of complex and diverse ecosystems and support biodiversity and ecosystem functioning in both fresh and salt water habitats.

A number of environmental factors characterise freshwater environments, including water quality, river gradients, water levels, sediments and flow velocities. Changes to these characteristics can have major impacts on the freshwater fisheries within them. Another important factor is the effect of obstructions to the passage and migration of species that need to move between water bodies to complete their life cycles.

Use Overview

Mäori Customary Non-commercial Fisheries

Mäori interests in freshwater fisheries not only relate to different types of use, including the ability to take freshwater fish for trade, for food and for customary practices, but also to the management of the fishery.

The use of freshwater fisheries is part of a wider relationship between Māori and the freshwater environment. Water is believed to have a mauri (life essence). Maintaining the health of this mauri by managing use and impacts on it is vital, not only for the sustainability of fisheries resources, but also for the well-being of whänau, hapū and iwi.

Treaty Settlements and Resulting Framework

The Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 settled all Māori claims relating to commercial fishing rights and interests in freshwater fisheries, but claims by Māori in respect of non-commercial freshwater fisheries continue to give rise to Treaty obligations on the Crown.

A framework for managing customary harvest of freshwater fisheries has been provided in the Fisheries (South Island Customary Fishing) Regulations 1999 since commencement and the Fisheries (Kaimoana Customary Fishing) Regulations 1998 (North and Chatham Islands) since 1 October 2008.

Both these sets of regulations require the appointment of tangata kaitiaki/ tiaki (guardians) who then authorise and manage customary harvest. They also provide for the making of mätaitai reserves, which exclude commercial fishing and allow for the management of all non-commercial fishing. Where tangata kaitiaki/tiaki have not been appointed, harvest of freshwater species for the purpose of hui or tangi can be undertaken in accordance with regulation 27A of the Fisheries (Amateur Fishing) Regulations 1986.

Māori non-commercial interests in freshwater fisheries have also been addressed in a number of individual iwi/hapū Treaty settlements. In some cases, this has resulted in the development of regulations specific to certain areas. For example, fourteen lakes in the Te Arawa area are currently subject to the Te Arawa Lakes (Fisheries) Regulations 2006.

Māori Customary Non-commercial Use

The characteristics of eels (tuna) set them apart as an important customary fishery throughout New Zealand. Tuna are much larger and more widespread than many other native fish species and they were an abundant food source that could be caught easily and preserved. Traditional fishing methods include the use of ahuriri (eel weirs) and hïnaki (eel pots).

In setting or varying the total allowable commercial catch for eels (as with all species managed under the QMS) the Minister must allow for Māori customary non-commercial fishing interests. Māori customary allowances for eel stocks nationally total 120 tonnes per year.

Customary fisheries reports for Te Runanga o Ngai Tahu (which covers the majority of the South Island) showed that for the 2005/06 fishing year, 5503 individual eels and 500 kg of eels were harvested under customary authorisation. For the 2006/07 fishing year, the reported harvest was 2256 eels and 100 kg. No quantitative customary harvest information is available for the North or Chatham Islands.

Other freshwater species that have been identified by Māori in individual iwi/hapū Treaty settlements to date are not currently managed under the QMS. The most commonly mentioned freshwater species besides eels is freshwater crayfish (koura/ waikoura/ kewai).

Other species include:

> Freshwater mussel (Ngati Mutunga, Ngati Rauru Kiitahi, Ngati Tama), and

> Giant bully, Canterbury mudfish, common smelt, torrentfish and Giant kokopu (Ngai Tahu).

Amateur fisheries

Eels are the primary freshwater species managed under the Fisheries Act taken by amateur fishers. Eels are fished both for food and recreation. Limited fishing is also undertaken for other freshwater species such as koura and brown bullhead catfish. Amateur fishers use a variety of fishing methods under the Fisheries Act to catch freshwater species including hand-gathering, line-fishing, spearing, potting, netting and bow-fishing.

The customary fishing regulations described in the previous section do not alter the right of Māori to fish under amateur regulations and the special importance of species such as eel to Māori is also reflected in the amateur sector.

Amateur Use

Amateur fishers do not have to report freshwater species catch and there is no monitoring system to estimate the number and location of fishers or their catch levels. There have been national recreational fishing surveys in a number of years; however, freshwater fishing has not been included in these surveys.

Commercial fisheries

Eels are also the key commercial freshwater species, with fishing occurring in rivers, lakes and ponds across New Zealand. There are currently two main organisations representing the eel fishing industry: the Eel Enhancement Company Limited and the South Island Eel Industry Association. The vast majority of catch is taken using fyke nets and the composition of catch in terms of longfin and shortfin eel varies between locations. Non-QMS bycatch in the eel fishery includes catfish, koi carp, goldfish, grass carp, galaxiid, koura and smelt. No information is available regarding target Non-QMS commercial freshwater fisheries.

Commercial Use

Figure A2 shows the best available information on eel catch over time. The graph shows that New Zealand commercial eel fishing expanded and fluctuated from the early 1960s, peaking in the 1980s and then falling away in recent years due to the long-term impacts of fishing on the stocks, subsequent management controls, and changes in environmental and economic conditions.

Figure A2: New Zealand eel landings from 1965- 30 September 2010 and TACC from 2004/05 (when limits were in place for all stocks)

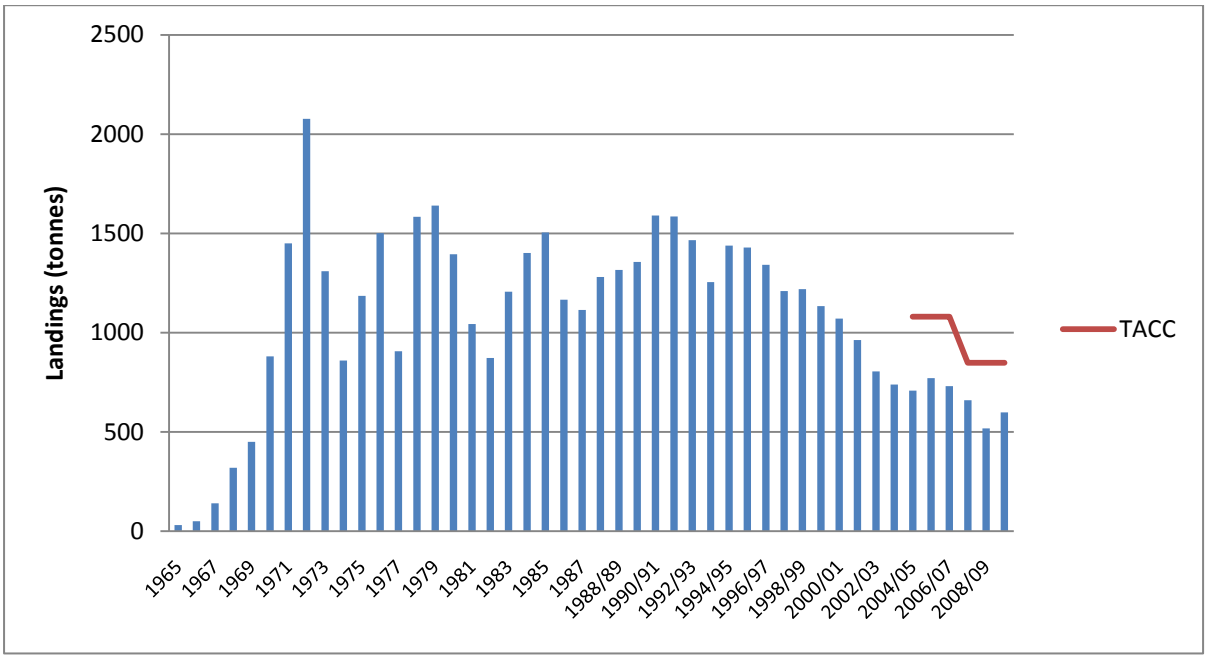


Figure A3 and A4 show the resulting rationalisation of the eel industry in recent years in the North and South Island's respectively. There are currently two main licensed fish receivers (LFRs), one in the North Island and one in the South Island.

Figure A3: North Island commercial eel landings and associated number of clients and LFR, for the period 1 October 1991 to 30 September 2010

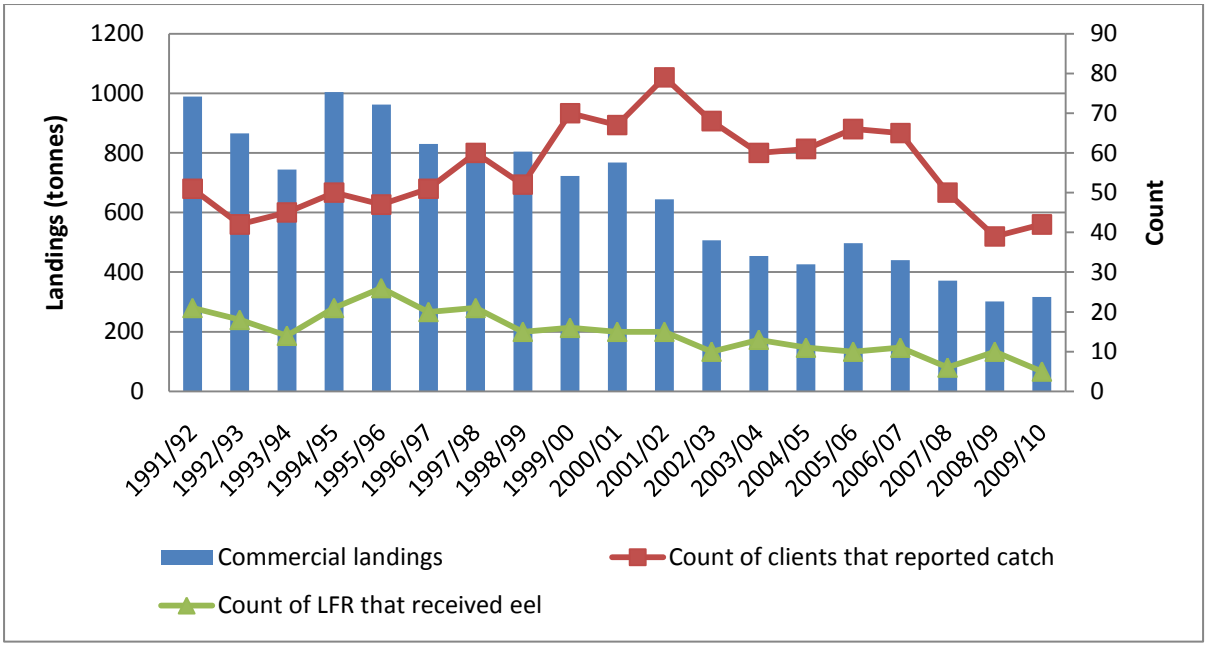
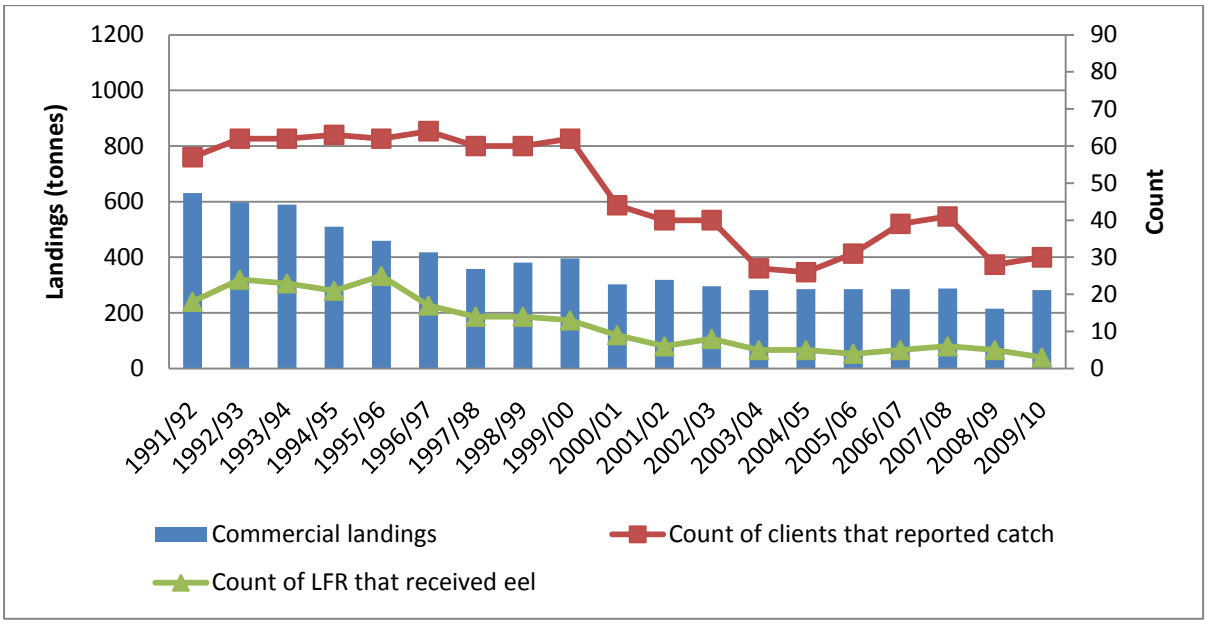


Figure A4: South Island commercial eel landings and associated number of clients and LFR, for the period 1 October 1991 to 30 September 2010



The 'Fish Monetary Stock Account' produced annually by Statistics New Zealand presents a time series of the asset value of New Zealand's commercial fish resource, based on the value of quota trades (and in some cases Annual Catch Entitlement trades) managed under the QMS. The asset value of the key freshwater species, eel, has trended up over the last four years and is currently estimated to be worth $12 million per annum. This asset value estimate provides a useful indicator to assess trends in economic value of eel as quota value represents the net present value of future earnings. The eel asset value estimate can also be directly compared to other key fish species identified in the Statistics NZ Fish Monetary Stock Account indicator.

Environmental values

A number of fish have been introduced into the New Zealand freshwater environment to offer a more valuable sport-fishing experience than native species were perceived to provide. However, there is now an increasing awareness across New Zealand of the importance of native species to the health and functioning of the ecosystem. These environmental values complement traditional Māori views. Some "pest-fishing" initiatives are currently being undertaken to reduce the impact of certain introduced species.

Environmental effects of fishing overview

The environmental effects of freshwater fishing are relatively low, with the fishing methods used having little direct impact on the aquatic environment. However, there are different risks associated with the use of freshwater fisheries resources in comparison to resources fished from the marine environment. All introduced freshwater fish species can pose risks to the aquatic environment. For example, certain introduced species of plants and animals taken in fyke nets or hīnaki may be accidentally or deliberately transferred to locations where those species do not exist. There are laws in place that prohibit the transfer or release of live aquatic life into freshwater without an appropriate authority.

Where the species is not covered under other legislation, measures have been taken under the Fisheries Act to mitigate these risks. For example, brown bullhead catfish must be killed on capture by amateur fishers and commercial fishers cannot sell live brown bullhead catfish. This will ensure that live catfish are not made available to the market, reducing the risk that people release live catfish to the wild.

Non-fishing activities that affect fisheries and freshwater environments

Non-fishing activities that can have significant detrimental effects on eel populations include wetland drainage, spraying, contamination of waterways, channel-clearing, vegetation clearance, water extraction, dams and hydro-electric power generation. In addition to the reduction of suitable habitat, these activities can create barriers to fish passage that prevent migration to spawning destinations. Although the Ministry has an interest in how activities that impact freshwater environments are managed, these activities are primarily managed under the Resource Management Act 1991 by regional councils and territorial authorities.

New Zealand is a party to the Ramsar Convention on Wetlands (the Convention). Waituna Lagoon in Southland and Farewell Spit in Nelson are both included on the List of Wetlands of International Importance. Article 3(1) of the Convention indirectly provides protection for eel habitat. Eel habitat in other parts of the conservation estate managed by the Department of Conservation may also help to mitigate the effects of non-fishing impacts on eel populations.

Compliance overview

Offence types and their prevalence for the freshwater fishery as a whole are summarised in Table 1 below:

Table A1: Summary of offences in freshwater eel fishery

Risk	Opportunity and Incentive	Prevalence
Area Misreporting	Operators working across or adjacent to management area boundaries.	Occasional. Difficult to detect due to dispersed nature of fishery.
Weight/Quantity Misreporting	Large number of harvesting sites, limited inspections and monitoring surveillance coverage.	Occasional. Checking weights and quantities can be difficult with limited coverage.
Black Market Sales	Avoid buying ACE and selling directly to buyer.	Low. Most eels are exported therefore little demand for a black market exist. Some weekend markets are known to sell illegally harvested eels.
Illegal Gear/Methods	Increase landings from lower effort. Using unmarked gear to evade identification by compliance staff.	Most prevalent. However, locating illegal gear at time of use is difficult, especially when used on DOC or hard to access areas.
Non-Harvesting Offending	Ability to circumvent reporting requirements from processing through to retail.	Low. The majority of commercial eel catch is taken by only a few LFRs, so relatively easy to monitor.
Recreational Offending	Large areas, limited compliance coverage. No reporting requirements.	Unknown. Some amateur fishers take more than specified daily bag limit.
Customary Offending	Large and remote areas for compliance to monitor.	Unknown.

Appendix 2: National Fisheries Planning – the wider context