Ministry for Primary Industries
Manatū Ahu Matua

ANNUAL REVIEW OF **INSHORE FINFISH** FISHERIES 2011/12

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National Snapshot: Inshore Finfish Fisheries 2010/11

The Government's long-term goal for fisheries is "New Zealanders maximising benefits from the use of fisheries within environmental limits". To support this goal, the Ministry has set out management objectives for all inshore finfish fisheries in the Draft National Fisheries Plan for Inshore Finfish (the Finfish Plan). Performance measures[1] are used to monitor progress towards meeting the management objectives and to guide management activity. The following is a summary performance report for 2011/12.

Health of Our Inshore Finfish Fisheries

Healthy Inshore Finfish Stocks

Fishstocks must be healthy if they are to support high-quality fisheries. New Zealand's fishstocks are generally considered healthy when their biomass (stock size) is at or above the level that would produce the maximum sustainable yield (MSY). It is not possible or cost effective to estimate biomasses for all stocks; therefore, a range of best available information is used to indicate stock health.

Figures 1 and 2 summarise stock performance against the stock sustainability performance measures set out in the Finfish Plan. The performance measures and management objectives vary by stock group[2], where stock groups generally reflect different levels of desirability and biological vulnerability and different levels of available information on stock health.

Figure 1. Percentage of QMS finfish stocks meeting stock health performance measure

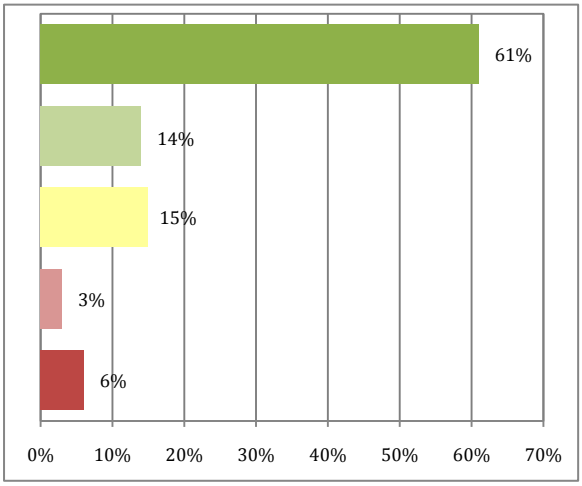
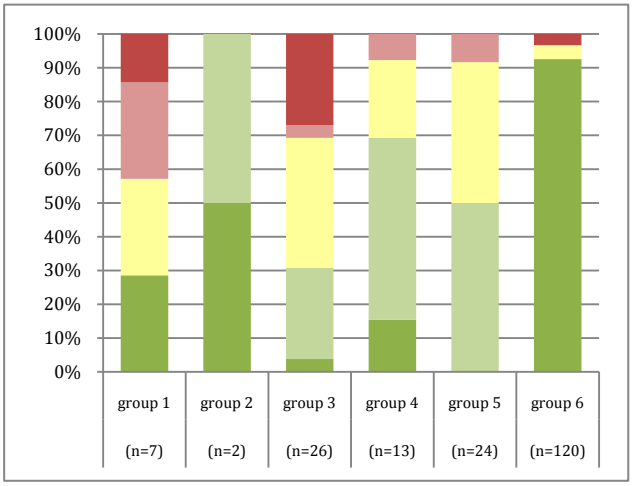


Figure 2. Percentage of QMS finfish stocks meeting stock health performance measure by group



[1] Refer Appendix 1 for a description of the performance measures used in this document.
[2] See Section 2.1 for more information on stock groupings.

Fifty-two percent of stocks are currently rated as "meeting the performance measure," while an additional 19% of stocks are also rated as "likely meeting their performance measure." A combined 37 stocks (19%) are rated as either "not meeting" (14%) or "likely not meeting the performance measure" (5%). Of these 37stocks, nine stocks (SKI1, 2, 7, SNA8 and all five Bluenose stocks) are under a rebuilding plan. The remaining 28 stocks have been highlighted for further analysis.

Further investigation of fishery and research information will occur in 2012/13 to determine whether and what management action is required. Work will also continue to improve information where current information is insufficient to assess stock health.

Healthy Inshore Finfish Environments

A healthy aquatic environment provides the basis for healthy fisheries. Habitats important to finfish fisheries can be negatively affected by a range of factors, including some fishing methods, pollution, sedimentation, and nutrient run-off.

Information to consistently identify and monitor habitats important to finfish is not yet available. Work is being undertaken in 2012/13 to support identification of such habitats. Where appropriate, some habitats known to be important to finfish have already been protected from fishing activity. The Ministry is also working to grow strong peer networks with other agencies responsible for coastal management to facilitate information sharing on the management of non-fishing activities on finfish.

Benefits Realised from Finfish Fisheries

Fisheries provide cultural, social, economic and intrinsic benefits to New Zealand. At this time there is no accepted way of estimating a single benefit measure for fish stocks, therefore benefits are monitored for each fishing sector using available datasets:

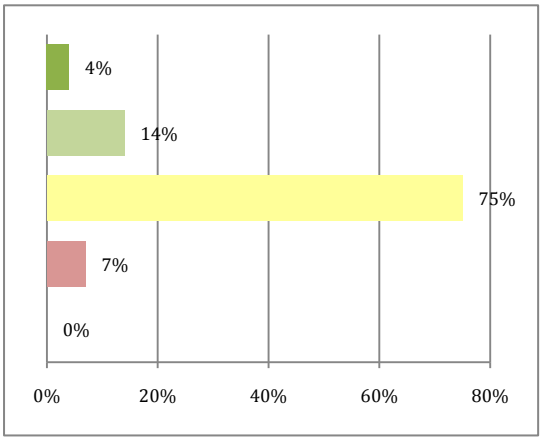
- Customary Maori benefits: Fulfilment of customary Maori harvest authorisations
- Recreational sector benefits: Recreational participation rates
- Commercial sector benefits: Quota share value
- Intrinsic benefits: Stock health indicators (refer to the previous section).

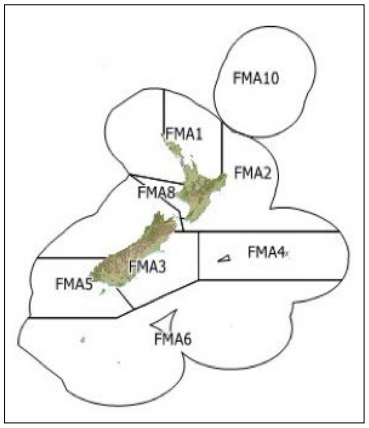
Customary Maori Benefits

Finfish are an important traditional food source for many iwi, hapu and whänau, and tangata whenua have special relationships with taonga fish species and places of customary food gathering importance. Trends in fulfilment of customary Maori authorisations provide an indication of whether customary fishing needs are being met.

As reflected in Figure 3, for 75% of the 72 stocks of in shore finfish stocks in Groups 1-5 data is insufficient in many fisheries to assess trends in fulfilment, because the requirement to report customary catch is not yet in place nationwide. However, where customary reporting is in place we are able to make an assessment of this performance measure. 25% of finfish stocks are able to be assessed against this performance measure and 18% of these stocks are considered to be meeting the performance measure. A key focus for the future is extending the area covered by the Customary Regulations and improving data quality. Discussions with Iwi about stocks, where the data suggests fulfilment rates are declining, will inform decisions about whether and what management action is required.

Figure 3. Trends in fulfilment levels by stock, and area of application of customary reporting requirement





FMA	% Area Covered by the Customary Regulations
FMA1	22%
FMA2	62%
FMA3	100%
FMA4	100%
FMA5	100%
FMA6	100%
FMA7	20%
FMA8	11%
FMA9	46%
FMA10	n.a.

Performance Measure Met **Likely Performance Measure Met** **Insufficient information**

Likely Performance Measure Not Met **Performance Measure Not Met**

Recreational Sector Benefits

Recreational fishing is one of New Zealand's most popular recreational activities for individuals over the age of 16. A Sport and Recreation survey from 2007/08 indicates that approximately 725,000 New Zealanders participate in marine and saltwater fishing (including harvesting finfish) at least once per year, which makes marine fishing the seventh most popular recreational activity.

No direct information on the benefits realised from recreational fishing is available at this time, therefore, recreational fishing participation rates are used as a proxy for benefit; an increase in participation may indicate more recreational benefits are being realised and vice versa.

General and stock-specific participation information is available in a number of surveys. However, the information is either highly uncertain or not directly comparable and therefore no trend information is available at this time. There is a general impression that participation levels have increased during the last decade. A key focus is on improving the quality of recreational fishing information. A large scale-multi species survey of recreational catch is currently underway and will help inform recreational catch trends going forward.

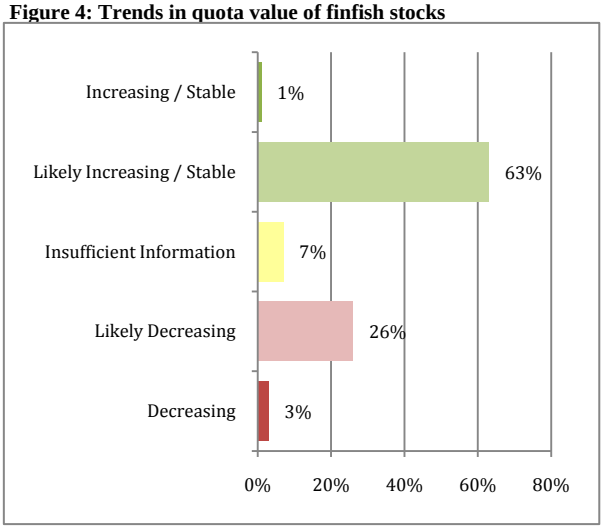
Commercial Sector Benefits

The price paid for finfish quota shares gives a market-based estimate of commercial benefit. The total quota share value of inshore finfish fisheries in 20093 was $812.1 million. This compares to $862.4 million in 2005. The two most commercially valuable finfish species are snapper and tarakihi. The total value of snapper quota increased from $257.6 to $262.5 million between 2005 and 2009[4]. Tarakihi quota value also increased from $61.9 to $74.9 million over the same period.

[3] Most recent year reported by Statistics New Zealand, this information will be updated as new information becomes available in 2012.
[4] Most recent year reported by Statistics New Zealand, this information will be updated as new information becomes available in 2012.

Figure 4 shows that quota value is or is likely to be stable or increasing in 64% of the 72 stocks of in shore finfish stocks in Groups 1-5 (Group 6 stocks are not evaluated by this performance indicator). Conversely quota value in 29% of inshore finfish stocks is considered to be decreasing or likely to be decreasing (7% of these stocks report insufficient information).

Figure 4: Trends in quota value of finfish stocks



The reasons for change in quota value are often stock specific and can be due to a number of factors including, price paid by markets, changes to the TACC and regulatory changes. More generic influences include changes in the cost of fishing (for example fuel costs), the value of the New Zealand dollar and the level of competition in the quota market.

In order to support increases in quota value management focuses on the following areas: reducing illegal fishing, removing regulations that unnecessarily constrain benefits, supporting industry value-added initiatives, and facilitating sustainable development of fisheries.

Management Costs

High management costs can reduce overall benefits. It is not possible to estimate total management costs for each finfish stock. However, levies recovered from Annual Catch Entitlement (ACE) holders are available. Total levies recovered for the past five years, as well as trends in recovered costs relative to the value of ACE, are illustrated in Figures 5 and 6. Total levies[5] recovered have been reasonably stable since 2007-08.

Figure 5. Trend in costs recovered relative to value of ACE

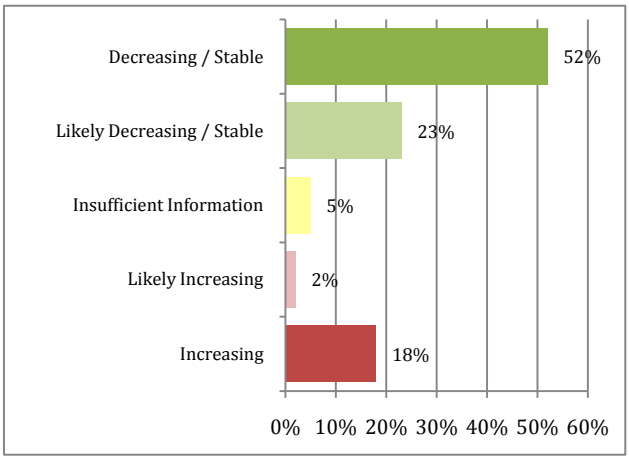
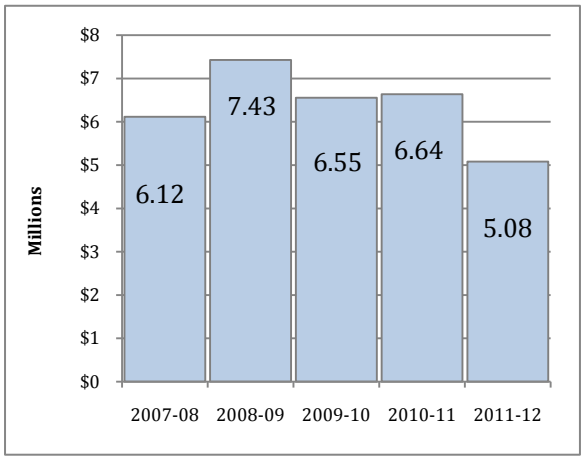


Figure 6. Total levies recovered for finfish management ($ millions)



5 Represents the total amount that was levied - this is not the amount that industry was charged as the Crown pays levies as well and does not include the Crown component of fisheries and conservation services.

Environmental Effects of Fishing

New Zealand's aquatic environment is valuable for many reasons. The Ministry has a legal obligation to ensure sustainability, through both maintaining fish stock levels and managing the adverse effects of fishing on other species and the aquatic environment.

Protected Species

There are policy objectives currently in place for managing the effects of fishing on Sharks and Hector's and Maui's dolphins. Information on fishing interactions with sharks shows that these policy objectives are being met. Information on fishing interactions with Hector's dolphins is uncertain due to low levels of observer coverage however, it is likely that these objectives are being met. It is likely that policy objectives for Maui's dolphins are being met however, there are areas of uncertainty where actions are required to better assess our performance against the objectives. Policy objectives are currently under development for seabirds. Information on fishing interactions with seabirds indicates that, for some seabird species, possible future policy targets may not be being met.

Interactions with other protected species in inshore finfish fisheries are considered to be low.

The Ministry will continue to monitor interactions with protected species and use any management tools necessary to ensure the continued protection and long-term viability of these species.

Benthic Impacts

Interactions with the benthos in finfish fisheries have been estimated by examining trawling hours reported. Trawling hours have increased nationally but, this is only over a three year period and it is unclear if this indicates increasing interactions with the benthos. There has been a decreasing trend in the number of trawl vessels since 1992.

1. Introduction

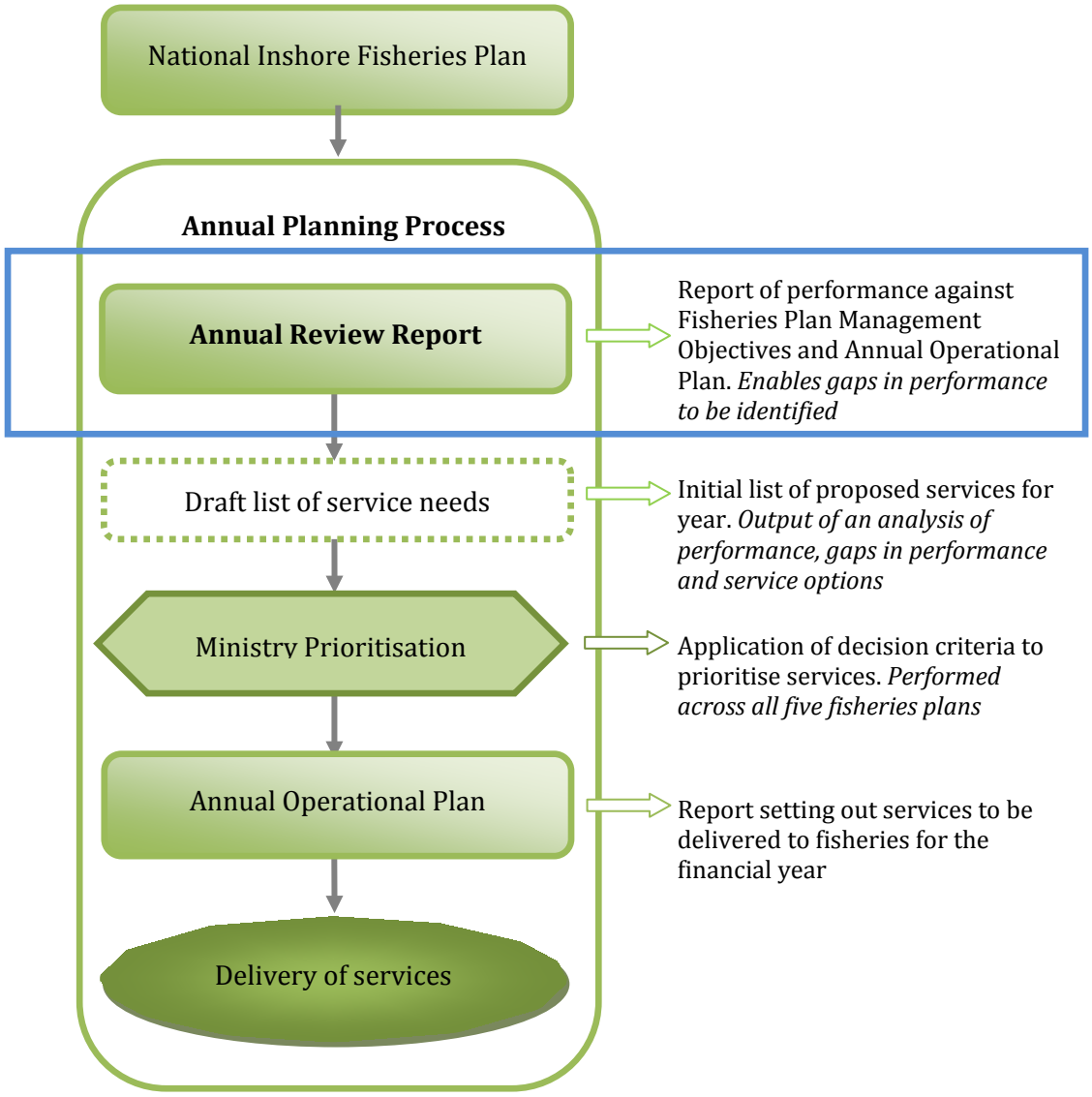
1.1 Purpose

This Annual Review Report presents performance information relating to fisheries managed under the National Fisheries Plan for Inshore Finfish (the Finfish Plan) up to the end of the 2011/12 fishing years. The information is used to monitor performance against the management objectives set out in the Finfish Plan and to plan fisheries management activities in the next financial year. The information in this Annual Review Report informed development of the 2013/14 Annual Operational Plan (AOP).

1.2 Context

The Finfish Plan provides the overarching framework for management of New Zealand's inshore finfish fisheries and is implemented through an annual planning and service delivery cycle (Figure 7).

Figure 7: Annual Planning and Service Delivery Cycle



The Finfish Plan drives the annual cycle by establishing the management objectives for inshore finfish fisheries. The annual cycle begins with an Annual Review Report, which reports performance on:

1. the status of finfish fisheries relative to the performance measures set out in the Finfish Plan (and any associated stock-specific performance measures)
2. delivery of management actions and services specified in the previous year's Annual Operational Plan *(Note: this Annual Review Report only contains (1) above as no Annual Operational Plan was produced in 2009/10).*

Annual Review Report information is analysed and discussed with tangata whenua and stakeholders to determine what, if any, management actions and services are required to address any gaps in performance indicated or to maintain or enhance performance in the fisheries. Potential management actions and services are captured in a draft Annual Operational Plan.

The demand for MAF management services is frequently greater than can be delivered. An internal prioritisation process across draft Annual Operational Plans from the five National Fisheries Plans (Deepwater, Highly Migratory, Inshore Finfish, Inshore Shellfish, and Freshwater) seeks to address competing interests. Discussions with tangata whenua and stakeholders also provide opportunities to identify where these groups can provide needed or desired services.

1.3 Structure

The Annual Review Report is set out in the following sections:

Chapter 2: **Measuring Performance**
Describes the stock groups' performance objectives and measures established by the Plan.

Chapter 3: **Assessment**
Reports on the assessment against the performance measures at the stock level. This section is organised by Fisheries Management Areas.

Chapter 4: **Performance of the Annual Operational Plan**
In future years, it will examine delivery of specified management actions and services.

Appendices: **Appendix 1 - Performance Measures**
Provides a detailed description of the methodology used to assess stocks against the performance measures.

2. Measuring Performance

2.1 Stock Groups

This Annual Review Report reports performance of each stock against the Performance Measures set out in the Finfish Plan.

The grouping of stocks with similar characteristics in the Finfish Plan allows management objectives to be applied at the group level. This section is organised by Fisheries Management Areas. However, a stock's boundaries can include one or more FMAs.

The Finfish Plan groups stocks to facilitate multi-stock objective-setting and service delivery. Performance Measures are established at the group level. The stock groupings are as follows:

QMS stocks	**Group 1**	
	Blue cod (BCO 5) Kahawai (KAH 1) Snapper (SNA 1, 8)	Tarakihi (TAR 1) Trevally (TRE 1, 7)
	Group 2	
	Flatfish (FLA 3)	Red cod (RCO 3)
	Group 3	
	Blue cod (BCO 3, 4, 7, 8) Blue moki (MOK 1) Bluenose (BNS 1, 2, 3, 7, 8) Elephant fish (ELE 3) Gemfish (SKI 1, 2) Hapuku/Bass (HPB 1, 2, 3, 7)	Kahawai (KAH 2, 3) Kingfish (KIN 1, 8) Ling (LIN 1) Snapper (SNA 2, 7) Tarakihi (TAR 2, 7)
	Group 4	
	Barracouta (BAR 1) Flatfish (FLA 1, 2, 7) Grey mullet (GMU 1) John dory (JDO 1)	Red cod (RCO 7) Red gurnard (GUR 1, 2, 3, 7) Yellow-eyed mullet (YEM 3, 7)
	Group 5	
	Rig (SPO 1, 2, 3, 7, 8) Rough skate (RSK 1, 3, 7, 8)	School shark (SCH 1, 2, 3, 4, 5, 7, 8) Smooth skate (SSK 1, 3, 7, 8) Spiny dogfish (SPD 1, 3, 7, 8)

QMS stocks	**Group 6**	
	Anchovy (ANC 1, 2, 3, 4, 7, 8)	Ling (LIN 2)
	Blue cod (BCO 1, 2)	Parore (PAR 1, 2, 9)
	Blue (English) mackerel (EMA 1, 2)	Pilchard (PIL 1, 2, 3, 4, 7, 8)
	Blue moki (MOK 3, 4, 5)	Porae (POR 1, 2, 3)
	Blue warehou (WAR 1, 2, 3, 7, 8)	Red cod (RCO 1, 2)
	Butterfish (BUT 1, 2, 3, 4, 5, 6, 7)	Red gurnard (GUR 8)
	Elephant fish (ELE 1, 2, 5, 7)	Red snapper (RSN 1, 2)
	Frostfish (FRO 1, 2)	Ribaldo (RIB 1, 2, 9)
	Garfish (GAR 1, 2, 3, 4, 7, 8)	Sea perch (SPE 1, 2, 8, 9)
	Ghost shark, dark (GSH 1, 2, 3, 7, 8, 9)	Snapper (SNA 3)
	Grey mullet (GMU 2, 3, 7)	Sprats (SPR 1, 3, 4, 7)
	Hapuku/Bass (HPB 4, 5, 8)	Stargazer (STA 1, 2, 3, 4, 5, 7, 8)
	Jack mackerel (JMA 1)	Tarakihi (TAR 3, 4, 5, 8)
	John dory (JDO 2, 3, 7)	Trevally (TRE 2, 3)
	Kahawai (KAH 4, 8)	Trumpeter (TRU 1, 2, 3, 4, 5, 6, 7, 8, 9)
	Kingfish (KIN 2, 3, 4, 7)	Yellow-eyed mullet (YEM 1, 2, 4, 5, 6, 8, 9)
	Leatherjacket (LEA 1, 2, 3, 4)	
	Group 7	
Non-QMS stocks	All other species/stocks, including for example: conger eel, hiwihiwi or kelp fish, lamprey, rock cod and hagfish.	

2.2 Performance Measures

The Performance Measures (and associated Management Objectives) for each stock group are set out in the tables below.

Group 1

USE objective:	Maximise the overall social, economic, and cultural benefit obtained from each stock.

Performance measures:

1. Trends in:
   - fulfilment of customary permits
   - amateur participation rates
   - real quota value
   - overall benefits, where these can be determined cost effectively,

   are stable or increasing.
2. Rolling 5-yr average Cost Recovery Levies (CRL)/Annual Catch Entitlement (ACE) value is not increasing.

ENVIRONMENT objective (Stock Sustainability)**:**	Maintain biomass of each stock at or above B_{MSY} (or accepted proxy).

Performance measure

3. Stock size is at or above the established target biomass with at least 50% probability

Group 2

USE objective:	Maximise the overall social, economic, and cultural benefit obtained from each stock.

Performance measures:

1. Trends in:
   - fulfilment of customary permits
   - amateur participation rates
   - real quota value
   - overall benefits, where these can be determined cost effectively,

   are stable or increasing.
2. Rolling 5-yr average Cost Recovery Levies (CRL)/Annual Catch Entitlement (ACE) value is not increasing.

ENVIRONMENT objective (Stock Sustainability)**:**	Maintain relative stock abundance at or above an established minimum reference level.

Performance measure

3. Relative stock size is at or above an established minimum reference level with at least 50% probability.

Group 3

USE objective:	Secure social, economic and cultural benefits obtained from each stock.

Performance measures:

1. Trends in:
   - fulfilment of customary permits
   - amateur participation rates
   - real quota value

   are stable or increasing.
2. Rolling 5-yr average CRL/ACE value is not increasing.

ENVIRONMENT objective (Stock Sustainability)**:**	Maintain stock size at or above target reference level.

Performance measure:

3. Stock size is at or above the established target reference level with at least 50% probability.

Group 4

USE objective:	Secure social, cultural and economic benefits from each stock.

Performance measures:

1. Trends in:
   - fulfilment of customary permits
   - amateur participation rates
   - real quota value
   - overall benefits, where these can be determined cost effectively,

   are stable or increasing.
2. Rolling 5-yr average CRL/ACE value is not increasing.

ENVIRONMENT objective (Stock Sustainability)**:**	Maintain stock size at or above target reference level.

Performance measure:

3. Stock size is at or above an established target reference level with at least a 50% probability.

Group 5	
USE objective:	Secure social, cultural and economic benefits from each stock.
Performance measures: 4. Trends in: o fulfilment of customary permits o amateur participation rates o real quota value o overall benefits, where these can be determined cost effectively, are stable or increasing. 5. Rolling 5-yr average CRL/ACE value is not increasing.	
ENVIRONMENT objective (Stock Sustainability)**:**	Maintain stock size at or above target reference level.
Performance measure: 6. Stock size is at or above an established target reference level with at least a 50% probability.	

Group 6	
USE objective:	Enable utilisation of each stock.
Performance measure: 1. Rolling 5-yr average Cost Recovery Levies (CRL)/Annual Catch Entitlement (ACE) value is not increasing.	
ENVIRONMENT objective (Stock Sustainability)**:**	Ensure catch is at a level that is sustainable.
Performance measure: 2. Catch is stable or fluctuates without trend.	

Group 7

USE objective:	Enable utilisation of each stock.

Performance measure:

1. Management costs are stable or decreasing

ENVIRONMENT objective: (Stock Sustainability)**:**	Ensure catch is at a level that is sustainable.

Performance measures:

2. Catch is stable or fluctuates without trend
3. Catch does not exceed or fluctuate beyond the QMS Introduction Process Standard thresholds.

All Groups

ENVIRONMENT objective (Stock Sustainability):	Protect, maintain and enhance habitats of significance for fisheries management.
ENVIRONMENT objective (Effects of Fishing):	Minimise adverse effects of fishing on the aquatic environment, including on biological diversity.

Performance measures:

1. Policy objectives for habitats of significance for fisheries management are met.
2. Where there are no policy objectives, fishing effects on identified habitats of significance for fisheries management are not increasing.
3. Relevant resource management policy and planning documents include objectives, policies, and rules that protect habitats of significance for fisheries management.
4. Policy objectives for managing fishing effects on the aquatic environment and biodiversity are met.
5. Where there are no policy objectives, interactions with the benthos and protected species are not increasing.

The datasets and approaches used to assess each stock against the performance measure are described in Appendix 1.

3. Assessment

3.1 Assessment against performance measures

The stock-level performance assessments are set out in the following tables. Stocks are organised first by Fisheries Management Area ((FMA) to facilitate engagement with tangata whenua and stakeholders) and secondly by stock group.

The assessments are brief summaries[6]. A symbol has been used to indicate performance relative to the performance measure and, where useful, a brief description is provided. The key purpose of this section is to support discussion with stakeholders on priority stocks for management action. The Ministry expects to improve the quality of performance measures and analyses over time.

Symbol	Description
☑	Performance measure met. *Information directly relevant to the performance measure is available and confirms the performance measure is met.*
☑	Likely performance measure met. *Information directly relevant to the performance measure is not available but other information indicates the performance measure is likely met*
?	Insufficient data. *Available information is insufficient to make an assessment relevant to the performance measure.*
☒	Unlikely performance measure met. *Information directly relevant to the performance measure is not available but other information indicates the performance measure is likely not met.*
☒	Performance measure not met. *Information directly relevant to the performance measure is available and confirms the performance measure is not being met.*

[6] Please note that the assessment against stock sustainability performance measures may not correspond to assessments of the biological status of stocks. As explained above, it is an assessment against the performance measures set in the Finfish Plan. For the latest information on the biological status of the stocks please refer to the 2010 Stock Status Report, published by the Ministry of Fisheries.

3.2 FMA1 Auckland East Fishery Management Area

FMA 1 includes the area from the eastern most point of the North Cape west to the eastern border of Cape Runway.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
1	**KAH1 (Kahawai)**	☑ 0.5% increase in quota value	? Insufficient information to inform trend.[7]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ Stock size is approaching established target biomass. Projected to increase to 52% Bo (the unfished level of biomass) if current catch is maintained.
	SNA1 (Snapper)	☑ 2.1% increase in quota value	? Boat ramp studies suggest effort in 2005 and 2012 is comparable i.e. no trend.	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	? Preliminary assessment reveals that none of the stocks are likely to be at or above the target. CPUE trends for 1989-2011 have shown a steady increase for the Hauraki Gulf and Bay of Plenty and no overall change for East Northland. Results from an accepted stock assessment are expected in 2013.
	TAR1 (Tarakihi)	☒ 7.1% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	? No target biomass has been established. CPUE indices for the three substocks (Bay of Plenty, East Northland, and west coast North Island) were calculated using data through to the end of the 2010-11 fishing year. The interpretation of the indices differs between areas, suggesting that a consistent interpretation concerning current catches and the TACC is not currently possible.
	TRE1 (Trevally)	☒ 14.6% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☒ No target biomass has been established. However, reduced proportions of older age groups, strong drops in landings between 2006-10 and an aerial sightings index indicate biomass may be declining.
3	**BNS1 (Bluenose)**	☑ 0.4% increase in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	☒ Stock size is below established target reference level. Subject to a recovery plan

[7]There is insufficient data to inform a trend because the Ministry only holds data from two recreational participation surveys (1996 and 2000/1). The large scale multi species survey currently underway will help inform this performance measure in the future.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
3	**HPB1 (Hapuku & Bass)**	☒ 7.2% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	? No target reference level has been established. It is not known if current catches or TACCs are sustainable.
	KIN1 (Kingfish)	☒ 8.0% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ Stock size against established target reference level is unknown. Catches were reduced when the stock was introduced into the QMS in 2002 to increase biomass. However, commercial catch has been stable over the last 5 years and recreational fishers have reported increased success of fish up to eight years old. Mortality estimates based on the age structure of the recreational catch in the BoP suggest a low rate of exploitation (i.e. F<M).
	LIN1 (Ling)	☑ 1.9% decrease in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	? No target reference level has been established and there is currently no accepted index of abundance.
	MOK1 (Moki)	☑ 1.1% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ No target reference level has been established. However, fishing mortality in 2004/05 and 2005/06 was very likely (>90%) to be below natural mortality. Catches have been reasonably stable since 2004/05, suggesting that exploitation rate has not increased.
	SKI1 (Gemfish)	☒ 7.0% decrease in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	☒ Stock size is below established target reference level. Subject to a recovery plan.
4	**BAR1 (Barracouta)**	☑ 4.3% decrease in quota	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	☑ No target reference level has been established. However the average of catches since 1984 is at about the level of the MCY (maximum constant yield) estimate.
	FLA1 (Flats)	☒ 13.5% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☒ No target reference level has been established. However, trends in CPUE show declines in recent years to the lowest levels in the series (1989-2010) for Manukau and Kaipara Harbours. Hauraki Gulf CPUE sits at about the mean for the series (1989-2010) but has also been declining in recent years.
	GMU1 (Grey Mullet)	☑ 2.9% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ No target reference level has been established. However, the average of catches since 1984 is at about the level of the MCY estimate.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
4	**GUR1 (Gurnard)**	☒ 15.9% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ No target reference level has been established. However, the abundance for all components of the fishery (GUR 1 West, GUR 1 East, GUR 1BOP) is cyclical and in at least part of the fishery (GUR 1 West and GUR 1 East) are currently downward. The current level of catch is unlikely to affect the long-term viability of the stock.
	JDO1 (John Dory)	☒ 7.5% decrease in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	? No target reference level has been established. The abundance for all components of the fishery (JDO 1 West, JDO 1 East, JDO 1BOP) is cyclical with JDO 1 East and JDO 1 BOP both declining. Declining catch in JDO1 is mainly driven by declining catch in JDO 1 East. If trends continue to differ, it may be inappropriate t manage JDO1 as a single stock.
5	**RSK1 (Rough Skate)**	☑ 2.4% increase in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☒	? No target reference level has been established and no proxy is available.
	SCH1 (School Shark)	☑ 1.9% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ No target reference level has been established. However, CPUE index suggests stock size is likely (>60%) to remain at current levels at present catch levels. School shark are believed to be a single biological stock and therefore it may be appropriate for management responses to be consistent across management areas.
	SPD1 (Spiny Dog)	☒ 42.0% decrease in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	? No target reference level has been established and no proxy is available.
	SPO1 (Rig)	☑ 2.4% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☒	? No target reference level has been established and it is not known if current catches will cause the stock to decline.
	SSK1 (Smooth Skate)	☒ 6.3% decrease in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	? No target reference level has been established and it is not known if current catches will cause the stock to decline.
6	**ANC1 (Anchovy)**	-	-	-	☑	☑ Catch has been stable. This is a developing fishery and less than 1% of TACC caught in 2011/12
	BCO1 (Blue Cod)	-	-	-	☑	☑ Catch has been stable

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
6	**BUT1 (Butterfish)**	-	-	-	☒	☑ Nominal TACC with recent catches at that level
	ELE1 (Elephant Fish)	-	-	-	☒	☑ Nominal TACC but less than 1% of TACC caught
	EMA1 (Blue Mackerel)	-	-	-	☑	☑ Catch fluctuating without trend
	FRO1 (Frostfish)	-	-	-	☒	☑ Catch has been stable
	GAR1 (Garfish)	-	-	-	☑	☑ Catch has been stable
	GSH1 (Ghost Shark)	-	-	-	☑	☑ Catch has been stable
	JMA1 (Jack Mackerel)	-	-	-	☑	☑ Catch fluctuates without trend
	LEA1 (Leatherjacket)	-	-	-	☑	☑ Catch fluctuates without trend
	PAR1 (Parore)	-	-	-	☑	☑ Catch fluctuates without trend
	PIL1 (Pilchard)	-	-	-	☑	☑ Catch fluctuates without trend

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
6	**POR1 (Porae)**	-	-	-	☑	☑ Catch fluctuates without trend
	RCO1 (Red Cod)	-	-	-	☒	☑ Catch fluctuates without trend
	RIB1 (Ribaldo)	-	-	-	☒	☑ Catch fluctuates without trend
	RSN1 (Red Snapper)	-	-	-	☑	☑ Catch has been stable
	SPE1 (Sea Perch)	-	-	-	☒	☒ Unstable catches. Consistently exceeds TACC
	SPR1 (Sprats)	-	-	-	☑	☑ Catch stable but less than 1% of TACC caught
	STA1 (Stargazer)	-	-	-	☒	☑ Catch fluctuates without trend
	TRU1 (Trumpeter)	-	-	-	☒	☑ Nominal TACC but less than 1% of TACC caught
	WAR1 (Warehou)	-	-	-	☑	☑ Catch fluctuates without trend
	YEM1 (Yellow-eyed mullet)	-	-	-	☒	☑ Catch has been stable

3.3 FMA2 Central Fishery Management Area

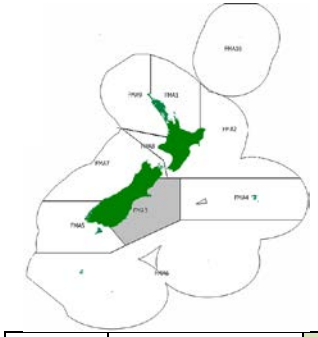
FMA2 includes the area south of Titahi Bay, at the coordinates 41°06'S, 174°50'E, around the Wellington and Kapiti coastline, and north to the western border of Cape Runway.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
3	**BNS2 (Bluenose)**	☑ 0.8% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet 62% coverage of customary fishing regulations of FMA's coastline	☑	☒ Stock size is below established target reference level. Subject to a recovery plan
	HPB2 (Hapuku & Bass)	☑ 1.4% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary fishing authorisations to inform a trend	☑	? No target reference level has been established. It is not known if current catches or TACCs are sustainable.
	KAH2 (Kahawai)	☑ 6.2% increase in quota value	? Insufficient information to inform trend.[6]	☑ Increasing trend between 2007 and 2009, no reported authorisations since	☑	☑ Stock size against established target reference level is unknown. Catches were reduced when the stock was introduced into the QMS in 2004 to increase biomass. Commercial catch has been stable over the last 6 years.
	SKI2 (Gemfish)	☑ 1.7% decrease in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☑	☒ Stock size is below established target reference level. Subject to a recovery plan.
	SNA2 (Snapper)	☑ 1.3% decrease in quota value	? Insufficient information to inform trend.[6]	☑ Last reported customary fishing authorisation in 2010	☑	☑ No target reference level has been established. However, biomass modelling undertaken in 2009 has shown that the stock size is projected to increase based on current catch levels.
	TAR2 (Tarakihi)	☑ 2.6% decrease in quota value	? Insufficient information to inform trend.[6]	☑ Last reported customary fishing authorisation in 2008	☒	? No target reference level has been established. Uncertainty with fishery selectivity and stock structure has curtailed efforts to model the fishery to date. Unlikely to be more definitive until a more extensive time-series of age frequencies become available from the main commercial fisheries.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
4	**FLA2 (Flats)**	☑ 35.5% increase in quota value	? Insufficient information to inform trend.[6]	☑ Last reported customary fishing authorisation in 2010	☑	? No target reference level has been established and no proxy is available.
4	**GUR2 (Gurnard)**	☒ 5.5% decrease in quota value	? Insufficient information to inform trend.[6]	? Customary reporting data insufficient to inform a trend	☒	☑ No target reference level has been established. However, CPUE shows no drastic changes with current levels similar to that from the early 1990s. Catches in this time period and the TACC are probably sustainable at least in the short term.
5	**SCH2 (School Shark)**	☑ 8.6% increase in quota value	? Insufficient information to inform trend.[6]	☑ Last reported customary fishing authorisation in 2010	☑	☑ No target reference level has been established. CPUE indices for SCH2 give conflicting trends. Correspondence between the SCH2 setnet index and the index of a neighbouring stock suggests overfishing is unlikely (<40%) to be occurring. School shark are believed to be a single biological stock and therefore it may be appropriate for management responses to be consistent across management areas.
5	**SPO2 (Rig)**	☑ 2.6% decrease in quota value	? Insufficient information to inform trend.[6]	☑ Last reported customary fishing authorisation in 2009	☑	☑ No target reference level has been established. However, a CPUE index from bottom trawl data increases from 1989 to 2003 thereafter fluctuating without trend. Current catches are unlikely (<40%) to cause the stock size to decline.
6	**ANC2 (Anchovy)**	-	-	-	☑	☑ Catch stable but less than 1% of TACC caught
6	**BCO2 (Blue Cod)**	-	-	-	☑	☑ Nominal TACC with recent catches at that level
6	**BUT2 (Butterfish)**	-	-	-	☑	☑ Catch fluctuates without trend
6	**ELE2 (Elephant Fish)**	-	-	-	☑	☑ Catch fluctuates without trend
6	**EMA2 (Blue Mackerel)**	-	-	-	☑	☑ Catch stable but less than 1% TACC caught
6	**FRO2 (Frostfish)**	-		-	☑	☑ Catch has been stable

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	GAR2 (Garfish)	-	-	-	☑	☑ Nominal TACC and no catch reported
6	**GMU2 (Grey Mullet)**	-	-	-	☑	☑ Catch has been stable
	GSH2 (Ghost Shark)	-	-	-	☑	☑ Catch fluctuates without trend
	JDO2 (John Dory)	-	-	-	☑	☑ Catch has been stable
	KIN2 (Kingfish)	-	-	-	☑	☑ Catch has been stable
	LEA2 (Leatherjacket)	-	-	-	☒	☑ Catch fluctuates without trend
	LIN2 (Ling)	-	-	-	☑	☑ Catch fluctuates without trend
	PAR2 (Parore)	-	-	-	☑	☑ Nominal TACC with stable catches
	PIL2 (Pilchard)	-	-	-	☑	☑ Catch stable but less than 1% TACC caught
	POR2 (Porae)	-	-	-	☑	☑ Catch fluctuates without trend
	RCO2 (Red Cod)	-	-	-	☑	☑ Catch fluctuates without trend

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
6	**RIB2 (Ribaldo)**	-	-	-	☒	☑ Catch fluctuates without trend
	RSN2 (Red Snapper)	-	-	-	☑	☑ Catch fluctuates without trend
	SPE2 (Sea Perch)	-	-	-	☒	☑ Catch fluctuates without trend
	STA2 (Stargazer)	-	-	-	☒	☑ Catch fluctuates without trend
	TRE2 (Trevally)	-	-	-	☑	☑ Catch fluctuates without trend
	TRU2 (Trumpeter)	-	-	-	☑	☑ Catch fluctuates without trend
	WAR2 (Common Warehou)	-	-	-	☒	☑ Catch fluctuates without trend
	YEM2 (Yellow-eyed mullet)	-	-	-	☒	☑ Catch fluctuates without trend. Developing fishery with less than 50% of the TACC caught in 2011/12



3.4 FMA3 Southeast Fishery Management Area

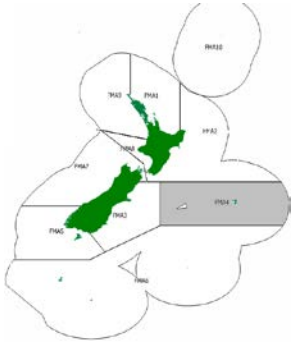
FMA3 includes the area south of the mouth of the Clarence River to the northern border of Slope Point

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
2	**FLA3 (Flats)**	☑ 0.3% decrease in quota value	? Insufficient information to inform trend.[6]	☑ Stable customary fishing authorisation fulfilment rate (average 64%)	☑	☑ A CPUE index has been accepted to inform application of a current annual yield strategy.
	RCO3 (Red Cod)	☑ 221.8% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☒	☑ No minimum reference level has been established. Red cod biomass levels are highly variable from year to year. Surveyed biomass and catch have declined substantially since the mid 1990s. However, stock size is expected to improve as fisheries independent survey results show a recruitment pulse that is expected to enter the fishery this year.
3	**BCO3 (Blue Cod)**	☑ 22.0% increase in quota value	? Insufficient information to inform trend.[6]	☑ Last reported customary fishing authorisation in 2011	☑	? No target reference level has been established. While a CPUE index has declined since 2002/03 to below the long term average this is representative only of the southern portion of the area.
	BNS3 (Bluenose)	☑ 8.0% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient data to inform trend	☑	☒ Stock size is below established target reference level. Subject to a recovery plan
	ELE3 (Elephant Fish)	☒ 7.4% decrease in quota value	? Insufficient information to inform trend.[6]	☑ Last reported customary fishing authorisation in 2010	☒	☑ Target reference level proposal is based on CPUE (average from 1998-99 to 2010-11) of the ELE3 (MIX) model CPUE has fluctuates around that target over the last 10 years.
	HPB3 (Hapuku & Bass)	☑ 17.5% increase in quota value	? Insufficient information to inform trend.[6]	☒ Decreasing trend between 2009 and 2011	☑	? No target reference level has been established. It is not known if current catches or TACCs are sustainable.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	KAH3 (Kahawai)	☒ 8.9% decrease in quota value	? Insufficient information to inform trend.[6]	? Insufficient data to inform trend	☑	? Stock size against established target reference level is unknown. Catches were reduced when the stock was introduced into the QMS in 2004 to increase biomass.
4	**GUR3 (Gurnard)**	☑ 0.2% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient data to inform trend	☑	☑ A target reference level is based on twice the mean CPUE from 1997-98 to 1999-00 of the BT(MIX+FLA) series. The index shows that abundance has been increasing steadily over a twenty year period and very likely (90%) to be above BMSY.
	YEM3 (Yellow-eyed mullet)	? No quota or ACE values available	? Insufficient information to inform trend.[6]	☑ Stable between 2006-11.	☒	☑ No target reference level has been established and no proxy is available. Introduced into QMS in 1998 with catch limits designed to maintain the biomass of stocks well above that required to support MSY over the long term.
5	**RSK3 (Rough Skate)**	☑ 33.3% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☑ No target reference level has been established. However, trawl surveys show biomass estimates for this stock are double what they were in the 1990's.
	SCH3 (School Shark)	☑ 3.8% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☒	☑ No target reference level has been established. However, a CPUE index suggests stock size is likely to remain at current levels or increase at present catch levels. Overfishing is unlikely (<40%) to be occurring. School shark are believed to be a single biological stock and therefore it may be appropriate for management responses to be consistent across management areas.`
	SPD3 (Spiny Dogfish)	☒ 5.9% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☑ No target reference level has been established. However East Coast South Island trawl survey index suggests stock size is at the long-term mean.
	SPO3 (Rig)	☑ 3.9% decrease in quota value	? Insufficient information to inform trend.[6]	☒ Insufficient reporting to inform trend. 100% and 0% fulfilment in 2010 and 2011 respectively.	☒	☑ No target reference has been established. However, CPUE index fluctuates about the long term mean. Catches have averaged about 1/3 below the TACC since 2000-01(A set net closure since 2008 may have influenced catches)
	SSK3 (Smooth Skate)	☑ 4.2% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	? No target reference level has been established and trawl surveys do not provide enough data to evaluate trends.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
6	**ANC3 (Anchovy)**	-	-	-	☑	☑ Catch stable but less than 1% of TACC caught
	BUT3 (Butterfish)	-	-	-	☑	☑ Nominal TACC but less than 1% of TACC caught
	GAR3 (Garfish)	-	-	-	☑	☑ Nominal TACC and no recent catch reported
6	**GMU3 (Grey Mullet)**	-	-	-	☑	☑ Catch stable but less than 1% of TACC caught
	GSH3 (Ghost Shark)	-	-	-	☒	☑ Catch fluctuates without trend
	JDO3 (John Dory)	-	-	-	☒	☑ Catch has been stable
	KIN3 (Kingfish)	-	-	-	☑	☑ Nominal TACC with recent catches at that level
	LEA3 (Leatherjacket)	-	-	-	☑	☒ Catches consistently exceed TACC
	MOK3 (Moki)	-	-	-	☑	☑ Catch fluctuates without trend
	PIL3 (Pilchard)	-	-	-	☑	☑ Catch stable but less than 1% TACC caught
	POR3 (Porae)	-	-	-	☑	☑ Nominal TACC with catches fluctating without trend

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	SNA3 (Snapper)	-	-	-	☑	☑ Catch stable but less than 1% of TACC caught
	SPR3 (Sprats)	-	-	-	☑	☑ Nominal TACC but less than 1% of TACC caught
6	**STA3 (Stargazer)**	-	-	-	☒	☑ Catch fluctuates without trend. However, available trawl survey information provides a stronger assessment of stock sustainability. Two recent ECSI survey estimates have shown declines from the high in 2007 to just below the long term mean.
	TAR3 (Tarakihi)	-	-	-	☒	☑ Catch fluctuates without trend. However, available CPUE indices provide a stronger assessment of stock sustainability. CPUE indices show no long term trend with current levels near levels observed at the beginning of the series interrupted by 3 years of increased CPUE.
	TRE3 (Trevally)	-	-	-	☑	☑ Catch has been stable
	TRU3 (Trumpeter)	-	-	-	☑	☑ Catch fluctuates without trend
	WAR3 (Common Warehou)	-	-	-	☑	☑ Catch has been stable



3.5 FMA4 Chatham Islands Fishery Management Area

FMA4 includes the Chatham Islands Area

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
3	**BCO4 (Blue Cod)**	☒ 17.7% decrease in quota value	? Insufficient information to inform trend.[6]	☒ Decreasing trend between 2010 and 2012	☑	☑ No target reference level has been established. However, CPUE index increased to a peak in 2001/02 and thereafter has fluctuated without trend.
5	**SCH4 (School Shark)**	☑ 0.9% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	? No target reference level has been established and no proxy is available. School shark are believed to be a single biological stock and therefore it may be appropriate for management responses to be consistent across management areas.
6	**ANC4 (Anchovy)**	-	-	-	☑	☑ Nominal TACC and no catch reported
	BUT4 (Butterfish)	-	-	-	☑	☑ Catch has been stable
	GAR4 (Garfish)	-	-	-	☑	☑ Nominal TACC and no recent catch reported
	HPB4 (Hapuku & Bass)	-	-	-	☑	☑ Catch has been stable
	KAH4 (Kahawai)	-	-	-	☑	☑ Catch stable but less than 1% of TACC caught

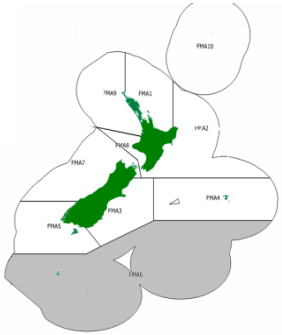
Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
6	**KIN4 (Kingfish)**	-	-	-	☑	☑ Nominal TACC but less than 10% of TACC caught
	LEA4 (Leatherjacket)	-	-	-	☑	☑ Nominal TACC but less than 1% of TACC caught
	MOK4 (Moki)	-	-	-	☑	☑ Catch fluctuates without trend
	PIL4 (Pilchard)	-	-	-	?	☑ Nominal TACC and no catch reported
	SPR4 (Sprats)	-	-	-	☑	☑ Nominal TACC and no catch reported
	STA4 (Stargazer)	-	-	-	☑	☑ Widely distributed over the Chatham Rise and less than 1% of TACC caught
	TAR4 (Tarakihi)	-	-	-	☒	☑ Catch fluctuates without trend
	TRU4 (Trumpeter)	-	-	-	☑	☑ Catch fluctuates without trend
	YEM4 (Yellow-eyed mullet)	-	-	-	?	? No TACC set

3.6 FMA5 Southland Fishery Management Area

FMA5 includes the area west of Slope Point, Fiordland and north to the southern border of Awarua Point.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
1	**BCO5 (Blue Cod**	☑ 25.4% increase in quota value	? Insufficient information to inform trend.[6]	☑ Stable, fulfilment is high (average 98%)	☑	☒ Stock size against established target biomass is unknown. However, CPUE index has decreased since 2004/05 to just below the long term average.
5	**SCH5 (School Shark)**	☑ 1.7% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☒ No target reference level has been established. However, CPUE index based on SN has declined steadily since 2005-06, reaching a level about half of the long-term average. The SCH5 stock level is likely to decline under current catches. School shark are believed to be a single biological stock and therefore it may be appropriate for management responses to be consistent across management areas.
6	**BUT5 (Butterfish)**	-	-	-	☑	☑ Catch has been stable
	ELE5 (Elephant Fish)	-	-	-	☒	☑ Management changes (TACC increases 2000-01, 2002-03, 2009-10) resulted in unstable catches. Available information from CPUE series provides a stronger assessment of stock sustainability. CPUE series shows a steady increasing trend in biomass since the early 1990s.
	HPB5 (Hapuku & Bass)	-	-	-	☑	☑ Catch has been stable
	MOK5 (Moki)	-	-	-	☒	☑ Catch fluctuates without trend
6	**STA5 (Stargazer)**	-	-	-	☑	☑ Catch fluctuates without trend

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	TAR5 (Tarakihi)	-	-	-	☑	☑ Catch fluctuates without trend
	TRU5 (Trumpeter)	-	-	-	☑	☑ Catch fluctuates without trend
	YEM5 (Yellow-eyed mulled)	-	-	-	?	? No TACC set



3.7 FMA6 Sub-Antarctic Fishery Management Area

FMA6 includes the area south and east of FMAs 5 and 3, respectively, and extend out to the exclusive economic zone boundary.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
6	**BUT6 (Butterfish)**	-	-	-	? No data available	? No TACC set
	TRU6 (Trumpeter)	-	-	-	? No data available	? No TACC set
	YEM6 (Yellow-eyed mulled)	-	-	-	? No data available	? No TACC set

3.8 FMA7 Challenger Fishery Management Area

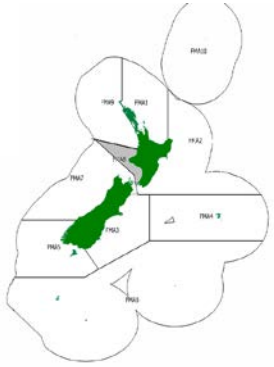
FMA7 includes the area north of Awarua Point, the West Coast of the South Island, Tasman and Marlborough, and east from Marlborough to the north of the Clarence River mouth.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
1	**TRE7 (Trevally)**	☒ 10.4% decrease in quota value	? Insufficient information to inform trend. [6]	? Customary reporting data insufficient to inform a trend	☑	☑ No target biomass has been established. However, catch has been fluctuating without trend from 1980-2009. Very likely (60-90%) that B2008>BMSY.
3	**BCO7 (Blue Cod)**	☒ 5.5% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	? No target reference level has been established. The Marlborough Sounds area (MSA) was assessed by fixed site and random stratified potting surveys. The fixed site index of abundance has declined from 1996 to 2010. The MSA random stratified index declined from 1996 to 2007 but increased substantially in 2010.
	BNS7 (Bluenose)	☑ 3.0% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☒ Stock size is below established target reference level. Subject to a recovery plan
	HPB7 (Hapuku & Bass)	☒ 6.5% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	? No target reference level has been established. It is not known if current catches or TACCs are sustainable.
	SNA7 (Snapper)	☑ 5.8% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	? No target reference level has been established. However, CPUE generally declined to 2001, after which it has fluctuated without trend.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
3	**TAR7 (Tarakihi)**	☒ 10.6% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☒ No target reference level has been established. However, CPUE has been declining since 2003-04 and is currently near the lowest level of the series. The stock is unlikely (<40%) to be at or above BMSY. The west coast south Island trawl survey series indicates that TAR 7 biomass declined from 1995 to 2003 but increased in 2006 and since then has declined to the long-term mean.
4	**FLA7 (Flats)**	? No quota or ACE value available	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	? No target reference level has been established and no proxy is available.
	GUR7 (Gurnard)	☒ 6.4% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☑ No target reference level has been established. However, a trawl survey relative biomass index has increased steadily since 2003 to the highest level in the series in 2011. Unlikely (<40%) that overfishing is occurring.
	RCO7 (Red Cod)	☒ 9.8% decrease in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☑ No target reference level has been established. However, a trawl survey relative biomass index has increased with the current 2009 index above the long-term mean. Based on the broad composition in the survey, high biomass levels are expected to persist in the short-term.
	YEM7 (Yellow-eyed mullet)	? No quota or ACE value available	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☒	☑ No target reference level has been established and no proxy is available. Introduced into QMS in 1998 with catch limits designed to maintain the biomass of stocks well above that required to support MSY over the long term. In the last ten years, catches have not exceeded 75% of the TACC.
5	**RSK7 (Rough Skate)**	? No quota or ACE value available	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☒	☑ No target reference level has been established. However, the most recent trawl survey suggests that current abundance is greater than the long term mean.
	SCH7 (School Shark)	☑ 2.1% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☒	☒ No target reference level has been established. However, a CPUE index declined steadily from 1999-00 to its lowest level in over the 20 year period of the index in 2007-08. The stock size is likely to decline further under current levels of catch. School shark are believed to be a single biological stock and therefore it may be appropriate for management responses to be consistent across management areas.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	SPD7 (Spiny Dogfish)	? No quota or ACE value available	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☑ No target reference level has been established. However, trawl survey estimates are all at or above the long term average.
	SPO7 (Rig)	☑ 1.5% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	☑ No target reference level has been established. However, a CPUE index suggests stock size is likely (>60%) to increase at present catch levels.
	SSK7 (Smooth Skate)	☑ 18.4% increase in quota value	? Insufficient information to inform trend.[6]	☑ No authorisations issued yet >75% coverage of customary fishing regulations of FMA's coastline	☑	? No target reference level has been established. Relative biomass estimates from trawl surveys since 2000 suggests a decline in biomass from the 1990s. Although a cause for concern the reason for the decline is uncertain and requires further investigation.
6	**ANC7 (Anchovy)**	-	-	-	☑	☑ Catch stable but no catch reported in 2011/12
	BUT7 (Butterfish)	-	-	-	☒	☑ Catch fluctuates without trend
	ELE7 (Elephant Fish)	-	-	-	☑	☑ Catch fluctuates without trend
	GAR7 (Garfish)	-	-	-	☑	☑ Catch fluctuates without trend
	GMU7 (Grey Mullet)	-	-	-	☑	☑ Catch stable but less than 1% of TACC caught
	GSH7 (Ghost Shark)	-	-	-	☑	☑ Catch fluctuates without trend

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	JDO7 (John Dory)	-	-	-	☒	☑ Catch has been stable. Biomass estimates from trawl surveys have been relatively high since 2003. The stock is likely (>60%) to increase at recent catch levels.
6	**KIN7 (Kingfish)**	-	-	-	☑	☒ Unstable catches
	PIL7 (Pilchard)	-	-	-	☑	☑ Catch fluctuates without trend
	SPR7 (Sprats)	-	-	-	☑	☑ Nominal TACC but less than 1% of TACC caught
	STA7 (Stargazer)	-	-	-	☑	☑ Catch fluctuates without trend. This is supported by West Coast South Island trawl survey indices which have increased from a low observed in 2003 to the highest in the series in 2009.TAC was increased in 2010.
	TRU7 (Trumpeter)	-	-	-	☑	☑ Nominal TACC but less than 1% of TACC caught
	WAR7 (Common Warehou)	-	-	-	☑	☑ Catch has been stable



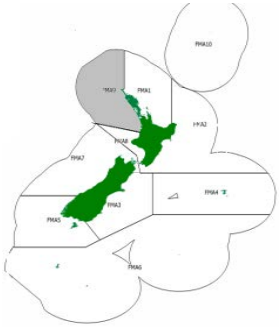
3.9 FMA8 Central Fishery Management Area

FMA8 includes the area south of Tirua Point to a point north of Titahi Bay, at the coordinates of 41°06'S, 174°50'E

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
1	**SNA8 (Snapper)**	☑ 8.8% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☒ Stock size against established target biomass is unknown although likely to be below the level able to support MSY. However, model projections suggest this stock should rebuild to BMSY after 2018 if current catches and recruitment are maintained. Subject to a recovery plan
3	**BCO8 (Blue Cod)**	☑ 4.6% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ No target reference level has been established. Recent commercial catch levels and TACCs are considered sustainable
	BNS8 (Bluenose)	☑ 4.4% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☒ Stock size is below the established target reference level. Subject to a recovery plan
	KIN8 (Kingfish)	☑ 1.0% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ Stock size against established target reference level is unknown. As a proxy commercial catch has been stable over the period 2003-11.
5	**RSK8 (Rough Skate)**	☑ 11.4% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	? No target reference level has been established and no proxy is available.

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	SCH8 (School Shark)	☑ 0.5% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	☑ No target reference level has been established. However, a CPUE index suggests no change in abundance over the series and therefore the stock size is likely to remain at current levels at present catch levels. School shark are believed to be a single biological stock and therefore it may be appropriate for management responses to be consistent across management areas.
5	**SPD8 (Spiny Dogfish)**	☑ 6.4% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	? No target reference level has been established and no proxy is available.
	SPO8 (Rig)	☑ 8.7% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☒	☑ No target reference level has been established. However a CPUE index fluctuates without trend and recent indices are near the long-term average.
	SSK8 (Smooth Skate)	☑ 16.8% increase in quota value	? Insufficient information to inform trend.[6]	? Insufficient customary reporting to inform a trend (<75% of the coastline)	☑	? No target reference level has been established and no proxy is available.
6	**ANC8 (Anchovy)**	-	-	-	☑	☑ Catch stable but no catch reported in 2011/12
	GAR8 (Garfish)	-	-	-	☑	☑ Nominal TACC but less than 1% of TACC caught
	GSH8 (Ghost Shark)	-	-	-	☑	☒ Unstable catches that consistently exceed the TACC
	GUR8 (Gurnard)	-	-	-	☑	☑ Catch has been stable
	HPB8 (Hapuku & Bass)	-	-	-	☑	☑ Catch has been stable

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
	KAH8 (Kahawai)	-	-	-	☑	☑ Catch has been stable
	PIL8 (Pilchard)	-	-	-	☑	☑ Catch fluctuates without trend
6	**SPE8 (Sea Perch)**	-	-	-	☒	☑ Catch fluctuates without trend
	STA8 (Stargazer)	-	-	-	☒	☑ Catch fluctuates without trend
	TAR8 (Tarakihi)	-	-	-	☑	☑ Catch fluctuates without trend
	TRU8 (Trumpeter)	-	-	-	☑	☑ Nominal TACC with catches fluctuating without trend
	WAR8 (Common Warehou)	-	-	-	☑	☑ Catch fluctuates without trend
	YEM8 (Yellow-eyed mullet)	-	-	-	☒	☑ Nominal TACC with catches fluctuating without trend



3.10 FMA9 Auckland West Fishery Management Area

FMA9 includes the area west from Cape Runway southwest to the northern border of Tirua Point

Group	Stock	Trend in Quota Value	Trend in Amateur participation	Trend in Customary permit fulfilment	Trend in CRL/ACE value	Management action flags
6	**GSH9 (Ghost Shark)**	-	-	-	☑	☑ Nominal TACC with catches fluctuating without trend
	PAR9 (Parore)	-	-	-	☑	☑ Nominal TACC with catches fluctuating without trend
	RIB9 (Ribaldo)	-	-	-	☑	☑ TACC change in 2011. Catch fluctuates without trend
	SPE9 (Sea Perch)	-	-	-	☒	☑ Catch fluctuates without trend
	TRU9 (Trumpeter)	-	-	-	?	? No TACC set
	YEM9 (Yellow-eyed mullet)	-	-	-	☑	☑ Catch fluctuates without trend

3.11 Environmental Objectives for all Stock Groups

	Policy and objectives relating to habitats of significance	Policy and objectives for managing fishing effects on the environment				
		Sharks	Dolphins	Seabirds	Benthic Impacts	Other Protected Species
All Finfish Stocks	? Policy objectives for managing fishing effects have not been determined. Benthic and marine protected areas have been identified for some areas.	☑ Policy objectives are in place and under review in NPOA-sharks 2013	☑ Hector's Dolphins – policy objectives are in place, however, information on mortality levels is uncertain. Policy objectives are likely to be being met ☑ Maui's Dolphins - Policy objectives are in place. However there are areas of uncertainty where better information is required to better assess our performance against objectives.	☒ Policy objectives are currently under development. Likely to not be meeting possible policy targets for some seabird species.	? Interactions with the benthos in finfish fisheries have been estimated by examining trawling hours reported. Trawling hours have increased nationally. But, this is only over a three year period and it is unclear if this indicates increasing interactions with the benthos. There has been a decreasing trend in the number of trawl vessels since 1992.	☑ Policy objectives are not in place. Limited monitoring but known interactions currently present a low risk.

3.12 GROUP 7: Non QMS Stocks

The following stocks are known to be caught in the inshore area, but they have not yet been introduced into the Quota Management System (QMS). The below table provides an assessment of the performance measure, "Catch does not exceed or fluctuate beyond the QMS Introduction Process Standard thresholds." Stocks not meeting the performance measure may trigger the QMS introduction threshold. The Ministry is committed to ensuring that there are appropriate development opportunities for non-QMS finfish species. All stocks have been assessed against the QMS Introduction Process Standard since 2004 but no stocks have met all the criteria for introduction into the QMS. The last assessment of some of the candidate stocks took place in 2008. No other information is available to inform performance against other group 7 performance measures.

			Catch does not exceed or fluctuate beyond the QMS Introduction Standard thresholds		
Species Code	Species name	Schedule 4C	20t Criteria	100t Criteria	Last assessed against QMS Introduction Process Standard
BBE	Banded bellowsfish		☒	☑	2008
BCD	Black cod		☒	☒	2004
BMA	Blue maomao		☑	☑	
BSH	Black shark		☒	☒	2004
BWH	Bronze whaler		☑	☑	
CAR	Carpet shark		☑	☒	2004
CON	Conger eel		☒	☒	2004
EGR	Eagle ray		☒	☑	2004
ERA	Electric ray		☒	☑	2004
HAG	Hagfish		☒	☒	2008
HHS	Hammerhead shark	Yes	☑	☑	
HEP	Sharpnose sevengill shark	Yes	☑	☑	
KOH	Koheru		☒	☑	2004
NSD	Northern spiny dogfish		☒	☑	2004
OCT	Octopus		☒	☑	
OPE	Orange perch		☒	☑	2004
PIG	Pigfish		☒	☑	2004
POP	Porcupine fish		☒	☑	2004
PMA	Pink maomao		☑	☑	
SBO	Southern boarfish		☒	☒	2004
SND	Shovelnose dogfish		☒	☒	2004
SPZ	Spotted stargazer		☑	☑	2004

SSI	Silverside		☒	☒	2004
THR	Thresher shark		☑	☑	2004
TOA	Toadfish		☒	☑	2004

4. Performance of the Annual Operational Plan

The second purpose of the Annual Review Report is to examine delivery of the management actions and services against those specified in the Annual Operational Plan from the previous year.

The Annual Operational Plan sets out the stock, fishery and across-fishery Management Actions and Services to be provided in a given 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 to individual business groups.

The Annual Operational Plan also describes the 'maintenance' and 'core' Management Services to be undertaken for each stock or fishery. Completion of the management actions contributes to achievement of the management objectives, outcomes, and goals described in the Plan. Management Services describe the business group services (compliance, research, regulatory, etc) required to deliver the specified management actions.

The Annual Review Report evaluates the progress that has been made over the year on the management actions and services. It also identifies any stock needs, which will be subsequently addressed in the following year's Annual Operational Plan.

4.1 Delivery of Specified Management Actions

As this is the first year of operation, there is no Annual Operational Plan for the previous year (2010/11) to report against. The 2011/12 Annual Operational Plan is currently being delivered.

4.2 Delivery of Specified Management Services

As this is the first year of operation, there is no Annual Operational Plan for the previous year (2010/11) to report against. The 2011/12 Annual Operational Plan is currently being delivered. Status of actions and service for the 2011-12 Prototype Annual Operational Plan for Inshore Finfish Fisheries

This table is a draft status summary of actions and services in the 2011-12 Annual Operational Plan for Inshore Finfish Fisheries. This was a 'prototype' plan. The first completed Plan (involving Forums) relates to the current, 2012-13 year. Delivery of actions and services against this Plan will occur in next year's ARR.

Action	**Status** *Complete, Partially completed, Ongoing, Deferred, Business-as-usual, or Cancelled*	**Comment**	**Next steps**
A1. Increase proportion of New Zealand fisheries waters covered by the customary regulations	Ongoing	Multi-year action	See action **A2** in the Annual Operational Plan for Inshore Finfish Fisheries for 2012-13 (the 2012-13 AOP)
A2. Improve iwi and Tangata tiaki/Kaitiaki understanding of the importance and use of customary permit data and provide for easy reporting of data	Ongoing	Multi-year action	See action **A3** in the 2012-13 AOP – *Design initiatives to improve iwi and Tangata tiaki/Kaitiaki understanding of the importance of customary permit data and provide for easy reporting of data*
A3. Complete large-scale multi-species survey to monitor recreational fisheries	Partially completed	Expected to be completed by 1 July 2013	See action **A4** in the 2012-13 AOP
A4. Continue programmed research to integrate and improve estimates of recreational catch	Ongoing	Involves a number of projects that are regularly reviewed	See action **A5** in the 2012-13 AOP – *Undertake research projects to integrate and improve estimates of recreational catch*
A5. Review and update the medium-term research plan(s) for Group 1 to 5 finfish stocks, including supporting establishment of harvest strategies	Partially completed	Gap analysis completed in 2011-12. Work continuing in the 2012-13 year.	See action **A17** in the 2012-13 AOP – *Continue the review and development of a medium-term research plan for inshore finfish stocks*
A6. Develop, and begin implementation of, a plan to establish harvest strategies for all Group 1 to 5 finfish fisheries	*Plan* – completed *Implementation* – ongoing	Interim targets being established as information becomes available. Engagement with stakeholders beginning in 2012-13	See action **A16** in the 2012-13 AOP – *Continue the implementation of a plan to establish harvest strategies for Group 1 – 5 finfish stocks and define management approaches for Group 6 stocks*

Action	Status *Complete, Partially completed, Ongoing, Deferred, Business-as-usual, or Cancelled*	Comment	Next steps
A7. Undertake programmed research to inform harvest strategy development	Ongoing	Some work which will contribute to harvest strategies has been completed. Further projects scoped	Further projects to begin in 2012-13
A8. Develop an agreed definition of habitats of particular significance for fisheries management	Complete		Implementation (see action **A20** in the 2012-13 AOP – *Implement an agreed definition and process for identifying and protecting habitats of particular significance for finfish fisheries management*)
A9. Improve information to identify (locate) habitats of particular significance for fisheries management	Deferred	Work not yet undertaken as awaiting definition (A8 - now complete)	Scope projects (and see action **A21** in the 2012-13 AOP)
A10. Develop "peer networks" in natural resource management agencies to share information where non-fishing activities may impact on the health of inshore finfish fisheries	Ongoing	Some work on priorities completed. Some relationships established.	See action **A22** in the 2012-13 AOP
A11. Complete nationwide inventory of existing MPAs and gap analysis to support Ministerial decision on next steps	Complete	Further work awaiting policy decisions on next steps	
A12. Complete the inshore observer programme (jointly with DOC) to improve estimates of Hector's dolphin interactions with set net fisheries on the East Coast of the South Island	Ongoing	Has now been continued into 2012-13	See action **A25** in the 2012-13 AOP – *Gather information to monitor and manage impacts of finfish fishing on Maui's and Hector's dolphins*
A13. Complete programmed research to estimate the distribution of the South Coast South Island Hector's dolphin subpopulation	Complete	Report has been published (as a final research report – *Abundance, distribution and productivity of Hector's (and Maui's) dolphins* –	Research planned to estimate the distribution of Hector's dolphins on the East Coast of the South Island

Action	Status *Complete, Partially completed, Ongoing, Deferred, Business-as-usual, or Cancelled*	Comment	Next steps
		and available on the NZ Fisheries InfoSite)	
A14. Complete the inshore observer programme (jointly with DOC) to: • Improve estimates of seabird vulnerability to flatfish trawl fisheries, and • Establish the effectiveness of mitigation in reducing seabird interactions in trawl and bottom longline fisheries	*Improve estimates of seabird vulnerability to flatfish trawl fisheries* – Partially completed	Not yet sufficient coverage to achieve objectives. Expected to be completed in 2012-13	More observer coverage planned between January and September 2013
	Establish the effectiveness of mitigation in reducing seabird interactions in trawl and bottom longline fisheries - Deferred	No specific work undertaken in 2011-12. Yet to be rescheduled.	Reschedule See **A27** in the 2012-13 AOP – *Gather information to monitor and manage impacts of fishing on seabirds*
A15. Continue to support initiatives to reduce mortality of seabirds in inshore fisheries	Ongoing	Work undertaken supporting the Southern Seabird Solutions Trust. This is ongoing in 2012-13.	See **A28** in the 2012-13 AOP – *Participate in the Southern Seabird Solutions Trust* The National Plan of Action (NPOA) Seabirds out for consultation. To be confirmed in 2012-13 (see **A26** in the 2012-13 AOP – *Develop National Plan of Action - Seabirds*)
A16. Continue programmed research to assess risk to seabirds from fishing activities	Partially complete	Some delay as resources required in other areas (in regard to protected species)	Results to be presented in late 2012
A17. Review NPOA-Sharks	Ongoing	Work has begun but resources required in other areas (protected species)	Consultation to occur in 2013 (See **A29** in the 2012-13 AOP)
A18. Assess appropriateness of listing all rig (SPO) stocks on Schedule 6 of the Fisheries Act 1996	Completed	Completed alongside the 2011 October sustainability round	

Action	Status *Complete, Partially completed, Ongoing, Deferred, Business-as-usual, or Cancelled*	Comment	Next steps
A19. Reduce use of generic shark reporting codes	Ongoing	Reporting being monitored. This action is part of the NPOA-Sharks	See **A30** in the 2012-13 AOP – *Develop and undertake approaches to support the objectives of the National Plan of Action for Sharks*
A20. Improve information to monitor and manage impacts of fishing on benthic habitats	Ongoing	Information collected as part of monitoring and research. No specific new projects for inshore	See **A23** in the 2012-13 AOP
A21. Review sustainability measures or other management controls (including undertaking any research needed to inform the review process) for up to 12 finfish species or stocks in the 1 October sustainability round	Business-as-usual	Reviewed the TAC for twelve finfish stocks (seven increases, five decreases), and added school shark to the sixth schedule. Also reviewed deemed values for several stocks.	Identify candidates for review in 2013 – See **A15** in the 2012-13 AOP – *Complete review of sustainability measures for the 1 October 2012 fishing year and identify candidates for 2013-14*
A22. Continue review of sustainability measures and other management controls for the 2011/12 fishing year	Business-as-usual	Completed – changes implemented 1 October 2011	
A23. Complete review of Deemed Value Standard	Complete	Review undertaken and revised standard applied in 2012	
A24. Develop overall information strategy (research and data sets) for non-commercial fisheries	Deferred	Lack of resources	See **A7** in the 2012-13 AOP – *Develop strategy for gathering information on non-commercial fisheries (including, but not limited to, catch and value*
A25. Scan regulations for opportunities to reduce regulatory costs to commercial sector	Deferred	Wider project being undertaken on consolidating fishing regulations. So specific focus on commercial sector regulations deferred	See **A10** in the 2012-13 AOP – *Undertake analysis of identified opportunities for improvement to regulatory frameworks and develop process to support identification of other opportunities*
A26. Improve fisher awareness and	Business-as-usual	No new specific issues identified	See **A13** in the 2012-13 AOP

Action	Status *Complete, Partially completed, Ongoing, Deferred, Business-as-usual, or Cancelled*	Comment	Next steps
understanding of fishing laws where current compliance levels are sub-optimal		for finfish in 2011-12	
A27. Increase deterrent activities where emerging or systemic illegal activity (or opportunities for illegal activity) is identified	Business-as-usual	No new specific issues identified for finfish in 2011-12	See **A12** in the 2012-13 AOP Additional compliance action: see **A11** in the 2012-13 AOP – *Develop a medium term compliance strategy for inshore finfish*
A28. Develop, and begin implementation of, a strategy to manage mixed species fisheries	Deferred	Lack of resources	See **A8** in the 2012-13 AOP – *Develop and implement strategies to manage missed species fisheries*
A29. Complete Discards at Sea project	Ongoing	This project has broadened to include work on the framework for inshore vessel monitoring and is now known as *Better Information, Better Value for Inshore Fisheries*	See A9 in the 2012-13 AOP – *Complete and implement Discard-at Sea project*
A30. Support initiatives from the commercial sector to gain Marine Stewardship (MSC) certification for the SNA 1	Cancelled – no services required in 2011/12	After preliminary investigation (supported by the Ministry of Fisheries), the commercial sector did not pursue certification	
A31. Operate the approved in-season management procedure for FLA 3	Business-as-usual	No in-season increase resulted from operating the procedure in 2011-12	Operate procedure again for 2012-13 -see **A39** in the 2012-13 AOP – *Operate the approved in-season management procedure for FLA3 to determine potential for an in-season TAC review in 2013*
A32. Review and update medium-term research plans for inshore finfish stocks, including supporting establishment of management approaches for medium-low knowledge stocks (*Aligned to*	Partially Completed	Relates to Group 6 stocks (Group 1 to 5 stocks covered by **A5** – see above)	See **A17** in the 2012-13 AOP – *Continue the review and development of a medium-term research plan for inshore finfish stocks*

Action	Status *Complete, Partially completed, Ongoing, Deferred, Business-as-usual, or Cancelled*	Comment	Next steps
*Action **A5**)*			
A33. Develop and begin implementation of management approaches for medium-low knowledge stocks	Deferred	Lack of resources	See **A16** in the 2012-13 AOP – *Continue the implementation of a plan to establish harvest strategies for Group 1 – 5 finfish stocks and define management approaches for Group 6 stocks*
A34. Undertake programmed research to inform development of management approaches for medium-low knowledge stocks (*Aligned to Action **A7**)*	Ongoing	No specific projects undertaken, but preliminary work done	Industry initiative – Trident- aims to address this need. MPI has been supporting this and development is continuing in 2012/13
A35. Implement the QMS Introduction Process Standard for stocks meeting the threshold	Business-as-usual	Some stocks identified as meeting triggering thresholds for consideration for introduction -No new stocks introduced	Identify candidates for potential QMS introduction in 2013

Appendix 1 – Performance Measures

Use Performance Measures

Trends in Real Quota Value are Stable or Increasing

The data used were taken from the *Quota Monitoring Reports* for the last month of each of the last five fishing years. Where quota value data were not available, estimated values were calculated from Annual Catch Entitlement (ACE) values. The data were adjusted for inflation using the *Gross National Expenditure Deflator* (GNED).

The trend in real quota value was obtained from the gradient of a trend-line (LINEST) fitted to the data. The percentage change variable comes from converting the trend-line gradient value to a percentage of the baseline quota value (i.e. the 2006-07 fishing year).

Where real quota value was determined to have increased (using a threshold of -5% to allow for insignificant reductions) the performance measure was deemed met.

Trends in Amateur Participation

The Ministry holds data on recreational participation surveys from 1996 and 2000/01. From these surveys, there are only two usable sets of data which is not enough to inform a trend. Work is currently underway to conduct a large scale multi species survey on recreational catch which could provide sufficient data, along with the other surveys to illustrate a trend. This is expected to be completed by 2013.

Trends in Fulfilment of Customary Permits are Stable or Increasing

Information is submitted quarterly to the Ministry in relation to customary permits issued under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 or the Fisheries (South Island Customary Fishing) Regulations 1998.

Regulation 27A of the Amateur Fishing Regulations also provides for the authorisation to take fisheries resources for hui or tangi but does not require reporting of the amounts authorised or taken and was not used in this assessment.

The data were used to assess the percentage of what was authorised by the permit and what was actually taken by the permit. This information was totalled for each year and presented as a total percentage of taken and reported as a proportion of total authorised. A trend-line was fitted to provide an indication of the amount of change in % fulfilment. A minimum of three years data was used. Where fulfilment of customary permits was determined to have decreased by more than 5%, the performance measure was deemed as not met. Where additional information was available that might explain a trend, or lack of, this was included in the comments section. The period of 2006-2011 was used.

This analysis was problematic as the information provided was not always complete. In many cases a variety of unit types (quantity) were used to report on each stock. This could be individual numbers or kilograms of fish or shellfish, sacks, sugar sacks, buckets of 10 litres or 20 litres and in many cases this part of the return was left blank. Many of the stocks did not have enough complete data to make a comparison. In certain key stocks, however, the customary returns did show reliable data and comparisons could be reliably made.

Rolling 5 Year Average Cost Recovery Levy (CRL)/ACE Value is not Increasing

ACE prices, YTD/tonne, came from the *Quota Monitoring Reports* for the last month of each fishing year. Where ACE prices were unavailable, estimates of the ACE value were derived from quota values, where those values were known. The data was adjusted for inflation using the GNED.

The average CRL/tonne (total levy/TACC) divided by the ACE value was calculated for both of the 5 year periods 2005-10 and 2006-11. The percentage change between the 2005-10 and 2006-11 ratios was calculated. Where the ratio had increased by more than 5% the performance measure was deemed as not met.

Where ACE information was unavailable, CRLs on their own were used, adjusted for inflation using the GNED, then divided by the TACC, and analysed for trend using a trend-line. In this case, a threshold of $10 per tonne for shellfish and $5 for finfish was first used to identify nominal changes over the time period and assess as likely met. Where the change in value exceeded the threshold a percentage difference of the trend-line of 5% was used to determine if the performance measure was likely met.

Management Costs are Stable or Decreasing:

Analysis of this performance measure was only applied to non-QMS stocks and was assessed by analysing the cost of any research that was carried out on these stocks in the last 5 year period. Research costs were adjusted for inflation using the GNED, divided by the TACC, and then analysed for trend using a trend-line. A threshold of 5% was used to determine if the performance measure was met. No costs were attributable to non-QMS finfish stocks.

Environment Performance Measures

Stock Sustainability: (the performance measure used depends on the 'group'):

- Group 1: Stock size is at or above the established target biomass with at least 50% probability
- Group 2: Stock size is at or above the minimum reference level with at least 50% probability
- Group 3 Group 4 and 5: Stock size is at or above an established target reference level with at least 50% probability
- Group 6: Catch is stable or fluctuates without trend.

The data used to assess the stock sustainability performance measure is predominantly from the most recent stock plenary assessment reports including:

- stock assessments
- probabilities of biomass estimates
- trawl survey relative biomass indices
- CPUE indices
- other abundance indicators
- catch quantities.

Many stocks measured against the performance measure lack key pieces of information to determine whether or not the performance measure is met (for example, stock size in relation to the target biomass), or they have not yet been assigned a target/threshold reference level. Whether this is the case or not is set out in the text for each stock.

Where target/ threshold reference levels are not set and/or information on stock size in relation to this level is not available, the best available information was used to establish whether or not there was a sustainability concern with the stock. In these instances, the text will provide an idea as to what information was evaluated to determine whether the stock sustainability performance measure was met.

Catch is stable or fluctuates without trend

Data used were catch and TACC information from the most recent four fishing years (2006-2011). Data were obtained from FIS. The percentage catch against TACC was calculated for each year. Variation in the data was checked by calculating the Average and the Standard Deviation. To assess whether catch was stable around the average, a threshold of 20% variation for finfish, and 10% variation for shellfish was set. Trend was established by fitting a trend-line.

Stocks with a TACC of less than 20 tonnes (finfish) or 10 tonnes (shellfish) were deemed to have been lightly fished and to have met this performance measure unless other information is available that suggests otherwise.

Policy Objectives Relating to Habitats of Significance for Fisheries Management are Met

No formal policies have been set relating to Habitats of Significance for Fisheries Management.

Where Policy Objectives are Absent, Fishing Effects on Identified Habitats of Significance for Fisheries Management are not Increasing

Habitats of Significance for Fisheries Management have not yet been formally identified.

Policy Objectives for Managing Fishing Effects on the Aquatic Environment (and Biodiversity) are Met

Policy Objectives are set out in the National Plan of Action for Sharks, the Hector's and Maui Dolphins Threat Management Plan, and the Marine Protected Area Policy. None have objectives that specifically relate to, or require direct monitoring of, individual fisheries stocks.

Where Policy Objectives are Absent, Interactions with the Benthos and Protected Species are not Increasing

The data source for assessment of interactions with the benthos is the Ministry Research Data Management database from TCER & CELR catch effort returns as hours dredged and hours towed for bottom trawling.

For interactions with protected species, data were sourced from the Ministry Non-fish/protected species database and the Department of Conservation's Hector's dolphin incident database as these will be consistent data series into the future. Data were filtered to cover only target species from the Inshore National Fisheries Plans.

Note: More detailed guidelines on the methodology used to assess these performance measures are available from the Ministry on request.