



# Elimination of shark finning in New Zealand fisheries

Consequential amendments to fisheries regulations  
– final advice paper

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# Elimination of shark finning in New Zealand fisheries

Consequential amendments to fisheries regulations – final advice paper

## 1 Introduction

### 1.1 PURPOSE

This paper provides you with advice on options for regulating a ban on shark finning in New Zealand, in line with intentions you and the Minister of Conservation announced in January 2014. Advice is provided on:

- An over-arching regulation prohibiting the landing of shark fins as a primary landed state ;
- The implementation of the ban i.e. which sharks should be landed with fins attached; and which sharks should be landed not exceeding a specified weight ratio to the total shark landings;
- The timing of the ban; and
- Dealing with unwanted shark catches through changes to Schedule 6 of the Fisheries Act 1996 (the Act).

Implementation of the ban on shark finning in New Zealand fisheries will require amendments to the following fisheries legislation:

- the Fisheries (Commercial Fishing) Regulations 2001;
- the Fisheries (Reporting) Regulations 2001;
- the Fisheries (Conversion Factors) Notice 2011; and
- Schedule 6 of the Act.

### 1.2 CONTEXT

You recently adopted New Zealand’s National Plan of Action for the Conservation and Management of Sharks 2013 (NPOA-Sharks). The NPOA-Sharks sets out goals and objectives for the conservation and management of sharks in New Zealand over the next five years. The goals and objectives reflect those outlined in the International Plan of Action for the Conservation and Management of Sharks (the IPOA-Sharks). The IPOA-Sharks was adopted by the United Nations’ Food and Agriculture Organisation in response to growing international concerns about the status of global shark populations.

The NPOA-Sharks includes a goal to “Encourage the full use of dead sharks, minimise unutilised incidental catches of sharks, and eliminate shark finning in New Zealand.” The focus of this paper is on implementing a ban on shark finning in line with that goal. The NPOA-Sharks defines shark finning as the removal of the fins from a shark and the disposal of the remainder of the (dead) shark at sea. The removal of the fins from a shark where the trunk is also retained for processing is not defined as “shark finning”.

Shark finning is the subject of strong public interest, both nationally and internationally. The current consultation attracted of 20,698 submissions, including 20,628 form submissions, 42

submissions from school children, and 28 independently-authored submissions from individuals and organisations.<sup>1</sup>

In addition, most of the over 45,300 submissions received on the draft NPOA-Sharks supported a ban on shark finning. Submitters also commented on the timing of a ban, and how such a ban should be implemented.

Several agencies have responsibilities for implementing aspects of the NPOA-Sharks, including the Ministry for Primary Industries (MPI), the Department of Conservation, and the Ministry of Foreign Affairs and Trade. MPI is the lead agency and is responsible for controls on fishing, including the activity of shark finning as well as controls on the practice of live finning in its role as a regulator of animal welfare issues.

### 1.2.1 International context

Shark conservation can be seen as an “iconic” marine conservation issue, reflecting concerns about declining shark populations globally. Many countries, including New Zealand, have revisited their national policies to reflect the international momentum towards more comprehensive shark conservation and management measures. International attention has focussed in particular on the issue of shark finning, which can raise concerns about animal welfare (particularly around finning of a live shark and return to the sea), sustainability, and waste (utilising only the fins of a shark). For example, the United Nations General Assembly (UNGA) Fisheries Resolution 2013 “calls upon States to increase protection measures for shark populations globally, with particular emphasis on measures which are focused on addressing shark finning fisheries.”

Members of the United Nations’ Food and Agriculture Organisation adopted the IPOA-Sharks in 1999. Since then, a number of countries, including 18 of the top 26 shark fishing countries, areas and territories, have adopted an NPOA-Sharks.<sup>2</sup> New Zealand adopted its first NPOA-Sharks in 2008, and adopted a revised plan in 2014.

### 1.2.2 Domestic context – status quo

All marine fisheries in New Zealand are managed under the Act and associated regulations. Provisions for the conservation and protection of wildlife may also be used to protect specific shark species where required. The Department of Conservation is responsible for the protection of certain marine species under the Wildlife Act 1953.<sup>3</sup>

Within New Zealand’s fisheries management regime, a Quota Management System (QMS) covers the majority of commonly-caught species. Total allowable catches (TACs) are set for QMS species, and comprehensive data collection protocols and monitoring are in place to reconcile catches against catch limits and provide information for the setting of sustainable catch limits.

Eleven elasmobranch species are managed under the QMS (comprising close to 90% of total shark catches). For the remainder of this paper, unless otherwise specified ‘QMS species’ is used to refer only to the nine QMS species that will be covered by these finning regulations.

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<sup>1</sup> An additional 193 form submissions from Greenpeace and Forest & Bird were received between the close of submissions on the 22<sup>nd</sup> of June, and the morning of the 26<sup>th</sup> of June.

<sup>2</sup> As at an FAO review in 2012; a further five of the top 26 countries were in the process of developing such a plan. Source: Fischer, J., Erikstein, K., D’Offay, B., Barone, M. & Guggisberg, S. 2012. *Review of the Implementation of the International Plan of Action for the Conservation and Management of Sharks*. FAO Fisheries and Aquaculture Circular No. 1076. Rome, FAO. 120 pp.

<sup>3</sup> Shark species protected under the Wildlife Act 1953 and the Fisheries Act 1996 are white pointer or great white shark, basking shark, and oceanic whitetip shark. Species protected under just the Wildlife Act are deepwater nurse shark, whale shark, and manta and devil rays. The Wildlife Act protects species in New Zealand fisheries waters, whereas the powers of the Fisheries Act can be applied to New Zealand-flagged fishing vessels and nationals to extend protection to the high seas.

Those nine QMS species are school shark, rig, pale ghost shark, dark ghost shark, elephantfish, spiny dogfish, porbeagle shark, mako shark, and blue shark.

### 1.2.2.1 New Zealand shark catches

Sharks are taken as a target or bycatch in a range of fisheries in New Zealand. Total reported whole weight catches of shark<sup>4</sup> species in New Zealand have averaged around 18,000 tonnes over the last five years. Up to 70 species have been reported caught in commercial fishing activity, although the nine QMS species referred to above have made up, on average, 88% of shark catches over the most recent five years.

Annex One provides additional detail on the range of species that are caught, and the catch volumes. Annex One also provides information on the most common processed states in which species are landed. Overall, a large majority of catches are fully processed to the dressed or headed and gutted state. In some cases, the fins of the shark may be retained alongside a separate primary processed state (noting this is not defined as “shark finning”). Species for which fins are often landed as a secondary product along with other processed states (such as dressed trunks) include school shark, rig, and ghost sharks.

While no species of sharks are targeted for their fins in New Zealand, fin-only landings are a common processed state for some species including the highly migratory species blue shark, porbeagle shark, and mako shark. Fin-only landings are also common for carpet shark and spiny dogfishes (including northern spiny dogfish).

### 1.2.2.2 Economic value of sharks

Sharks provide a range of usable products including meat (fillets), fins, livers, skin, and cartilage. Sharks caught in New Zealand fisheries are sold through both domestic and export markets. It has been estimated that domestic sales of shark fillets in the 2012-13 fishing year were worth around \$18 million.

In 2013, the value of overall exports of shark products was \$24.7 million.<sup>5</sup> The 2013 figure showed a decline of about \$5 million from the estimated \$30.1 million worth of exports in 2012. It is difficult to identify particular species and product types in most export statistics because of the way the statistics are collected. Close investigation of the value of particular product types to certain countries allows for estimation of exports of dried and wet (frozen) fins (including fins landed as a secondary product along with shark trunks). The overall decline in export values can be attributed in part to decreased demand in some markets for shark fins. The overall value of shark fin exports in 2013 is estimated at \$2.2 million (including 8.9 tonnes of dried shark fins and an estimated 101.4 tonnes of wet fins). This figure is a decrease of around \$2.7 million from 2012 exports of shark fins.

### 1.2.3 Problem definition

The proposal to ban shark finning in New Zealand seeks to address two issues reflecting domestic and international concerns about shark finning:

- Wastage or under-utilisation of sharks if just the fins are retained; and
- A clear demonstration of New Zealand’s commitment to the objectives contained in the IPOA-sharks and its own NPOA-Sharks, and ongoing efforts to address the conservation and sustainable management of shark populations.

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<sup>4</sup> Species proposed to be covered by the shark finning regulations (i.e. Class Chondrichthyes – excluding Batoidea)

<sup>5</sup> Export data provided by Seafood New Zealand

Prior to the review of the NPOA-Sharks, concerns about animal welfare pertaining to shark finning were primarily addressed through animal welfare legislation (the Animal Welfare Act 1999). However, the NPOA-Sharks provides an opportunity to implement increased levels of protection to address these concerns by eliminating finning in all fisheries. Other concerns, including sustainability, will be addressed through different work-streams under the NPOA-Sharks. Other objectives in the NPOA-Sharks include maintaining the biodiversity and long-term viability of New Zealand shark populations, based on a risk assessment framework, and continuously improving the information available to conserve and manage sharks.

## 2 Objectives

Goals and five-year objectives are established in the NPOA-Sharks. The focus of this paper is Goal 2, and in particular objective 2.4. The full list of NPOA-Sharks objectives is provided in Annex Two.

### Utilisation, waste reduction and the elimination of shark finning

Goal 2. Encourage the full use of dead sharks, minimise unutilised incidental catches of sharks, and eliminate shark finning<sup>6</sup> in New Zealand

**Objective 2.1** Review and implement best practice mitigation methods in all New Zealand fisheries (commercial and non-commercial).

**Objective 2.2** Minimise waste by promoting the live release of bycaught shark species, and develop and implement best practice guidelines for handling and release of live sharks.

**Objective 2.3** Develop and implement best practice guidelines for non-commercial fishing and handling of sharks.

**Objective 2.4** Eliminate shark finning in New Zealand fisheries by 1 October 2015, with one exception.<sup>7</sup>

Sub-objectives include:

- Reducing wastage; and
- Demonstrating New Zealand's commitment to international shark conservation and management.

Criteria for assessing options are:

- **Effectiveness of rules:** To what extent do options ensure that shark finning no longer takes place and that fishers have legal options for unwanted shark catches. Considerations include tools available for monitoring and compliance, and existing monitoring regimes.
- **Operational impact:** What is the impact of the rules on commercial operations, including those that already fully utilise shark catches (i.e. those where no shark finning is taking place). Ideally, rules adopted should be effective at ensuring shark finning no longer takes place, while minimising impacts on industry and particularly on those operators who already fully utilise shark catches.

The *status quo* includes some voluntary actions already being taken by industry. It is considered that the *status quo* or additional non-regulatory options would not meet the overall objective. All other options would meet the overall objective, but some may do so more effectively than others based on these criteria, and some options may have unintended consequences.

<sup>6</sup> Shark finning is defined for the purpose of this NPOA as the removal of the fins from a shark (Class Chondrichthyes – excluding Batoidea (rays and skates)) and the disposal of the remainder of the shark at sea. As such, removal of the fins from a shark where the trunk is also retained for processing is not defined as “shark finning”.

<sup>7</sup> The exception is blue sharks, for which finning would be eliminated no later than October 2016.



### 3 Consultation

MPI consulted fisheries stakeholders and the public between 21 May and 22 June 2014 on a range of options for a shark finning ban. Submissions were received from industry (10), environmental groups (6), the general public (12), students at Western Springs High School (42), and form submissions (1,204 from Forest & Bird, 12,784 from Greenpeace, 43 from NZ Shark Alliance, and 6,597 on a petition organised by the Hon Trevor Mallard).<sup>8</sup> The range of submissions received is summarised in table 1 below. More detailed analysis is contained in section 4, while a summary of submitters' comments on specific options is contained in annex 3.

Table 1: Summary of submissions received

Submitter	Submission topic Implementation of ban	Timing	Schedule 6
<b>Environmental group submissions (n = 6)</b>			
Humane Society International (HSI)	X	X	X
Our Seas Our Future	X	X	
Sea Shepherd New Zealand (Sea Shepherd)	X	X	X
Shark Advocates International (joint submission from Shark Advocates International, Project AWARE, and Shark Trust)	X	X	
The New Zealand Shark Alliance (joint submission from Greenpeace, WWF, ECO and Forest & Bird) (NZSA)	X	X	
Wellington Underwater Club	X	X	X
<b>Industry submissions (n = 10)</b>			
Altair Fishing Ltd	X		
Compass Rose Fishing Ltd (Compass Rose)	X		X
Deepwater Group (DWG)	X	X	
Fisheries Inshore New Zealand (FINZ)	X	X	X
Jim McGlone	X		
Leigh Fisheries Ltd	X		
New Zealand Federation of Commercial Fishermen (NZFCF)	X	X	X
Sanford Ltd	X	X	X
Seafood New Zealand (SNZ)	X	X	X
Southern Inshore Fisheries Management Ltd (Southern Inshore)	X	X	X
<b>Individual submissions (n = 12)</b>			
Laurie Albano	X		
Sophie Arthur	X	X	
Quentin Bennett	X		
Dr Andrew Burton	X		
Tonya Dixon	X		
Carolina Furtado	X		
Daizy Fuse	X		
Ellie Gordon	X		
Sunkita Howard			X
Gerrard Reddican	X		
Ron Savage	X		
Dr Robin Sekerak	X		
<b>Other submissions (n = 42)</b>			
Pupils of Western Springs High School	Some	Some	

<sup>8</sup> An additional 14 Forest & Bird form submissions and 179 Greenpeace submissions were received after submissions closed on June 22 (as at the morning of Thursday 26 June).

	Submission topic		
Submitter	Implementation of ban	Timing	Schedule 6
<b>Form submissions</b>			
Forest & Bird (total = 1,218) Received before close of submissions = 1,204 including 14 with additional comments	X	X	X
Greenpeace (n = 12,963) Received before close of submissions = 12,784, including 13 with additional comments	X	X	X
New Zealand Shark Alliance (n = 43, including 11 with additional comments)	X	X	
Trevor Mallard (& 6,597 others)		X	

Most submitters support an earlier implementation timeframe than initially proposed in the NPOA-Sharks. However, industry's support is tied to the other decisions you will be making about the types of rules to put in place.

Broadly, environmental group (and public) submissions differ from industry submissions in their assessment of both the desirability and ease of implementation requiring sharks to be landed with fins naturally attached (FNA). Environmental groups generally consider FNA should be applied to all species where finning currently occurs. Some environmental group and public submissions go further and call for FNA to be used for all species. Those environmental groups most closely involved in the development of the NPOA-Sharks are aware of the differences between fisheries in which fins may be retained as a secondary product alongside the shark meat, and those in which fins are currently a common primary product. These environmental groups accept that a fin ratio approach may be appropriate where finning is not currently occurring.

Conversely, industry submissions place much more reliance on the overall regulation prohibiting shark finning and subsequent removal of a primary processed state code for shark fins. Industry submissions emphasise the need to minimise impacts on existing operations, and for rules to be as simple and consistent as possible in order to enhance compliance, and allow operators to maximise the value from their catches.

## 4 Summary and analysis of submissions

### 4.1 A: WAYS TO IMPLEMENT A SHARK FINNING BAN

#### 4.1.1 General

##### 4.1.1.1 Submissions received

Many submissions outline their support for the NPOA-Sharks and its objectives, including the objective of eliminating shark finning (e.g. Deepwater Group – DWG, Sanford Ltd, the New Zealand Federation of Commercial Fishermen – NZFCF). Southern Inshore Fisheries Management Ltd (Southern Inshore) submits it does not condone the live finning of sharks, which it considers should be subject to strong controls. Southern Inshore submits such a practice should not overshadow the sustainable fishing practices in our inshore fisheries or the monitoring and management of our fishstocks under the QMS.

Fisheries Inshore New Zealand (FINZ), Seafood New Zealand (SNZ), Sanford Ltd and the NZFCF support removing the landing codes that would allow fins to be landed as the primary landed state. FINZ, Sanford Ltd, and SNZ submit that this alone gives effect to the finning

ban and provides industry with a driver to improve the utilisation of sharks and to reduce the waste of sharks caught.

SNZ submits that the QMS is appropriate to manage the sustainability and health of shark populations without the need for additional complex regulatory interventions as proposed by MPI. SNZ considers such additional interventions to be unnecessary, and submits that they erode the principles upon which the QMS is based. Sanford Ltd submits that it fully supports the sustainable utilisation of shark species and industry efforts to reduce waste. While full utilisation of all shark species across the New Zealand fleet is acknowledged as a challenge, Sanford Ltd believes that industry is making good progress developing new markets / commercial products.

NZFCF submits its concern that the proposals to ban shark finning are complex, will be difficult to implement and police, and run the risk of subjecting industry to unworkable bureaucracy if the practical implications are not considered more. NZFCF promotes a consistent and simple approach and does not support what it views as a multitude of different rules covering different circumstances.

#### 4.1.1.2 MPI response

MPI agrees that the overarching regulation prohibiting shark finning, coupled with removal of primary landed state codes for shark fins, is an important part of the overall package. However, MPI does not agree that these rules are sufficient to provide confidence that finning is not occurring. Rules requiring fishers to either land sharks with fins attached or in a specified ratio can be viewed as a means of monitoring compliance with the underlying rule. In the absence of either an FNA or ratio requirement, it would be difficult for a compliance officer to verify that any fins landed in a secondary state had a corresponding shark body that was also landed (other than by a simple count of fin numbers). While industry's call for simplicity is understandable, it would not be desirable to create a situation in which there were incentives to routinely misreport catches, and such behaviour was difficult to detect.

In addition, New Zealand fisheries are subject to a range of international obligations and requirements, including through environmental certification bodies. These bodies increasingly require that fisheries achieving certification can demonstrate that no shark finning is occurring, generally either through an FNA rule or, if processing at sea occurs, through comprehensive regulations governing catches and landings, coupled with adequate monitoring. General international obligations also arise under the IPOA-Sharks, as well as through New Zealand's participation in Regional Fisheries Management Organisations.

MPI considers just putting in place a blanket prohibition without additional controls would not meet the effectiveness criteria. It potentially would also fail the criteria for the impact on fishers, because of the degree of domestic and international attention this issue receives and the risk that consumers would reject New Zealand seafood because of the lack of a readily understood ban on shark finning.

MPI appreciates the need to ensure rules are straightforward and as easy as possible for fishers to implement. However, the NPOA-Sharks also acknowledged the need to develop solutions to shark finning that are fishery-specific and targeted to address risks. Therefore, MPI considers that there is a need to differentiate between QMS and non-QMS species in the first instance, because of the different management and baseline monitoring of these groups of species.

#### 4.1.2 QMS sharks with existing high levels of utilisation - school shark, rig, dark ghost shark, pale ghost shark, elephantfish

##### 4.1.2.1 Submissions received

Most submitters – both environmental groups and industry – agree that a ratio approach would be appropriate for those species managed under the QMS for which fin-only landings are very low (i.e. rig, school shark, elephantfish, dark ghost shark and pale ghost shark).

Despite an overall preference for FNA, the New Zealand Shark Alliance (NZSA, comprising Forest & Bird, WWF, ECO, and Greenpeace) submits that it does support the use of a fin ratio for those species which are currently being fully utilised, such as rig and school shark. The NZSA submits it understands the complications an FNA approach may have on at-sea processing.

Some environmental group submitters (including Humane Society International (HSI), Sea Shepherd New Zealand (Sea Shepherd), a joint submission by Shark Advocates International, Project AWARE, and Shark Trust (hereafter Shark Advocates International), and Wellington Underwater Club) advocate for an FNA approach for all sharks. Some individual submitters also advocate for FNA for all species (see summary table in annex 3). For example, Shark Advocates International submits that a 2010 report from the IUCN Shark Specialist Group and the European Elasmobranch Association concluded that in comparison to a ratio approach, under FNA:

- Enforcement burden is greatly reduced;
- Information on species and quantities of sharks landed is vastly improved;
- ‘High-grading’ (mixing bodies and fins from different animals) is impossible; and
- Value of the finished product can be increased.

Shark Advocates International submits that because of its many practical advantages, the FNA method has been mandated in the United States, the European Union, Taiwan, India, Sri Lanka, parts of Australia, most of Central America, much of South America, and elsewhere; and is gaining acceptance in international arenas.

Shark Advocates International is concerned that the consultation document discussed potential problems with “landing sharks whole.” The submitters stress that in many instances where the FNA method has been mandated, it is permissible to remove the sharks’ heads and guts at sea. To suggest that whole shark landings that preclude any at-sea processing are necessary under the FNA approach is considered misleading. While it is widely recognised that sharks’ urea content creates challenges with respect to avoiding an ammonia taste in shark meat, the submitters believe this problem is overstated in the consultation document. In particular, Shark Advocates International considers the unsubstantiated claim that proper cleaning of the carcass cannot be accomplished without the removal of the pectoral, ventral, anal, and tail fins is discredited by the fact that the FNA is being successfully employed in the US and EU, where sanitary standards are high.

Various industry submitters reinforce the challenges they would face under an FNA requirement, and their view that the impacts would not be justified when they are already fully utilising their shark catches. For example, fishing company Compass Rose submits that it fully agrees with the need to ban shark finning but does not agree FNA should be imposed where all of its catch is utilised for human consumption.

Many industry submissions including Compass Rose, Stu Morrison, Jim McGlone, Leigh Fisheries, and NZFCF note the need to remove the shark tail during processing to eliminate ammoniation of the shark meat. The tail fin is included in the defined set of ‘fins’ to which a finning ban would apply (meaning it could not be removed at sea if an FNA requirement were put in place). These submissions contend that to store trunks with all fins attached would cause major problems with quality. Compass Rose submits that when fins are stored onboard, there is always a very strong ammonia odour even after washing, which Compass Rose considers would more than likely contaminate the flesh.

Compass Rose submits that the current standard is for shark trunks to be landed to the factory in the dressed state, with fins being removed prior to processing. An FNA requirement would increase the gross weight required to be carried for a lower return, and the factory’s work load would increase dramatically.

Sanford Ltd submits that FNA within a New Zealand regulatory context actively endorses waste as well as imposing significant operational challengers on those vessels that want to land sharks. Because some shark species ammoniate very quickly, Sanford Ltd believes that the New Zealand inshore fleet would struggle to maintain a consistently high quality product.

Southern Inshore acknowledges that where existing utilisation is high, the preferred option consulted on is a fin ratio approach. However, Southern Inshore remains concerned as to prescriptive ratio levels. Southern Inshore considers a substantial amount of work would be required to develop conversion factor ratios that are more reflective of the varying carcass production states to the fin ratio. Southern Inshore notes the likely expense of this work and considers it should not be covered by industry. Southern Inshore proposes on-going work on conversion factors over the next 1-2 years rather than have a prescriptive percentage adopted as of 1 October 2014.

#### 4.1.2.2 MPI response

MPI considers a ratio approach is most appropriate for fisheries with high levels of utilisation, or to avoid undue constraint on improved utilisation. Those submitters that favour an FNA approach to preventing shark finning may not be aware of the New Zealand context, as well as challenges at the operational level. Fin-only landings make up 1% or less of total landings for the five ‘high utilisation’ QMS species (see annex two for detailed break-downs of landings by product type). MPI considers a shark finning regulation is only necessary in these fisheries to ensure no fin-only landings could develop in the future and allow for ongoing monitoring.

Some of the other advantages cited for FNA include improved collection of data on shark catches, and improving the sustainability of the related fishery. MPI does not consider these are relevant factors for these QMS species, since these shark species are readily identifiable and are already subject to species-specific catch reporting requirements. Initiatives to improve fisheries sustainability (where required), will be developed as part of the broader work programme for implementing the NPOA-Sharks. In particular, a risk assessment will support assessment of whether existing management and catch limits are appropriate.

MPI acknowledges that some processing at sea could still take place under an FNA rule, up to and including removal of the head. While it is true that this at-sea processing could help to alleviate fishers’ concerns about the quality of the catch, MPI understands the main concern is the need to remove the tail fin, which could not be done under an FNA rule. One possibility that has emerged during consideration of submissions is for sharks to be landed with fins artificially – rather than naturally – attached. This would allow removal of fins to optimise

processing and reduce the risk of ammoniation of the meat – one of the main concerns raised by industry. Fins would need to be stored attached to the shark body in some way (e.g. tied on and/or stored in a sleeve with the shark body), thus retaining the 1:1 ratio of fins to bodies which is a key concern for environmental groups.

It should be noted this option does not address all industry concerns, including the additional time it would take to process sharks, the costs involved with bringing back a product (i.e. shark bodies) for which the markets may be limited, and the possible contamination of target catches.

MPI shares fishers' concerns that utilisation should not be hindered in fisheries where high levels of utilisation already occur (i.e. shark finning does not take place). A ratio approach clearly best meets the second criteria on impact of the rules, and MPI considers it would also meet the criteria on effectiveness of rules given the specific characteristics of the fisheries in question.

MPI acknowledges Southern Inshore's concerns about the scale and potential cost of work required to develop appropriate ratios. Work is currently underway on compiling existing data sets and collecting additional information through observer deployments. It is proposed that a Crown-funded research project will propose appropriate ratios based on this information. It may also be useful to review other processed state conversion factors over time, but this can be done relatively simply by deploying existing observer coverage to collect the information.

#### 4.1.3 Other QMS sharks – mako, porbeagle and blue shark and spiny dogfish

##### 4.1.3.1 Submissions received

###### *General*

In general, environmental groups submit that all highly migratory species (HMS) of sharks and spiny dogfish should be subject to FNA requirements. It is considered that without implementing FNA across all sharks that are not fully utilised already, New Zealand would lag behind international best practice and risk counteracting the effectiveness of a finning ban. An FNA requirement is also considered to:

- prevent illegal or undetected finning,
- discourage wasteful practices and high-grading,
- significantly improve species identification, reporting, and data collection for stock assessment, and
- improve the sustainability of the related fishery.

These submitters consider FNA to be the only fail-safe, most reliable, least expensive means to prevent finning and measure compliance.

Sea Shepherd and HSI consider that implementation of FNA would be in accordance with the United Nations requirement of all signatory nations to implement effective shark legislation and to comply with the internationally-preferred approach for the elimination of shark finning.

In addition, NSZA, Our Seas Our Future, the Wellington Underwater Club and form submissions indicated that scientific research has demonstrated that the fin ratio approach is open to abuse, particularly where sharks are caught only for their fins. Ratios may vary greatly within both species and fishing fleets, which in turn limits the value of any specified set ratio. NZSA submits that if regulated ratios are set at higher than observed ratios, a

loophole is created which allows fishers to harvest more fins than correspond to the number of carcasses on board (or reported), while still meeting mass requirements. NZSA considers accurate ratios for each species are essential for any meaningful monitoring of catches.

As noted above, industry submissions generally emphasise the challenges they would face under an FNA requirement and submit that in contrast the fin ratio approach allows for continued utilisation and ensures the integrity of reporting. Industry submitters, most notably FINZ, consider that FNA is an inappropriate policy for any species managed under the QMS and considers that such intervention is unnecessary and erodes the principles upon which the QMS is based.

The NZFCF recognises that there are international examples of FNA requirements, but considers the dynamics of each fishery need to be seriously considered before implementing any blanket regulations. The NZFCF also submits that the predominant shark species within New Zealand are harvested by smaller vessels that manage their catch on ice. It is submitted that international examples are generally of larger vessels that refrigerate their catch immediately. As noted above, industry submit that shark species spoil easily if not processed correctly on board. In the context of the New Zealand fishery, NZFCF and Leigh Fisheries submit that a forced and poorly thought out FNA policy would see significant volumes of rotten shark landed.

Leigh Fisheries submits that FNA does not work for its operation as a processor and a licensed fish receiver. As well as concerns about ammoniation, Leigh Fisheries submits that the stacking of individual fish by hand on a bed of ice during unloading of tuna vessels is not possible with fins attached and poses a health and safety risk because sharks with fins on are a less regular shape and are therefore more likely to slip. Sharks with fins attached also take up additional space, meaning fish cannot be stacked as high and therefore more vehicles would be needed for a single unload at times.

With respect to deepwater fisheries in particular, DWG submits that the requirement to land QMS sharks with FNA provides disincentives for utilisation and perverse incentives to return sharks to the sea, rather than use up limited hold space and carry home unwanted dead sharks or risk spoiling the rest of the catch. Furthermore, DWG submits that while FNA rules have been tabled as an effective “best practice” to implement the NPOA-Sharks objective to eliminate the practice of shark finning in New Zealand, their application to QMS species runs counter to the NPOA-Sharks objective to minimise waste. DWG notes that while FNA rules may lauded by many environmental groups as global best practice, this assertion is still subject to debate; inventories of global management practices demonstrate that FNA rules are simply one tool in a suite of management tools for banning shark finning.

#### *Mako and porbeagle sharks*

Environmental group, form, and some individual submissions note mako and porbeagle are on the IUCN Red list of Threatened Species in the Vulnerable category. In addition, porbeagle has been listed in Appendix II of CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora). These submitters consider the HMS sharks are of considerable conservation concern, highlighting that there are no good stock assessments for the Pacific (or any other ocean) and no significant conservation management measures exist. NZSA submits that it is vital that these species receive the best possible protection (which it considers to be FNA). Form submissions and a variety of individuals submit that the exclusion of mako and porbeagle sharks from the FNA approach will allow finning of these species to continue.

These submitters suggest that the proposal to trial the ratio approach for mako and porbeagle for the next two years creates a loophole. Concerns raised include the high level of fin-only landings currently occurring (up to 58% at present), and research indicating that a ratio approach can be open to abuse and may undermine sustainable fisheries management.

FINZ, SNZ, and Sanford Ltd consider that there is no reason to prolong the implementation process by conducting a two-year trial for mako and porbeagle sharks; these submitters consider that a fin ratio approach should be applied to all QMS species (if any additional rules are required).

#### *Blue sharks*

Environmental group submissions note and support the preferred option in the consultation paper for blue shark to be subject to FNA requirements. The reasons outlined above for a preference for FNA also apply to blue sharks.

HMS fisher Stu Morrison (Altair Fishing Ltd) submits that there is a market for blue shark trunks and considers it would grow given time but not under an FNA policy. Stu Morrison submits that he has landed blue shark trunks to a licensed fish receiver for the last ten or eleven years (100t greenweight or more per annum). He considers that the fish receiver will accept blue sharks in a dressed state but will not accept them in the FNA state. The submitter is also investigating the possibility of exporting frozen blue shark trunks directly from the boat, but notes that FNA will not be acceptable for this market either.

Stu Morrison submits that no blue sharks will be landed if an FNA requirement is put in place, leading to the local southern bluefin tuna fishery (which catches blue sharks as a bycatch) suffering higher gear costs and lower catches because the majority of baits set will be taken by blue sharks. He also submits that an FNA policy will lead to an increase in blue shark numbers, which will in turn contribute to an increase of incidental catches of seabirds since they are vulnerable to being caught on hooks that are dragged to the surface near captured sharks. Stu Morrison submits blue sharks are highly productive and the population is not under threat.

Another HMS fisher, Jim McGlone, also submits that fishing vessels do not have the luxury of being able to separate shark from high value catch, which would be tainted by the smell of shark ammonia. If shark finning rules are put in place, Jim McGlone argues blue sharks will not be landed by longline vessels and the same shark will be caught over and over again, reducing the viability of the tuna longline fishery. The added burden will add to the number of vessels leaving the industry, which Jim McGlone submits is already critical.

#### *Spiny dogfish*

Environmental group submissions include spiny dogfish in the list of species that they consider not to be fully utilised at present and consider that it should be subject to FNA for the reasons outlined above.

Industry submitters generally consider that spiny dogfish should be managed with a fin ratio and should not be required to be landed in the FNA state. Southern Inshore submits that inshore fishers have access to markets for spiny dogfish that will no longer be viable if they are required to be landed FNA. They consider that a ratio approach would provide for additional utilisation of the species and that further analyses should be done over the next 1-2 years to assess the fin ratio rule for spiny dogfish.



DWG outlines that the purpose of the Act is to provide for the utilisation of fisheries resources while ensuring sustainability. DWG submits that while the sustainability of spiny dogfish (subject to a rigorous reporting regime, high observer coverage and Schedule 6 provision that requires balancing against annual catch entitlements – ACE) is not in question, a policy that incentivises return to the sea rather than utilisation runs counter to the purpose of the Act. DWG submits that not only does such a policy incentivise wastage; it actively imposes operational inconvenience and cost on the fisher.

#### 4.1.3.2 MPI response

Various environmental submissions draw attention to the conservation status of sharks, including highly migratory sharks listed on the IUCN list of threatened species. MPI notes that sustainability objectives are not the focus of the shark finning proposals, which are aimed at reducing wastage. Sustainability matters are addressed through existing provisions including catch limits under the QMS, and will be the subject of additional work in line with other NPOA-Sharks objectives. However, contrary to environmental group and form submissions, mako and porbeagle sharks are subject to a range of conservation and sustainability measures, including in New Zealand – where they are managed with catch limits under the QMS – and in the Pacific, where they are covered by a conservation and management measure for sharks adopted by the Western and Central Pacific Fisheries Commission.<sup>9</sup> In addition, as submitters point out, from September 2014 porbeagle shark will be subject to controls on exports in line with provisions under CITES.

Sea Shepherd and HSI suggest an FNA requirement to be in line with UNGA resolutions. MPI does not consider any UNGA resolution requires FNA, although States are called upon to consider using FNA, amongst other measures, to restrict fisheries conducted solely for the purpose of harvesting shark fins.<sup>10</sup> No fisheries in New Zealand are considered to be conducted solely for the purpose of harvesting shark fins.

MPI does not view the argument that requiring FNA landings aids species identification and catch reporting as particularly relevant to the New Zealand context, and certainly not for QMS species. As noted above, QMS species are readily identifiable and well-known by fishers. While the NPOA-Sharks does include an objective of increasing species-specific reporting of shark catches, most sharks reported under generic codes at present would likely be non-QMS species (such as the range of deepwater dogfish species that may be reported under the generic ‘deepwater dogfish’ code).

Likewise, some submissions suggest that removing fins onboard a vessel could hinder species identification and data collection (like age/size population structure and catch composition). While such data could be collected from the landed catch of sharks, it is most commonly gathered by observers at sea. This may pose some limitations with the representativeness of coverage, but at-sea data collection could be supplemented with additional collection of information from fish receivers if required (depending on the type of information required, this could potentially also be collected from processed fish). There are high levels of observer coverage in several key fisheries taking sharks, including the HMS sharks that are the subject of much environmental group attention.

The environmental group concern that the implementation of a fin ratio for mako and porbeagle may create a loophole for fishers to circumvent the finning ban requires careful

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<sup>99</sup> <http://www.wcpfc.int/doc/cmm-2010-07/conservation-and-management-measure-sharks>.

<sup>10</sup> UNGA Fisheries Resolution RES/67/79 provides support for the IPOA-Sharks and “calls upon States to take immediate and concerted action to improve the implementation of and compliances with existing....measures that regulate shark fisheries and incidental catch of sharks, in particular those measures which prohibit or restrict fisheries conducted solely for the purpose of harvesting shark fins and, where necessary, to consider taking other measures, as appropriate, such as requiring that all sharks be landed with each fin naturally attached”.

consideration. However, MPI is confident that existing QMS monitoring could be targeted to determine compliance with an over-arching finning ban, without unnecessary complications such as an FNA requirement. Allowing at-sea processing for QMS species would contribute to meeting the NPOA-Sharks goal of improving utilisation (while still banning finning). Other goals for shark conservation and management are covered under other NPOA-Shark goals and objectives, including those relating to sustainability, and collection of identification and biological data (meaning many of the cited benefits for an FNA approach do not necessarily apply for QMS species).

MPI considers sufficient data is available to set an appropriate ratio for QMS species. MPI proposes to contract an independent science provider to analyse all available data to set appropriate ratios. For species identified as being a higher risk of potential high-grading (i.e. mako and porbeagle, and any other QMS stocks with current high levels of shark finning, such as blue sharks), ratios could be set at the lower end of the estimated range.

Monitoring systems would be constructed to identify differences from the gazetted ratio (outside of accepted bounds) to allow any non-compliant behaviour to be readily identified. Monitoring options include at-sea boarding and vessel inspection, at-sea observers, inspections of unloads, retrospective analyses of landings data, and targeted assessments to judge the effectiveness of the finning ban. Operation of the finning ban will be reviewed after two years, with a particular focus on mako and porbeagle sharks. MPI will assess the effectiveness of the ratio approach with respect to decreasing waste and increasing full utilisation of these two species. These considerations could also be drawn on to develop an effective ratio-based option for blue sharks, if that option is chosen.

For blue sharks, the relatively low levels of full utilisation (10% landed dressed in 2012-13), coupled with the current lack of markets for the shark meat provide stronger incentives for fishers to land only the fins of the shark at present. While these incentives may continue to some extent after implementation of a finning ban, they would be countered by the seriousness with which reporting offences are treated as part of MPI's overall management system (i.e. any landing of fins in excess of the shark bodies landed would likely constitute an offence against not just the finning regulations but also other catch reporting requirements). It should also be noted that some licensed fish receivers are already declining to accept fin-only landings of blue sharks even without a finning ban in place. MPI considers opportunities to high-grade would be relatively limited, given that ratios would be checked on a per-trip basis. HMS sharks are typically caught on trips lasting five to seven days, meaning the volume of sharks retained on any one trip would be relatively small.

MPI recognises the impact of an FNA rule on potential utilisation of blue sharks, especially where fishers have identified available markets for blue shark trunks. As noted by some industry submitters, the purpose of the Act is to ensure sustainable utilisation of New Zealand's fisheries resources, and the FNA requirement has the potential to impact on utilisation and the ability of fishers to maximise the benefit from their quota holdings and catches of blue sharks. The suggested alternative of allowing fins to be artificially attached would potentially alleviate some of the concerns regarding the ability of fishers to process blue sharks to reduce the risk of ammoniation. Artificially attaching the fins would, as cited above, retain the 1:1 ratio of fins to bodies, addressing a key concern of environmental groups.

Industry submitters consider that spiny dogfish should be managed with the ratio approach, providing examples of fishers fully utilising spiny dogfish and explaining that these markets will not accept spiny dogfish in the FNA state. The current statistics indicate that the majority

of spiny dogfish (61%) are returned to the sea under Schedule 6 provisions. Of those retained, nearly half are converted into fishmeal and a third are landed as fins-only. After these states, landing spiny dogfish whole is the next most common practice, with nearly 20% of retained catch landed in this state. The FNA requirement will have no impact on either landings as fishmeal or as whole fish, leaving the small proportion landed as dressed as the only operational impact of an FNA requirement for spiny dogfish. Some industry submitters may have misinterpreted the discussion of FNA rules to mean that landings *must* occur in the FNA processed state. However, fishers would only be required to make a landing in that state if they wished to retain the fins separate from the remainder of the body. Alternatives to an FNA landing for spiny dogfish would be to land the fish whole, meal it, or to land it dressed (but not retain the fins).

#### 4.1.4 Non-QMS sharks

##### 4.1.4.1 Submissions received

Sanford Ltd supports the industry preference to introduce a fin ratio approach for both QMS and non-QMS species. Sanford Ltd submits a fin ratio control does not prevent utilisation opportunities, and ensures the integrity of catch data is maintained. Sanford Ltd submits New Zealand fishers and regulators are well experienced in dealing with conversion factors and a fin ratio approach is a natural extension to this.

Southern Inshore submits fishers should not be restricted to an FNA rule if there is a market for trunked products from non-QMS sharks. With the regulatory and legislative provisions included within the QMS, Wildlife Act and other associated Acts, Southern Inshore does not agree that the FNA rule is necessary for the management of New Zealand fisheries.

SNZ submits a number of non-QMS shark landings are partially or fully utilised (i.e. not just the fins being retained). The sharks may be processed for flesh, meal or liver products. Noting that what SNZ views as the primary measure to prevent finning (i.e. the removal of fins as a primary landed state) will apply across the board, including to non-QMS sharks, SNZ submits fishers should be able to maximise revenue by processing at sea, including detaching the fins and landing them as a separate product. If the fins can only be landed by being attached to the shark trunk, SNZ considers the restriction will result in a decreased opportunity to use the shark, and more dead sharks may be returned to the sea.

SNZ does however note that the sustainability of non-QMS sharks is not protected by the sustainability measures of the QMS. SNZ submits if landings of non-QMS sharks indicate the species should enter the QMS for reasons of either utilisation or sustainability, and the fin ratio is not constraining landings within acceptable limits, then the sharks should be introduced into the QMS. SNZ considers the consultation document advocates the use of FNA to curb any unwanted future expansion of shark finning. Industry can recognise the argument and the risk of an unconstrained fishery but does not support input controls in New Zealand fisheries.

NZFCF submits that a consistent approach should be taken across all shark species including both QMS and non-QMS, which should all be subject to a fin ratio approach for simplicity and to reduce operational difficulties and promote utilisation.

NZSA submits that it wants to ensure all non-QMS species (amongst others) are covered by an FNA approach, for the reasons outlined in the discussion above.

#### 4.1.4.2 MPI response

MPI notes that non-QMS species tend to be caught in lower quantities, and many are predominantly discarded, suggesting a relatively low market value at present. As industry submitters have noted, some processing at sea does occur (see annex two for further detail on landed states). Processing at-sea currently occurs for species including northern spiny dogfish, seal shark, thresher shark, broadnose sevengill shark, bronze whaler, and hammerhead shark (with processed catches ranging from 75 to 100 tonnes for northern spiny dogfish and seal shark respectively, to less than 20 tonnes for most of the remaining species in the 2012-13 fishing year). Many other non-QMS species are either returned to the sea, or – at present – retained for their fins. Once that option is no longer available, more returns to the sea are likely (both alive and dead), given the industry comments on how an FNA rule would impact their operations. Allowing fins to be artificially attached may result in fewer returns to the sea, however there may still be an increase in returns resulting from the requirement to land a product that may not have any market value.

Much of the routine monitoring of fisheries is focussed on ensuring the integrity of the QMS, because of the need to ensure catches remain within the overall catch limit, and that individuals are meeting their obligations under the Act. MPI therefore considers an FNA approach is more appropriate than a ratio at this time for non-QMS species, although industry's comments about a need for simple, consistent management can be appreciated.

## 4.2 B: TIMING OF SHARK FINNING BAN IMPLEMENTATION

### 4.2.1 Submissions received

Six industry submissions specifically comment on the timeframe for implementation of the finning ban (DWG, FINZ, NZFCF, Sanford Ltd, SNZ, and Southern Inshore). All of these submissions indicate conditional support for the 1 October 2014 implementation of the finning ban. DWG indicates support but notes that sufficient time will be required for operational transition. FINZ, Sanford Ltd, and SNZ support the October 2014 implementation date if agreement can be reached on the method of implementation as described in the SNZ submission (see above for discussion).

In general, industry submissions supported the early implementation date if FNA is not required in any fisheries. SNZ requests close collaboration with MPI on the specifics and wording of regulations and stresses the importance of industry education and liaison in order to implement policy decisions.

SNZ and Southern Inshore note the potential impact of the election on the ability of MPI to develop appropriately-worded, robust regulations and suggest that the implementation date be shifted later to allow more time for collaboration and liaising with the industry on the regulations and implementing new requirements that will be put in place as a result of the finning ban. Southern Inshore suggests that if a 2014 implementation date is not achievable, that the phased implementation outlined in the NPOA-Sharks be implemented (i.e. QMS stocks in 2014, all others with the exception of blue shark in 2015, and blue shark in 2015).

Submissions from environmental groups are unanimous in their support of the 1 October 2014 implementation date and several submitters suggest that the timeframe be brought forward even further if possible. Submissions from pupils at Western Springs High School and the submission organised by Hon Trevor Mallard are also supportive of the 1 October 2014 implementation date at the latest.

## 4.2.2 MPI response

MPI is confident that the October 2014 implementation date is achievable for all species. MPI acknowledges the need to work closely with industry on implementation and uptake of new regulations, especially so with the October 2014 implementation date. A phased implementation date would not lessen time pressures since the NPOA-Sharks (and submitters) envisage that at least some species would be covered by the ban from 2014, with the remainder covered by 2015 or 2016.

MPI currently has several work streams ongoing to develop appropriate regulations and consequential amendments to ensure smooth implementation. A communications plan is being developed which will include liaising with industry on the new regulations and operational changes that will need to be made.

The October 2014 implementation date also provides two years of monitoring within the timeframe set in the NPOA-Sharks, during which provisions may be amended or reviewed if necessary.

## 4.3 C: DEALING WITH UNWANTED SHARK CATCHES

### 4.3.1 Submissions received

The proposed amendments to Schedule 6 of the Act to provide fishers options to deal with unwanted shark catches are specifically commented on in seven industry submissions, four environmental group submissions, one individual submission, and in the Greenpeace NZ form submission. Almost all submitters who commented on these proposals supported a change to the existing Schedule 6 provisions.

Industry submissions stress the importance of the Schedule 6 changes to give fishers a legal option for coping with unwanted sharks that are brought on board the vessel dead. The NZFCF and Southern Inshore submit that all shark species should be included in the new provisions. Additional industry submitters (FINZ, Sanford Ltd, SNZ) consider that changes should also be made to the existing Schedule 6 provisions for spiny dogfish, such that live returns of spiny dogfish should not be counted against a fisher's ACE (as is proposed for the HMS sharks). Reasons supporting the inclusion of additional species include not 'over-complicating' the regulatory system, and consistency of approach between spiny dogfish and other species (based on the submission that there is no good reason to require live returns of spiny dogfish to be covered with ACE).

Environmental submissions generally support the changes in order to ensure that there are incentives for fishers to release sharks alive, and to promote continued accurate reporting of catches of the pelagic shark species. Most of the submitters (HSI, NZSA, Wellington Underwater Club, Greenpeace form submission) comment on the need for increased observer coverage and/or electronic monitoring to ensure that fishers used the new provisions only as appropriate and did not either return dead sharks and report them as alive, or catch live sharks and kill them prior to returning them to the sea. HSI also suggests that the life status of released sharks should be assessed and reported by observers in order to factor any post-release mortality into the total allowable commercial catch (TACC).

NZSA and Shark Advocates International express concern with the proposed changes. NZSA believes that the changes will not encourage fishers to release HMS shark species alive, having heard anecdotal reports that fishers will likely kill the sharks captured alive to retrieve their fishing gear. Shark Advocates International believes that requiring landing of the sharks provides for better accounting of actual mortality of sharks and that this information is

particularly important for porbeagles in relation to requirements under CITES. They note that fishers usually catch live sharks that then often die as a result of handling practices. They submit that allowing dead discards would likely reduce the incentive to avoid catching these species. However, NZSA does express reserved support for the changes and expects to see a large proportion of sharks continue to be released alive as well as increased observer coverage and/or electronic monitoring to verify this.

Sunkita Howard supports the changes to Schedule 6 and also considers that provisions for spiny dogfish should be amended such that live releases would no longer count against ACE. The submitter considers that the better reporting expected from such a change would allow for better management of spiny dogfish.

#### 4.3.2 MPI Response

MPI agrees with the majority of submitters that the proposed changes to Schedule 6 for mako, porbeagle and blue sharks are necessary and will support the implementation of the finning ban while ensuring that shark catches continue to be accurately reported. If fishers are not provided with a legal option for discarding catches of these sharks when dead, MPI considers illegal discarding is likely to occur. In this situation, the quality of data on reported catches would deteriorate substantially.

With regards to the expressed interest in including spiny dogfish in the amended provisions allowing for live releases not to be counted against ACE, MPI considers that it would be difficult for either fishers or compliance officers to effectively determine the life status of spiny dogfish (i.e. whether it is 'live and likely to survive'), meaning that monitoring compliance would not be feasible.

In general, mako, porbeagle, and blue sharks are caught in limited quantities. For trawl vessels, most catches are only one or two individuals in any given tow. For surface longline vessels there may be larger quantities of sharks but they are brought to the vessel one at a time, allowing for an assessment of life status. Substantial observations also exist on current life status, providing a bench mark for comparison once the changes are made. Spiny dogfish are caught at variable rates, but in some trawl fisheries catches can average around 600 kilograms per tow (roughly 300 fish). At this high volume, it would be difficult for anyone to quantify the actual amount of fish that are dead or alive. Observer coverage would not solve the issue as the observer does not have time to sort through 600 kilograms of spiny dogfish confirming the life status of the fish prior to their return to the sea.

Environmental groups raised valid concerns about the need for adequate monitoring in general (including observer coverage and electronic monitoring), and about the risk of fishers catching sharks alive and killing them before returning them to the sea in particular. MPI is not prepared to specify a target for observer coverage in relevant fisheries, but through the annual fish plan process, monitoring needs will be assessed and observer coverage and/or electronic monitoring will be prioritised accordingly. This is also in line with objectives in the NPOA-Sharks.

MPI is also planning to use analytical tools like retrospective analysis and comparison with previously collected data to assess fisher compliance with the new provisions. There is robust information available from previous studies on the proportion of sharks that arrive at surface longline vessels alive. Comparisons with this should allow MPI to infer if the provisions are being complied with.

Information on live status at release is already routinely collected in relevant fisheries such as surface longline fisheries. Assessing survival rates of released sharks can be challenging, but work is underway on this question. An allowance is made within the TAC for ‘other sources of fishing-related mortality,’ which would include any post-release mortality.

A few submitters commented that retaining the sharks will allow for better information to be collected about the biology of the species. MPI observers can measure and sample any shark caught at sea, providing a wealth of potential information. The return of the body for scientific purposes may not be very useful as storage conditions would not likely be ideal for scientific sampling. Where a specific project may require the collection of information beyond that which observers can collect, provisions are in place for MPI observers to retain the necessary specimens.

MPI appreciates the concerns and questions raised by all submitters, and agrees that comprehensive monitoring will be important to ensure that the amendments to Schedule 6 are used as intended. MPI considers that the Schedule 6 amendments are a necessary and important part of the implementation of the finning ban.

## 4.4 PROPOSED IMPLEMENTATION, MONITORING AND REVIEW

### 4.4.1 Subsidiary changes and penalty provisions

Implementation of the shark finning ban is proposed to involve changes to the following pieces of legislation:

Legislation	Change
Fisheries Act 1996	Changes to Schedule 6 to allow for return of dead blue, mako and porbeagle sharks to the sea
Fisheries (Commercial Fishing) Regulations 2001	<ul style="list-style-type: none"> <li>• Interpretation section: Define ‘shark’ and ‘fins naturally attached’</li> <li>• Create new regulation prohibiting shark finning</li> <li>• Part 3: Regulate requirement to separate fins by species</li> <li>• Part 6: Define offence level of finning regulation</li> </ul>
Fisheries (Reporting) Regulations 2001	<ul style="list-style-type: none"> <li>• Remove ‘dried fins’, ‘dried fins by-product’ (DSB), ‘wet fins’, ‘wet fins by-product’ (WSB) definitions</li> <li>• Update ‘shark fins’ (as by-product) definition (SHF)</li> <li>• Provide ‘FNA’ state code definition</li> <li>• Add new destination type code ‘Z’ (for reporting of dead mako, porbeagle and blue shark, with returns to be recorded against ACE) and amend destination type code ‘X’ to clarify only covers live returns and is not counted against ACE</li> <li>• Add new Part 6B to allow for the return of dead sharks of particular species</li> </ul>
Conversion Factor Notice	<ul style="list-style-type: none"> <li>• Remove ‘fins’ conversion factor and specific fin conversion factors for blue shark, mako shark and porbeagle shark.</li> <li>• Add in FNA conversion factor/s</li> </ul>
Shark Finning Circular (new)	<ul style="list-style-type: none"> <li>• List species for which a ratio is provided</li> <li>• Specify ratios for species/species groups</li> </ul>

It is proposed that the shark finning regulations be subject to the offence provisions in regulation 85(2) of the Fisheries (Commercial Fishing) Regulations 2001. Under regulation 85(2), the penalty for non-compliance with the over-arching regulation or any consequential regulations is a fine not exceeding \$20,000. Because landing fins not in compliance with the regulations would likely also involve other offences (e.g. reporting offences), the standard penalty regime included in the Act would also apply. Gross non-compliance would be subject to penalties outlined in section 252 of the Act, which provides for fines up to \$250,000 and/or imprisonment for a term up to 5 years.

#### 4.4.2 Submissions on implementation, monitoring and review

Several industry submitters stress the importance of being involved in the drafting of new regulations and implementation of new reporting requirements. FINZ, SNZ, NZFCF and Southern Inshore specifically request that the development and implementation of any rules, regulations or codes be consulted and discussed with them directly. They submit that industry has not only a vested interest in the efficiency of New Zealand's fisheries but can also offer insight, knowledge and experience to policy analysts. In addition, these submitters consider that effective communication will be vital to getting buy-in from industry for effective implementation of the ban.

Southern Inshore notes that MPI has committed to carrying out research into methods to avoid unwanted catches of sharks and into best practice methods to maximise survival of sharks released alive after being caught. Southern Inshore supports this research, but recommends that it should be predominantly Crown funded, as the need for the research has arisen from public and international pressure.

As noted above, environmental submitters including Greenpeace from submissions, NZSA, HSI, and Wellington Underwater Club submit on the need for effective monitoring. These submitters recommend increased observer coverage, with suggestions ranging from a minimum of 20% observer coverage to 100% observer coverage on fisheries that catch sharks. These submissions also suggest the use of electronic monitoring. SNZ understands the need for monitoring both at sea and of catch returns. SNZ expects that MPI will undertake monitoring on a cost-effective basis and consider the use of electronic monitoring where feasible.

#### 4.4.3 Non-regulatory measures

The implementation of the shark finning prohibition will be accompanied by collaboration with industry, research projects, the development of educational programmes, and non-regulatory measures including voluntary codes of conduct and operational procedures.

MPI has committed to carrying out research into methods to avoid unwanted catches of sharks and into best practice methods to maximise survival of sharks released alive after being caught. This research is an important aspect of the finning ban, most notably for blue sharks where they are caught in large volumes and often released alive.

Educational programmes for fishers include the distribution of codes of conduct and operational procedures that provide information on best practice for release sharks alive, avoidance of unwanted catches, better identification of shark species, and how to accurately report all catches and processing of sharks.

#### 4.4.4 Monitoring

New Zealand's fisheries management system has comprehensive monitoring systems in place that include rigorous reporting requirements for fishers, at-sea observers, inspections at-sea, in port, and of fish receiving business, as well as retrospective analyses of data collected. Existing systems will be drawn upon to monitor new regulations. Future monitoring will need to be targeted appropriately and effectively.

In preparation for the shark finning ban, information on shark catches will be collated, including life status at the vessel, handling, releases, and processing of retained sharks. This will help to set a baseline for comparison to data collected after the implementation of the ban.



Once the finning ban is in place, usual monitoring will continue, with additional focus on several aspects of the new regime. Landed states of shark catches, in particular the fin to greenweight ratios will be monitored to assess the accuracy of the ratio established, and also to determine any instances of non-compliance. This will require examination of trends across the fishery and also from individual fishers. Trends in retained and released catches and life status of release will be monitored to ensure that Schedule 6 provisions are being used appropriately and there are no significant changes in the proportion of sharks that are arriving at vessels already dead.

At-sea observers will continue to provide information on the accuracy of conversion factors and the fin-greenweight ratios. Observers also collect valuable information on the life status of sharks upon their arrival at vessels, and provide insight into standard practices onboard vessels, including their compliance with the finning ban. The information collected by observers may also be used to compare practices across a fleet to determine if behaviour is modified when an observer is onboard.

#### 4.4.5 Enforcement

Compliance activities will be consistent with the current approach taken in New Zealand fisheries. This includes the use of the 'VADE' (Voluntary, Assisted, Directed and Enforced) model, which operates on a collaborative basis and sees enforcement working with fishing vessels to comply. Action is taken where there is deliberate or gross non-compliance identified.

Enforcement of compliance with the fin-greenweight ratio will be similar to that used for conversion factors in general, where there is expected to be some variation around the specified number. Sampling by observers at-sea will provide a view on how wide the standard variation may be and allow for compliance entities to determine where a ratio will be significantly different to that defined in regulation. In addition, statistical analyses will be used to identify potential systematic non-compliance.

#### 4.4.6 Review

The objective in the NPOA-Sharks 2013 to eliminate finning in New Zealand provided until 1 October 2015 to implement the ban for all species except for blue shark and one additional year to include blue shark. It is proposed that the finning ban be implemented for all species for 1 October 2014. The intention is to use the additional two years allowed for in the NPOA-Sharks 2013 to actively monitor the finning ban and ensure that the settings are pragmatic, effective, and that finning is eliminated.

Review of all aspects of the regulatory package will be ongoing, with confirmation that conversion factors and ratios are appropriate, and that fishers are able to comply with all regulations. The regulatory framework may be amended to ensure that any problems identified as part of this review are addressed.

It is proposed that the regulation be drafted in a manner that allows the Minister, by Gazette notice or other tool, to move species between the two approaches as appropriate. This allows the regime to be flexible to changes in fishing practices and responsive if concerns are identified.

The NPOA-Sharks 2013 will be fully reviewed beginning in 2017 which will provide an opportunity for a high level review of the effectiveness and implementation of the shark finning prohibition and associated regulatory framework.

## 5 Conclusion

A ban on shark finning is required to meet Ministers' obligations under the NPOA-Sharks, to meet the objectives of reducing wastage in shark fisheries, and to demonstrate New Zealand's commitment to international shark conservation and management initiatives. In assessing the best way to implement a ban, MPI has considered the likely effectiveness of the rules (i.e. how confident we could be that finning was no longer occurring, as well as broader considerations about the integrity of the management system). MPI has also considered the impact of rules on fishers, noting in particular that many fishers landing sharks are already utilising the whole shark rather than just the fins and that the impact on these operations should be minimised.

Further, it is considered appropriate to provide industry some options for improving utilisation, where this is deemed feasible. To this end, the rules put in place need to be practical but readily able to be monitored. MPI's preferred option is a combination of a ratio approach for highly utilised fisheries managed under the QMS, along with two other species (mako and porbeagle) for which there are opportunities to increase utilisation. It is proposed that all other species, including all non-QMS and two QMS species (blue shark and spiny dogfish), should be landed with fins attached (either naturally or artificially) if the fins are to be retained.

Two alternative options are also provided that place different weightings on the effectiveness and impact criteria. The first of these options is to provide a ratio for all QMS species including blue sharks and spiny dogfish. This option would have a lower impact on fishers and would provide opportunities to improve utilisation and minimise wastage in these fisheries. This option relies on the QMS as the basis for monitoring compliance; strict reporting requirements and ongoing analyses of data would provide the information required to enforce this approach. MPI considers this option would still meet both the effectiveness and impact criteria, but it would provide less certainty of a 1:1 ratio of shark fins to trunks, particularly for species such as blue sharks where some residual incentives to retain more fins than trunks may remain.

A second alternative would be to require the fins to be landed attached for porbeagle and mako shark in addition to non-QMS species, blue shark, and spiny dogfish. The increased certainty of monitoring the 1:1 fin to body ratio would provide confidence for environmental stakeholders that no finning was occurring in these fisheries. However, the impacts on the utilisation of these species would be increased and it is likely that returns of sharks to the sea would increase, potentially increasing wastage in these fisheries. This option is therefore less likely to meet the criteria of minimising impacts on fishers or achieve the objective of reducing waste.

It is also considered that changes to the provisions for the return of quota species to the water (i.e. Schedule 6 of the Act) should be made to ensure better compliance with shark finning rules and to provide fishers with a legal avenue for unwanted catches while encouraging accurate reporting.

Overall, MPI considers New Zealand's approach to conservation and management of sharks will in effect define a new international best practice by both prohibiting finning and applying catch limits in the case of QMS species, coupled with a rigorous reporting framework.

The preferred approach and alternatives, including those put forward by stakeholders, are summarised in table 2 below.

Table 2: Summary of preferred approach and alternatives for prohibiting shark finning

Option and description	Rationale
<b>Means of implementing finning ban</b>	
<p><b>Option 1</b> Apply fins naturally or artificially attached to all non-QMS species and ratio approach to all QMS species (rig, elephantfish, dark and pale ghost shark, school shark, porbeagle, mako, and blue sharks and spiny dogfish (with review after two years)).</p>	<p>MPI considers that for QMS species, existing QMS monitoring could be targeted to determine compliance with the over-arching finning ban without unnecessary complications such as an FNA requirement. Allowing at-sea processing for QMS species would contribute to meeting the NPOA-Sharks goal of improving utilisation (while still banning finning). The ratio provides the opportunity for fishers to maximise the value from retained catches.</p> <p>QMS species are comprehensively monitored and are generally well-utilised. Existing reporting and monitoring systems could readily be adapted to monitor compliance with a fin ratio for any QMS species. Other goals for shark conservation and management are covered under other NPOA-Shark goals and objectives, including those relating to sustainability, and collection of identification and biological data (meaning many of the cited benefits for an FNA approach do not necessarily apply for QMS species).</p> <p>For some QMS species with lower levels of utilisation at present (e.g. blue shark and to a lesser degree mako and porbeagle), the ratio approach would allow for greater utilisation and less wastage than a requirement to land sharks with fins attached. It is considered likely that fishers would return most or all of their catches to the sea (whether alive or dead) if an FNA rule was in place.</p> <p>Concerns about fishers 'high-grading' (i.e. landing more fins than trunks but still remaining within the ratio, taking account of varying ratios by species, size or other variables) could be addressed by setting a conservative ratio.</p> <p>It is considered there is less need for processing at sea to occur for non-QMS species, where catches are lower in volume and more intermittent. Baseline monitoring is also lower for non-QMS species, leaving less scope for monitoring compliance with a ratio approach.</p>
<p><b>Option 2 (preferred)</b> Apply fins naturally or artificially attached to spiny dogfish, blue shark, and all non-QMS species and apply ratio approach to QMS species with current or potential for high utilisation (rig, elephantfish, dark and pale ghost shark, school shark, porbeagle, mako (with review after two years));</p>	<p>A fin ratio approach was accepted by both industry and some environmental stakeholders as having the least impact on industry. Environmental groups in support saw this as appropriate in fisheries where existing utilisation is high (i.e. limited or no fin-only landings). Industry submitters note a ratio approach would also enable them to improve utilisation in fisheries where some fin-only landings occur at present (with the likely alternative being such sharks would be discarded).</p> <p>This option provides a different balance between allowing utilisation to improve (through a ratio approach), but retaining greater surety that no finning is occurring (i.e. retaining a 1:1 ratio between shark bodies and fins) in higher risk fisheries.</p> <p>Around 30-40% of mako and porbeagle landings are currently processed at sea, and once fin-only landings are banned, this option would provide industry with an opportunity to demonstrate that utilisation can improve. As above, concerns about how to set a ratio so that fishers could not 'high-grade' could be addressed by setting a conservative ratio.</p> <p>There may be limited scope to improve utilisation through allowing processing at sea, and limited impact on at-sea processing, for blue shark and spiny dogfish respectively. This means there may be less of a need for a ratio approach to be applied in these fisheries. Having an FNA requirement would give greater certainty that no fins were retained without the corresponding bodies (although in reality at least for blue shark few sharks are likely to be landed). Allowing fins to be artificially (rather than naturally) attached may give fishers some additional options and help to overcome some of the industry concerns about the need for processing at</p>

Option and description	Rationale
	<p>sea in order to maintain the quality of the product.</p> <p>It is also considered there is less need for processing at sea to occur for non-QMS species, where catches are lower in volume and more intermittent. Baseline monitoring is also lower for non-QMS species leaving less scope for monitoring compliance with a ratio approach.</p>
<b>Other alternatives put forward by stakeholders</b>	
<p><b>Option 3</b> Ratio approach would apply to <b>high utilisation QMS species</b> (rig, elephantfish, dark and pale ghost shark, school shark); Apply <b>fins naturally</b> or <b>artificially attached</b> to <b>mako, porbeagle, spiny dogfish, blue shark</b>, and all non-QMS species.</p>	<p>This option places greater weight on certainty that finning is not occurring through direct checks that there is a 1:1 ratio (rather than relying on use of the QMS framework for reporting, monitoring and analysis).</p> <p>This option recognises that a ratio approach is appropriate where shark finning is not currently occurring but applies FNA to all other species. Submitters identified benefits of an FNA approach including: reduced enforcement burden; improved information on species and quantities of sharks landed; high-grading is impossible; and value of the finished product can be increased. MPI considers the most relevant of these factors to the NZ context is the fact that high-grading is not possible (i.e. fishers can only land fins in a 1:1 ratio to shark bodies). Other identified benefits are less relevant to NZ and/or are achieved through other parts of the existing management system.</p> <p>Allowing fins to be artificially (rather than naturally) attached may give fishers some additional options and help to overcome some of the industry concerns about the need for processing at sea in order to maintain the quality of the product.</p>
<p>- FNA for all species</p>	<p>This option places much greater reliance on certainty that finning is not occurring, without necessarily considering overall impacts on NPOA-Sharks goals of reducing wastage. While confidence would be high that no excess fins were being landed, many fisheries in which finning was not occurring anyway would also be impacted, and options for increasing utilisation in other fisheries would also be limited.</p> <p>Allowing fins to be artificially (rather than naturally) attached may give fishers some additional options and help to overcome some of the industry concerns about the need for processing at sea in order to maintain the quality of the product.</p> <p>Some of the cited benefits of an FNA approach such as improved biological and landings information are achieved in New Zealand through other means.</p>
<p>- Ratio for all species</p>	<p>Submitters identified benefits including consistency and simplicity of rules; this would allow fishers to maximise the value of their shark catches; and would allow increased utilisation and reduced wastage for species that might otherwise be discarded dead if an FNA requirement is put in place.</p>
<b>Timing – 1 October 2014</b>	
<p><b>Option 1 (Preferred)</b> Implementation for all species from 1 October 2014</p>	<p>The shortened timeframe for implementation is feasible for all species and will promote New Zealand's image overseas as well as providing comfort domestically that finning has been banned. This date also provides two years to adjust regulations as required to ensure finning is eliminated within the timeframe set in the NPOA-Sharks.</p>
<p><b>Option 2</b> Phased approach beginning 1 October 2014, whereby framework is established and applied to some species in 2014 and to the remainder in 2015.</p>	<p>Would provide longer adjustment time for industry, but this is no longer thought to be necessary.</p>
<b>Alternatives put forward by stakeholders</b>	
<p>- Implementation by 1 April or 1 October 2015 if not able to implement by 2014;</p>	<p>Noting the tight timeline for a 1 October 2014 implementation date, it was suggested that one of these alternative dates might be more realistic. Industry also had conditional support for early implementation depending on the approach chosen, noting that successful implementation and uptake of</p>

Option and description	Rationale
	the rules would be improved if the option chosen has wide-spread industry support.
- Earlier implementation.	Some submitters suggested 'immediate' implementation, but changes need to be made at the start of the fishing year for continuity of catch reporting.
<b>Dealing with unwanted shark catches</b>	
<b>Proposed option (Preferred)</b> Amend Schedule 6 of the Fisheries Act 1996 to allow dead releases as well as live releases for blue shark, mako shark, porbeagle shark (subject to conditions including dead releases being covered by ACE).	Amending Schedule 6 for mako, porbeagle and blue sharks will help maintain the integrity of the QMS by providing an option for fishers who catch dead sharks for which there is limited or no market. The need to cover dead (but not live) releases with ACE provides an incentive for sharks to be released alive, while providing fishers with a legal option for discards makes it more likely that such discards will be reported, so data quality can be maintained.
<b>Alternatives put forward by stakeholders</b>	
- No changes to Schedule 6	Some submitters considered requiring all sharks to be landed would provide for better accounting of actual mortality, while allowing dead discards was seen as likely to reduce the incentive to avoid catching these species. However, MPI considers this situation creates a high risk of mis-reporting, with associated deterioration of data on shark catches. Incentives for live release are seen to remain, including the fact that only dead releases would need to be covered with ACE.
- Including spiny dogfish in amendments to Schedule 6 provisions allowing for live releases not to count against ACE	Consistency with proposals for other QMS sharks i.e. blue, mako and porbeagles, and to reduce costs to industry when live sharks are released. MPI considers the different fishery circumstances justify a different approach for spiny dogfish, since it would be difficult to verify the life status of any returns.

## 6 Recommendations

The Ministry recommends that you:

1)	<p><b>Agree</b> to implement a ban on shark finning in New Zealand through an overarching regulation disallowing the landing of only the fins of a shark,<sup>11</sup> and consequential amendments to fisheries legislation including:</p> <ul style="list-style-type: none"> <li>• Fisheries (Commercial Fishing) Regulation 2001</li> <li>• Fisheries (Reporting) Regulations 2001</li> <li>• Schedule 6 of the Fisheries Act 1996</li> </ul> <p style="text-align: right;"><b>Agreed / Not Agreed</b></p> <p>And</p> <p><b>Note</b> changes will also be required by gazette notice to the Fisheries (Conversion Factors) Notice 2011.</p> <p style="text-align: right;"><b>Noted</b></p>
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<sup>11</sup> For the purposes of these regulations, "shark" is defined as Class Chondrichthyes – excluding Batoidea.

AND

2) Either

Option 1

Agree to apply a fins naturally or artificially attached requirement to:

- All non-QMS species

And

Agree to allow landings of shark fins in accordance with a gazetted ratio for:

- All QMS species (with a review after 2 years)

Agreed / Not Agreed

OR

Option 2 (Preferred option)

Agree to apply a fins naturally or artificially attached requirement to:

- All non-QMS species
- Spiny dogfish (*Squalus acanthias*)

Blue shark (*Prionace glauca*)

And

Agree to allow landings of shark fins in accordance with a gazetted ratio for:

- School shark (*Galeorhinus galeus*)
- Rig (*Mustelus lenticulatus*)
- Pale ghost shark (*Hydrolagus bemisi*)
- Dark ghost shark (*Hydrolagus novaezealandiae*)
- Elephantfish (*Callorhynchus milii*)
- Mako shark (*Isurus oxyrinchus*)
- Porbeagle shark (*Lamna nasus*)

(with a review after 2 years)

Agreed / Not Agreed

OR

Option 3

Agree to apply a fins naturally or artificially attached requirement to:

- All non-QMS species
- Spiny dogfish (*Squalus acanthias*)
- Blue shark (*Prionace glauca*)
- Mako shark (*Isurus oxyrinchus*)
- Porbeagle shark (*Lamna nasus*)

And

Agree to allow landings of shark fins in accordance with a gazetted ratio for:

- School shark (*Galeorhinus galeus*)
- Rig (*Mustelus lenticulatus*)
- Pale ghost shark (*Hydrolagus bemisi*)
- Dark ghost shark (*Hydrolagus novaezealandiae*)
- Elephantfish (*Callorhynchus milii*)

Agreed / Not Agreed

AND

Note that you may instead select any other combination of fins naturally or artificially attached and ratio for specified shark species as you see fit

Noted

AND		
3)	EITHER	
	Option 1 (Preferred option)	
	Agree to implement the ban on shark finning for all species from 1 October 2014	Agreed / Not Agreed
	OR	
	Option 2	
	Agree to implement the ban in a phased approach, beginning with QMS species on 1 October 2014	Agreed / Not Agreed
AND		
4)	Agree to amend Schedule 6 provisions to allow for the return of dead sharks to the sea, as long as they are reported and counted against ACE and the TACC for:	
	<ul style="list-style-type: none"> <li>• Mako shark (<i>Isurus oxyrinchus</i>)</li> <li>• Porbeagle shark (<i>Lamna nasus</i>)</li> <li>• Blue shark (<i>Prionace glauca</i>)</li> </ul>	Agreed / Not Agreed
AND		
5)	Agree for MPI to draft a Cabinet Paper reflecting your decisions in order to promulgate regulations to ban shark finning	Agreed / Not Agreed

Scott Gallacher  
Deputy Director-General  
Regulation and Assurance  
for Director General

Hon Nathan Guy  
Minister for Primary Industries  
  
/ / 2014

## Annex One: Shark landed catch information

Table 3: Shark live releases (tonnes), catches (tonnes) and proportions by processed state for all New Zealand fisheries. Shading indicates QMS species.

All fisheries 2012-13	Species	Sch. 6 live releases* (tonnes)	Total landings (tonnes)	Not retained		Retained and landed							
				SPD returns	Discarded (non-QMS)	Greenweight (whole)	Dressed	Gutted	Headed and Gutted	Filletted	Fins	Livers	Fishmeal
Spiny dogfish	SPD		5,016.79	0.61	0	0.07	0.01	0	0	0	0.12	0	0.19
School shark	SCH	2.02	3,149.55	0	0	0.01	0.90	0	0.08	0	0	0	0
Ghost shark	GSH		1,710.03	0	0	0.03	0.91	0.02	0	0	0	0	0.01
Elephantfish	ELE		1,426.63	0	0	0	0.10	0.89	0	0	0	0	0
Rig	SPO	9.75	1,298.82	0	0	0.02	0.87	0	0.10	0	0.01	0	0
Blue shark	BWS	23.16	717.06	0	0	0.01	0.08	0	0	0	0.86	0	0
Pale ghost shark	GSP		700.26	0	0	0	0.90	0	0.02	0	0	0	0.08
Other sharks and dogfish	OSD		585.34	0	0.43	0	0	0	0	0	0	0.21	0.36
Carpet shark	CAR		336.72	0	0.84	0	0	0	0	0	0.16	0	0
Seal shark (black shark)	BSH		313.94	0	0.27	0	0.22	0	0.02	0	0	0.21	0.28
Shovelnose dogfish	SND		176.56	0	0.38	0.01	0.12	0	0	0	0	0.35	0.14
Longnose chimaera	LCH		116.54	0	0.14	0.03	0	0	0	0	0	0	0.83
Northern spiny dogfish	NSD		92.06	0	0.29	0.02	0.46	0	0.02	0	0.16	0	0.05
Porbeagle shark	POS	11.78	82.18	0	0	0	0.32	0	0	0	0.58	0	0.03
Mako shark	MAK	3.54	81.96	0	0	0.01	0.39	0	0	0.05	0.50	0	0.04
Baxter's lantern dogfish	ETB		40.53	0	0.13	0.02	0	0	0	0	0	0.11	0.73
Thresher shark	THR		36.77	0	0.48	0.01	0.37	0	0.02	0.05	0	0	0.06
Slender smooth-hound	SSH		34.92	0	0.78	0.05	0.01	0	0.15	0	0	0	0.01
Deepwater dogfish	DWD		34.67	0	0.40	0	0	0	0	0	0	0	0.60
Lucifer's dogfish	ETL		32.20	0	0.48	0	0	0	0	0	0	0	0.52
Leafscale gulper shark	CSQ		29.93	0	0.76	0	0	0	0	0	0	0.23	0.01
Broadnose sevengill shark	SEV		19.59	0	0.44	0	0.50	0	0.04	0	0	0	0.01
Purple chimaera	CHG		13.32	0	0.90	0	0	0	0	0	0	0	0.10



All fisheries 2012-13	Species	Sch. 6 live releases* (tonnes)	Total landings (tonnes)	Not retained		Retained and landed							
				SPD returns	Discarded (non-QMS)	Greenweight (whole)	Dressed	Gutted	Headed and Gutted	Filleted	Fins	Livers	Fishmeal
Bronze whaler shark	BWH		10.52	0	0.05	0.07	0.70	0	0.12	0	0.05	0	0
Hammerhead shark	HHS		9.64	0	0.02	0.03	0.79	0	0.15	0	0	0	0
Longnose velvet dogfish	CYP		8.20	0	0.08	0.01	0	0	0	0	0	0	0.92
Prickly dogfish	PDG		4.20	0	0.94	0	0	0	0	0	0	0	0.06
Sixgill shark	HEX		4.05	0	0.99	0	0	0	0	0	0	0	0.01
Plunket's shark	PLS		3.20	0	0.99	0	0	0	0	0	0	0	0.01
Smooth skin dogfish	CYO		3.04	0	0.69	0.03	0	0	0	0	0	0	0.28
Chimaera spp.	CHI		2.17	0	1.00	0	0	0	0	0	0	0	0
Cat shark	APR		1.16	0	0.03	0.11	0	0	0	0	0	0	0.86
Sharpnose sevengill shark	HEP		0.98	0	0.97	0.02	0.01	0	0	0	0	0	0
Chimaera, purple	CHP		0.86	0	0.04	0.27	0	0	0	0	0	0	0.69
Cat shark	CSH		0.30	0	1.00	0	0	0	0	0	0	0	0
Dawson's cat shark	DCS		0.16	0	1.00	0	0	0	0	0	0	0	0
Bigeye thresher	BET		0.09	0	1.00	0	0	0	0	0	0	0	0
Pointnose blue ghost shark	HYP		0.07	0	0.14	0	0	0	0	0	0	0	0.86
Portuguese dogfish	CYL		0.06	0	0.66	0.34	0	0	0	0	0	0	0
Prickly shark	ECO		0.04	0	0	0.05	0	0.95	0	0	0	0	0
Roughskin dogfish	SCM		0.03	0	0	1.00	0	0	0	0	0	0	0
Widenose chimaera	RCH		0.02	0	0.94	0.06	0	0	0	0	0	0	0
McMillan's cat shark	PCS		0	0	1.00	0	0	0	0	0	0	0	0
<b>Totals</b>			<b>16,095.15</b>	<b>0.19</b>	<b>0.05</b>	<b>0.03</b>	<b>0.41</b>	<b>0.08</b>	<b>0.03</b>	<b>0</b>	<b>0.09</b>	<b>0.02</b>	<b>0.10</b>

\*Live releases of sharks are not included in total landings or the processed states information

## Annex Two: NPOA-Sharks goals and objectives

Goal	Five-year objectives
<p><b>Biodiversity and long-term viability of shark populations</b></p> <p>1. Maintain the biodiversity and long-term viability of New Zealand shark populations based on a risk assessment framework with assessment of stock status, measures to ensure any mortality is at appropriate levels, and protection of critical habitat.</p>	<p><b>Objective 1.1</b> Develop and implement a risk assessment framework to identify the nature and extent of risks to shark populations.</p> <p><b>Objective 1.2</b> Systematically review management categories and protection status to ensure they are appropriate to the status of individual shark species.</p> <p><b>Objective 1.3</b> For shark species managed under the QMS, undertake an assessment to determine the stock size in relation to <math>B_{MSY}</math> or other accepted management targets and on that basis review catch limits to maintain the stock at or above these targets.</p> <p><b>Objective 1.4</b> Mortality of all sharks from fishing is at or below a level that allows for the maintenance at, or recovery to, a favourable stock and/or conservation status giving priority to protected species and high risk species.</p> <p><b>Objective 1.5</b> Identify and conserve habitats critical to shark populations.</p> <p><b>Objective 1.6</b> Ensure adequate monitoring and data collection for all sectors (including commercial, recreational and customary fishers and non-extractive users) and that all users actively contribute to the management and conservation of shark populations.</p>
<p><b>Utilisation, waste reduction and the elimination of shark finning</b></p> <p>2. Encourage the full use of dead sharks, minimise unutilised incidental catches of sharks, and eliminate shark finning in New Zealand</p>	<p><b>Objective 2.1</b> Review and implement best practice mitigation methods in all New Zealand fisheries (commercial and non-commercial).</p> <p><b>Objective 2.2</b> Minimise waste by promoting the live release of bycaught shark species, and develop and implement best practice guidelines for handling and release of live sharks.</p> <p><b>Objective 2.3</b> Develop and implement best practice guidelines for non-commercial fishing and handling of sharks.</p> <p><b>Objective 2.4</b> Eliminate shark finning in New Zealand fisheries by 1 October 2015, with one exception.<sup>12</sup></p>
<p><b>Domestic engagement and partnerships</b></p> <p>3. All commercial, recreational and customary fishers, non-extractive users, Maori, and interested members of the New Zealand public know about the need to conserve and sustainably manage shark populations and what New Zealand is doing to achieve this.</p>	<p><b>Objective 3.1</b> Capture and reflect, through meaningful engagement, the social and cultural significance of sharks, including their customary significance to Maori, in their conservation and management.</p> <p><b>Objective 3.2</b> Communication and information sharing between government agencies and stakeholders is effective, with strategies developed and implemented to promote the conservation and sustainable management of shark populations.</p> <p><b>Objective 3.3</b> Encourage compliance with regulations, implementation of best practice (including catch avoidance and correct handling), and co-operation with ongoing research among commercial and non-commercial stakeholders. In particular, encourage reporting of any illegal practices (especially live finning) that may be observed.</p>
<p><b>Non-fishing threats</b></p> <p>4. New Zealand's non-fishing anthropogenic effects do not adversely affect long-term viability of shark populations and environmental effects on shark populations are taken into account</p>	<p><b>Objective 4.1</b> Non-fishing anthropogenic and environmental threats to shark populations are understood and, where appropriate, managed.</p>

<sup>12</sup> The exception is blue sharks, for which finning would be eliminated no later than October 2016.

Goal	Five-year objectives
<p><b>International engagement</b></p> <p>5. New Zealand actively engages internationally to promote the conservation of sharks, the management of fisheries that impact upon them, and the long-term sustainable utilisation of sharks.</p>	<p><b>Objective 5.1</b> New Zealand ensures that it meets its international obligations and receives positive recognition for its efforts in the conservation, protection and management of sharks through active engagement in international conservation and management agreements relevant to sharks.</p> <p><b>Objective 5.2</b> New Zealand actively investigates and decides whether to become a signatory to the Convention on Migratory Species (CMS) Memorandum of Understanding on the Conservation of Migratory Sharks (MoU) in advance of the next Meeting of Signatories in 2015.</p> <p><b>Objective 5.3</b> New Zealand collaborates with neighbouring countries to better understand the population dynamics of highly migratory sharks, protected sharks and any other shark species of special interest.</p> <p><b>Objective 5.4</b> New Zealand proactively contributes to and advocates for improved data collection and information sharing of commercial catches and incidental bycatch of sharks within relevant Regional Fisheries Management Organisations (RFMOs).</p> <p><b>Objective 5.5</b> New Zealand encourages fishing countries, coastal States, and other regional organisations to develop and implement best practice Plans of Action for conserving and managing sharks, where they have not already done so.</p>
<p><b>Research and information</b></p> <p>6. Continuously improve the information available to conserve sharks and manage fisheries that impact on sharks, with prioritisation guided by the risk assessment framework.</p>	<p><b>Objective 6.1</b> Ensure information collection systems and processes are sufficient to inform management of shark populations</p> <p><b>Objective 6.2</b> Undertake a research programme, guided by the risk assessment framework, to increase understanding of and improve the management of shark populations.</p> <p><b>Objective 6.3</b> Implement research to inform the development of recovery plans appropriate to protected species</p>

## Annex Three: Summary of submissions

Table 4: Summary of submissions on implementation of finning ban

Submitter	QMS sharks with high utilisation	QMS sharks with some utilisation (MAK, POS)	Other QMS sharks (BWS, SPD)	Non-QMS	Other comments
<b>Environmental group submissions</b>					
Humane Society International	All FNA				Encourage 100% coverage with electronic monitoring to ensure implementation is effective
Our Seas Our Future	FNA for species not fully utilised (no comment on other species provided in submission)				
Sea Shepherd New Zealand	All FNA				
Shark Advocates International	All FNA				
The New Zealand Shark Alliance	Ratio	FNA	FNA	FNA	
Wellington Underwater Club	All FNA				
<b>Industry submissions</b>					
Altair Fishing Ltd	QMS management effective				
Compass Rose Fishing Ltd	Ban finning if only retaining fins, allow dressing of sharks otherwise ammonia odour spoils flesh				Objects to carpet shark introduction - only keep fins, not for QMS consideration
Deepwater Group	Ratio	Ratio	Ratio		Supportive of process to date and wish to work with MPI on development of appropriate ratios.
Fisheries Inshore New Zealand (FINZ)	Ratio	Ratio	Ratio	No specific comment	
Jim McGlone	QMS management effective				
Leigh Fisheries Ltd	As per SNZ submission				Supports SFNZ submission
New Zealand Federation of Commercial Fishermen (NZFCF)	All ratio				
Sanford Ltd	Ratio (if any additional rules required in addition to making it unlawful to land just fins)				
Seafood New Zealand (SNZ)	Ratio (if any additional rules required in addition to making it unlawful to land just fins)				
Southern Inshore Fisheries Mgt Ltd	Ratio	No comment	Ratio	Should not be restricted to FNA if trunked product is used.	Have asked to be further consulted on enforcement, monitoring, research, etc stemming from NPOA-Sharks
<b>Individual submissions</b>					
Tonya Dixon	FNA				
Dr Robin Sekerak	No comment	FNA (for all HMS and underutilised sharks)			Concerns over wider ecological impact of lower shark populations
Daizy Fuse	No specific comment				Confusion about live finning and questions about ban in trade of fins
Carolina Furtado	FNA				
Gerrard Reddican	Opposed to FNA (no comment given on ratios)				
Laurie Albano	FNA				
Quentin Bennett	FNA				
Dr Andrew Burton	Require the whole animal to be utilised, only permitting the viscera, head, and tail to be removed and discarded at sea.				Large number of issues raised about wider fisheries management that are not within the immediate scope of this consultation.
Sophie Arthur	Extend FNA requirement to endangered species				
Ron Savage	No specific comment beyond general support for ban and its positive impact on NZ tourism				
Ellie Gordon	General support for finning ban				
Sunkita Howard	Comments on Schedule 6 provisions (see below).				
<b>Other submissions</b>					
Pupils of Western Springs High School	General comments supportive of a finning ban.				
<b>Form submissions</b>					
Forest & Bird	Ratio	FNA	FNA	FNA	
Greenpeace	Ratio	FNA	FNA	FNA	
New Zealand Shark Alliance	Ratio	FNA	FNA	FNA	

Submitter	QMS sharks with high utilisation	QMS sharks with some utilisation (MAK, POS)	Other QMS sharks (BWS, SPD)	Non-QMS	Other comments
Trevor Mallard (& 6597 others)	No specific comment				

**Table 5: Submissions on timing and Schedule 6 changes**

Submitter	Timing		Schedule 6 changes	
	1-Oct-14	Phased implementation	Support	Don't support
<b>Environmental group submissions</b>				
Humane Society International	Supports		Support	
Our Seas Our Future	Supports		No specific comment	
New Zealand Shark alliance	Supports		Support with appropriate monitoring	
Sea Shepherd New Zealand	Supports		No specific comment	
Shark Advocates International	Supports		No specific comment	
Wellington Underwater Club	Supports		Support with improved monitoring	
<b>Industry submissions</b>				
Altair Fishing Ltd	Nothing needed, current QMS effective management			
Compass Rose Fishing Ltd			Support for dead releases of spiny dogfish (or remove from QMS)	
Deepwater Group	Support - subject to sufficient implementation time for operational concerns.		Supports SNZ submission	
Fisheries Inshore New Zealand (FINZ)	Conditionally, if implemented as per the Seafood NZ submission		Supports; considers live SPD released should not be counted against ACE	
Jim McGlone	Nothing needed, current QMS effective management			
Leigh Fisheries Ltd	Supports SNZ submission		Supports SNZ submission	
New Zealand Federation of Commercial Fishermen	Supports		Supports, all shark species should be on Schedule 6 for return dead or alive. Live returns not counted against ACE, dead returns counted against ACE.	
Sanford Ltd	Supports - subject to being able to agree regulations, policy and practices		Supports; considers live SPD released should not be counted against ACE	
Seafood New Zealand	Supports - subject to being able to agree regulations, policy and practices		Supports; considers live SPD released should not be counted against ACE	
Southern Inshore Fisheries Mgt Ltd		All QMS except BWS 2014, all except BWS 2015, BWS 2016	Considers dead releases of spiny dogfish should not be covered with ACE	
<b>Individual submissions</b>				
Sunkita Howard			Supports proposals and considers live returns of spiny dogfish should not be covered with ACE	
Sophie Arthur	Immediate based on risk to certain species			
<b>Other submissions</b>				
Pupils of Western Springs High School	General comments supportive of early implementation of a finning ban.			
<b>Form submissions</b>				
Forest & Bird	X		X	
Greenpeace	X		X	
New Zealand Shark Alliance	X			
Trevor Mallard (& 6597 others)	As soon as possible – before the election			