

Conservation Services Programme

Strategic Statement

Conservation Services Programme

Department of Conservation

www.doc.govt.nz/csp

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PART 1. INTRODUCTION

The purpose of this strategic plan is to outline the objectives of the Conservation Services Programme (CSP) and describe the process through which each annual plan of services will be developed and delivered.

1.1 Background

New Zealand is a maritime nation with the fourth largest exclusive economic zone (EEZ) in the world. Our waters are the home of many protected species: ninety-five breeding seabirds, over forty cetaceans (whales and dolphins), nine pinnipeds (seals, etc), and a diverse range of corals, fish and reptiles. These waters also provide for important commercial, recreational and customary fishing resources.

Marine protected species may be threatened by commercial fishing. Direct adverse effects include being caught, injured or killed by nets, hooks or other fishing gear¹. Benthic² species may also be impacted by bottom trawlers and other fishing methods operating on or near the seabed. Indirect adverse effects such as habitat modification, food competition and behaviour modification of protected species may also occur. These adverse effects may compromise the viability or recovery of protected species populations.

On 11 November 2018, the Ministers of Conservation and Finance approved DOC's Biodiversity Contingency Business Case. This released \$76 million over four years to DOC to help slow the decline in New Zealand's biodiversity.

The migratory marine species workstream component of this business case is focused on the threat posed by fisheries, both direct bycatch, and indirect effects such as reduced food availability and changes to habitats. There are three elements to this workstream:

1. Improving our ecological knowledge to better understand which species are affected, and how, by fisheries and other threats.
2. Fisheries bycatch reduction, through developing new mitigation solutions, supporting fishermen to implement mitigation, engaging with international partners to reduce bycatch in waters beyond New Zealand and learning more about the effect of recreational fisheries.
3. Supporting species-specific plans for some of our marine species most at-risk.

The approach for delivering this workstream is to leverage the processes described in document. It is envisaged that the ongoing implementation of this workstream will use the CSP annual planning and prioritisation processes to ensure strategic alignment of work undertaken. This includes alignment with MPI processes and incorporates stakeholder input.

In August 2020, DOC launched Te Mana o te Taiao, the Aotearoa New Zealand Biodiversity Strategy 2020³. This guiding document sets out a strategic framework for the protection, restoration and sustainable use of biodiversity, particularly indigenous biodiversity, in Aotearoa New Zealand, from 2020 to 2050.

¹ Causing death or injury to protected species is an offence in some circumstances, however section 68B Wildlife Act 1953 and section 26(4) of the Marine Mammals Protection Act 1978 provide defences for incidental and accidental deaths.

² Meaning bottom dwelling.

³ <https://www.doc.govt.nz/nature/biodiversity/aotearoa-new-zealand-biodiversity-strategy/>

Te Mana o te Taiao - ANZBS includes an outcome of reducing the bycatch of protected species from commercial fishing to zero by 2050.

The CSP, administered by Department of Conservation (DOC), undertakes research to understand and address adverse effects⁴ and recovers the costs of these “conservation services” from the commercial fishing sector⁵.

In addition to administering the CSP, the work of DOC covers a number of other closely related areas, including:

- work with the Ministry for Primary Industries (MPI)⁶ regarding fisheries management related to protected species;
- scientific research relating to marine protected species;
- technical and policy input into relevant government and departmental plans and strategies; and
- international collaboration through participation in relevant multilateral initiatives such as the Agreement for the Conservation of Albatrosses and Petrels and the Commission for the Conservation of Antarctic Marine Living Resources.

Information on the wider role, and strategic direction, of DOC can be found in the *Department’s Statement of Intent 2016-20*⁷.

1.2 CSP Vision and overview

The CSP vision is that:

Commercial fishing is undertaken in a manner that does not compromise the protection and recovery of protected species in New Zealand fisheries waters.

Research into adverse effects is an intrinsic component of the CSP, and this research aims to inform and contribute to the development of solutions to address these adverse effects. For example, understanding the nature of a fishing interaction is a prerequisite to developing an effective mitigation solution. Understanding the severity of effects is also important in guiding the response. Communicating the results of research is another important component.

The suite of research and other conservation services delivered as part of the CSP falls into three categories:

1. Understanding the nature and extent of adverse effects on protected species from commercial fishing activities in New Zealand fisheries waters.

This includes:

- research into the nature and extent of at-sea fishing interactions (direct and indirect effects) with protected species; and

⁴ “Conservation services” and “effects” defined in the Fisheries Act 1996, see below at 1.3 and Appendix 1 for more detail.

⁵ In accordance with the Fisheries (Cost Recovery) Rules 2001, see Appendix 1 for extracts.

⁶ Fisheries New Zealand was established as a branch of MPI to operate the country’s fisheries management system.

⁷ <http://www.doc.govt.nz/about-us/our-role/corporate-publications/statement-of-intent-archive/statement-of-intent-2016-2020>

- research into the adverse effects of commercial fishing on protected species populations.
2. **Developing effective solutions to mitigate adverse effects of commercial fishing on protected species in New Zealand fisheries waters.**
This includes the research and development of measures to mitigate the adverse effects of commercial fishing on protected species, and education or outreach to fishers.
 3. **Developing population management plans, where appropriate.**

1.3 *Mandate*

Scope

Conservation services are intended to address the adverse effects of commercial fishing on ‘protected species’, which are defined with reference to the Wildlife Act 1953 and Marine Mammals Protection Act 1978.

The scope of the CSP is restricted to the consideration of those projects that are by definition ‘conservation services’. Conservation services are defined in section 2 of the Fisheries Act 1996 as:

Conservation services means outputs produced in relation to the adverse effects of commercial fishing on protected species, as agreed between the Minister responsible for the administration of the Conservation Act 1987 and the Director-General of the Department of Conservation, including—

- (a) *Research relating to those effects on protected species;*
- (b) *Research on measures to mitigate the adverse effects of commercial fishing on protected species;*
- (c) *The development of population management plans under the Wildlife Act 1953 and the Marine Mammals Protection Act 1978.*

Therefore, the scope of the CSP is restricted to activities:

- undertaken by the commercial fishing industry;
- within New Zealand’s fisheries waters⁸; and
- where there is a potential or actual adverse effect on protected species.

Key extracts of relevant legislation are provided in Appendix 1.

Protected Species

‘Protected species’ are defined by section 2 of the Fisheries Act 1996, with reference to the Wildlife Act 1953 and Marine Mammals Protection Act 1978.

Protected species are managed under a regime of absolute protection by the Wildlife Act 1953 and Marine Mammals Protection Act 1978.

‘Protected species’ have been explicitly defined in the Fisheries Act 1996 independently of the definition of ‘fisheries resources’⁹. While the Purpose of the Fisheries Act 1996¹⁰ is

⁸ Section 2 Fisheries Act 1996, see Appendix 1

⁹ Section 2 Fisheries Act 1996, see Appendix 1

¹⁰ Section 8 Fisheries Act 1996, see Appendix 1

to provide for the utilisation of fisheries resources while ensuring sustainability, by definition it is implicit that protected species are not fisheries resources and are therefore not to be utilised. The mandate for the CSP is the conservation of protected species, not the sustainable utilisation of fisheries resources.

For the purposes of conservation services, protected marine wildlife includes:

- all marine mammals¹¹;
- all seabirds (except black backed gulls);
- all marine reptiles;
- black corals (all species in the order Antipatharia);
- gorgonian corals (all species in the order Gorgonacea);
- stony corals (all species in the order Scleractinia);
- hydrocorals (all species in the family Stylasteridae); and
- nine species of fish (oceanic whitetip shark, basking shark, deepwater nurse shark, white pointer shark, whale shark, manta ray , spinetail devil ray, giant grouper and spotted black grouper).

From time to time, as the Wildlife Act 1953 species listings change, so will the mandate of the CSP, and consideration of any changes will form part of the review of this document.

Adverse effects

The Conservation Services Programme is constrained by the definition of conservation services: *conservation services means outputs produced in relation to the **adverse effects** of commercial fishing on protected species¹².*

Neither the Fisheries Act 1996 nor the Fisheries (Cost Recovery) Rules 2001 explicitly define 'adverse effects'. Section 2 of the Fisheries Act 1996 contains a definition of 'effects', which incorporates both positive and adverse effects. Based on this definition, the scope of the CSP includes actual and potential adverse effects on protected species arising from direct or indirect effects of commercial fishing and arising from activities associated with commercial fishing including:

- i. any temporary or permanent effect;
- ii. any past, present, or future effect;
- iii. any cumulative effect which arises over time or in combination with other effects - regardless of the scale, intensity, duration, or frequency of the effect;
- iv. any potential effect of high probability; and
- v. any potential effect of low probability which has a high potential impact.

CSP focus

As described in this document, the CSP forms part of a wider range of efforts targeted at reducing the effects of commercial fishing on protected species. Implementing the results of research completed under the CSP is generally the responsibility of other agencies and/or processes. For example, while mitigation methods may be developed and trialled through the CSP, implementation will be voluntary by industry or mandatory through regulation (generally enforced by MPI). Where a population management plan

¹¹ Section 2 Marine Mammals Protection Act 1978 – the definition of marine mammals includes all species of seal (Pinnipedia), whale, dolphin, and porpoise (Cetacea).

¹² Section 2 Fisheries Act 1996, see Appendix 1

is developed by DOC, this may include setting a maximum allowable fishing-related mortality level, however, taking fisheries management actions to ensure such a limit is not exceeded will be the responsibility of MPI.

In order to focus the potentially broad scope of the CSP, DOC will generally restrict conservation services, to projects related to those protected species that have either:

- i. been recorded as incidentally captured; and/or
- ii. have behavioural or biological characteristics that indicate the species is exposed to risk of adverse effects of direct or indirect fishing interactions.

This focus places an emphasis on research on those species known or considered likely to be directly or indirectly affected by fishing.

The prioritisation principles and other guidance described later in this document will further focus the work conducted by the CSP.

Mitigation

For the purposes of the CSP, research on measures to mitigate the adverse effect of commercial fishing on protected species will include research on measures to avoid, remedy or mitigate such effects. Mitigation may include particular technologies, practices, as well as spatial separation as means of avoiding the interactions of protected species with fishing activities.

Levies

The Crown may recover the costs of conservation and fisheries services in accordance with Part 14 of the Fisheries Act 1996. The principles for attribution of costs associated with services provided to avoid, remedy or mitigate a risk or an adverse effect are specified in section 262.

A large proportion of CSP funding is derived from levies on the quota owners of commercial fish stocks. As CSP objectives are achieved, the extent of research delivered through CSP will decrease, and lower levies can be expected.

DOC will also actively consider other forms of funding for work that may be defined as a conservation service, such as direct funding by industry, or through partnerships.

1.4 *Treaty of Waitangi*

The principles of the Treaty of Waitangi must be observed in the interpretation and administration of the CSP.

Key legal and policy provisions relating to the Treaty of Waitangi include:

- i. The Conservation Act 1987 and related legislation must be interpreted and administered so it gives effect to the principles of the Treaty of Waitangi¹³. This includes the Wildlife Act 1953 and the Marine Mammals Protection Act 1978.
- ii. The Fisheries Act 1996 must be interpreted and administered in a manner consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992¹⁴.

¹³ Sections 4 and 6, Conservation Act 1987, see Appendix 1

¹⁴ Section 5 Fisheries Act 1996, see Appendix 1

- iii. The New Zealand Biodiversity Strategy recognises the customary use of indigenous species by Māori, consistent with the conservation and sustainable management of biodiversity.
- iv. The Conservation General Policy¹⁵ outlines a number of key Treaty of Waitangi Responsibilities for DOC.

The primary interests of Māori in conservation services are understood to be:

- a) Many marine protected species are taonga of coastal iwi. For example, the Ngai Tahu Claims Settlement Act 1998 lists 28 seabird taxa and six marine mammal species as taonga.
- b) The recovery of costs associated with conservation services from the fishing industry may affect iwi quota owners.

Māori have expressed interest in receiving, for cultural purposes, the carcasses of seabirds recovered by fisheries observers from fishing vessels. Following consultation with local iwi, DOC's Pou Tairangahau have prepared a list of seabirds sought by iwi. Carcasses of birds on this list that are in good condition will be made available to the appropriate iwi representatives.

In recognition of the taonga status of some marine species, iwi must be consulted when developing species management plans (which may include population management plans).

Te Ohu Kaimoana was established by the Māori Fisheries Act 2004 and is responsible for advancing the interests of iwi in the development of fisheries, fishing and fisheries-related activities. As a national agency tasked with assisting in the management of Māori fisheries assets, Te Ohu Kaimoana is in a position to provide advice to the CSP although it does not represent iwi directly. The CSP will consult with Te Ohu Kaimoana when developing its Annual Plan and when determining the allocation of costs to quota owners.

¹⁵ <http://www.doc.govt.nz/about-us/our-policies-and-plans/conservation-general-policy/>

PART 2. OBJECTIVES

2.1 Relevant DOC and cross-government objectives

The mandate of the CSP overlaps with other functional parts of DOC, and across other organisations, notably MPI. A number of strategies or high-level management plans have been developed at a DOC organisational or cross-government level, that are relevant to parts of the CSP mandate (such as the Te Mana o te Taiao - ANZBS and the National Plan of Action – Seabirds). These plans and strategies are listed in Appendices 2 and 3.

Where higher level plans have identified objectives and processes that are sufficiently detailed to drive annual research programmes such as the CSP, delivery is identified directly as a CSP objective (for example, delivery of research required to implement the *National Plan of Action – Seabirds*). In other cases, CSP objectives and annual planning processes are developed to align with related objectives of existing higher-level plans or strategies (for example, alignment with *Threatened Species Recovery Plans*).

For those parts of the CSP mandate where guidance is not available from higher level plans or strategies, annual services will be developed based on the objectives and processes described in this plan.

2.2 CSP objectives

It is envisaged that for a range of protected species/fisheries interactions, the following objectives will be met by delivering on higher level plans, for example the Te Mana o te Taiao - ANZBS and the National Plan of Action – Seabirds. Where protected species/fisheries combinations do not fall under such plans, research projects will be developed for consideration in annual planning rounds.

Objective A: Proven mitigation strategies are in place to avoid or minimise the adverse effects of commercial fishing on protected species across the range of fisheries with known interactions.

Addressing this objective will consist of continued identification of new mitigation methods, application of methods used overseas (including development for New Zealand fisheries), and at-sea testing. Priority will be given to protected species/fisheries interactions for species identified as at high risk from commercial fishing effects.

Objective B: The nature of direct adverse effects of commercial fishing on protected species is described.

This objective will be achieved through the collection and reporting of observational information on captures and other direct interactions of protected species across a representative portion of fishing effort. The protected species involved, the characteristics of the fishing operation, and the nature of each interaction will be determined and recorded.

Objective C: The extent of known direct adverse effects of commercial fishing on protected species is adequately understood.

This objective will be achieved when:

- a robust risk assessment can be completed to assess the extent of risk posed by direct effects of commercial fishing;
- for species identified at medium or high risk¹⁶, information is available to allow the meaningful monitoring of captures rates over time; and
- the extent of commercial fishing effects that allow for the protection and recovery of protected species have been identified.

Addressing this objective will require the collection of representative independent information on interaction rates of protected species with commercial fishing, at levels determined through risk analysis.

Objective D: The nature and extent of indirect adverse effects of commercial fishing are identified and described for protected species that are at particular risk to such effects.

Addressing this objective will involve multi-disciplinary research including ecosystem modelling focussed on identifying and describing the mechanisms of indirect effects from fisheries on protected species. Priority will be given to those relevant protected species/fisheries combinations where existing knowledge or related research programmes exist.

Objective E: Adequate information on population level and susceptibility to fisheries effects exists for protected species populations identified as at medium or higher risk from fisheries.

This information is required in order to inform detailed risk assessment and/or fisheries management. Addressing this objective will involve the collection of data on population trend, demographic parameters and at-sea foraging information for medium to high risk protected species.

2.3 Wider management context

In order to ensure the protection and recovery of protected species in New Zealand fisheries waters, it is important that commercial fisheries effects are understood and managed in the context of all sources of human-induced mortality.

Identifying the maximum level of mortality from New Zealand commercial fisheries that will allow for the protection and recovery of protected species populations requires an understanding not only of removal rates that protected species populations can sustain, but also of the nature and extent of other human induced sources of mortality or risk that must be accounted for in the removal rate. Such knowledge may be gained through collaborative data sharing, for example sharing of bycatch data between fishing nations where a protected species forages outside of New Zealand fisheries waters, or conducting risk assessments where there is inadequate data to estimate the level of human-induced mortality.

¹⁶ These risk categories will be determined during the prioritisation phase of the CSP research planning cycle, with reference to relevant risk assessments as detailed in Section 3 and Appendix 4.

PART 3. ANNUAL PLANNING PROCESS

The processes and principles used to develop each CSP Annual Plan are outlined here.

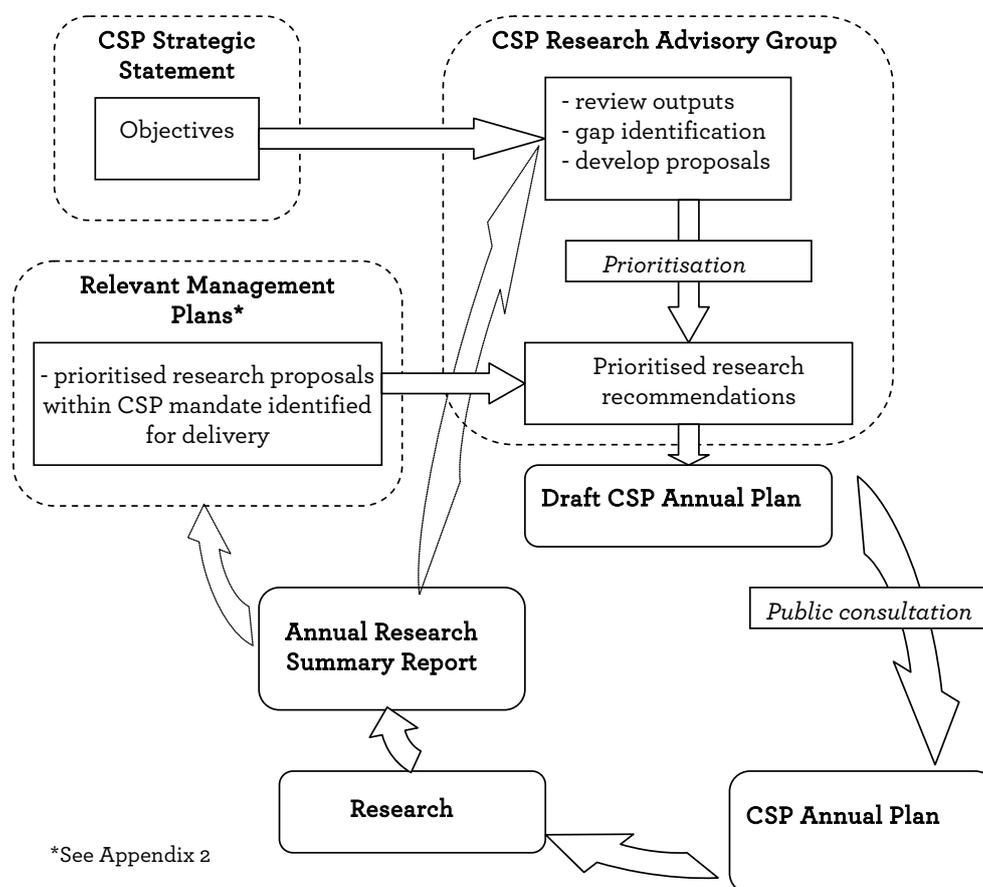
3.1 Annual Process

A Research Advisory Group (the CSP RAG) will meet annually and will play an important role in the annual planning process. The group will be tasked with:

- review of progress in relevant research and other activities completed in the previous year, both by CSP and externally;
- identification of research gaps within the CSP mandate, and the documentation of these in the form of a medium-term research plan;
- prioritisation of research gaps using the principles outlined in Section 3.2; and
- recommendations to DOC on prioritised research projects for inclusion in CSP Annual Plan for the next financial year.

Following receipt of these research recommendations, and proposals from relevant management plans, a draft CSP Annual Plan will be developed for formal public consultation. The CSP Calendar lists key dates in the CSP annual planning and consultation processes. The Terms of Reference for the CSP RAG is provided on the CSP RAG webpage¹⁷.

Figure 1. CSP planning process.



¹⁷ <http://www.doc.govt.nz/csp-rag>

CSP Calendar: key dates in annual planning and consultation processes.

Month	Event
July	Commencement of delivery of Annual Plan
Oct-Nov	Draft Annual Research Summary Report
Nov-Dec	CSP RAG resources released: <ul style="list-style-type: none"> - annual review of research outputs - gap identification - project proposal submission period commences
Dec	Final Annual Research Summary Report
Feb	CSP RAG meeting to recommend: <ul style="list-style-type: none"> - project proposals collated - prioritisation of proposals
March	Release updated medium term research plan and CSP RAG recommendations to CSP Stakeholders.
April	Release draft Annual Plan for public consultation.
May	Receive submissions on draft Annual Plan and make submissions available to all stakeholders.
May	Meetings with submitters as requested to discuss submissions and respond to matters raised.
June	Revised Annual Plan forwarded to appropriate representatives of quota owners for finalisation of allocation of project costs to fisheries.
June	Director General of Conservation conveys Annual Plan to Minister of Conservation for consideration and agreement.

3.2 Prioritisation

Undertaking research is usually a resource and time intensive exercise. Prioritisation therefore forms an important part of the CSP research planning process. There are inherent difficulties in prioritisation methods, often related to a lack of suitable data on incidental capture levels or population parameters, especially for rarer species where even low incidental capture rates may have serious adverse effects on the population. Prioritisation methods will also change over time as new information (e.g. observer data on protected species captures) and statistical methods become available. The following principles will guide annual CSP prioritisation.

CSP prioritisation principles

- Where fisheries risk assessments for a given group of protected species have been completed, this will provide the primary input into prioritising between projects that concern different protected species within this group. Relevant risk assessments are listed in Appendix 4.

- Where there is no adequate fisheries risk assessment for a group of protected species, or where species are at equal or similar risk, the threat status of the species will be used to guide prioritisation. The New Zealand Threat Classification System will be used for endemic or near endemic taxa where possible, and the IUCN Red List of Threatened Species will be used for migratory species or those breeding widely overseas.
- High priority will generally be given to research and project proposals that most cost-effectively achieve the research goal, such as by utilising opportunities for multi-species/multi-project initiatives to enhance the application and cost-efficiency of research, and to provide for integrated management.
- High priority will generally be given to research and project proposals that address information gaps where this knowledge will significantly enhance the value or application of existing knowledge to address adverse effects of commercial fishing on protected species (leverage).
- For species groups where formal risk assessment frameworks have not been developed, proposals under CSP Objective C to assess the level of risk will be given high priority.
- When considering research investment across a range of mitigation methods/approaches, the cost-effectiveness of developing and implementing such methods will be considered in prioritisation.

Prioritisation application

A number of tools are available to aid in applying the prioritisation principles identified in this document to annual prioritisation of projects, including scoring matrices and/or decision-making flow diagrams. The scoring matrix provided as Appendix 5 will be used to provide initial prioritisation for review and discussion by the CSP RAG.

3.3 CSP Implementation

Fishery Observation Programme

Part 12 of the Fisheries Act 1996 contains provisions for the establishment of an observer programme that, amongst other things, may collect information on the effect of fishing on the aquatic environment. The current Conservation Services Observer Programme, using MPI observers, provides information on the direct effects of fisheries on protected species. Private companies can also provide observer services. New technologies, such as digital reporting and video monitoring, show considerable potential for increasing the effectiveness and reducing the cost of monitoring. As of December 2020, a system of digital monitoring is being rolled out by MPI. To ensure alignment of the CSP Fishery Observation Programme to this wider initiative, continual review will be undertaken.

The CSP Fishery Observation Programme will:

- encourage the self-reporting by fishers of their interactions with protected species;
- support the development and testing of mitigation techniques, and assist in the evaluation of the effectiveness of mitigation methods;
- gather information that will facilitate understanding of the nature of fisheries interactions and lead to the development of mitigation techniques;

- enhance observations in unobserved fisheries or where interactions are not understood; and
- provide a baseline level of observation of fisheries where interactions are generally thought to be understood.

Indirect effects

Research into the indirect effects of commercial fishing on a protected species will be considered where:

- indirect effects may be adversely affecting one or more species populations that are interacting with fisheries in a similar way, or through alteration of habitat/food availability; and
- the population(s) is exhibiting signs of chronic adverse effects.

Population studies

Population studies will be undertaken where results will either:

- assist in developing population management plans; or
- assist in assessing the extent to which commercial fishing interactions are causing an adverse effect on the protected species populations (susceptibility); or
- assist in managing the adverse effects of commercial fishing on protected species populations.

Population studies may be targeted either at estimating population levels/demographic parameters, or at collecting foraging range data (primarily to better inform the assessment of risk posed by overlap with fishing operations). Conducting both aspects simultaneously often represents a cost-effective opportunity to maximise data collection.

Mitigation

Understanding the effects of commercial fishing on protected species is critical, but, on its own, will not contribute to a reduction of those effects. Effort must be made to mitigate adverse effects such as through utilising best practice, developing alternative ways of fishing, refining existing practices to reduce adverse effects and education or outreach projects to fishers. An important element of this work is the delivery of fishery liaison projects to facilitate uptake of appropriate mitigation solutions by fishers.

Population Management Plans

The Fisheries Act specifically defines the development of population management plans (PMPs) as a “conservation service”. The scope of PMPs in the Act focuses on determining a maximum allowable level of fishing related mortality (MALFiRM) to manage adverse effects of fishing. PMPs are therefore a targeted and important instrument in the range of solutions that may be used to address adverse effects of fishing. For this reason, it is preferable for PMPs to be developed in the context of broader species management plans that consider all risks relevant to the management of a particular species. Population management plans may be developed for protected species when deemed appropriate by the Minister of Conservation. They may be a useful tool where fishing is a key or significant factor in hindering protection or recovery of the protected species, and where voluntary initiatives have not been demonstrated to be successful in addressing the adverse effect.

3.4 Working with others

A range of parties are involved in the area of research into commercial fishing activities and marine protected species. CSP will strive to maximise synergies and collaboration opportunities across the range of relevant parties to progress work towards CSP objectives in the most cost-efficient manner possible. These parties include:

Department of Conservation (DOC)

The wider role of DOC includes conserving marine protected species. As part of this role, DOC commissions or undertakes research at a national level through the Biodiversity Group of DOC, and at a more local level. This research may include work on protected species that are impacted by commercial fishing.

Fisheries New Zealand/Ministry for Primary Industries (MPI)

MPI's mandate includes ensuring associated or dependent species are maintained above a level that ensures their long-term viability¹⁸. Associated and dependent species include protected species by definition and thus there is considerable overlap in mandate between MPI and the CSP.

DOC and MPI will work collaboratively to align their protected species-related research to eliminate duplication and maximise synergies. CSP and MPI working group meetings will be integrated as required to facilitate stakeholder engagement.

Other government agencies

The Ministry of Business Innovation & Employment is the major government research funding agency and has a substantial portfolio. There are various investment funds that overlap to some degree with the CSP mandate, such as the National Science Challenges and the Strategic Science Investment Fund¹⁹.

Crown Research Institutes and Universities are important science providers and may on occasion use internal or other funding sources to perform research that may be relevant to the CSP.

Non-government organisations

The commercial fishing sector, including Seafood New Zealand, commercial stakeholder organisations, fishing companies, and individual fishers are all key stakeholders with a keen interest in many aspects of the CSP. The sector also performs development of, and research into, mitigation techniques, development of codes of practice, and collection of protected species interaction data which may overlap with the work area of the CSP.

There are also a large number of environment-focused groups with interests that may overlap the mandate of the CSP, including Worldwide Fund for Nature, Royal Forest and Bird Society of New Zealand, Birdlife International, ECO, Southern Seabird Solutions Trust, the New Zealand Sea Lion Trust and the Yellow-eyed Penguin Trust. Some of these groups also conduct research on protected species populations or mitigation methods, which may overlap with the work of the CSP.

International or overseas organisations may also be involved in research related to New Zealand protected species, or mitigation relevant to New Zealand fishing practices.

¹⁸ Section 9(a) Fisheries Act 1996, see Appendix 1

¹⁹ For further details see <https://www.mbie.govt.nz/info-services/science-innovation/funding-info-opportunities/investment-funds>

Avoiding research duplication

As described above, a number of entities may potentially conduct similar research projects. The purpose of this document is to provide clarity on the strategic direction of CSP. Provided quality research is delivered to meet previously determined objectives, the organisation delivering that research may vary. The CSP is committed to avoiding duplication of research or other initiatives. This will be achieved through close communication and collaboration with relevant organisations. The CSP will deliver an Annual Plan of research based on the research priorities derived from this document that have not already been previously delivered to satisfactory standards by stakeholders or other agencies. Where research projects that would otherwise be delivered as part of the CSP Annual Plan have been identified by another party as a priority for imminent delivery to satisfactory standards, placeholder projects may be used in the CSP Annual Plan that will be progressed only if not delivered by the other party. Alternatively, if such a project is delivered by another party but not to adequate standards, that project will be considered as a priority project in the subsequent CSP Annual Plan.

3.5 Performance

In the context of public entities, performance is a comprehensive concept and comprises outcomes, interaction with the public (including outputs and processes), inputs and capability²⁰.

- **Capacity**

The CSP team is small, comprising a manager (part FTE), two FTE equivalent scientific advisors and a programme coordinator as at December 2020.

- **Inputs**

CSP receives inputs from:

- conservation services levies through the Fisheries Act 1996;
- Crown contributions (as specified in the cost recovery rules);
- additional departmental contributions (such as through DOC's migratory marine species bycatch workstream); and
- contributions (financial and in-kind) from other sources, e.g. grant funding.

Projected expenditure, forming the basis for the conservation services levies, is reported before the financial year commences in the *Conservation Services Programme Annual Plan* (as approved by the Minister). Actual expenditure is managed through the under and over recovery processes.

- **Processes**

CSP follows an open, consultative process in the development of its annual and strategic plans. It has a large email distribution list and encourages stakeholders to participate in planning and review meetings. The actual consultation process will be reported in the approved *Conservation Services Programme Annual Plan*.

Draft reports will be peer-reviewed and will be submitted for discussion by the relevant working group, generally the CSP Technical Working Group. The Terms of Reference for the Technical Working Group provides further details on the review process, alignment

²⁰ *The Auditor-General's observations on the quality of performance reporting*, a discussion paper produced under section 21 of the Public Audit Act 2001, June 2008.

to relevant research standards, and a dispute resolution process²¹. The quality of research and other outputs is monitored through peer review and discussion by the appropriate working group as discussed above.

- **Outputs**

CSP produces a range of outputs, including databases, DOC reports, reports in peer-reviewed journals, unpublished reports, and advice. Proposed outputs for individual projects will be listed for each project in the draft and approved *Conservation Services Programme Annual Plan*. Actual outputs will be reported through working groups and posted on the CSP website. An annual summary of outputs related to each year's Annual Plan will be provided in the CSP Annual Research Summary (CSP ARS).

- **Outcomes**

The vision of CSP will be achieved when all CSP objectives have been met. Progress will be tracked through measuring our ability to understand and describe protected species interactions with fisheries, estimate risk to protected species from fishing and demonstrate increased use and effectiveness of mitigation.

Levels of captures of protected species will be monitored through the CSP Fisheries Observation Programme and reported through annual reports of observer coverage completed by CSP staff. This data will allow the estimation of total incidental capture levels (currently reported by MPI).

3.6 Consultation process

When developing the *Conservation Services Programme Annual Plan*, the CSP will provide for sufficient consultation with stakeholders by following the steps laid out in the CSP Calendar (see Section 3.1).

Abbreviations

CSP	Conservation Services Programme.
DOC	Department of Conservation.
MPI	Ministry for Primary Industries, including Fisheries New Zealand, which was established as a branch of MPI to operate the country's fisheries management system.
RAG	Research Advisory Group

²¹ See <http://www.doc.govt.nz/cspmeetings>

Appendix 1. Legislation relevant to the Conservation Services Programme

The following is a summary of relevant legislative provisions current at 1 November 2013 which provide for the development and delivery of the CSP.

Fisheries Act 1996

Conservation Services Mandate

2 Interpretation (relevant extracts)

(1) In this Act, unless the context otherwise requires,—

Conservation services means outputs produced in relation to the adverse effects of commercial fishing on protected species, as agreed between the Minister responsible for the administration of the Conservation Act 1987 and the Director-General of the Department of Conservation, including—

- (a) research relating to those effects on protected species;
- (b) research on measures to mitigate the adverse effects of commercial fishing on protected species;
- (c) the development of population management plans under the Wildlife Act 1953 and the Marine Mammals Protection Act 1978

effect means the direct or indirect effect of fishing; and includes—

- (a) any positive or adverse effect; and
- (b) any temporary or permanent effect; and
- (c) any past, present, or future effect; and
- (d) any cumulative effect which arises over time or in combination with other effects—

regardless of the scale, intensity, duration, or frequency of the effect; and also includes—

- (e) any potential effect of high probability; and
- (f) any potential effect of low probability which has a high potential impact

fisheries resources means any 1 or more stocks or species of fish, aquatic life, or seaweed

New Zealand fisheries waters means—

- (a) all waters in the exclusive economic zone of New Zealand;
- (b) all waters of the territorial sea of New Zealand;
- (c) all internal waters of New Zealand;
- (d) all other fresh or estuarine waters within New Zealand where fish, aquatic life, or seaweed that are indigenous to or acclimatised in New Zealand are found

protected species means -

- (a) any marine wildlife as defined in section 2 of the Wildlife Act 1953 that is absolutely protected under section 3 of that Act;
- (b) any marine mammal as defined in section 2(1) of the Marine Mammals Protection Act 1978

5 Application of international obligations and Treaty of Waitangi (Fisheries Claims) Settlement Act 1992

This Act shall be interpreted, and all persons exercising or performing functions, duties, or powers conferred or imposed by or under it shall act, in a manner consistent with—

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

8 Purpose

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

ensuring sustainability means—

- (a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and
- (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment

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

9 Environmental principles

All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following environmental principles:

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

Cost recovery

262 Cost recovery principles

The cost recovery principles under this Part are as follows:

- (a) if a conservation service or fisheries service is provided at the request of an identifiable person, that person must pay a fee for the service;
- (b) costs of conservation services or fisheries services provided in the general public interest, rather than in the interest of an identifiable person or class of person, may not be recovered:

- (c) *costs of conservation services or fisheries services provided to manage or administer the harvesting or farming of fisheries resources must, so far as practicable, be attributed to the persons who benefit from harvesting or farming the resources:*
- (d) *costs of conservation services or fisheries services provided to avoid, remedy, or mitigate a risk to, or an adverse effect on, the aquatic environment or the biological diversity of the aquatic environment must, so far as practicable, be attributed to the persons who caused the risk or adverse effect:*
- (e) *the Crown may not recover under this Part the costs of services provided by an approved service delivery organisation under Part 15A.*

263 Cost recovery rules

- (1) *The Governor-General may from time to time, by Order in Council made on the recommendation of the Minister, make rules relating to the imposition of levies under this Part.*
- (2) *The rules may—*
 - (a) *prescribe the proportion of costs of conservation services and fisheries services to be recovered as levies:*
 - (b) *prescribe who must pay levies:*
 - (c) *prescribe how the costs are to be apportioned between the persons who must pay the levies.*
- (3) *Without limiting anything in subsections (1) and (2), different rules may apply in respect of different classes of persons, stocks, quota management areas, fishery management areas, conservation services, fisheries services, or any combination of them.*
- (4) *Before making a recommendation under subsection (1), the Minister must—*
 - (a) *be satisfied that the rules to which the recommendation relates comply with the cost recovery principles in section 262; and*
 - (b) *have regard to the extent to which conservation services or fisheries services are wholly or partly purchased or provided by persons other than the Crown.*
- (5) *Without limiting the Interpretation Act 1999, no order made under this section is invalid because it leaves any matter to the discretion of any person.*

Fisheries (Cost Recovery) Rules 2001 (as at 1 November 2013)

4 Status of rules

These rules are to be followed so far as reasonably practicable in setting any levies under the Act, but failure to accurately predict, estimate, account for, or otherwise quantify any matter referred to in these rules does not invalidate any levies set in accordance with their general tenor.

5 Proportion of costs to be recovered from industry

The proportion of costs to be recovered from the commercial fishing industry for the fisheries or conservation services specified in the first column of the Schedule is the proportion set out in the second column of that schedule.

6 Who must pay levies, and basis for levy

- (1) *The persons who must pay levies in respect of the fisheries and conservation services specified in the Schedule are, as appropriate,—*
- (a) *quota owners, on the basis of the quota weight equivalent in relation to their quota share:*
 - (b) *ICE holders, on the basis of the amount of ICE held:*
 - (c) *permit holders, on the basis of the amount of actual catch of non-QMS stock reported on the holders' MHRs:*
 - (d) *fish farmers (being persons undertaking fish farming under licences granted under the Freshwater Fish Farming Regulations 1983), on the basis of—*
 - (i) *the area of the relevant fish farm in hectares, in the case of costs for research services:*
 - (ii) *the number of coastal permits or other authorisations held, in the case of costs for enforcement or other services.*
 - (e) *fish farmers (being registered fish farmers), on the basis of the aggregate area in hectares of all fish farms in relation to which a fish farmer is registered.*
- (2) *The levy payable for any fishing year on quota weight equivalent in relation to quota share, ICE held, or actual catch of non-QMS stock reported on a permit holder's MHR is to be calculated for each stock in accordance with the following formula:*

$$\frac{g}{h}$$

where—

g is the total amount of costs to be recovered from the stock for the fishing year

h is the total TACC, ICE, or estimated catch likely to be extracted from the stock in the fishing year, as appropriate.

- (3) *Levies imposed on the persons specified in subclause (1)(a) to (c) may be expressed as a levy amount per tonne, per kilogram, or per quota share.*

7 Allocation of costs between stocks for certain industry-wide services

- (1) *This rule applies to the following services:*
- (a) *the services specified in item 1 of the Schedule (which relates to monitoring and offence detection):*
 - (b) *the services specified in items 2 and 3 of the Schedule (which relate to protected species research):*
 - (c) *the services specified in items 4, 4A, and 4B of the Schedule (which relate to mitigation, etc, of effects of commercial fishing on the aquatic environment or biological diversity):*

- (d) *the services specified in item 9 of the Schedule (which relates to the monitoring of harvest levels):*
 - (e) *the services specified in item 10 of the Schedule (which relates to administration and registry services).*
- (2) *The percentage of the costs to be recovered from each stock in respect of the services listed in subclause (1) is to be determined in accordance with the following formula:*

$$\frac{a}{b}$$

where—

- a is the value of the particular stock, derived by multiplying the total TACC, ICE, or estimated catch for the stock by the port price for that stock*
- b is the total value of all stocks, derived by—*

- (a) multiplying the total TACC, ICE, or estimated catch for each stock by its relevant port price; and*
- (b) adding all the results.*

- (3) *If, in the case of the services specified in items 2, 3, 4, 4A, and 4B of the Schedule, the chief executive identifies particular stocks as risk exacerbators in all or any areas to which the services relate, then—*
- (a) the costs of those services in these areas are not to be recovered from other stocks; and*
 - (b) the costs to be recovered in those areas from the identified stocks are to be determined in accordance with the formula in subclause (2) as if item b related only to the total value of those stocks identified as exacerbators.*

8 Allocation of costs between stocks for observer coverage services

In respect of the observer coverage services specified in item 8 of the Schedule, the percentage of costs to be recovered from each stock is to be determined in accordance with the following formula:

$$\frac{c}{d}$$

where—

- c is the number of observer seadays in the relevant fishing year or financial year or other relevant period attributable to the particular stock*
- d is the total number of observer sea days during that year or period.*

The **Schedule to the Cost Recovery Rules** (extract below) provides for the apportionment of costs of fisheries and conservation services. Relevant parts of the Schedule are as follows:

Services	Percentage of Costs to be Borne by Industry	Allocation Between Stocks
2. Research relating to protected species populations where risk to those populations by human intervention has been estimated	A over B, expressed as a percentage, where- A is the risk to the populations posed by commercial fishing in the EEZ of New Zealand B is the total risk of human interventions on the populations	As in Rule 7(2) or (3)
3. Research relating to protected species populations where risk to those populations by human intervention has not been estimated	50%	As in Rule 7(2) or (3)
4. Services (including research) provided to avoid, remedy, or mitigate that portion of the risk to, or adverse effect on, the aquatic environment or biological diversity of the aquatic environment caused by commercial fishing	100%	As in Rule 7(2) or (3)
4B. Deepwater benthic research for conservation services	100%	As in Rule 7(2) or (3)
8. Observer coverage to support stock assessment process and conservation services	100%	As in rule 8

DOC's Treaty of Waitangi Obligations

Conservation Act 1987 (as at 1 November 2013)

4 Act to give effect to Treaty of Waitangi

This Act shall so be interpreted and administered as to give effect to the principles of the Treaty of Waitangi.

6 Functions of Department

The functions of the Department are to administer this Act and the enactments specified in Schedule 1, and, subject to this Act and those enactments and to the directions (if any) of the Minister,—

- (a) to manage for conservation purposes, all land, and all other natural and historic resources, for the time being held under this Act, and all other land and natural and historic resources whose owner agrees with the Minister that they should be managed by the Department:*
- (ab) to preserve so far as is practicable all indigenous freshwater fisheries, and protect recreational freshwater fisheries and freshwater fish habitats:*
- (b) to advocate the conservation of natural and historic resources generally:*
- (c) to promote the benefits to present and future generations of—*
 - (i) the conservation of natural and historic resources generally and the natural and historic resources of New Zealand in particular; and*
 - (ii) the conservation of the natural and historic resources of New Zealand's sub-antarctic islands and, consistently with all relevant international agreements, of the Ross Dependency and Antarctica generally; and*
 - (iii) international co-operation on matters relating to conservation:*
- (d) to prepare, provide, disseminate, promote, and publicise educational and promotional material relating to conservation:*
- (e) to the extent that the use of any natural or historic resource for recreation or tourism is not inconsistent with its conservation, to foster the use of natural and historic resources for recreation, and to allow their use for tourism:*
- (f) to advise the Minister on matters relating to any of those functions or to conservation generally:*
- (g) every other function conferred on it by any other enactment.*

International policy

In addition to international obligations relating to fishing, New Zealand has broader international environmental obligations which must also be incorporated into strategic policy.

New Zealand is signatory to a number of international conventions which contain provisions relevant for consideration when establishing priorities for the Conservation Services Programme. These multilateral environmental agreements are agreements between states which may take the form of “soft law”, setting out non-legally binding principles which parties will respect when considering actions which affect a particular environmental issue, or “hard law” which specify legally-binding actions to be taken to work toward an environmental objective.

In adhering to legally binding international agreements, New Zealand has promulgated legislation such as:

- Territorial Sea, Contiguous Zone and Exclusive Economic Act 1977;
- Driftnet Prohibition Act 1977;
- Continental Shelf Act 1964;
- Trade in Endangered Species Act 1989;

- United Nations Convention on the Law of the Sea Act 1996;
- Antarctica Marine Living Resources Act 1981; and
- Antarctica (Environmental Protection) Act 1994.

The principles of many other international conventions New Zealand is party to are also reflected in environmental legislation such as Wildlife Act 1953, Marine Mammals Protection Act 1978, Conservation Act 1987, Fisheries Act 1996 and Resource Management Act 1991.

There is a large number of environmental and fishing conventions that New Zealand is party to. Particular conventions include:

- United National Convention of Environment and Development 1992 (Rio Declaration);
- Convention on Biological Diversity 1992;
- Agenda 21;
- Convention on the Conservation of Migratory Species of Wild Animals 1979;
- Agreement on Conservation of Albatross and Petrels 2001; and
- United Nations Convention on the Law of the Sea 1982.

Appendix 2. Whole of Government plans and strategies relevant to CSP prioritisation

Te Mana o te Taiao, the Aotearoa New Zealand Biodiversity Strategy 2020

Te Mana o te Taiao (launched in August 2020) sets out a strategic framework for the protection, restoration and sustainable use of biodiversity, particularly indigenous biodiversity, in Aotearoa New Zealand, from 2020 to 2050. Te Mana o te Taiao includes a goal of reducing the bycatch of protected species from commercial fishing to zero by 2050. (<https://www.doc.govt.nz/nature/biodiversity/aotearoa-new-zealand-biodiversity-strategy/>).

National Plan of Action to reduce the incidental catch of seabirds in New Zealand Fisheries (NPOA-Seabirds)

National Plan of Action – Seabirds 2020 focuses on education, partnering to find innovative solutions to bycatch mitigation, and ensuring that all fishers know how and are taking all practicable steps to avoiding seabird bycatch. The NPOA Seabirds 2020's vision is *New Zealanders work towards zero fishing-related seabird mortalities*. Fisheries New Zealand, Wellington. 24 p. (<https://www.mpi.govt.nz/dmsdocument/40652-National-Plan-Of-Action-Seabirds-2020-Report>).

New Zealand National Plan of Action for the conservation and management of sharks (NPOA-Sharks)

National Plan of Action for the Conservation and Management of Sharks 2013. Ministry for Primary Industries, Wellington. 36 p. (<http://www.mpi.govt.nz/document-vault/1138>).

Note: revision of this plan is scheduled for 2021.

Hector's and Māui dolphin Threat Management Plan (TMP)

Plan published in 2007 and reviewed in 2012 and 2019. Details available on the DOC website. <https://www.doc.govt.nz/our-work/our-work-with-maui-dolphin/hectors-and-maui-dolphin-threat-management-plan/>

New Zealand sea lion Threat Management Plan (TMP)

Plan published 2017. (<http://www.doc.govt.nz/nzsl-tmp>)

Note: revision of the sea lion TMP is planned for 2021-22.

Hoiho

Te Kaweka Takohaka mō te Hoiho was developed in 2019. It is a strategy to support the health of hoiho and is supported by a 5-year action plan, Te Mahere Rima Tau. (<https://www.doc.govt.nz/nature/native-animals/birds/birds-a-z/penguins/yellow-eyed-penguin-hoiho/hoiho-threat-management-and-recovery-plan/>).

Appendix 3. Other DOC plans relevant to CSP prioritisation

General plans and strategies with elements relevant to CSP

[Conservation General Policy, 2007. Department of Conservation, Wellington.](#)

Conservation Management Strategies. [See webpage for full details.](#)

Seabirds

The *Action plan for seabird conservation in New Zealand* provides a brief summary of the status, threats, and priority actions required for each seabird taxa:

Taylor, G.A. 2000a: *Action Plan for Seabird Conservation in New Zealand. Part A Threatened Seabirds*. Department of Conservation, Wellington. ([PDF, 1.890K](#))

Taylor, G.A. 2000b: *Action Plan for Seabird Conservation in New Zealand. Part B Non-threatened Seabirds*. Department of Conservation, Wellington. ([PDF, 1.610K](#))

DOC has developed prioritisation tools to assess at-sea threats to New Zealand seabirds ([see webpage for further details](#)). These tools will be used to guide future research and management actions and reference to relevant outputs will be made in future revisions to this document.

Threatened Species Recovery Plans have been used as statements of DOC's intentions for the conservation of particular plants or animals for a defined period. By focusing on goals and objectives for management, recovery plans serve to guide DOC in its allocation of resources, and to promote discussion amongst practitioners and a wider section of the interested public. A number of plans have been developed for relevant species:

Aikman, H.; Davis, A.; Miskelly, C.M.; O'Connor, S.; Taylor, G.A. 2001. Chatham Islands threatened birds: recovery and management plans. *Threatened Species Recovery Plan 36 - 46*. 277 p. Contains:

36. Chatham Island taiko recovery plan. ([PDF, 135K](#))

37. Chatham petrel. ([PDF, 157K](#))

42. Albatrosses in the Chatham Islands. ([PDF, 191K](#))

43. Chatham Island shag and Pitt Island shag. ([PDF, 144K](#))

Hutton's shearwater recovery plan 2006-2016. Unpublished DOC Threatened Species Recovery Plan.

Westland petrel (taiko) recovery plan 2004-2014. Unpublished DOC Threatened Species Recovery Plan.

Marine mammals

See Appendix 2 for details of TMPs for Hector's dolphin, Māui dolphin and New Zealand Sea Lion.

In 2004 a marine mammal action plan was published to provide guidance for conservation management of New Zealand's marine mammals by DOC over the next five years, and represents an active interpretation of priorities across a broad work area using key strategic documents and directive government policies:

Suisted, R.; Neale, D. 2004. Department of Conservation Marine Mammal Action Plan for 2005-2010. Department of Conservation, Wellington. ([PDF, 368K](#))

Appendix 4. Fisheries risk assessments relevant to CSP prioritisation

Seabirds

Level 1 (qualitative) Risk Assessment:

Rowe, S. 2013: Level 1 risk assessment for incidental seabird mortality associated with fisheries in New Zealand's Exclusive Economic Zone. *DOC Marine Conservation Services Series 10*. Department of Conservation, Wellington. 58 p ([PDF, 2.410K](#))

Level 2 (semi-quantitative) Risk Assessment:

Richard, Y.; Abraham, E. A.; Berkenbusch, K. 2020. Assessment of the risk of commercial fisheries to New Zealand seabirds, 2006–07 to 2016–17. *New Zealand Aquatic Environment and Biodiversity Report 191*. 133 p. ([PDF, 3.490K](#))

Level 3 (quantitative)/modelling projects for

- **Buller's albatross:**

Fu, D.; Sagar, P. 2016. The 2014 demographic assessment of the Snares Islands population of Southern Buller's albatross (*Diomedea [sic] bulleri bulleri*). *New Zealand Aquatic Environment and Biodiversity Report No. 165*. 40 p.

Francis, R.I.C.C. & Sagar, P.M. 2012. Modelling the effect of fishing on southern Buller's albatross using a 60-year dataset. *New Zealand Journal of Zoology*, DOI:10.1080/03014223.2011.600766

- **Black petrel:**

Bell, E.A., Sim, J.L., Scofield, P., Francis, C. 2011: Population parameters of the black petrels (*Procellaria parkinsoni*) on Great Barrier Island (Aotea Island), 2009/10. Research report for Department of Conservation, Wellington. Available for download from <http://www.doc.govt.nz/mcs>

Francis, R.I.C.C.; Bell, E.A. 2010: Fisheries risks to the population viability of black petrel (*Procellaria parkinsoni*). *New Zealand Aquatic Environment and Biodiversity Report No. 51*. Ministry of Agriculture and Forestry, Wellington.

Zhang, J., Bell, E.A., Roberts, J.O. 2020. Demographic assessment of black petrels (*Procellaria parkinsoni*) on Great Barrier Island (Aotea Island). *New Zealand Aquatic Environment and Biodiversity Report No. 244*. Available for download from <https://www.mpi.govt.nz/dmsdocument/41869/direct>

- **White-capped albatross:**

Francis, R.I.C.C. 2012: Fisheries Risks to the Population Viability of White-capped Albatross *Thalassarche steadi*. *New Zealand Aquatic Environment and Biodiversity Report. No. 104*. 24 p.

- **Gibson's albatross:**

Francis, R.I.C.C.; Elliott, G.; Walker, K. (2015). Fisheries risks to the population viability of Gibson's wandering albatross *Diomedea gibsoni*. New Zealand Aquatic Environment and Biodiversity Report No. 152. 48 p.

- **Antipodean albatross:**

Edwards, C.T.T.; Roberts, J.O.; Walker, K.; Elliott, G. (2017). Quantitative modelling of Antipodean wandering albatross. New Zealand Aquatic Environment and Biodiversity Report No. 180. 32 p.

Marine Mammals

Level 2 (semi-quantitative) Risk Assessment:

Abraham, E.R.; Neubauer, P.; Berkenbusch, K.; Richard, Y. 2017 Assessment of the risk to New Zealand marine mammals from commercial fisheries. New Zealand Aquatic Environment and Biodiversity Report No. 189. 123 p.

Currey, R.J.C.; Boren, L.J.; Sharp, B.R.; Peterson, D. 2012: A risk assessment of threats to Maui's dolphins. Ministry for Primary Industries and Department of Conservation, Wellington. 51 p.

Roberts, J.O.; Webber, D.N.; Roe, W.D.; Edwards, C.T.T; Doonan, I.J. 2019. Spatial risk assessment of threats to Hector's and Māui dolphins (*Cephalorhynchus hectori*). New Zealand Aquatic Environment and Biodiversity Report No. 214. 174 p.

Level 3 (quantitative)/modelling projects for

- New Zealand sea lion:

Roberts, J.; Doonan, I. (2016). Quantitative Risk Assessment of Threats to New Zealand Sea Lions. New Zealand Aquatic Environment and Biodiversity Report No. 166. 111 p.

Protected Fish

Level 1 (qualitative) Risk Assessment:

Ford, R.B.; Francis, M.P.; L. Holland, L.; Clark, M.R.; Duffy, C.A.J.; Dunn, M.R.; Jones, E.; Wells, R. 2018. Qualitative (Level 1) Risk Assessment of the impact of commercial fishing on New Zealand Chondrichthyans: an update for 2017. New Zealand Aquatic Environment and Biodiversity Report No. 201. 109 p.

Appendix 5. CSP project proposal prioritisation framework

Purpose

This prioritisation framework has been developed to aid the Conservation Services Programme ([CSP](#)) Research Advisory Group ([RAG](#)) in providing advice on prioritisation of research or other proposals, according to the principles described in Section 3.2 of this Strategic Statement. The proposals prioritised by the CSP RAG will be used to develop the CSP Annual Plan.

Framework

Proposals will be considered by the CSP RAG if they are targeted at addressing one or more CSP Objective, which are:

- Objective A: Proven mitigation strategies are in place to avoid or minimise the adverse effects of commercial fishing on protected species across the range of fisheries with known interactions.
- Objective B: The nature of direct adverse effects of commercial fishing on protected species is described.
- Objective C: The extent of known direct adverse effects of commercial fishing on protected species is adequately understood.
- Objective D: The nature and extent of indirect adverse effects of commercial fishing are identified and described for protected species that are at particular risk to such effects.
- Objective E: Adequate information on population level and susceptibility to fisheries effects exists for protected species populations identified as at medium or higher risk from fisheries.

Further details on the CSP Objectives are provided in the CSP Strategic Statement 2013.

This Strategic Statement provides a number of prioritisation principles in Section 3.2. These have been used to develop four scoring criteria:

1. Contribution to one or more CSP Objective
2. Fisheries risk and/or threat status
3. Cost effectiveness
4. Leverage

For each proposal, each criterion is scored on a scale 1-5. The criteria are weighted with 35% to each of criteria 1 and 2, 20% to criterion 3 and 10% to criterion 4. A weighted total between 1 and 5 is then calculated for each proposal, which is used to rank proposals in order of priority. Further details on the criteria and guidance on scoring is provided below, and a summary table with some worked examples is provided as Table 1.

This framework is only intended as a tool for prioritisation of proposals by the CSP RAG, and it should not be considered a decision-making tool as to which projects are chosen for inclusion in a CSP Annual Plan or other delivery mechanism, nor the choice of funding mechanism.

Scoring

1. Contribution to one or more CSP Objective

This criterion is to assess the extent to which the proposal is considered to help achieve the relevant CSP Objective(s). Proposals that will make a significant contribution to achieving two or more objective should be scored 5, those making more modest incremental contributions should be scored 3 and those making only small contributions to part of one objective should be scored 1. Consideration should be given to both the number of objectives being addressed and the extent of contribution to achieving the objective. In accordance with the prioritisation principles outlined in the CSP Strategic Statement 2013, proposals that aim to conduct commercial fisheries risk assessment for protected species where this has not previously been assessed should be considered high priority.

2. Fisheries risk and/or threat status

This criterion is scored based on the risk or threat status of the protected species being investigated or impacted by the proposed project. In accordance with the prioritisation principles outlined in the CSP Strategic Statement 2013, where fisheries risk assessments for a given group of protected species have been completed, this will form the basis of scoring for this criterion, with proposals relevant to very high risk species scoring 5, those with negligible risk scoring 0. Where there is no adequate fisheries risk assessment for a group of protected species, the threat status of the species should be used, with critically endangered species scoring 5, not threatened species scoring 1. Interaction or mitigation projects may impact on a wide range of protected species, and in such cases, scoring should be based on the most at risk or threatened species targeted. Most risk assessments to date have focussed on direct effects (bycatch) and do not consider potential indirect effects. Therefore, it may not be appropriate to base scoring for this criterion on risk assessment ranking for projects investigating indirect effects, and instead threat status should be considered.

3. Cost effectiveness

In accordance with the prioritisation principles outlined in the CSP Strategic Statement 2013, high priority should be given to proposals that most cost-effectively achieve the research goal, such as by utilising opportunities for multi-species/multi-project initiatives to enhance the application and cost-efficiency of research, and to provide for integrated management. When considering research investment across a range of mitigation methods/approaches, the cost-effectiveness of developing and implementing such methods will be considered in prioritisation. Scoring should be on a relative scale of 5 for proposals utilising substantial cost efficiencies (such as joint delivery with other

work) and/or at low cost, 1 for those that are high cost and have no cost efficiencies (stand alone projects).

4. Leverage

In accordance with the prioritisation principles outlined in the CSP Strategic Statement 2013, priority should be given to proposals that address information gaps where this knowledge will significantly enhance the value or application of existing knowledge to address adverse effects of commercial fishing on protected species (leverage). Scoring should be on a relative scale of 5 for proposals where the outputs will considerably enhance a much larger existing knowledge base, 1 for proposals where there is no such leverage.

Table 1. Example proposal scoring matrix. Text in parentheses provide rationale on the scoring. Note: this table is provided for the purpose of illustrating the prioritisation process only.

Proposal	CSP Objective	Indicative cost (\$ 000s)	Contribution to CSP Objective 35%	Risk/threat status 35%	Cost effectiveness 20%	Leverage 10%	Weighted score
INT-1 Identification of seabirds captured in commercial fisheries	B; C	80	5 [understanding which species are captured in fisheries is a vital contribution to understanding and quantifying direct impacts]	5 [a full range of species will be included, and as observer coverage will be targeted at interactions with the highest risk species this proposal is relevant to very high-risk species]	4 [costs are relatively modest, build on existing structures and is integrated into fisheries management responses]	5 [the information obtained from this relatively small project enhances the data obtained from the CSP Observer Programme adding far more utility to the data]	4.8
POP-1 White-capped albatross: Auckland Islands population study	E	60	4 [the proposal makes an incremental, but important contribution to time series data]	5 [very high-risk species]	4 [costs are relatively modest and achieve cost efficiencies through joint delivery with other projects]	4 [the information obtained builds on an existing data set and will be of direct use in risk assessments]	4.25
MIT-1 Inshore bottom longline seabird mitigation	A	100	5 [the proposal makes a very important contribution to a fishery that contributes a high level of risk]	5 [the fishery poses substantial risk to very high-risk species]	5 [costs are relatively modest, and achieve efficiencies with delivery of observer coverage and seabird liaison officers]	5 [this fishery has been the subject of targeted interaction data collection and risk characterisation, which will inform the project]	5.0