

Southern Scallop Working Group

IMPLEMENTATION PLAN

Southern Scallop Strategy: Marlborough Sounds

Version 1.1 – April 2021

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1. Introduction

- 1. In 2018, the Minister of Fisheries requested that a multi-sector group, the Southern Scallop Working Group (SSWG), be set up in order to address sustainability concerns for scallops at the top of the South Island. The SSWG brings together fisheries managers and scientists, iwi, commercial and recreational sectors of the fishery, and provides an inclusive platform for all fishing sectors to have input into the future management of the fishery.
- 2. Since its formation, the SSWG has worked with Fisheries New Zealand (FNZ) to develop a strategy to address sustainability concerns for scallop populations in the Marlborough Sounds. This strategy, known as the Southern Scallop Strategy: Marlborough Sounds (herein referred to as the Strategy) was approved by the Minister of Fisheries in 2020, and given formal status as a fisheries plan under Section 11A of the Fisheries Act 1996 (FA 1996).
- 3. The aim and key objectives of the Strategy are outlined below:

The Southern Scallop Strategy: Marlborough Sounds

Aim: To ensure the scallop stock rebuilds to a healthy level and that future customary, recreational and commercial fishing activity is sustainable.

Key Objectives

- Secure improved information and use it to improve fisheries management
- Improve scallop habitat quality and quantity in the Marlborough Sounds
- Address the non-fishing impacts on scallops (e.g. land-based impacts, alternative uses of marine space and disease)
- Set an appropriate biomass threshold for reopening that ensures there are sufficient scallops to support fishing activity
- Minimise the fishing impacts on scallop habitat and populations through refugia (closed areas) and limiting fishing methods (such as dredging)
- Manage scallop catch based on a sustainable target
- 4. The purpose of this document (Implementation Plan) is to outline the approach the Southern Scallop Working Group (SSWG) will take to achieve the aim and objectives of the Strategy. This includes detailing what tasks and processes will be completed in order to achieve the Strategy objectives. This Implementation Plan is structured with four key workstreams which are summarised overleaf.

1.1 Four key workstreams of the Implementation Plan:

- Regulatory framework: making sure appropriate regulatory and policy settings are in place to allow effective and responsive management of the fishery (including restoration etc.) to occur;
- 2. Research: sets out the ongoing and planned research, and how research is meeting the objectives of the strategy (demonstrates how things can be done);
- 3. Harvest: outlines if and how scallop harvesting would occur; and
- **4. Restoration**: identifies the measures to restore the supporting habitat and fishery (how we will make this happen).

Each year, the outputs of these workstreams will be assessed against the Strategy objectives.

- 5. The research, restoration and harvest workstreams are separate, but related. The Strategy gives priority to research, which is used to drive the operational management of the fishery (and vice versa). The research plan is distinguished from the harvest and restoration plans, because the outcomes of the research planning pathway inform how restoration and harvesting might occur in practice. For example, research might be commissioned to identify what factors support successful habitat restoration. The outcomes of this research would then be implemented through the restoration plan, to actively restore habitat.
- 6. Each key workstream is set out at a high-level in this document and supported by a more detailed plan (timeframes for delivery and resources) in the relevant figures and tables within each section. For each workstream, consideration will be given to:
 - a. The consultation obligations under relevant pieces of legislation;
 - b. Engagement with parties who may be involved in implementing plans (e.g. research providers, Councils);
 - c. What resources are available to implement tasks.

1.2 Communication

7. A key component of the Implementation Plan is how we communicate our direction and the rationale for our recommendations (and evidence behind them), and to what audience. Providing for input into our recommendations will also be an important consideration.

For a more detailed outline of the communication programme planned to support the Implementation Plan, refer to Page 13.

2. Regulatory framework workstream

- 8. This workstream evaluates the current operational policy and regulatory environments to ensure they are fit-for-purpose. This would include reviewing the existing policy and regulatory frameworks against how we want to manage the fishery, and the regulatory changes required to enable this to occur. Specific tasks will include:
 - Reviewing the fishing regulations to ensure there is sufficient flexibility to allow changes to be made as needed (e.g. annual bag limits changes, area closures, fishing methods)
 - Providing for improved catch reporting (fine-scale catch information)
 - Establishing refugia / restoration areas
 - Restoring seafloor habitat, which could involve deposition of materials
 - Consider interaction with the Resource Management Act, 1991 e.g. position of competition for marine space and activities related to restoration of seafloor habitat.
- 9. A system of appropriate indicators will be developed to allow us to assess how we are meeting the objectives outlined in the Strategy, and the Purpose and Principles of the FA 1996. This is to ensure we are doing everything the Act says we should be, and we need to establish indicators to measure how we are achieving this. Tasks include monitoring:
 - Sustainability of scallops and scallop habitat
 - Harvest indicators (biomass)
 - Habitat indicators (e.g. habitat recovery)
 - Utilisation of scallops
 - Social, cultural and economic wellbeing indicators (to indicate how we are doing things that are consistent with the legislation)
 - Operational and regulatory policy reviews and monitoring
 - Review performance against the Strategy and FA 1996 indicators (e.g. habitat recovery, catch / sustainability, value, recreational / customary catch)
 - Review and update policy framework as appropriate
 - Develop revised operational policy / regulatory arrangements as appropriate
- 10. **Table 1** overleaf provides a detailed summary of how each task will be achieved, including indicative timeframes for their delivery. How the policy and regulatory workstream fits in with other workstreams is illustrated in the integrated management process map in **Appendix 2**.

Table 1. Outline of tasks within the regulatory framework workstream, with details of the planned pathway and timeframe for delivery of each task.

Task description (the what)	Pathway (how)	When (timeframe for delivery)
Review regulations (scope includes the means to establish refugia and undertake	SSWG will identify how we want to manage the fishery and what regulatory framework is needed to achieve an agile approach. SSWG will also examine the existing regulatory and policy framework and highlight barriers to achieving the preferred pathway and liaise with FNZ and others (for example MDC) accordingly.	TBD 2021 (one-off task)
habitat restoration)	SSWG and FNZ will review the existing regulatory and policy framework within each workstream (alongside development of the research, harvest and restoration plans) to identify areas where change is necessary and allow for implementation of an improved management framework. FNZ will consider these changes as part of its annual regulatory planning process.	Ongoing on an annual basis
Provide for improved catch reporting (finescale catch information)	SSWG and FNZ will identify how to improve catch-reporting and agree an approach for progressing the preferred pathway. In doing this, the SSWG will consider available information from submissions and international examples.	Ongoing on an annual basis
Consider interaction with the Resource Management Act, 1991	SSWG will work with MDC and other regional marine interests to ensure that the scallop resource is considered in any relevant plans, policies or strategies within the Marlborough Sounds which may potentially affect management of the resource and habitat.	Ongoing on an annual basis
Develop a monitoring framework to ensure our	SSWG will develop and agree harvest indicators (how is the scallop stock tracking) – e.g. harvestable biomass, recruitment.	TBD (one-off task)
efforts are meeting the Purpose and Principles of the Act	SSWG will develop and agree habitat indicators (is the habitat in such a state that it can support scallops to survive and thrive).	TBD (one-off task)
	SSWG will develop and agree social, cultural and economic wellbeing indicators.	TBD (one-off task)
	SSWG will review the above indicators against the Purpose and Principles of the Act annually to identify areas for improvement (which can then serve to inform the	April (annually)

	revised research, harvest and restoration plans).	
Iwi engagement on proposed changes	The SSWG will engage with local iwi on changes to policies and regulations.	As needed
Stakeholder and public consultation on proposed changes	The SSWG will consult with SCA 7 stakeholders and the public on changes to policies and regulations.	
Decisions on proposed changes	FNZ will include final proposals in relevant Cabinet/ other processes for consideration and implementation.	

3. Research workstream

11. The research tasks within this workstream fall into three main types, as outlined below. All research tasks will contribute to managing the scallop fishery and biomass using an ecosystem approach, while acknowledging the importance of habitat.

Scallop habitat research

- Identify habitat requirements for scallop
- Map scallop habitat types and footprint (what we have and where is it)
- Document historical change in scallop populations (distribution and abundance) and habitats
- · Identify fishing impacts on scallop habitat
- · Identify non-fishing impacts on scallop habitat
- Categorise habitats for scallop fishing activity

Scallop population status

- Surveys of scallop abundance
- Assessment of sustainable yields (biomass / habitat indicators and measures)
- Scallop health role of disease and other factors

Restoration / enhancement research

- Identify restoration methods / approaches
- Trial restoration approaches
- 12. To ensure that these tasks are completed effectively to support implementation of the strategy, each year the SSWG will review the research plan against the objectives of the strategy and then re-evaluate priorities for research in the following year.
- 13. **Figure 1** below outlines what key pathways will be followed in order to achieve these tasks. **Table 2** overleaf then provides a more detailed outline of these pathways, describing how and when they will be used to deliver the above research tasks.

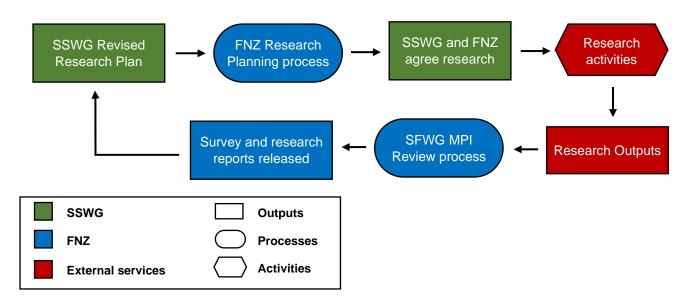


Figure 1: Flow chart outlining key processes within the research workstream

Table 1. Outline of pathways that will be taken to deliver tasks within the research workstream, including indicative timeframes.

Process/Output	Pathway (how)	When (timeframe for delivery)
SSWG Revise Research Plan	SSWG will discuss outputs of research from previous year and review them against the research plan and objectives of the Strategy. The research plan will then be revised to include updated research priorities and any additional ideas and needs for research.	August (annually)
FNZ Research planning process	SSWG will provide FNZ with the revised research plan, so that any new ideas, and ideas that were not previously prioritised, can be submitted for consideration in the longlist of FNZ's research planning process. Other non-FNZ funding sources will also be considered.	October (annually) (may vary)
SSWG and FNZ agree research	FNZ brings feedback/comments on scallop research back to SSWG . FNZ and SSWG then agree on priorities for scallop research to be submitted to the next stage of FNZ research planning (longlist goes through prioritisation process before being condensed into a final list of research services to be contracted in the next year.	November (annually)
Research activities occur, outputs produced	Research activities that make the final list will be contracted out (by FNZ) to external research organisations , which will then produce research outputs. Any activities that are not prioritised for funding within FNZ will be considered for submission to other funding sources or reconsidered for the next research year (this will be dependent on why they were not prioritised).	July (annually)
SFWG MPI review process	The results of research activities will be presented to the SFWG and reviewed prior to completion of the final research reports.	July (annually) (may vary)
Survey and research reports released	Outputs (presentations and reports) from these activities will be fed back into the SSWG . Results are presented to SSWG initially ahead of when the final research report (FAR report).	Varies by activity and depends on when results are finalised.

14. Each of these pathways have a common overall task, which is to ensure that all research tasks related to scallop habitat, sustainable yield and restoration effectively support implementation of the Strategy to rebuild scallop populations in the Marlborough Sounds. It is important to note that the SSWG has been actively engaged in research planning and developing research projects since its formation in 2018. **Appendix 1** provides a list of currently ongoing, contracted and planned research for scallops in the Marlborough Sounds.

4. Harvest workstream

- 15. Despite the Marlborough Sounds fishery being closed since 2016, scallop biomass has not recovered, with scallop biomass in 2019 estimated to be the lowest on record. According to the most recent biomass survey in 2020, biomass has not declined further since 2019, but overall remains too low to allow sustainable harvesting based on historical biomass baselines and survey areas. The SCA 7 fishery remains closed until such time as a sustainable harvest is feasible.
- 16. While harvest of scallops may not occur in the short-term, understanding what a sustainable harvest plan needs to include will inform how we assess the policy and regulatory framework, to ensure it is fit-for-purpose.
- 17. A key outcome of this is to set annual harvest limits and rules. This involves establishing a pathway to achieve the following tasks:
 - Setting a threshold biomass for reopening
 - Establish harvest areas, refugia, catching limits and methods for annual harvests
 - Determining what fishing methods are appropriate and where/how
 - Setting harvest limits and allocations (commercial / recreational / customary)
 - Engaging with iwi on the harvest plan
 - Undertaking stakeholder engagement and public consultation on the harvest plan
 - Review performance of fishery against targets (e.g. compliance with catch limits) and strategy
- 18. **Figure 2** below outlines what key pathways will be followed in order to achieve these tasks. **Table 3** overleaf then provides a more detailed summary of how each task will be achieved, including an indicative timeframe for delivery.

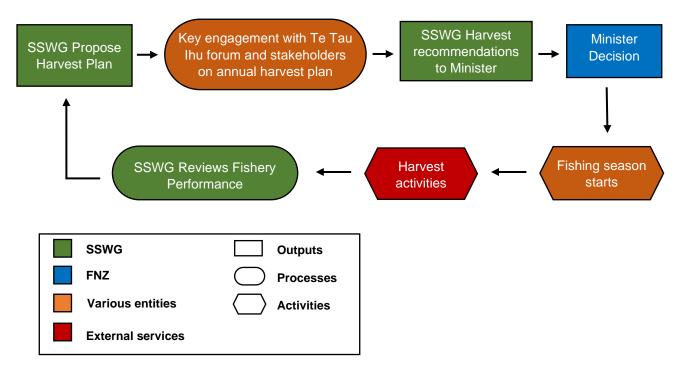


Figure 2: Flow chart outlining key pathways within the harvest workstream

Table 2. Outline of tasks within each part of the harvest workstream, with details of the planned pathway and timeframe for each.

Process/Output	Task description (the what)	Pathway (how)	When (timeframe for delivery)
SSWG Propose harvest plan	Set a threshold biomass for reopening	SSWG will propose an overall threshold biomass for reopening; that is the point in which biomass of scallops is considered sufficient to support sustainable fishing activity. This threshold will be based on a past time period in which scallop populations were considered to be at healthy levels. Taking into account environmental changes and the desirability of managing scallops at a finer scale, biomass-based limits and an analysis of the risks to sustainability will be used to set the threshold biomass for reopening, and to continually monitor the fishery.	TBD 2021 (one-off task) Monitored annually following each biomass survey in July.
	Determine what fishing methods are appropriate and where/how	Some scallop habitats recover quickly from dredging, while others are more sensitive and do not. To minimise impacts of fishing on the aquatic environment, the SSWG will categorise current scallop beds in the Marlborough Sounds in terms of whether they are:	TBD 2021 (one off task, to follow completion of the above task)
		 Resilient to regular rotational harvesting Able to sustain periodic rotational fishing to allow for longer recovery times Not suitable for dredging and/or other high impact fishing methods. These categories will be proposed for each scallop area within the harvest plan and reviewed annually. 	Then reviewed annually by August
	Set harvest limits	Once an overall threshold biomass is set for reopening, the SSWG and FNZ will provide for input of tangata whenua and engage with SCA 7 stakeholders on appropriate catch limits for each sector of the fishery upon reopening.	TBD 2021 (one off task) Then reviewed annually by August

Establish harvest areas, refugia, catching limits and methods for annual harvests		In the final harvest plan, the SSWG will propose areas suitable for harvest, and within each suitable area, propose catch limits and methods that ensure harvest will be sustainable. The SSWG will also consider suitable refugia areas (where fishing is prohibited to allow scallop recovery) in conjunction with the restoration plan.	August (annually)
Engagement with Te Tau Ihu forum and stakeholders on annual	Engage with iwi on the harvest plan	Engagement with iwi will occur at all steps of the planning process. There will be a key engagement with Te Tau Ihu once the proposed harvest plan is finalised by the SSWG.	August (annually)
harvest plan	engage with stakeholders and undertake public consultation on the harvest plan	FNZ will then also distribute the proposed recommendations for consultation with stakeholders and the interested public. This process will involve sending out communications to local iwi, SCA 7 stakeholders and the public, notifying them of what is proposed, and asking for any feedback on the proposed harvest plan.	
SSWG Harvest rec Minister (and Minist		The proposed harvest recommendations will be revised to account for any feedback received during engagement and public consultation and then sent to the Minister for decisions to be made.	August (annually)
Fishing season star activities begin	rts and harvest	Any changes to catch or other settings decided by the Minister will be gazetted prior to September and the fishing season for SCA 7 may begin (or not) thereafter.	September (annually)
SSWG Reviews Fishery Performance	Review performance of fishery against targets (e.g. compliance with catch limits) and strategy	 SSWG will discuss and review performance of the fishery in terms of whether: The current harvest plan is sustainable and appropriate given most recent information on scallop biomass and abundance There was good compliance to catch limits overall, and within each sector The fishery has operated, and will continue to operate to achieve the strategy objectives From this, the group will discuss areas for focus moving forward 	April (annually)
		that can feed back into the revised harvest plan	

5. Restoration workstream

- 19. There are a number of tasks that need to occur to better understand where habitat restoration is necessary and how it could occur. Establishing how different areas of the fishery could be managed to provide for utilisation and conservation, simultaneously, will also be an important aspect of these tasks designed to meet the Strategy's objectives.
- 20. An indicative list of restoration workstream tasks is set out below:
 - Identify current scallop fishery areas
 - Define/Identify refugia
 - Identify and establish restoration areas and programme activities
 - Trial habitat restoration
 - Review restoration activities against targets (e.g. hectares restored) and strategy
- 21. **Figure 3** below outlines what key pathways will be followed in order to achieve these tasks. **Table 4** overleaf then provides a more detailed summary of how each task will be achieved, including an indicative timeframe for delivery.

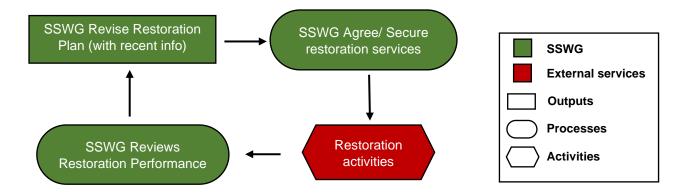


Figure 3: Flow chart outlining key pathways to achieving the restoration/enhancement workstream

Table 4. Outline of tasks within each part of the restoration workstream, with details of the planned pathway and timeframe for each.

Process/Output Task description (the what)		Pathway (how)	When (timeframe for delivery)	
SSWG Revise Restoration Plan	Identify current scallop fishery areas	SSWG will initially identify current and historical important scallop fishery areas of the Marlborough Sounds (in conjunction with the proposed harvest plan).	February 2021 (one-off task), then ongoing annually following surveys	
	Define and identify refugia	SSWG will meet and discuss which areas of the Marlborough Sounds are suitable as refugia for scallops. Agreed areas will be proposed as part of the restoration plan output.	August (annually)	
	Identify and establish restoration areas and programme activities	SSWG will identify areas suitable as focus areas to apply active restoration efforts/ enhancement programme activities. Agreed areas will be proposed as part of the restoration plan.	August (annually)	
SSWG Agree/ Secure restoration services		The SSWG will secure the services/activities needed in order to carry out the restoration plan formed from the tasks above.	August (annually)	
Restoration activities (external services) Trial habitat restoration		Habitat restoration trials and enhancement activities will be carried out by external entities.	Between August – April (annually)	
SSWG Reviews Restoration Performance Review restoration activities against targets (e.g. hectares restored) and strategy		SSWG meets to discuss progress of current restoration activities against targets and strategy objectives in annual meeting. From this, group will discuss areas for focus moving forward that can feed back into the revised restoration plan.	April (annually)	

6. Communication programme

- 22. Given the importance of this fishery to all fishing sectors, particularly in the Top of the South Island, it is important that we communicate information on the fishery. Ensuring the rationale for our management decisions and direction is clearly communicated, and that input is sought as needed, will be important to the successful implementation of this plan.
- 23. To this end, we propose to establish in conjunction with FNZ, a communication platform (e.g. email, website, social media etc.) to make information available relating to:
 - Policy reviews
 - Fishery performance indicators
 - Research results
 - Harvest rules
 - Restoration programme activities
 - Statutory consultation processes associated with regulatory decisions
- 24. In addition, establishing an agreed approach within the SSWG of how to respond to messaging both in the media, and communication from the group externally, will be important to ensure consistent and accurate messaging is shared from the group.

7. Annual SSWG processes to develop and review "workstreams"

- 25. The Implementation Plan is underpinned by several inter-related processes linked to annual research and regulatory cycles run by Fisheries New Zealand. There are aspects of each that occur at specific timeframes. How each process inter-relates is tabulated below in **Table 5** and sequenced in a process map (*Appendix 2 Integrated Management Process Map*). Consideration will also be given to other relevant processes that the successful implementation of the Strategy's tasks may rely on, such as:
 - Other planning processes of regional councils and central government;
 - Input and participation of iwi;
 - Delegated decision-making ability of representatives on the SSWG (to make management recommendations);
 - Other funding and regulatory processes, as well as private sector engagement, i.e. CSEC or others, to be considered as the sequences are followed above (e.g. MBIE, council).

Table 5. Shows the key events relating to the SCA 7 fishery by month. The intention of this table is to provide guidance as to key dates when the SSWG should meet to ensure the group has early input into key processes/decisions.

Month	Regulatory	Research	Harvest	Restoration	Key communication/engagement
Jan					
Feb					
March					SSWG meeting: Review
April	SSWG Review harvest, habitat and social indicators against strategy		Review harvest season performance	Review restoration performance	annual performance of fishery against plans and strategy objectives
May	Assessment of key central Govt. and regional authority planning	Biomass survey/ assessment of scallop populations and habitat			
June					
July		Fisheries Research Services list confirmed. Draft survey results presented to SFWG			SSWG meeting: survey results presented, SSWG discusses recommendations in follow-up
Aug		SSWG propose/revise research plan	SSWG propose/revise harvest plan after consultation and engagement	SSWG propose/revise restoration plan	SSWG Meeting to consolidate and prioritise plans.
Sept		Initial research proposals to FNZ	Fishery opens (or not)		
Oct	Stocks for April sustainability round are prioritised	Next year's biomass survey contracted	,		
Nov	•	Final research priorities to FNZ			SSWG determine final research priorities for FNZ research planning (by end on NOV)
Dec		Survey FAR released			

8. Key dates for the SSWG to meet

March/April:

- Assessment of key central Government and regional authority planning process
- Review annual performance of fishery against research, harvest and restoration plans, as well as overall strategy objectives
- Report on published research projects

July:

- Draft scallop survey and other research results presented to SFWG
- **SSWG** starts discussing management recommendations for harvest, restoration.
- FNZ Fisheries Research Services list confirmed, SSWG accordingly discusses research plan and priorities

August:

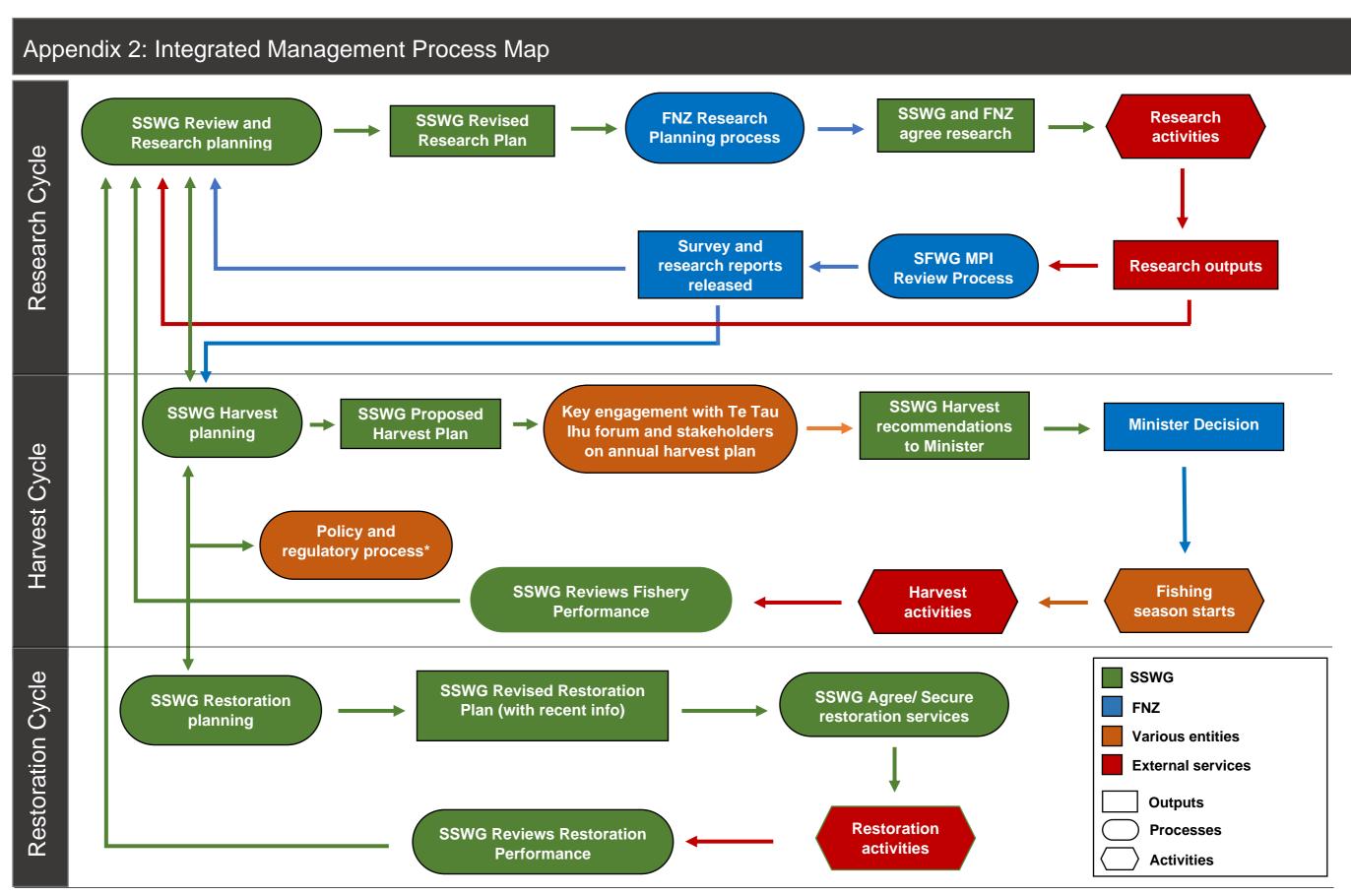
- **SSWG** discuss priorities/recommendations for research. Recommendations for research can then be provided to **FNZ** in September/October ahead of research planning schedule
- **SSWG** discuss final recommendations for managing scallop harvest and restoration, set up schedule for engagement and submission to the Minister

November:

• **SSWG** revisit research and determine final research priorities for FNZ longlist (by end of November)

Appendix 1: List of currently ongoing, contracted and planned research for scallops in the Marlborough Sounds.

Project title	Type(s) of research	Details	Tentative timeframe
Core biomass survey 2020 (1-year)	Scallop population status	Annual scallop biomass survey in Marlborough Sounds	2020 -Completed (awaiting formal publication)
Core biomass survey 2021 (1-year)	Scallop population status	Annual scallop biomass survey in Marlborough Sounds	2021 -Projects have been
Non-contact bottom survey of SCA 7 recreational fishing areas of Marlborough Sounds (1-year)	Scallop population status	Non-contact biomass survey for scallops on beds that have not previously been considered as part of the biomass surveys (incl. non-commercial areas)	confirmed to be carried out in 2021
Cumulative effects of stressors on scallops and scallop habitats in the Marlborough Sounds (2-year)	Habitat/ restoration	Experimental and modelling research to assess the cumulative effect of a range of physical, biological, and ecological stressors (including fishing) on scallops and scallop habitat in the Marlborough Sounds.	
Large-scale scallop habitat and restoration project (5-year)	Habitat/ restoration	Multifaceted project to identify habitat requirements of scallops, and look into possible approaches to restoration	2021 -Has been submitted to MBIE for Endeavor fund for 2021
SCA 7- developing and testing restoration methods for SCA 7 in the Marlborough Sounds	Restoration	This project aims to conduct experiments to investigate appropriate methodology and options for the restoration of scallop habitat in the Marlborough Sounds	2022 -These have all been submitted to FNZ and
SCA - Building a reliable yield per recruit or stock assessment model for scallops	Scallop population status	Determine a reliable way to estimate yield from surveyed biomass. This proposal is contingent on a new NIWA stock assessment method being developed successfully.	are awaiting prioritisation processes
SCA 7 – Analysing scallop health differences across bays in the Marlborough Sounds	Other	Examine spatial variation in disease and environmental factors across different scallop areas in the Marlborough Sounds (healthy vs. non-healthy scallop beds).	
Core biomass survey 2022 (1-year)	Scallop population status	Annual scallop biomass survey in Marlborough Sounds	



^{*} The regulatory workstream fits within the other workstreams in various stages from planning to implementation. Thus, policy and regulatory processes will be a key consideration during the development of the research, harvest and restoration plans.