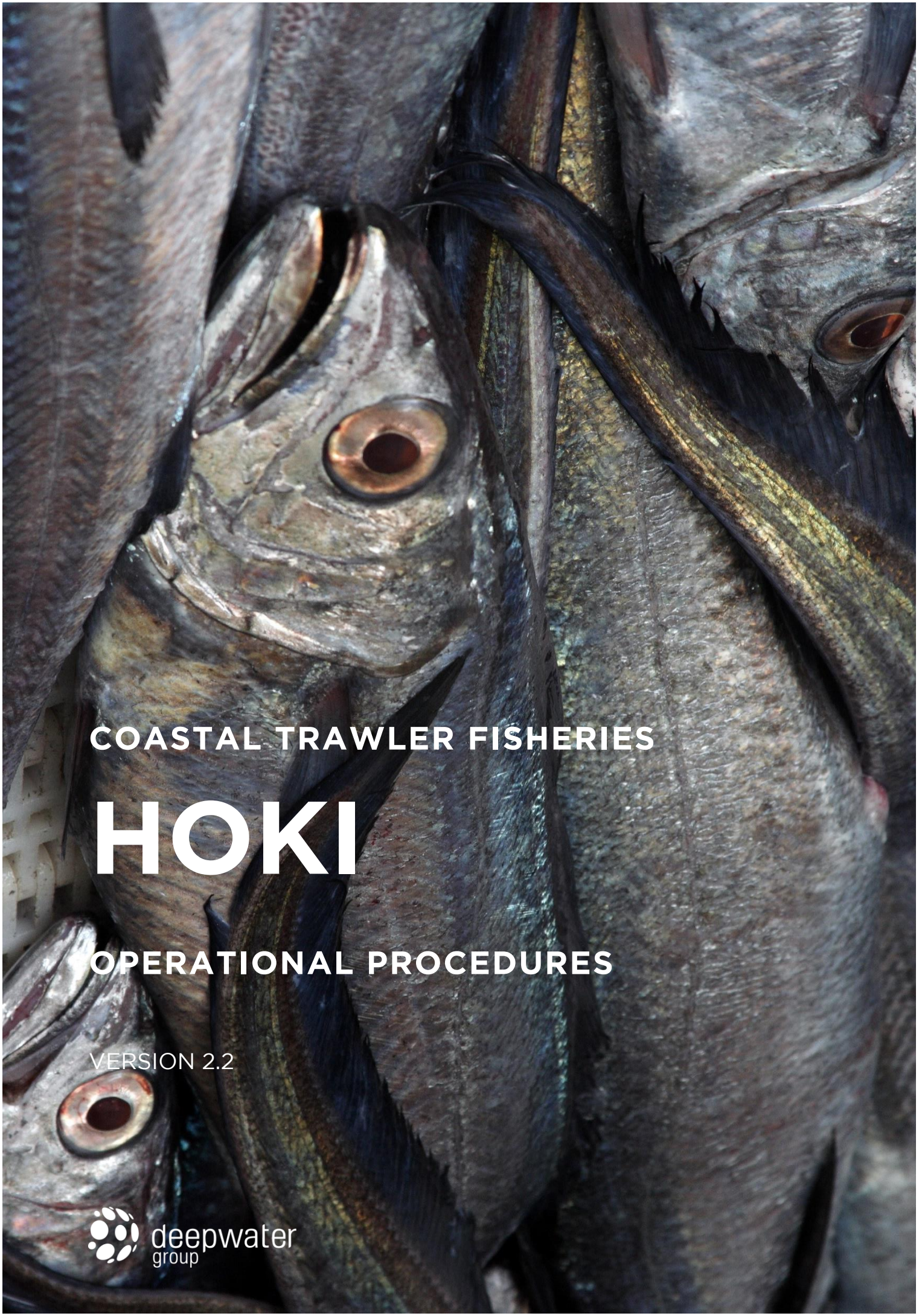

COASTAL TRAWLER FISHERIES

HOKI

OPERATIONAL PROCEDURES

VERSION 2.2

deepwater group

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DOCUMENT HISTORY	VERSION NO.	DATE
Document creation - updated format from previous versions	2.0	20 Jun 2019
Updating Ten Golden Rules and Approval to Tranship Fish form	2.1	04 Nov 2020
Updating Approval to Tranship Fish form, replacing R Wells with B Steele-Mortimer as reporting contact; adding Appendix 6 and 7	2.2	08 Jun 2022

PART 1: INTRODUCTION

The purpose of this document is to provide information to companies (vessel skippers, crew and operators**,** quota owners and Licensed Fish Receivers) involved in the West Coast and Cook Strait coastal trawler hoki fisheries.

This document has been prepared by Deepwater Group Ltd (DWG), on behalf of quota owners, to outline requirements to manage the risks when fishing for hoki in these areas.

Fur seal and seabird risk

The coastal hoki fishery attracts New Zealand fur seals and to a lesser extent seabirds, which feed around the vessels.

Cook Strait is the highest risk area for fur seal captures. The West Coast fishery also interacts with fur seals, but to a lesser extent, and has more seabird interactions due to more seabirds in the area and the potential for more offal discharge (e.g. ling).

It is important to manage these risks when fishing for hoki in these areas.

Both fisheries are very important with significant tonnages of hoki caught by the coastal fleet on a seasonal basis. Managing these environmental risks is important for the sustainability of the fishery.

Figure 1: Hoki vessels at Picton wharf

Bulk fishery

The coastal hoki fishery is a bulk (high volume) fishery with vessels usually targeting dense fish marks and taking large catches in a short tow time.

This requires excellent seamanship, fishing skills and practices to ensure careful management of catch size and subsequent catch handling, given the known safe working limits for vessel and crew in sometimes difficult conditions.

Fishing operations and tow times through the fish mark must be carefully managed to ensure you do not catch beyond the capability of the gear and vessel.

Catch monitoring systems

Your ability to judge the density of the mark on the sounder and the amount of time you will tow through the mark to ensure the required catch volume, is dependent on two important factors:

- The experience level of the skipper and his knowledge of the fishery and area
- The catch monitoring equipment used on the fishing gear to improve the level of information available to the skipper throughout the tow (e.g. net headline monitor and codend catch sensors). It is also important to have an echo-sounder capable of good mark recognition and description.

DWG recommends the use of catch control and monitoring systems in all hoki fisheries to reduce the potential issues with using a window (see below). This also improves fish quality, reduces the potential for gear damage and loss, minimises the need of transhipments of excess fish, reduces tow times and therefore improves fishing and energy efficiencies, as well as reduces the safety risks associated with catch volumes that may exceed the capabilities of the gear or vessel. Nearly all coastal vessels and all deepwater vessels now have headline monitors and catch sensors.

Windows

Windows are used in the fishery as a vessel and gear safety measure. If the skipper misjudges the density of the fish mark or the time the trawl is in the mark, the window mitigates the significant risk to the vessel, gear and crew.

However, windows are **not** to be used as a way of allowing for poor fishing practice, judgement and seamanship. They are merely insurance against mishaps or events where catches cannot be controlled despite best efforts.

Any fish seen lost must always be reported in the vessel's Electronic Reporting System (ERS) under code 'A' (accidental loss). You must read and understand the reporting regulations.

A window is considered a recognised safety measure in some bulk fisheries, but it is not to be used as a volume control measure. "Stitched" windows are considered illegal and are not recommended.

Fisheries New Zealand approval to transfer fish

On occasion, a vessel may bring aboard hoki volumes exceeding its fish hold capacity. To tranship excess fish to another vessel, each vessel requires a transhipment permit from Fisheries New Zealand (Approval to Tranship Fish under Section 110 of Fisheries Act 1996 - see Appendix 3).

Operators intending to fish the Cook Strait fishery must receive a permit before the commencement of the season. This permit must list each registered vessel that may receive or tranship fish. Applications can be emailed to Fisheries New Zealand Deepwater Team: deepwater.team@mpi.govt.nz

Once the vessel has a transhipment permit, no prior notification is needed to tranship fish.

Transhipment details must be entered in the Catch Landing Return (CLR) form. The vessel that caught and transhipped the fish should report the amount under destination code "T" (that amount does not go on the subsequent Monthly Harvest Return) and the vessel that received the fish reports it under code "L" as normal.

PART 2: OPERATIONAL PROCEDURES

Hoki Management Areas (HMAs)

HMAs are areas where there are high abundances of juvenile hoki (<55 cm in total length). DWG quota owners have agreed to manage and monitor effort within HMAs to protect juvenile hoki.

All operators and vessels are required to monitor catches of hoki across the entire HOK 1 QMA (not just within the HMAs) and, as a matter of principle, all vessels must move from any area where catches of juvenile hoki (<55 cm) comprise 20% or more of the hoki catch by number.

Trawlers >28 m LOA are not permitted to target hoki inside any of the HMAs. The Cook Strait HMA is the only HMA within the coastal hoki fishery area (Figure 2). There are other HMAs for the deepwater hoki fishery, as specified in the DWG Hoki Operational Procedures.

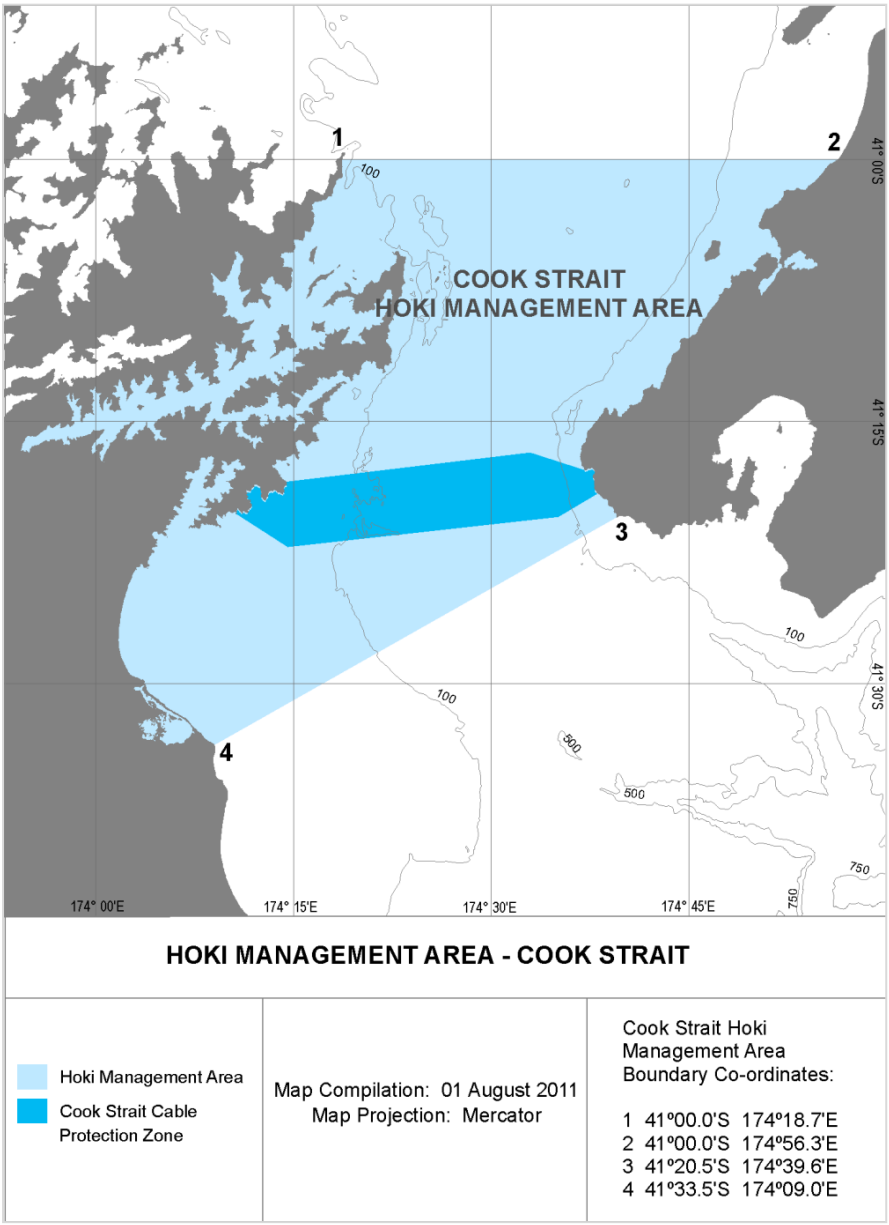

Figure 2: Cook Strait HMA

Hoki Spawn Season Areas (HSSAs) – Closed Area Periods

HSSA closures are to give hoki a period of undisturbed spawning. These areas were developed and agreed upon by DWG quota owners. While not required by law, DWG quota owners agree to require their vessels and ACE users to adhere to these.

Fishing in HSSAs

No trawler, regardless of size, shall target hoki within the four designated areas (co-ordinates and maps Appendix 1) during the periods, as set out below:

- **West Coast inside the 25 nm closure:** between 0000 hrs 18 July and 2400 hrs 24 July (noting trawlers >46 m LOA are already prohibited from fishing within this area by regulation)
- **West Coast outside of the 25 nm closure**, shallower than 800 m, between Kahurangi Point in the north and the boundary between FMAs 5 and 7 in the south: between 0000 hrs 25 July and 2400 hrs 31 July
- **Cook Strait:** Entire fishery between 0000 hrs 1 August and 2400 hrs 7 August (noting trawlers >46 m LOA are already prohibited from fishing within this area by regulation)
- **Pegasus**: Within the designated areas between 0000 hrs 1 September and 2400 hrs 7 September.

Cook Strait Submarine Protection Zone

The Cook Strait Submarine Protection Zone (CPZ) protects vital submarine electrical and telecommunication cable links between the North and South Islands (see Appendix 2 for map).

There are severe restrictions on activities that can be carried out within the CPZ under the Submarine Cables and Pipeline Protections Act 1996. To deter illegal activity there are severe penalties in the form of fines and forfeiture of vessels for violations of the Act. All fishing vessels fishing in the Cook Strait hoki fishery should have the CPZ coordinates on the fishing plotter and allow a buffer zone to keep clear of this area when fishing or anchoring.

Transpower operates sea and air patrols within the CPZ. Ben Hubbard, marine patrol manager (phone 0210 269 2841), coastal patrol vessel MV *Seapatroller* (phone 027 444 2288).

New Zealand fur seal capture mitigation (Cook Strait)

The Cook Strait hoki fishery attracts New Zealand fur seals that feed around the vessels, particularly while nets are near the surface during hauling and shooting. As a result, the fishery has the highest estimated number of fur seal captures of any New Zealand fishery.

Fur seals are known to migrate long distances to reach plentiful food sources from such fisheries. These provide ample opportunities to access food by scavenging fish from the net and codend.

Average captures per season for Cook Strait hoki season in recent years

- 50 to 80 New Zealand fur seal captures reported to Fisheries New Zealand by vessels
- Around 10% to 20% of tows are observed by Fisheries New Zealand each hoki season.

Capture reports should be made via the MPI Non-Fish Protected Species part of the daily ERS report and if a trigger point is reached, the DWG Environmental Liaison Officer should also be notified (see Part 4: Reporting – When Captures Occur).

Seabird capture mitigation

The coastal hoki fishery is of relatively low risk to seabirds. This is because the catch is landed whole, little processing of bycatch occurs, and seabird numbers are lower in winter.

All coastal vessels are <28 m LOA. which unlike vessels >28 m are not required by law to carry and use seabird scaring devices. However, DWG and hoki quota owners require that all hoki vessels <28 m LOA have Protected Species Risk Management Plans (PSRMP) on board.

The PSRMP is a one-page document outlining information on:

- The vessel, including a photo
- Vessel-specific seabird risks
- Vessel's offal control system
- Vessel's seabird mitigation devices, including a photo of the actual warp mitigation on board.

PSRMPs are now onboard all the fresh fish hoki fleet of <28 m vessels. These plans are a much simpler version of the deepwater trawlers' VMPs, but retain the basic management procedures:

Offal control

No continuous discharge of fish waste while towing, hold for the tow or batch at intervals.

Warp mitigation

If you discharge fish waste into the path of the warp and birds are present in the 'warp danger zone', deploy a warp mitigation device. We required vessels to have and deploy when required one of the recommended warp mitigation devices and or a tori line (see design guide, appendix 7)

Risk awareness, reduction & reporting

Follow your vessel's PSRMP and deploy seabird mitigation to reduce capture risk. In the event of multiple captures know the DWG Trigger Points, report to the DWG Liaison Officer (same day) and complete the required Fisheries New Zealand reports (see Part 4: Reporting – When Captures Occur).

PART 3: ANIMAL HANDLING / RELEASE AND CREW SAFETY

The following outlines what to do if a marine mammal or seabird capture occurs.

Animal welfare

- All practical care should be taken to release animals alive while maintaining the safety of the crew.

- Handle all captures with care to minimise harm to the animal and to increase their survivability.
- **Deliberately harassing or harming the captured animal is an offence.**
- **Taking any part and keeping it or cutting or mutilating the body of a protected species is an offence.**

The above applies to ALL protected species.

Health and safety when handling animals (dead or alive)

Crew and vessel safety are paramount. Animals can be dangerous, particularly when stressed and carry infectious diseases that can infect humans. Handling marine mammals should always be kept to a minimum and should only occur when needed.

When attending to animals landed on deck the following steps should be followed to ensure crew safety:

- Whenever handling animals, wear waterproof gloves and waterproof protective clothing (refer to examples shown below).
- Where possible, avoid direct contact with blood, urine, faeces and other body fluids. It is also important to avoid the animal's mouth as this is a major source of disease. Take special care when marking a dead animal.
- If bitten or grazed by an animal, wash and disinfect the wound immediately, apply betadine/antiseptic ointment and cover the wound. This minimises the risk of painful infections caused by bacteria carried by some animals.
- After handling any animal, wash your hands and forearms with antibacterial soap and hose down your protective clothing.

Marking and returning marine mammals

Any dead marine mammal returned to the sea must be marked with twine. The purpose of this is to avoid the same animal being counted twice should the body be caught again. (This can and does happen especially on other fishing grounds but is much less likely in Cook Strait).

When marking a dead fur seal ensure either a cable tie or twine is fixed firmly behind the lower or upper jaw canine teeth before returning to the sea.

Figure 3: Marking dead fur seal jaw with either twine or cable tie

PART 4: REPORTING - WHEN CAPTURES OCCUR

DWG reporting requirements

Trigger points and vessel action

Once a DWG trigger point is reached, the vessel captain will notify their vessel manager and DWG within 24 hours. The situation is then monitored more closely by DWG, the vessel manager and the captain, and steps are taken to mitigate the risk of further captures.

Trigger points help the crew to assess capture risks and how to minimise these in the future. The crew is required to assess why the captures occurred and take responsive actions to mitigate future risks including where necessary deploying additional mitigation devices.

DWG trigger points

For vessels <28 m (deepwater vessels >28 m also have trigger points):

- 2 fur seals (dead or released alive) in a single trip
- 3 seabirds (dead or released alive) in a single trip

Most often a coastal hoki trip is just one or two days of fishing.

Trigger reports

Report all DWG trigger point breaches in real time (within 24 hours) to admin@deepwatergroup.org. Note these emails are automatically forwarded to DWG Environmental Liaison Officer (ELO), John Cleal, and Ben Steele-Mortimer. The ELO will follow up to provide support and may seek additional information.

DWG CONTACTS (AVAILABLE 24/7)	PHONE	EMAIL
DWG (email auto-forwards to John & Ben)		admin@deepwatergroup.org
John Cleal (ELO)	021 305 825	admin@deepwatergroup.org
Ben Steele-Mortimer	027 234 3140	admin@deepwatergroup.org

Fisheries New Zealand mandatory reporting requirements

The following outlines how to report to Fisheries New Zealand.

It is not illegal to accidentally capture protected species while commercially fishing **but it is illegal to fail to report the capture.**

As required by Fisheries Regulations, all protected species landed dead or alive (then returned to the sea) must be recorded via the Fisheries New Zealand Electronic Reporting System (ERS).

Capture reports should be made via the Non-Fish Protected Species part of the daily ERS report and if a trigger point is reached also to the DWG ELO (as instructed above).

Always know and meet your legal requirements.

Animal Welfare

Under the Marine Mammal Protection Act, it is illegal to harass, kill or deliberately catch any marine mammal. However, in commercial fisheries, any incidental capture is not illegal provided the incident is reported.

Any vessel capturing a fur seal should return all animals to the sea as soon as possible (unless in the unlikely event an MPI observer says to keep it).

Definition of a capture

"Captures" = birds (and mammals) that have become fixed, entangled or trapped, and are prevented from moving freely or freeing themselves (i.e., interactions with fishing gear or Mitigation gear/ tori lines etc)

"Deck-strikes" = birds that collide with the vessel superstructure or deck and are unable to leave the vessel on their own, either through death, injury, or disorientation.

Do not report any seabird if it is alive and leaves the vessel unassisted.

Note: deck-strikes are not included in the Fisheries New Zealand fishing seabird capture estimates but must be reported.

Seabird identification codes

Unless you can positively identify the seabird species, use the generic/unidentified codes listed here:

XAL - Albatrosses (unidentified) i.e. big birds

XXP - Petrels, prions and shearwaters (unidentified) i.e. small birds

Marine mammal 'common' identification codes

SEA - Unidentified seals

WHT - Unidentified, whale or dolphin

FUR - Fur seal

CDD - Common dolphin

Accurate reporting of all mortalities is the best approach. Having accurate information regarding captures helps better understand and manage the process which in turn helps get the most appropriate risk mitigation measures in place.

Note: The ERS system has fields to allow reporting of leg band or flipper tag numbers found on a captured animal. This information is highly valued so please always record and report.

See Appendix 5 for the 10 Golden Rules for Non-Fish Protected Species Catch Reporting, which can be printed and displayed for a quick reminder.

APPENDIX 1: HOKI SEASONAL SPAWN AREAS CLOSED AREA PERIODS

Cook Strait HSSA

HOK 1 quota owners have agreed to the following HSSA.

The Cook Strait HSSA is encompassed by:

- The northern boundary of the Cook Strait HMA, defined as a line extending between 41º00'S, 174º18.7'E and 41º00'S, 174º56.3'E and (i.e. points 1 and 2 in Figure 4)
- The southern boundary defined as a line extending between Cape Campbell light at 41º44'S, 174º16'E and Cape Palliser light at 41º37'S, 175º17'E (i.e. points 3 and 4 in Figure 4).

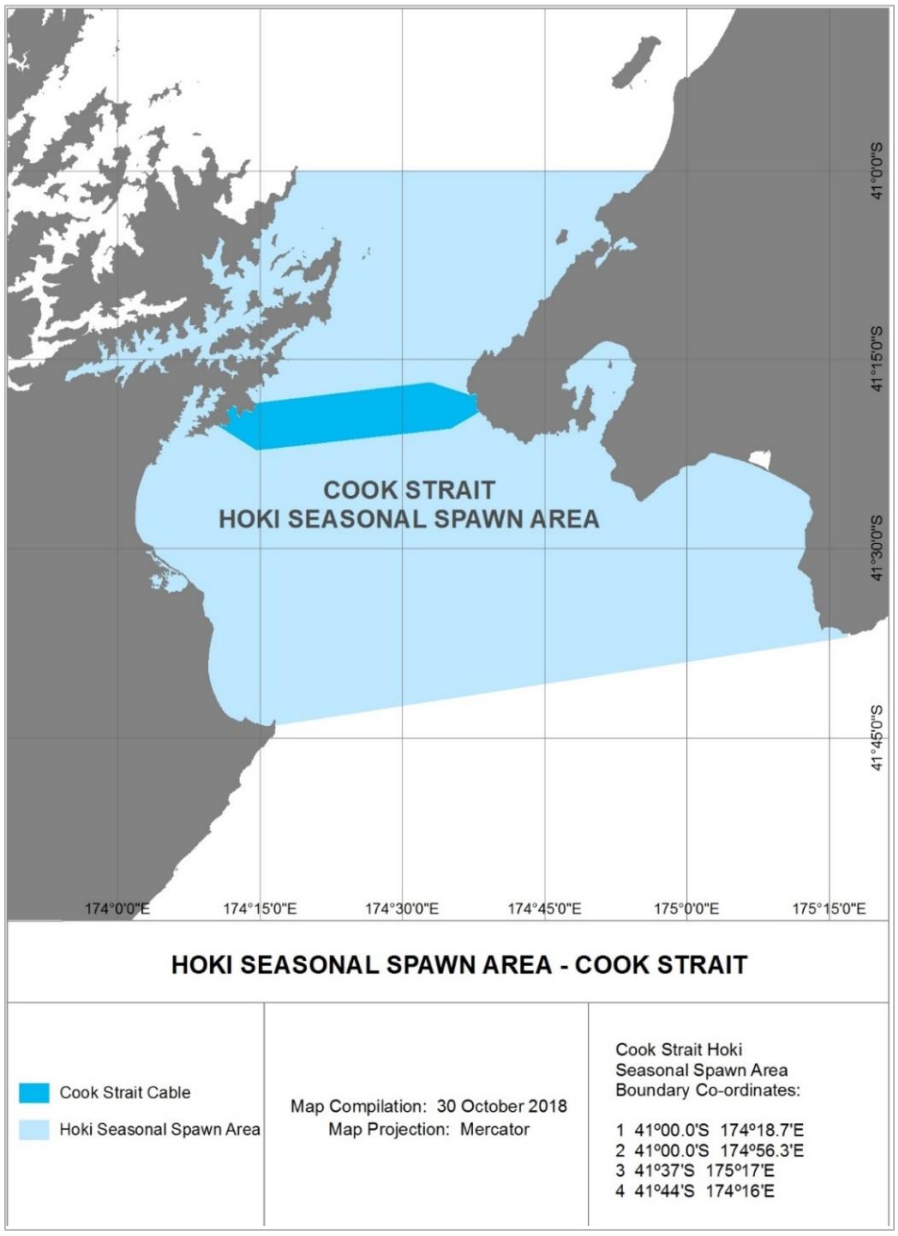

Figure 4: Cook Strait HSSA

West Coast Outside the 25 nm Line HSSA

HOK 1 quota owners have agreed to the following HSSA.

The West Coast Outside the 25 nm Line HSSA is encompassed by:

- The regulatory boundary for the 25 nm closure, and
- A line extending due west from Kahurangi Point light (40º47'S) to the intersection with the 800 m depth contour (i.e. points 3 and 4 in Figure 5), and
- The line designating the boundary between FMA 5 and FMA 7 from the coast to where it intersects the 800 m depth contour (i.e. points 1 and 2 in Figure 5), and
- The 800 m depth contour continuously between the two points of intersection with the northern and southern boundaries as defined above (i.e. points 2 and 3).

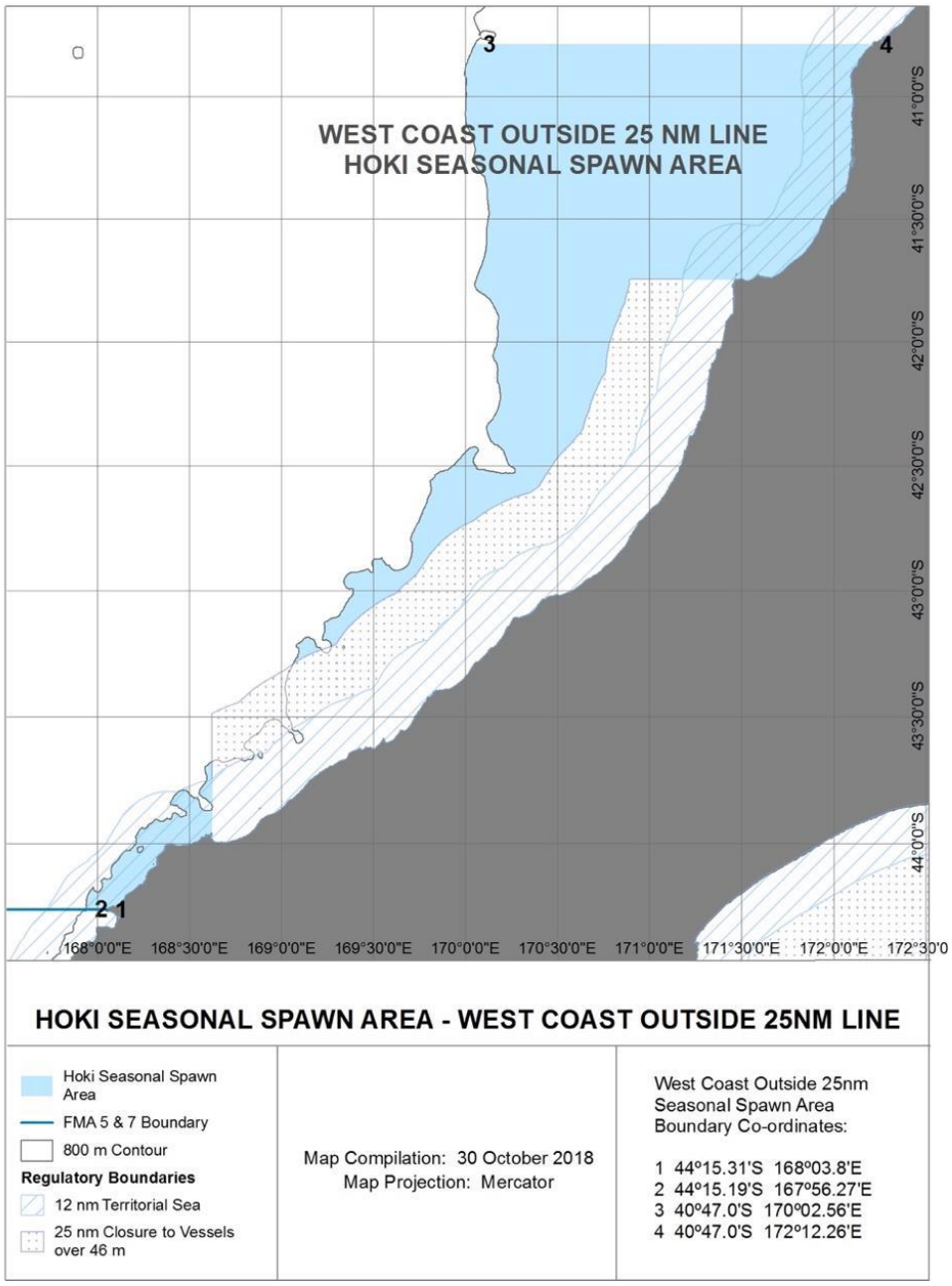

Figure 5: West Coast Outside the 25 nm Line HSSA

West Coast Inside the 25 nm Line HSSA

HOK 1 quota owners have agreed to the following HSSA.

The West Coast inside the 25 nm Line HSSA is encompassed by:

- That area closed by regulation to trawlers >46 m LOA, as bounded
- In the west by 25 nm boundary, and
- In the north by a line extending due west from Cape Foulwind to the 25 nm line, and
- In the south by a line extending due north from Jackson Head to the 25 nm line.

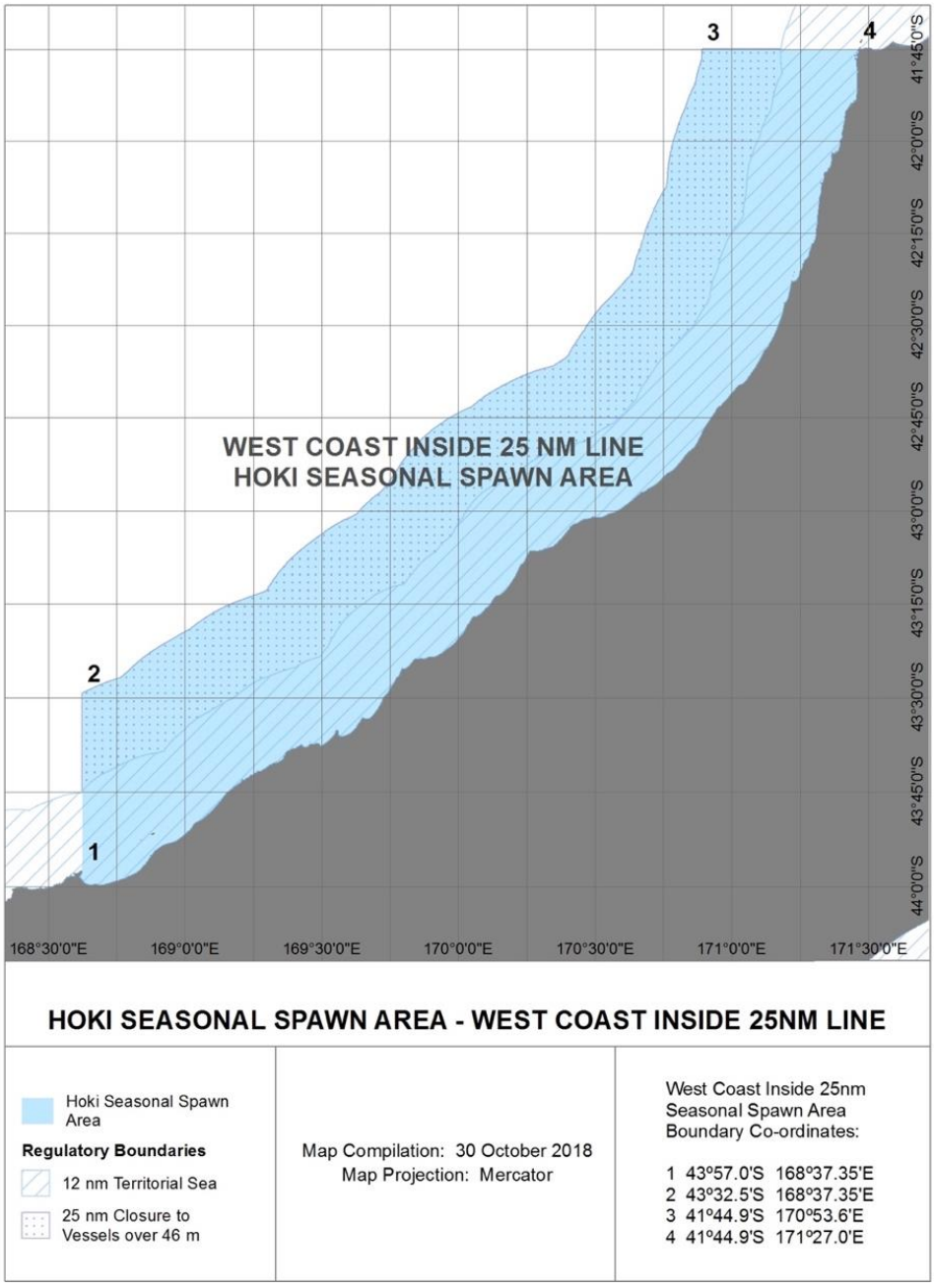

Figure 6: West Coast Inside the 25 nm Line HSSA

Pegasus HSSA

HOK 1 quota owners have agreed to the following HSSA.

The Pegasus HSSA is encompassed by:

- 43º00’S 173º20’E / • 43º00’S 173º55’E / • 43º27’S 174º05.7’E / • 43º27’S 173º20’E

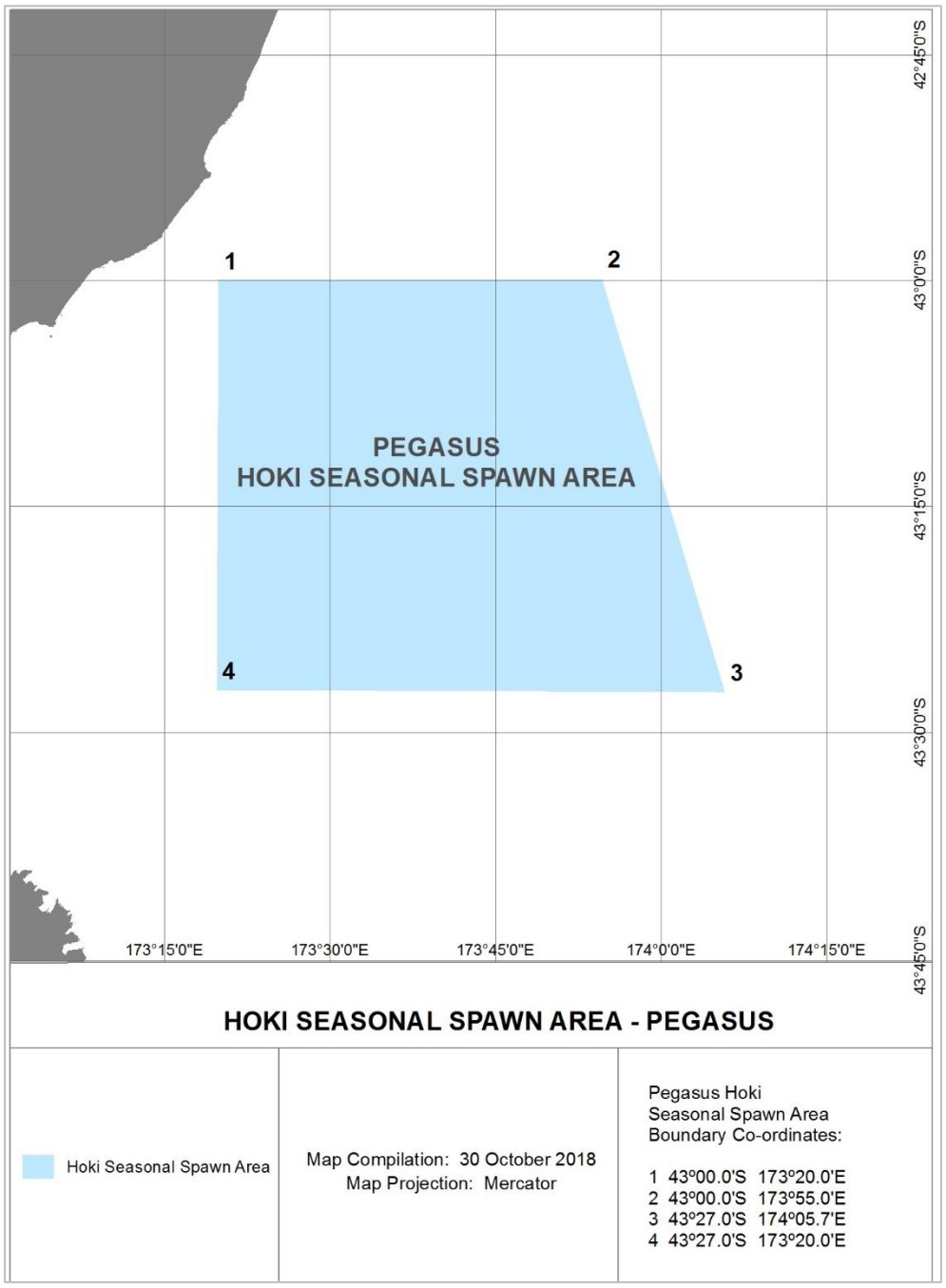

Figure 7: Pegasus HSSA

APPENDIX 2: COOK STRAIT SUBMARINE CABLE PROTECTION ZONE

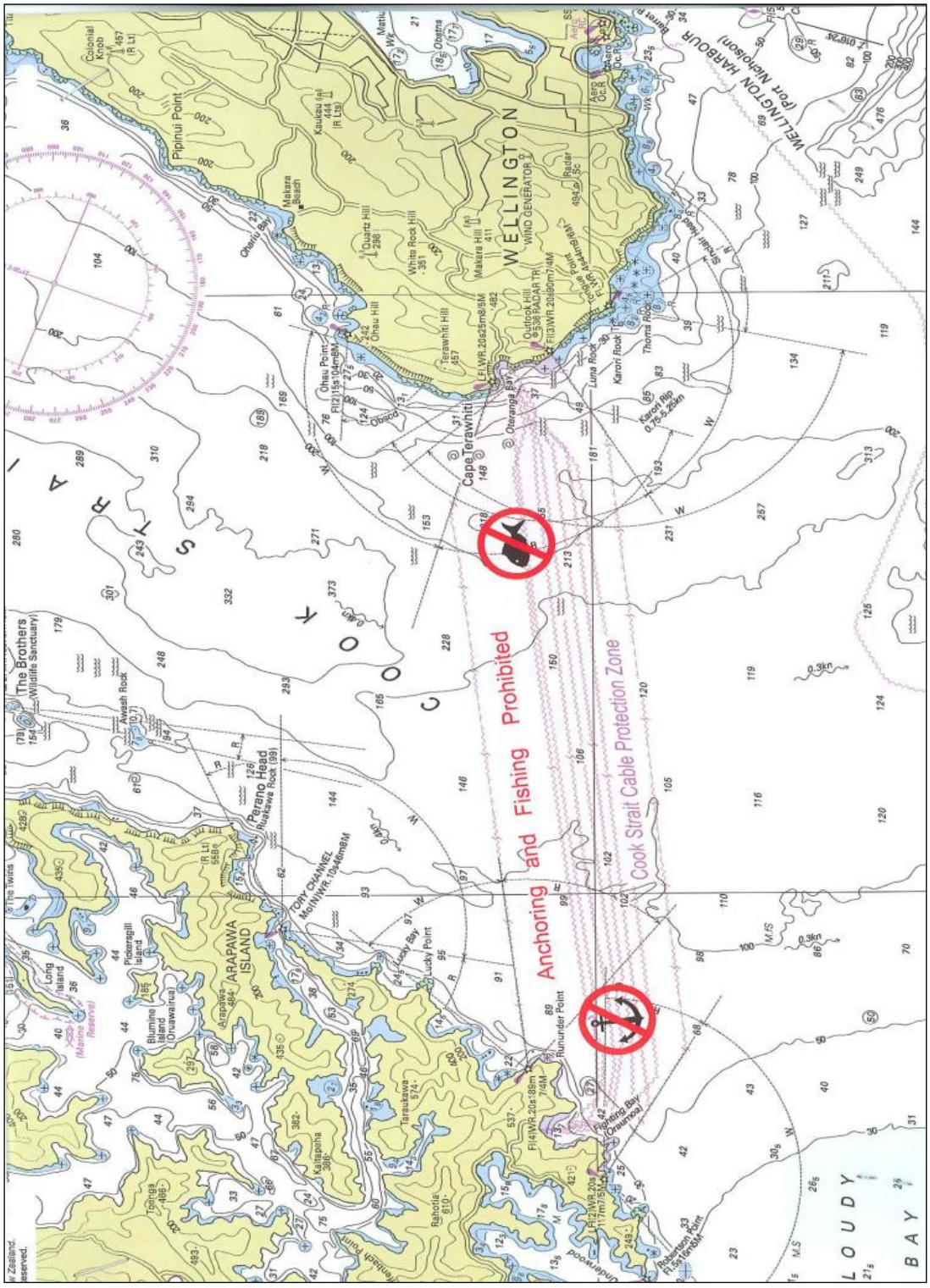

Figure 8: Map of Cook Strait Cable Protection Zone from Transpower NZ's 'Catch fish, not cables' brochure

APPENDIX 3: APPROVAL TO TRANSHIP FISH

SAMPLE ONLY

Fisheries New Zealand
Tini a Tangaroa

APPROVAL TO TRANSHIP FISH UNDER SECTION 110 OF FISHERIES ACT 1996

1. Pursuant to section 110 of the Fisheries Act 1996 (the Act) I hereby authorise the operators of the vessels listed in Schedule 1 to tranship fish from one registered fishing vessel to another.

Term of approval

2. This approval is valid between the date of signature and 30 September 2022.

Defined area

3. This approval only applies to fishing vessels taking hoki in Cook Strait (fisheries statistical areas 16 and 17) and off the West Coast South Island (fisheries statistical areas 33, 34 and 35).

Reporting requirements

4. For the avoidance of doubt the requirements of the Fisheries (Reporting) Regulations 2017 still apply to any fish transhipped pursuant to this approval.
5. Those requirements are that the vessel that caught the transhipped fish must report that fish on a Landing Report under either landing code TL (catch balancing obligations lie with the vessel that caught the fish) or landing code TT (catch balancing obligations lie with the vessel that received the fish). In the case of the latter, the vessel that received the fish must also report it on a Landing Report and balance the catch with annual catch entitlement.

Dated this day of 2022

James Andrew
Acting Manager Deepwater Fisheries

Acting under a delegation made under clause 2, Schedule 6 of the Public Service Act 2020 – with delegation for section 110 of the Fisheries Act 1996

Fisheries New Zealand
Fisheries Management
Charles Fergusson Building, 24-38 Bowen Street
Wellington 6140, New Zealand

www.fisheries.govt.nz

APPENDIX 4: TEN COMMANDMENTS

TEN COMMANDMENTS

FOR FRESH FISH HOKI FISHERY

1. Do not target hoki in the Cook Strait Hoki Management Area. **Never fish/deploy gear in the Cook Strait Submarine Cable Protection NO GO Zone.**

2. A window is a legitimate vessel and gear safety tool, but not a best practice catch volume control tool. Stitched windows are considered illegal.

3. Net monitoring systems are strongly recommended and net headline monitors and catch sensors should be deployed, giving real-time catch information.

4. In Cook Strait, hoki vessels should have an MPI transhipment permit so that transhipping can be legally undertaken. Both vessels involved need a permit and must complete the required details as per reporting rules.

5. Avoid shooting the gear in the midst of large numbers of fur seals.

6. Minimise the time that gear is on or near the surface (shoot and haul the trawl as quickly as practicable) and avoid mending the trawl with gear in the water unless the head and ground-rope are on deck.

7. Avoid discharging offal or fish waste when towing. Always remove fish stickers from the net prior to shooting.

8. All coastal hoki vessels must have a Protected Species Risk Management Plan and deploy a seabird warp mitigation device when there is a risk of warp strikes.

9. Advise DWG (same day) when fur seal captures (dead or released alive) reach Trigger Point. Email DWG Trigger Point Report to admin@deepwatergroup.org. Assess event and implement further risk reduction measures. Trigger points are:
   - 2 fur seals (dead or released alive) in a single trip
   - 3 seabirds (dead or released alive) in a single trip

10. Mark any dead fur seals with a cable tie or twine tied around the jaw before returning it to the sea. As legally required, record all protected species captures in your vessel's Electronic Reporting System or on the Non-fish / Protected Species Catch Return.

deepwater group **For support phone John Cleal (021 305825) or Ben Steele-Mortimer (027 2343140)**

APPENDIX 5: 10 GOLDEN RULES FOR NON-FISH PROTECTED SPECIES CATCH REPORTING

deepwater group

FISHERIES INSHORE NEW ZEALAND

TEN GOLDEN RULES

NON-FISH OR PROTECTED FISH SPECIES (NFPS) CATCH REPORTS

1. The Fisheries (Reporting) Regulations 2017 require reporting of **all** NFPS captures (dead or alive). It is an offence to fail to report.
2. All permit holders and skippers must know the law and be able to file an NFPS catch report using their vessel's Electronic Reporting system.
3. Fisheries New Zealand observers file their own NFPS catch reports, but this does NOT mean the vessel's obligation to report has been removed.
4. *Captures* means that the NFPS has become fixed, entangled, or trapped in such a way that it cannot move freely or free itself from any part of the fishing gear. (includes for example tori lines and paravanes)
5. *Deck strikes* means seabirds injured or dead from colliding with the vessel, or any that need crew assistance to leave the vessel because they are disoriented.
6. Treat all animals with respect and care (dead or alive).
7. Return all NFPS to the sea promptly and carefully unless required to be kept on board by a Fisheries New Zealand observer.
8. Unauthorised retention or any further interference with protected species is an offence under the Wildlife Act 1953.
9. If unsure of the species name (NFPS code) use the generic codes provided.
10. E-logbook Users Instructions and Codes can be found here: https://www.fisheries.govt.nz/dmsdocument/37982-Fisheries-E-logbook-Users-Instructions-and-Codes-Circular-2019

Non-Fish or Protected Fish Species Catch Report - Summary Information

(from Fisheries New Zealand Electronic Catch and Position Reporting Guide July 2019)

You must complete an NFPS Catch Report if there is an interaction with the following by the vessel or gear during a trip:

- Birds;
- Marine mammals (e.g. New Zealand fur seal);
- Marine reptiles (e.g. turtles);
- Protect fish species (e.g. basking shark, great white shark, manta ray, black spotted grouper);
- Selected benthic organisms (corals, sponges, and bryozoans).

You will be prompted for more information about how the capture happened if a seabird is taken during trawling or surface or bottom longlining.

You must take care when choosing codes where there is a group option and a specific option so that you do not accidentally report an organism twice.

If there is more than one NFPS capture during an event, they will all be recorded on the same NFPS Catch Report.

The NFPS Report must be completed and provided at the same time as the Fish Catch Report, if it occurs as part of a fish catch event.

If the capture happens while you were not actually fishing (e.g. while steaming), the NFPS Catch Report will be a standalone report, i.e. it will not be linked to a Fish Catch Report and must be completed and provided to FishServe before the end of the day on which you became aware of the capture.

Online resources to assist you with NFPS identification

- The DOC website has material on coastal and deep water seabird species. Guides include MPI reporting codes and are available in multiple languages: doc.govt.nz/ our-work/conservation-services-programme/csp-resources-for-fishers/a-fishers-guide-to-new-zealand-seabirds/
- A fuller set of invertebrate NFPS material is available at: fs.fish.govt.nz/Doc/23020/AEBR_86.pdf.ashx
- A coral guide is available at: doc.govt.nz/Documents/conservation/marine-and-coastal/fishing/coral-id-guide-updated.pdf

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APPENDIX 6: OBSERVER VMP AUDIT FORM

Deepwater Trawl Vessel Observer VMP Audit

(For Seabird and Marine Mammal Operational Procedures)

Fisheries New Zealand
Tini a Tangaroa

Trip Number	Vessel Name	FMAs fished	Trip start date	Trip end date
			/ /	/ /

Target species		Observer name		Number of tows	

Bottom Trawl(s) 1 2 3 Mid water trawl

Record Yes (Y), No (N), Unknown (U) or Not Applicable (N/A) in the box provided. Make detailed comments on areas of interest and if you answer N or U to any questions, or Y for items 3 or 4.

Item 1) Were copies of the DWG Vessel Management Plan (VMP) and the Trawl Operational Procedures carried onboard and made available upon request? ..... N/A

Item 2) Were the senior crew familiar with and have access to the above documents?..... N/A

Item 3) Were any seabird, marine mammal or protected shark 'trigger points' activated during the trip?..... N/A

Item 4) Did a gear or equipment failure event occur that increased the risk of seabird or marine mammal captures? *(If Y detail the event and the action taken by the vessel)*..... N/A

Item 5) Were there any response in crew behaviour, fishing activity, mitigation devices or gear used Following 'trigger-point' events or during high risk periods? *(describe in comments any actions taken by crew)*..... N/A

Seabird/Marine Mammal Mitigation Devices:

Item 6) Record what mitigation devices were carried by the vessel and when they were utilised

Device	Carried on board	Deployed all tows	Deployed on some tows *(describe why in comments)*
Bird Baffler			
Tori line			
SLED			
Other (Describe in comments)			

Item 7) Were net restrictors fitted into the centre of a triple-rig configuration when required? (SCI only)..... N/A

Item 8) Was a Dolphin Dissuasive Device deployed on every JMA7 tow?..... N/A

Fish Waste Management:

Item 9) Was the discharge of fish waste from the vessel managed as per the VMP?..... N/A

Item 10) The main fish waste management strategy employed during this trip was: *(describe in comments)*

F/Meal ✔ Held *(for the full tow)* Batch *(during tow)* Mince Other

Item 11) Was all fish waste (including offal and whole fish) held on board during shooting and hauling?..... N/A

Item 12) Was the net cleared, as practicable, of all stickers prior to shooting?..... N/A

Item 13) Was a grating or trap system used to prevent fish or offal accidentally lost to the factory floor or deck from being discharged overboard via scuppers or sump-pumps *(whilst allowing the egress of water)*..... N/A

General Procedures:

Item 14) Were all plastics and netting retained on board?..... N/A

Item 15) Was shooting fishing gear near congregations of marine mammals avoided?..... N/A

Item 16) Was the amount of time the net spent on the surface minimised as much as practicable?..... N/A

Item 17) Were any turns conducted during the tow with the doors fully submerged and a headline depth of less than 50 m?*(excl. coastal trawlers)* ..... N/A

Item 18) Were all protected species captures reported by the vessel?..... N/A

Item 19) Were protected species that were caught alive handled and released with due care?..... N/A

Item 20) **Make comments on the vessels protected species mitigation equipment and risk reduction operations which went well and those that didn't work so well.**

APPENDIX 7: SOUTH ISLAND COASTAL TRAWL WARP MITIGATION DESIGN GUIDE

Design and Build: Guiding Principles

Larger South Island coastal trawlers increasingly operate in areas overlapping with a large number of albatross. They have high catch volumes and some on-board processing; coupled with the need to discharge fish waste more often and while trawling is taking place. The fish waste flows back into the path of the warp, increasing the risk of albatross warp captures.

FINZ and Southern Inshore support the need by this class of larger vessel to have improved fish waste management procedures and a suitable warp mitigation device, which ideally would be a 'set and forget' device that is deployed consistently while fishing.

Fish Waste Control: (No continuous discharge of fish waste when towing) Have equipment to 'hold & batch' fish waste to be discharged at intervals (deck pound, bin, chute or tank) with capacity to hold all fish waste for a minimum of 20 to 30 minutes. The discharge needs the ability to be closed off and when capacity reached, opened to allow a 'batch-discharge' during hauling and shooting. Return those fish required to be returned to the sea while still alive in a manner to reduce the risk of warp captures.

Warp Mitigation: A suitable boom/pole or structure to support hosepipe droppers to restrict seabird access into the warp-zone and a side curtain along the discharge side to restrict access to the discharge chute-point. (*If discharging regularly from both sides, you need two devices*).

These design guide examples (*or an approved type-hybrid of these*) are a starting point to construct something that works for your vessel design and your fishing operations.

- **Aft baffler/pole:** extending far enough back (est. 3m to 5m+ astern, this is vessel-dependent) to provide coverage over most of the area where the warp meets the water surface (3 different versions/examples of this shown over page):
    - **Option 1: Single side aft baffler with side curtain -** baffler with hosepipe droppers over warp area and separate side curtain providing coverage over fish waste flow down the hull to the discharge chute-point.
    - **Option 2: Single side aft pole with full curtain** - angled back over warp area and outboard with full large single curtain from the end of the pole providing coverage over fish waste flow down the hull to the discharge chute-point.
    - **Option 3: Two aft boom bafflers and aft curtain -** extended over/outside each warp with hosepipe droppers on each pole and aft curtain between poles with streamers to provide aerial coverage across both warp danger zones.

The aft boom device(s) is expected to be very effective but requires more complex design and engineering requirements (this design may only suit some of the largest vessels).

- **Option 4: Single side baffler/pole with side curtain -** extended at least 2.0m - 2.5m outboard of trawl block.
    - Positioned close to (or over) the trawl block with hosepipe droppers that hang down and trail back into warp zone. A side curtain with streamers extends from the pole running forward alongside the vessel to provide coverage over discharge point.
- **Option 5: Single side pole with tori line and side curtain -** extended at least 1.5m - 2.0m outboard of the trawl block.
    - Support the attachment for a tori line which should be a minimum of twice length of the warp behind the vessel. A side curtain with streamers extends from the pole running forward alongside the vessel to provide coverage over discharge point.
- Droppers and/or streamers should be spaced at intervals approx. 70cm apart

Fish waste discharge management is the key. The less often you discharge, and the less you discharge into path of the warp, the less likely you are to have birds around the warp danger zone!

The better baffler device you build, the greater protection you will have over the warp danger areas, and the less likely you will be to have to deal with warp strikes.

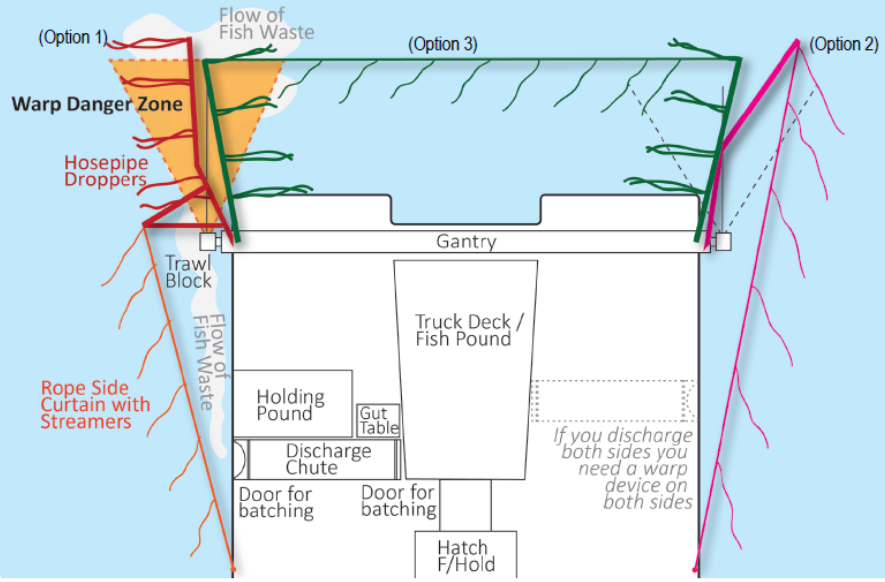
Contact John Cleal for further information Ph. 021 305 825

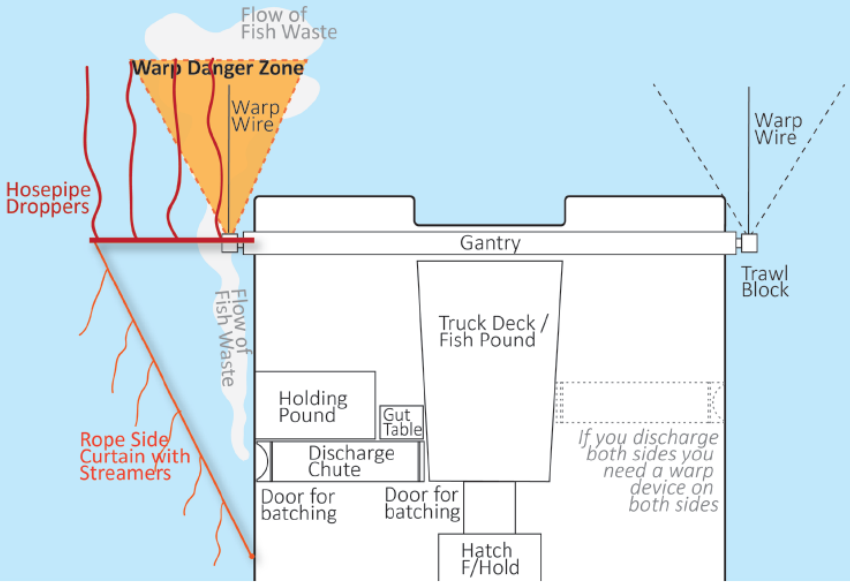
Design Guide for Large Coastal Trawlers: **Warp Mitigation Options**

Option 1: Single Side Aft Baffler and Side Curtain

Option 2: Single Side Pole with Full Curtain

Option 3: Two Boom Bafflers and Aft Curtain





Option 4: Single Side Baffler with Side Curtain

(long hosepipe droppers trailing back into the warp danger zone)

Option 5: Single Side Pole with Tori Line and Side Curtain