

MINIMUM REQUIREMENTS 2018A

*FOR THE MITIGATION OF SEAL INTERACTIONS WITH
AQUACULTURE STAFF AND INFRASTRUCTURE IN TASMANIA*

MINIMUM REQUIREMENTS 2018A

This document supports the Seal Management Framework 2018, providing detail and requirements regarding options available to marine salmonid farmers to manage and mitigate interactions between fur seals and aquaculture staff and infrastructure in Tasmania.

Management actions are set by the Department of Primary Industries, Parks, Water and Environment (DPIPWE) in consultation with the Tasmanian salmon industry. Industry access to a management option will only be approved subject to compliance with the standards for relevant wildlife exclusion measures outlined in this document.

This document may be revised, updated or amended from time to time by the DPIPWE Secretary.

CONTENTS

ABBREVIATIONS AND GLOSSARY	5
1. WILDLIFE EXCLUSION MEASURES (MRWEM)	8
1.1 Fish Containment Netting.....	9
1.2 Bird Netting.....	10
1.3 Seal and Bird Aerial Wildlife Exclusion Net.....	10
1.4 Seal Exclusion – Internal Collar, Pen Handrail Jump Fence Net Extension	11
1.5 Seal Exclusion – External Collar Exclusion Fence (circum-polar pens)	11
1.5 Seal Exclusion – External Collar Exclusion Fence (System Farms)	12
1.7 Seal Exclusion – External Collar Exclusion Fence (‘Fortress’ Pens)	13
1.8 Seal Exclusion – External Collar Exclusion Fence (‘Sanctuary’ Pens).....	14
1.9 Pen Structure	15
1.10 Bath Liners/Bathing Pen Nets.....	15
1.11 Waste Capture Systems.....	16
1.12 Requirements in relation to approved Wildlife Exclusion Measures	16
2. SEAL DETERRENT DEVICE: SEAL CONTROL UNIT (CRACKER) (MRCRA).....	18
2.1 Use and Storage.....	18
2.2 Safety.....	18
2.3 Prohibitions	18
2.4 Record Keeping.....	19
3. SEAL DETERRENT DEVICE: BEANBAGS (MRBBA).....	20
3.1 Use and Storage	20
3.2 Safety.....	20
3.3 Prohibitions	21
3.4 Record Keeping.....	21
4. SEAL DETERRENT DEVICE: SEAL SCARE CAPS (MRSSC)	22
4.1 Use and Storage	22
4.2 Safety.....	22
4.3 Prohibitions	23
4.4 Record Keeping.....	23
5. TRAPPING, HOLDING AND RELEASE (MRTHR).....	24
5.1 Trapping Seals	24
5.2. Holding Trapped Seals	26
5.3. Transport and Release of Seals	28
5.4 Prescribed Holding, Transport and Release Times	30

5.6 Prohibitions	30
5.7 Record Keeping.....	30
6. SEDATION (MRSED)	32
6.1 Sedation of Fur Seals Within a Fish Containment Pen	32
6.2 Holding and Monitoring of Sedated Seals.....	33
6.3. Safety.....	34
6.4 Prohibitions	34
6.5 Record Keeping.....	34
7. HUMANE DESTRUCTION (MRHDE)	35
7.1 Criteria for Consideration of Humane Destruction.....	35
7.2 Procedural Requirements for an Application for Humane Destruction	35
7.3 Record Keeping.....	37
7.4 Cost Recovery.....	37

ABBREVIATIONS AND GLOSSARY

ASTSP: Approved Seal Transport Service Provider

Bath Liner: A liner and associated netting installed within a pen into which fish are transferred for the purposes of bathing. This definition does not apply to operations where a decant liner with no associated netting is set across an empty pen collar as a fresh water reservoir for a bathing vessel.

Beanbag: Lead-filled projectile, capable of being fired from a choke-less 12-gauge shot gun, dispensed, stored and used in accordance with Part 3 of this document.

Bird Escape Hatch: A DPIPWE-approved doorway in bird netting or seal exclusion netting that allows a bird within the fish containment pen to exit the pen on its own accord.

Bird Net: Netting installed specifically to exclude birds accessing the fish containment pen or fish food dispensing apparatus.

Circum-polar Pen: Circular pen design utilising a floating collar other than a Fortress or Sanctuary Pen.

Cracker: A explosive charge that can be thrown into the water to detonate under the surface and dispensed, stored and used in accordance with Part 2 of this document.

Designated Holding Facility: Shore-based facility approved by DPIPWE at which fur seals may be held in holding cages for an approved period.

DMFOB: Designated Marine Farm Operational Base, an area where seal deterrent devices must be kept, which is designated by the marine farming lease holder and approved by DPIPWE. Marine farming lease holders may have a number of DMFOBs, including operations vessels, provided the sites are approved by DPIPWE.

DPIPWE: Tasmanian Department of Primary Industries, Parks, Water and Environment or the State Government Agency responsible for the administration of the *Nature Conservation Act 2002* as amended from time to time.

DPIPWE Contact Officer: The Manager, Wildlife Management Branch or a DPIPWE staff member from Wildlife Operations or the Marine Conservation Program of the Wildlife Management Branch.

DPIPWE approval: Written approval from the Wildlife Management Branch.

External Collar Exclusion Fence: Seal exclusion fence where exclusion netting is attached to the outside of the pen collar.

False Bottom: Fish Containment Net design with a second layer of netting fastened to the bottom, either internal or external to the containment netting.

Fish Containment Net: Sub-sea netting that directly contains fish stock within a pen.

Fortress Pen: Fish containment pen design used exclusively by Huon Aquaculture that includes a sub-sea extension of the External Collar Exclusion Fence (i.e. a Predator net) to prevent wildlife from directly interacting with the fish containment netting.

Holding Cage: A cage used for temporary housing of a trapped fur seal as described in section 5.2 of this document and approved by DPIPWE.

Internal Collar Exclusion Fence: Seal exclusion fence where exclusion netting is attached to the inside of the pen collar or handrail.

Marine Farming Development Plan Zones: As defined by the *Marine Farming Planning Act 1995* and as amended from time to time.

Marine farming lease: A lease area as defined by the *Marine Farming Planning Act 1995* and as amended from time to time.

Marine farming lease holder: A lessee as defined by the *Marine Farming Planning Act 1995* and as amended from time to time.

MRWEM: Minimum Requirements, set out in Part 1 of this document, for wildlife exclusion measures associated with fish containment pens that must be met in order to use seal deterrent devices, sedation or humane destruction on the Marine Farming Lease in which that pen is located.

MRBBA: Minimum Requirements, set out in Part 3 of this document, for the use of Beanbag deterrent devices to manage interactions with fur seals on a Marine Farming Lease.

MRCRA: Minimum Requirements, set out in Part 2 of this document, for the use of Seal Control Units (Crackers) to manage interactions with fur seals on a Marine Farming Lease.

MRHDE: Minimum Requirements, set out in Part 7 of this document, and process for applying for permission to humanely destroy a fur seal that represents a risk to marine farm workers.

MRSED: Minimum Requirements, set out in Part 6 of this document, and process for sedation of fur seals within a fish containment pen to facilitate removal of a seal from a pen.

MRSSC: Minimum Requirements, set out in Part 4 of this document, for the use of Seal Scare Cap deterrent devices to manage interactions with fur seals on a Marine Farming Lease.

MRTHR: Minimum Requirements, set out in Part 5 of this document, for trapping fur seals, holding fur seals in captivity, transport of fur seals and release of fur seals following trapping and/or holding to manage interactions with fur seals on a Marine Farming Lease.

Permit holder: Holder of a permit issued under the *Wildlife (General) Regulations 2010*, as amended from time to time, to take, possess and/or disturb wildlife.

Pen Collar: Floating structure around the periphery of a fish containment pen that supports the fish containment net and wildlife exclusion infrastructure, typically incorporating a walkway platform.

Predator Net: A sub-sea net deployed external to and unattached to a fish containment net to prevent wildlife from directly interacting with the containment netting.

ROV: Remotely Operated Underwater Vehicle.

Sanctuary Pen: Fish containment pen design used exclusively by Tassal that includes an External Collar Exclusion Fence supported by poles fitted with plastic net supports that align the top of the exclusion fence with the external collar.

Seal management options: Management options described in the Seal Management Framework (2018) and as amended from time to time.

Seal Scare Cap: Blunt pre-stressed darts fired from a DPIPWE-approved firearm, which detonate on impact with the target. These darts are designed to split apart when detonated without causing permanent harm to the seal.

Seal Trapping and Monitoring Record: The record to be kept for all seals trapped and held in accordance with MRTHR in Part 5 of this document.

Skirt Net: Anti-friction drop net attached to a decant-liner to assist in the towing of the pen.

SOP: Standard Operating Procedure(s) prepared by a marine farming lease holder and approved in accordance with this document.

System Farm: Floating metal structure that supports multiple fish containment nets and wildlife exclusion infrastructure, incorporating a walkway platform that services all pens.

Transport cage: Cage used for transport of a fur seal as described at 5.3.10 of this document and approved by DPIPWE.

Wildlife exclusion measures: Includes fish containment pens, and associated marine farm infrastructure intended to exclude wildlife from fish stock, meeting the requirements of Part I of this document.

WMB: Wildlife Management Branch, or subsequent business unit of DPIPWE.

Work Health and Safety policies and procedures: Written best practice policy and procedures prepared to support the employer's primary duty of care to employees carrying out actions in accordance with this document and approved by DPIPWE for that purpose and with regard to any other considerations relevant to the administration of the *Nature Conservation Act 2002*.

WorkSafe Tasmania: WorkSafe Tasmania or the subsequent Tasmanian Government Business Unit with the responsibility for the administration of the *Work Health and Safety Act 2012*.

I. WILDLIFE EXCLUSION MEASURES (MRWEM)

In order to gain access to seal management options approved under the Seal Management Framework 2018, a marine farming lease holder must meet or exceed the following standards for exclusion of wildlife from fish containment infrastructure (wildlife exclusion measures).

Audits to ensure compliance with this Part and to inspect and approve seal traps, holding cages, transport cages and designated holding facilities will be conducted annually by the Wildlife Management Branch (WMB) of DPIPWE. Random audits and inspections may be undertaken by the WMB at any time.

If wildlife exclusion measures on marine farming leases are found at any time to be non-compliant with these standards then, on written notice to the relevant company, authority to use fur seal deterrent devices, and management options including sedation and humane destruction, on that marine farming lease is cancelled immediately upon that notice being served.

Application to undertake any field trial (research) or implement any wildlife exclusion measures outside of the MRWEM must be made in writing to the Manager WMB. Any authority will only be given in writing and will include a clearly defined start and end date. If the written authority expires prior to a decision regarding a new application or relevant amendment to these wildlife exclusion measures, the approved measures shall revert to those described in this document. Field trials involving take or disturbance of wildlife are likely to also require approval from an Animal Ethics Committee and a permit to take wildlife for scientific purposes issued under the *Wildlife (General) Regulations 2010*.

Wildlife exclusion measures **MUST** comply with the following standards and infrastructure deployment requirements, unless otherwise permitted in writing by the Manager WMB:

A. For circum-polar pens, either:

- (i) Seal and Bird Aerial Wildlife Exclusion Net (see 1.3);
- (ii) Seal Exclusion – Internal collar, Pen Handrail Jump Fence Net Extension (see 1.4); or
- (iii) Seal Exclusion – External Collar Exclusion Fence (see 1.5)

B. For smolt pens, either:

- (i) Seal and Bird Aerial Wildlife Exclusion Net (see 1.3);
- (ii) Seal Exclusion – Internal collar, Pen Handrail Jump Fence Net Extension (see 1.4); or
- (iii) Seal Exclusion – External Collar Exclusion Fence (see 1.5 or 1.6).

C. For system farm fish pens, either:

- (i) Seal and Bird Aerial Wildlife Exclusion Net (see 1.3);
- (ii) Seal Exclusion – Internal collar, Pen Handrail Jump Fence Net Extension (see 1.4);
- (iii) Seal Exclusion – External Collar Exclusion Fence (see 1.5); or
- (iv) External walkway electrical barrier (12 volt).

D. For ‘Fortress’ pens:

- (i) External Collar Exclusion Fence (see 1.6);
- (ii) Bird netting (see 1.2), or optimally a Seal and Bird Aerial Wildlife Exclusion Net (see 1.3);
- (iii) Reinforced sub-surface abrasion wear collar panel at staff service gate/pen entrance;
- (iv) Internal walkway structure maintained to manufacturers specifications.

E. For ‘Sanctuary’ pens:

- (i) External Collar Exclusion Fence (see 1.7);
- (ii) Bird netting (see 1.2), or optimally a Seal and Bird Aerial Wildlife Exclusion Net (see 1.3);
- (iii) Reinforced sub-surface abrasion wear collar panel at staff service gate/pen entrance;
- (iv) Exclusion netting stitched or securely fastened across any gap between the fish containment net and walkway; and
- (v) Internal walkway structure maintained to manufacturers specifications.

On all fish containment pen types, tensioning of above-water seal exclusion netting must be adjusted to minimise any inward lean of the netting due to prevailing current, wind or wave action that may result in a slanted net that could be climbed by a seal.

1.1 Fish Containment Netting

1.1.1 Fish Containment netting material must be of at least the following minimum breaking strain or demonstrated equivalent, or of a standard approved by DPIPWE.

Netting	Manufacturer breaking strain (kg/bar)
Less than 16 mm square mesh	70
16 to 25 mm square mesh	150
Greater than 25 mm square mesh	180

1.1.2 The Fish Containment netting must be:

- (i) Looped up and over the hand-rail and fastened in a manner to exclude entry by seals; *or*
- (ii) If it is impractical to loop the Fish Containment netting over the hand-rail then either:
 - a) An approved Seal Exclusion – Internal, Pen Handrail Jump Fence Net Extension must be deployed (see 1.4); *or*
 - b) An approved Seal and Bird Wildlife Exclusion Net must be deployed (see 1.3); *or*
 - c) An approved Seal Exclusion – External Collar Exclusion Fence must be fitted (see 1.5 or 1.6);
- (iii) Tensioned by weights or other means to exclude entry by seals using a system of either:
 - a) An internal fish containment net and an external predator net; *or*
 - b) When no predator net is utilised, a containment net fitted with wear panels at points where the netting contacts the pen collar or comes into regular contact with vessels or equipment and there is a risk of wear from sustained environmental or operational chafing.

1.1.3 Where a sub-sea predator net is deployed external to a fish containment net (i.e. unattached to the containment net), a gap must be maintained between the predator net and fish containment net that allows any seal that finds its way between the fish containment net and the predator net to access the sea surface adjacent to or within the pen collar to breathe.

1.1.4 Unless permitted in writing by the Manager, WMB, attachment of additional internal or external sub-sea exclusion netting to a fish containment net that results in a double layer of netting (e.g. a ‘false bottom’ design) is prohibited.

1.2 Bird Netting

1.2.1 Where bird netting is deployed the square mesh of the net must be no greater than 125 mm.

1.3 Seal and Bird Aerial Wildlife Exclusion Net

1.3.1 The square mesh of the Seal and Bird Aerial Wildlife Exclusion Net must be no greater than 125 mm. Net material must be of at least the following minimum breaking strain or demonstrated equivalent:

Seal and Bird Aerial Wildlife Exclusion Netting	Manufacturer rated breaking strain (kg/bar)
45/50 mm square mesh	70
125 mm square mesh	350

- I.3.2 On a pen with no Seal Exclusion Fence, the Seal/bird aerial wildlife exclusion netting must be stitched or securely fastened to the handrail or Fish Containment netting at a maximum spacing of 300 mm to exclude entry by seals at the junction.

I.4 Seal Exclusion – Internal Collar, Pen Handrail Jump Fence Net Extension

- I.4.1 The poles supporting net extensions (fastened to stanchions/handrail) must be:
- (i) Capable of supporting the seal exclusion net plus wildlife pressure;
 - (ii) Maintain the exclusion netting at a minimum height of 2.4 meters above the water-line;
 - (iii) Spaced at a minimum of every 2.5 m around the pen perimeter (except at one staff service gate/entrance point per pen if required).
 - (iv) Attached securely to the rails at three (3) points when deployed on a system farm pen.

- I.4.2 Pen Handrail Jump Fence Net Extensions must be:
- (i) No greater than 125 mm square mesh;
 - (ii) Rated at 300 kg/bar breaking strength;
 - (iii) Fastened to extensions attached to stanchions/handrail at a minimum height of 2.4 metres above the water-line; *and*
 - (iv) Stitched or securely fastened to the Fish Containment netting at a maximum spacing of 300 mm to exclude entry by seal at the junction (except where an External Collar Exclusion Fence is fitted, see I.5, I.6, I.7).

I.5 Seal Exclusion – External Collar Exclusion Fence (circum-polar pens)

- I.5.1 The External Collar Exclusion Fence (and including the exclusion netting adjacent to or forming part of a pen gate/entrance and attached to the hand-rail) must be:
- (i) No greater than 125 mm square mesh;

- (ii) Rated at 300 kg/bar breaking strength;
 - (iii) Maintained at a minimum height of 2.4 metres above the water-line (3.2m is optimal).
- I.5.2 External Collar Exclusion Fence supports may be fitted with a removable extension to allow improved access to the Fish Containment pen during certain activities (e.g. for equipment access). A removable extension must be replaced immediately after completion of the activity requiring access.
- I.5.3 External Collar Exclusion Fence supports must be spaced at a minimum of every 2.5 metres around the Fish Containment pen perimeter except at one staff service gate/entrance point per pen if required.
- I.5.4 Bird netting or a Seal and Bird Aerial Wildlife Exclusion Net may be fastened to the External Collar Exclusion Fence or handrail at a maximum attachment spacing of 300 mm. A minimum of two (2) DPIPWE-approved bird escape hatches should be installed in the exclusion fence. If no DPIPWE-approved bird escape hatches are installed, procedures for release of entrapped birds must comply with those detailed in a DPIPWE-approved SOP that demonstrates all reasonable effort is made to release any avifauna entrapped within the fish containment pen infrastructure as soon as possible.
- I.5.5 In addition to the requirements for External Collar Exclusion Netting, Sanctuary pens must exclude entry by wildlife by ensuring:
 - (i) The Fish Containment netting is stitched or securely fastened to the walkway at a maximum attachment spacing of 300 mm (ideally, netting and stitching at this location should be extra heavy duty to minimise wear or risk of damage from motivated seals).
 - (ii) Any seal exclusion netting must be stitched or securely fastened to the walkway at spacing no greater than 300 mm (150 mm optimal) to exclude entry by seals at the junction.

I.5 Seal Exclusion – External Collar Exclusion Fence (System Farms)

- I.6.1 The External Collar Exclusion Fence (and including the exclusion netting adjacent to or forming part of a pen gate/entrance and attached to the hand-rail) must be:
 - (i) No greater than 125 mm square mesh;
 - (ii) Rated at 300 kg/bar breaking strength;
 - (iii) Maintained at a minimum height of 2.4 metres above the water-line (3.2 m is optimal).
- I.6.2 External Collar Exclusion Fence supports may be fitted with a removable extension to allow improved access to the Fish Containment pen during certain activities (e.g. for

equipment access). A removable extension must be replaced immediately after completion of the activity requiring access.

- I.6.3 External Collar Exclusion Fence supports may be spaced up to a maximum of 5.5 metres around the Fish Containment pen perimeter, dependent on location of sockets supporting the fence supports (2.5 metres is recommended).
- I.6.4 A Seal and Bird Aerial Wildlife Exclusion Net may be fastened to the External Collar Exclusion Fence or handrail at a maximum attachment spacing of 300 mm. Where a Seal and Bird Aerial Wildlife Exclusion Net is installed, a minimum of two (2) DPIPWE-approved bird escape hatches should be installed in the exclusion fence. If no DPIPWE-approved bird escape hatches are installed, procedures for release of entrapped birds must comply with those detailed in a DPIPWE-approved SOP that demonstrates all reasonable effort is made to release any avifauna entrapped within the fish containment pen infrastructure as soon as possible.
- I.6.5 In addition to the requirements for External Collar Exclusion Netting, system farm pens must exclude entry by wildlife by ensuring:
 - (i) A tensioned rope is woven through each square of External Collar Exclusion Netting mesh in a single row and is securely fastened to the walkway at a maximum attachment spacing of 500 mm; *or*
 - (ii) If a tensioned rope is not used, the External Collar Exclusion Netting must be fastened to the walkway at spacing no greater than 300 mm; *and*
 - (iii) Fish Containment Netting must be securely fastened to the walkway at spacing no greater than 300 mm (150 mm optimal) to exclude entry by seals at the junction.

I.7 Seal Exclusion – External Collar Exclusion Fence (‘Fortress’ Pens)

- I.7.1 The External Collar Exclusion Fence (and including the exclusion netting adjacent to or forming part of a pen gate/entrance and attached to the hand-rail) must be:
 - (i) No greater than 125 mm square mesh;
 - (ii) Rated at 300 kg/bar breaking strength;
 - (iii) Maintained at a minimum height of 2.4 metres above the water-line (3.2m is optimal).
- I.7.2 External Collar Exclusion Fence supports may be fitted with a removable extension to allow improved access to the Fish Containment pen during certain activities (e.g. for well boat access during bathing operations). A removable extension must be replaced immediately after completion of the activity requiring access.

- I.7.3 External Collar Exclusion Fence supports must be spaced at a minimum of every 2.5 metres around the Fish Containment pen perimeter, except at a maximum of two staff service gate/entrance point per pen if required.
- I.7.4 Where installed, Bird netting or a Seal and Bird Aerial Wildlife Exclusion Net must be securely fastened to the handrail at a maximum attachment spacing of 300 mm. A minimum of two (2) DPIPWE-approved bird escape hatches should be installed in the bird or seal/bird exclusion net. If no DPIPWE-approved bird escape hatches are installed, procedures for release of entrapped birds must comply with those detailed in a DPIPWE-approved SOP that demonstrates all reasonable effort is made to release any avifauna entrapped within the fish containment pen infrastructure as soon as possible.
- I.7.5 The staff service gate/entrance point may include an electrical barrier (12 volt).

I.8 Seal Exclusion – External Collar Exclusion Fence ('Sanctuary' Pens)

- I.8.1 The External Collar Exclusion Fence (and including the exclusion netting adjacent to or forming part of a pen gate/entrance and attached to the hand-rail) must be:
 - (iv) No greater than 125 mm square mesh;
 - (v) Rated at 300 kg/bar breaking strength;
 - (vi) Maintained at a minimum height of 2.4 metres above the water-line (3.2m is optimal).
- I.8.2 External Collar Exclusion Fence supports may be fitted with a removable extension to allow improved access to the Fish Containment pen during certain activities (e.g. for equipment access). A removable extension must be replaced immediately after completion of the activity requiring access.
- I.8.3 External Collar Exclusion Fence supports must be spaced at a minimum of every 2.5 metres around the Fish Containment pen perimeter except at a maximum of two staff service gate/entrance point per pen if required.
- I.8.4 Bird netting or a Seal and Bird Aerial Wildlife Exclusion Net must overlap the External Collar Exclusion Fence and be fixed securely to the exclusion fence or external walkway. A minimum of two (2) DPIPWE-approved bird escape hatches should be installed in the exclusion fence. If no DPIPWE-approved bird escape hatches are installed, procedures for release of entrapped birds must comply with those detailed in a DPIPWE-approved SOP that demonstrates all reasonable effort is made to release any avifauna entrapped within the fish containment pen infrastructure as soon as possible.
- I.8.5 In addition to the requirements for External Collar Exclusion Netting, Sanctuary pens must exclude entry by wildlife by ensuring:

- (i) The Fish Containment netting is stitched or securely fastened to the walkway at a maximum attachment spacing of 300 mm (ideally, netting and stitching at this location should be extra heavy duty to minimise wear or risk of damage from motivated seals).
- (ii) Any seal exclusion netting must be stitched or securely fastened to the walkway at spacing no greater than 300 mm (150 mm optimal) to exclude entry by seals at the junction.
- (iii) Plastic net supports atop extension poles are fastened at 90 degrees to the External Collar Exclusion Fence. Any broken plastic supports must be repaired or replaced as soon as practicable.

I.9 Pen Structure

- I.9.1 The fish containment pen structure must be maintained in good repair and as near as practical to the original manufacturer specifications. Any changes from the original manufacturer's structural specifications resulting from operations or general wear and tear that create the potential for intrusion by seals must be remedied as soon as possible.
- I.9.2 If it is impractical to return the pen structure to the original manufacturer's specifications, a DPIPWE-approved modification system can be deployed. Any requests are to be made in writing to the Manager WMB.

I.10 Bath Liners/Bathing Pen Nets

- I.10.1 The mesh netting must be looped up, over and fastened to the hand-rail in a manner to exclude entry by seals, other than at the decanting gate during decanting of fish into a bath liner.
- I.10.2 The bath liner must be configured in a manner to exclude entry by seals, other than at the decanting gate during decanting of fish into a bath liner.
- I.10.3 Bathing pen nets must be visually inspected by divers or ROV to ensure that there are no holes in the fish netting at times when the bath liner is deployed in the pen.
- I.10.4 Where a skirt net is deployed, the net must be a furling skirt net.
- I.10.5 If wildlife are within bath liner/bathing pen infrastructure and cannot escape, operational procedures, other than those relating to the removal of wildlife, must cease until the wildlife is released or clear of the infrastructure.
- I.10.6 Bath liners/bathing pens must be constantly monitored for the presence of wildlife for fifteen (15) minutes before decant and bathing procedures can be undertaken.

I.11 Waste Capture Systems

- I.11.1 A Waste Capture Liner installed beneath a fish pen must be sufficiently rigged and weighted to maintain a consistent and constant gap of at least one (1) metre between the liner and Fish Containment Netting.

I.12 Requirements in relation to approved Wildlife Exclusion Measures

- I.12.1 Specially Protected, Protected or Partly Protected Wildlife, as defined and listed in the *Wildlife (General) Regulations 2010*, that become entrapped and/or entangled in any marine farming netting, infrastructure or equipment must be reported to DPIPW according to the following procedure:

- (i) If the wildlife is entangled and alive, immediate attempts to release the entangled wildlife must be made (except marine mammals – the Marine Conservation Program must be contacted (0427942537) immediately for instruction regarding appropriate and safe response to live entangled seals, whales and dolphins);
- (ii) If the immediate attempts to release entangled wildlife are unsuccessful then, the entanglement must, within one hour of the commencement of the attempt, be reported to a DPIPW Contact Officer;
- (iii) If the entangled wildlife is injured, a DPIPW Contact Officer must be contacted before a decision can be made to release;
- (iv) If the entangled wildlife is deceased then the carcass is to be immediately recovered and held. A DPIPW Contact Officer must be contacted for advice regarding carcass disposal within four hours after carcass recovery; *and*
- (v) A monthly report (Wildlife Incident Record sheet) for each marine farming lease held by a marine farming lease holder must be submitted to DPIPW detailing numbers of all wildlife mortalities, injuries, entanglements and entrapments detected in wildlife exclusion netting or marine farming infrastructure. A report must be submitted for each marine farming lease even if there has been no wildlife incidents at a lease.

- I.12.2 Any netting or liner described in this document, including fish containment, must:

- (i) Be completely de-rigged when not in use for any period greater than four weeks (except if maintained in operational condition incorporating applicable wildlife exclusion standards or, on a system farm, ensure any predator mesh net covering the hole left by removal of a fish containment net is stitched to the walkway at a maximum spacing of 300 mm and is held taught across the surface of the water so that it cannot sink), *or*
- (ii) If the netting is to be reinstated within the four week period it must be made safe during the interim period by observing the following conditions:

- a) The wildlife (bird or seal/bird) exclusion netting or Seal Exclusion Fence must not touch or lie on the water (except on a system farm as described in 1.11.2 (i)); and
- b) The Fish Containment Net must be looped up and over the hand rail.

2. SEAL DETERRENT DEVICE: SEAL CONTROL UNIT (CRACKER) (MRCRA)

2.1 Use and Storage

- 2.1.1 Cracker devices may only be deployed by holders of a valid **Seal Deterrent Device Permit, MRCRA – Deployment of Seal Control Units (Crackers)** and only on Fur Seals (*Arctocephalus* spp.) within the boundaries of the marine farming lease or operational area defined in the permit.
- 2.1.2 Dispense and storage of Cracker devices is restricted to a DMFOB. Marine farming lease holders may have a number of DMFOBs, including operations vessels, provided the sites are approved by DPIPWWE.
- 2.1.3 Cracker devices are classified as a Class 1.4E explosive under the Australian Dangerous Goods Code and as such are regulated in Tasmania under the *Explosives Act 2012* and associated Statutory Rules. All applicable legislative requirements for possession, transport, use and storage of Cracker devices must be complied with.
- 2.1.4 When Cracker devices are not in use for the purpose prescribed they must be stored appropriately at a DMFOB.
- 2.1.5 Compliance with all conditions on a **Seal Deterrent Device Permit, MRCRA – Deployment of Seal Control Units (Crackers)** is mandatory.

2.2 Safety

- 2.2.1 In the event that discharge of a Cracker device is seen to cause an obvious injury to a seal, the incident must, within one hour of the event, be reported to a DPIPWWE Contact Officer.
- 2.2.2 Approved seal deterrent devices may be used in conjunction with each other. However a maximum limit of **ten (10) Crackers**, **three (3) Seal Scare Caps** and **three (3) Beanbag device** can be deployed towards any one fur seal in a fish containment pen within a six hour period.
- 2.2.3 Permit holders are responsible for developing appropriate Work Health and Safety policies and procedures for use of seal deterrent devices.

2.3 Prohibitions

- 2.3.1 Cracker devices must not be used to harass fur seals remote from marine farming activities.

- 2.3.2 Cracker devices must not be used in a manner likely to injure a fur seal. Cracker devices must not be thrown towards the head of a fur seal, or to land within two (2) metres of a fur seal or a fur seal's last observed place of submersion.
- 2.3.3 Cracker devices must be used as single units only and must not be modified in any way.
- 2.3.4 Cracker devices must not be used on a marine farming lease when a whale or dolphin is known to be within that marine farming lease.

2.4 Record Keeping

- 2.4.1 Records of the usage, rate of usage and effectiveness of Cracker devices must be kept by the permit holder. Record forms must be returned to a DPIPWE Contact Officer within five (5) business days from the end of each calendar month. DPIPWE may review Seal Deterrent Records prior to issuing further Cracker devices.

3. SEAL DETERRENT DEVICE: BEANBAGS (MRBBA)

3.1 Use and Storage

- 3.1.1 Beanbag devices may only be deployed by holders of a **Seal Deterrent Device Permit, MRBBA Deployment of Beanbags (MRBBA)** and only on Fur Seals (*Arctocephalus* spp.) within the boundaries of the marine farming lease or marine farm operations defined in the permit.
- 3.1.2 Beanbag devices are classified as ammunition under the *Firearms Act 1996*. A Category 'A' Firearms Licence with a Purpose 3 (Primary Production) endorsement specific to marine farm operations under the *Firearms Act 1996* must be held by the permit holder deploying or possessing Beanbag devices.
- 3.1.3 Dispense and storage of Beanbag devices is restricted to a DMFOB. Marine farming lease holders may have a number of DMFOBs, including operations vessels, provided the sites are approved by DPIPWEE.
- 3.1.4 All applicable WorkSafe Tasmania and *Firearms Act 1996* requirements for the possession, transport, use and storage of Beanbag devices and firearms must be complied with. A storage unit as described in the *Firearms Act 1996* for Category A and B firearms and ammunition is the standard of storage that is required to lawfully store Beanbag devices and firearms.
- 3.1.5 When Beanbag devices are not in use for the purpose prescribed they must be stored at a DMFOB.
- 3.1.6 Compliance with all conditions on a **Seal Deterrent Device Permit, MRBBA – Deployment of Beanbags (MRBBA)** is mandatory.
- 3.1.7 A Beanbag device may only be deployed with the aim of scaring a seal to encourage it to vacate a fish containment pen or deter it from interacting with marine farm infrastructure or staff.

3.2 Safety

- 3.2.1 Beanbag devices must only be discharged from a 12-gauge shotgun with a choke-less full cylinder barrel.
- 3.2.2 In the event that impact of a Beanbag device is seen to cause an obvious injury to a fur seal, then the incident must, within one hour of the event, be reported to a DPIPWEE Contact Officer.
- 3.2.3 Approved seal deterrent devices may be used in conjunction with each other. However a maximum limit of **ten (10)** Crackers, **three (3)** Seal Scare Caps and **three (3)** Beanbag device can be deployed towards any one fur seal in a fish containment pen within a six hour period.

- 3.2.4 Permit holders are responsible for developing appropriate Work Health and Safety policies and procedures for use of seal deterrent devices.

3.3 Prohibitions

- 3.3.1 Beanbag devices must not be used to harass fur seals remote from marine farming activities.
- 3.3.2 Beanbag devices must not be used in a manner likely to cause injury to a fur seal. Beanbag devices must not be deliberately discharged towards the head of a fur seal, or when the fur seal is within two (2) meters of the person deploying the Beanbag device.

3.4 Record Keeping

- 3.4.1 Records of the usage, rate of usage and effectiveness of Beanbag devices must be kept by the permit holder. Record forms must be returned to a DPIPWE Contact Officer within five (5) business days from the end of each calendar month. DPIPWE may review Seal Deterrent Records prior to issuing further Beanbag devices.

4. SEAL DETERRENT DEVICE: SEAL SCARE CAPS (MRSSC)

4.1 Use and Storage

- 4.1.1 Seal Scare Cap devices may only be deployed by holders of a **Seal Deterrent Device Permit, MRSSC– Deployment of Seal Scare Caps (MRSSC)** and only on Fur Seals (*Arctocephalus* spp.) within the boundaries of the marine farming lease or marine farm operations defined in the permit.
- 4.1.2 Seal Scare Cap devices are classified as ammunition under the *Firearms Act 1996*. A Category 'A' Firearms Licence with a Purpose 3 (Primary Production) endorsement specific to marine farm operations under the *Firearms Act 1996* must be held by the permit holder deploying or possessing Seal Scare Cap devices. Seal Scare Cap devices must only be discharged from a firearm approved by DPIPWE.
- 4.1.3 Dispense and storage of Seal Scare Cap devices is restricted to a DMFOB. Marine farming lease holders may have a number of DMFOBs, including operations vessels, provided the sites are approved by DPIPWE.
- 4.1.4 All applicable WorkSafe Tasmania and *Firearms Act 1996* requirements for the possession, transport, use and storage of Seal Scare Cap devices and firearms must be complied with. A storage unit as described in the *Firearms Act 1996* for Category A and B firearms and ammunition is the standard of storage that is required to lawfully store Seal Scare Cap devices and firearms.
- 4.1.5 When Seal Scare Caps devices are not in use for the purpose prescribed they must be stored at a DMFOB.
- 4.1.6 Compliance with all conditions on a **Seal Deterrent Device Permit, MRSSC – Deployment of Seal Scare Caps (MRSSC)** is mandatory.

4.2 Safety

- 4.2.1 In the event that impact of a Seal Scare Cap device is seen to cause an obvious injury to a fur seal, then the incident must, within one hour of the event, be reported to a DPIPWE Contact Officer.
- 4.2.2 Approved seal deterrent devices may be used in conjunction with each other. However a maximum limit of **ten (10)** Crackers, **three (3)** Seal Scare Caps and **three (3)** Beanbag device can be deployed towards any one fur seal in a fish containment pen within a six hour period.
- 4.2.3 Permit holders are responsible for developing appropriate Work Health and Safety policies and procedures for use of seal deterrent devices.

4.3 Prohibitions

- 4.3.1 Seal Scare Cap devices must not be used to harass fur seals remote from marine farming activities.
- 4.3.2 Seal Scare Cap devices must not be discharged towards the head of a fur seal.
- 4.3.3 Seal Scare Cap devices must not be discharged when the fur seal is known to be within five (5) metres of the person discharging the Seal Scare Cap device.

4.4 Record Keeping

- 4.4.1 Records of the usage, rate of usage and effectiveness of Seal Scare Cap devices must be kept by the permit holder. Record forms must be returned to a DPIPWE Contact Officer within five (5) business days from the end of each calendar month. DPIPWE may review Seal Deterrent Records prior to issuing further Seal Scare Cap devices.

5. TRAPPING, HOLDING AND RELEASE (MRTHR)

Trapping of fur seals on a marine farming lease may only be undertaken by holders of a **Permit to Take Specially Protected and Protected Wildlife in Special Cases – Fur Seals (*Arctocephalus*)** within the boundaries of the marine farming lease or marine farm operations defined in the permit.

Trapped seals may be released on site, or transported using a DPIPWE-approved method to a DPIPWE-approved release area (see section 5.3). The process may include an approved holding period in a DPIPWE-approved designated holding facility, and must be conducted by an approved operator using transport cages and a transport method approved by DPIPWE.

Permanent, temporary, spatial or seasonal restrictions on the number of seals that may be trapped, held, transported or released may be imposed by DPIPWE to manage the risk of adverse impacts on the well-being and livelihood of Tasmanian industries and communities or to manage animal welfare matters.

Permit holders have a duty of care during the period any seal is held within a trap or cage until it is safely released. The permit holder must report any seals in their possession exhibiting signs of injury or showing other signs of compromised welfare to a DPIPWE Contact Officer as soon as possible and, where practicable:

- (i) Be examined by a veterinarian or DPIPWE Contact Officer within 24 hours of capture, in order to perform an animal welfare safety check; *or*
- (ii) If an examination is impractical, must be photographed and released at a release site determined by a DPIPWE Contact Officer without delay.

A seal held within a trap or cage or in the process of being released must not be deliberately harassed or stressed at any time. Any action of deliberate striking or deliberate exposure to noise likely to create stress will constitute an offence and result in a permit being cancelled and/or personnel prosecuted.

5.1 Trapping Seals

- 5.1.1 Only persons, who hold a current **Permit to Take Specially Protected and Protected Wildlife in Special Cases – Fur Seals (*Arctocephalus*)** are authorised to deploy a seal trap.
- 5.1.2 Only traps approved and tagged by a DPIPWE contact officer may be used. Trap approval is valid for a period of one year following inspection and tagging. Approved traps must include the following specifications:
 - (i) Maximum mesh size of 90 mm (bar); *and*

- (ii) Floatation that maintains a minimum 400 mm air space at all times (including during towing) across the entire water surface area internal to the trap.
- 5.1.3 Traps must be in good repair and have no sharp edges that could cause injury to a seal.
- 5.1.4 An approved seal trap can be used only on the marine farming lease or marine farming operations defined in the Permit.
- 5.1.5 Seal traps set overnight must be checked for the presence of a seal by 07:00 the following morning. Any traps that remain set to catch a seal during daylight hours must be checked every two (2) hours between the hours of 07:00 and 19:00.
- 5.1.6 Between the hours of 07:00 and 19:00, any trap found to be containing a seal must be either:
 - (i) Cleared immediately by releasing the trapped seal within the marine farming lease; *or*
 - (ii) Removed from the water as soon as possible and taken to a designated holding facility.
- 5.1.7 If a seal is to be held in the water for longer than six (6) hours, other than where specifically authorised under permit, approval must be obtained from a DPIPWE Contact Officer.
- 5.1.8 If multiple seals have been trapped on the same day, traps holding seals with the greatest welfare risk (e.g. seals in severe distress) must be dealt with first. Seals must then be prioritised in order of capture duration, with the seal held longest in captivity dealt with first.
- 5.1.9 All trapped fur seals (except those released immediately from traps), including re-captured individuals, must be:
 - (i) Scanned for the presence of an identification micro-chip by a person trained in the procedure by a registered veterinarian and with appropriate authority, then;
 - a) If a micro-chip is present the number must be recorded on the Seal Trapping and Monitoring Record;
 - b) If a micro-chip is not present a micro-chip must be inserted where possible by a person trained in the procedure by a registered veterinarian with appropriate authority and the number recorded on the Seal Trapping and Monitoring Record;
 - c) If insertion of the micro-chip is deemed to present an unacceptable risk to personnel or place undue stress on the seal, a unique bleach mark may

be applied to the seal by a person trained in the procedure following approval from a DPIPWE Contact Officer. The location and nature of the bleach mark must be recorded on the Seal Trapping and Monitoring Record;

(ii) Weighed where practical; *and*

(iii) Identified to species.

5.1.10 Bycatch, i.e. trapped wildlife species other than Australian or New Zealand (long-nosed) fur seals, must be photographed and released immediately outside the marine farming lease and reported to a DPIPWE Contact Officer within 24 hours of capture. If the animal is exhibiting signs of injury or other welfare concerns, a DPIPWE Contact Officer must be contacted for advice and instruction.

5.1.11 Compliance with all conditions on a **Permit to Take Specially Protected and Protected Wildlife in Special Cases – Fur Seals (*Arctocephalus*)** is mandatory.

5.1.12 Permit holders or their employer are responsible for developing appropriate Work Health and Safety policies and procedures for seal trapping activities.

5.2. Holding Trapped Seals

5.2.1 If a fur seal is to be held for an approved period (see 5.4) prior to transport and/or release, the seal must be transferred to an approved Holding Cage (DPIPWE current approval tag attached), or to an alternative holding mechanism approved by DPIPWE. Cage approval is valid for a period of one year following inspection and tagging.

5.2.2 A Seal Trapping and Monitoring Record for each seal held must be filled in immediately and fixed to the holding cage during the time the seal is captive. Details on the sheet must be updated immediately as required. A Seal Trapping and Monitoring Record (relevant sections) must also be filled out if a seal is released immediately and not held.

5.2.3 If a fur seal is to be held in a trap in the water for longer than six (6) hours, other than where specifically authorised under permit, approval must be obtained from a DPIPWE Contact Officer.

5.2.4 A holding cage must provide a seal with adequate ventilation and shade from direct sunlight at all times.

5.2.5 A holding cage must be in good repair and have no sharp edges that could cause injury to a seal.

5.2.6 Only one fur seal at a time may be held in a holding cage. Enough room must be available to a seal in a holding cage to allow for:

(i) The seal to extend to its full length plus 300 mm when the animal is lying flat;
and

- (ii) The free movement of the seal's pectoral flippers.

5.2.7 A DPIPWE-approved holding cage must incorporate the following specifications:

- (i) Cage mesh size must not exceed 90 mm (bar);
- (ii) A holding cage may have a crush capability;
- (iii) All doors must be fitted with a locking pin.

5.2.8 Holding of a fur seal must be at a DPIPWE-approved designated holding facility within one hour vessel transport time from the marine farming lease in which that seal was trapped.

5.2.9 Holding of seals within a designated holding facility must be conducted as described in a DPIPWE-approved Standard Operating Procedure (SOP) developed by the Permit holder.

5.2.10 Seals that are repeatedly captured and held within a short period of time may be at heightened animal welfare risk due to increased stress or an inability to sufficiently feed or rest between captures. The SOP developed by the Permit holder must include a mitigation strategy if made aware of at-risk individual seals by DPIPWE following inspection of Seal Trapping and Monitoring Records.

5.2.11 Within an approved designated holding facility, a holding cage containing a fur seal must be spaced at a distance of at least the length of that cage from any other cage containing a seal. A space of at least one (1) metre must be maintained on all sides of the cage from any other obstacle to ensure adequate air flow.

5.2.12 Holding cages containing a fur seal must not be stacked on top of each other.

5.2.13 Any holding cage containing a seal in a designated holding facility must be elevated to allow air to flow under the cage.

5.2.14 When the ambient air temperature is **18°C or above** a continuous spray of cool water must be left running over any holding cage containing a seal. Alternatively, after consulting with and approval from a DPIPWE Contact Officer, a seal may be contained in a trap in the water for longer than 6 (six) hours if under an approved monitoring protocol.

5.2.15 The permit holder must ensure that a DPIPWE Contact Officer is immediately advised if any captive seal displays unusual symptoms (e.g. regurgitation, lethargy) and shall comply with any instruction given by that Officer.

5.2.16 Seals held in captivity within a designated holding facility must be visually checked every two (2) hours to assess welfare, with checks logged on each seal's Seal Trapping and Monitoring Record.

- 5.2.17 Noise from equipment and personnel within an approved designated holding facility must be minimised as much as possible whenever seals are held in the facility.

5.3. Transport and Release of Seals

- 5.3.1 A seal may only be transported in an approved trap or transport cage via vessel for the purposes of taking it to an approved designated holding facility or for release.
- 5.3.2 A seal must not be transported over land (except when being moved within a designated holding facility) unless approved by DPIPWE for animal welfare or biosecurity reasons. Over land transport must comply with procedures detailed in a DPIPWE-approved SOP.
- 5.3.3 Seals may only be released into the water on the marine farming lease in which they were trapped, or at the designated holding facility at which it was held. The marine farming lease used for release must be a marine farming lease held by the permit holder.
- 5.3.4 In exceptional circumstances seals may need to be released away from the lease area (e.g. for animal welfare reasons). In such circumstances, release to an alternative location will be subject to approval by DPIPWE on a case by case basis. In cases where the permit holder cannot transport the seal to an alternative approved release area themselves, the holder of a Permit to Possess Specially Protected and Protected Wildlife in Special Cases – Fur Seals (*Arctocephalus*) is required to notify an Approved Seal Transport Service Provider (ASTSP) as soon as possible following the trapping of that seal. If multiple seals have been trapped on the same day, the seal that has been held captive the longest must be removed first.
- 5.3.5 Transport of seals, including via vessel, must not occur under circumstances where the permit holder or an ASTSP, in consultation with a DPIPWE Contact Officer, deems that:
- (i) A trapped seal/s is unsuitable for transport for reasons of animal welfare; or
 - (ii) The likelihood that transport and release will not be achieved before prescribed release deadlines (see 5.4).

Under such circumstances, seal/s must be released into the water on the marine farming lease in which it was captured or at the designated holding facility at which it was held, or at a release area required by the DPIPWE Contact Officer.

- 5.3.6 If an ASTSP is unable to transport a seal to an intended approved release area within the relevant time restrictions, the seal must instead be released into the water on the marine farm lease in which it was captured or at the designated holding facility lease

area at which it was held, unless instructed to use an alternative release area by a DPIPWE Contact Officer.

5.3.7 Only one seal may be held in each compartment of the DPIPWE approved transport cage (DPIPWE approval tag attached, valid for a period of one year following inspection and tagging). Enough room must be available to each seal in the compartment of the approved transport cage to allow for:

- (i) The seal to extend to its full length plus 300 mm when lying flat; *and*
- (ii) The free movement of its pectoral flippers and not impeded by the approved holding cage compartment divider, except if being corralled for micro-chipping.

5.3.8 A DPIPWE-approved transport cage must incorporate the following specifications:

- (i) Cage must be in good repair and have no sharp edges that could cause injury to a seal;
- (ii) Cage mesh size must not exceed 90 mm (bar);
- (iii) Each seal compartment must be no less than 900 mm wide (optimum 1100 mm), 1700 mm in length (optimum 1800 mm) and 800 mm high (optimum 1000 mm);
- (iv) Each seal compartment must have an unrestricted crush capability;
- (v) Each seal compartment must have small side access doors to enable free and safe access to a seal without having to open the main access door; *and*
- (vi) All doors must be fitted with a locking pin.

5.3.9 Transport cages must not be stacked on top of each other during transportation.

5.3.10 Adequate ventilation and shade from direct sun must be provided to all seals at all times during transportation.

5.3.11 Seals must be periodically wetted with cool water during transportation.

5.3.12 Seals must not be visible to the public during transportation.

5.3.13 All seals involved in the transport and release process must be accompanied by their Seal Trapping and Monitoring Record which must be filled in immediately during each process.

5.3.14 Holders of a **Permit to Possess Specially Protected and Protected Wildlife in Special Cases** – Fur Seals (*Arctocephalus*) are responsible for developing

appropriate Work Health and Safety policies and procedures to follow during the transport process.

- 5.3.15 The conditions specified on a **Permit to Possess Specially Protected and Protected Wildlife in Special Cases** – Fur Seals (*Arctocephalus*) are mandatory. The permit holder must comply with all conditions of the permit.

5.4 Prescribed Holding, Transport and Release Times

- 5.4.1 When the ambient air temperature is **below 24°C**, the maximum time that may elapse between capture of a seal in an approved trap and release of that seal is **48 hours** unless a longer period has specifically been approved by a DPIPWE Contact Officer or is authorised under a valid permit.
- 5.4.2 When the ambient air temperature is **24°C or above**, the maximum time to elapse between capture of a seal in an approved trap and release of that seal is **24 hours** unless a longer period has specifically been approved by a DPIPWE Contact Officer or is authorised under a valid permit.
- 5.4.3 When the ambient air temperature is **24°C or above**, transport of a seal from the capture site to a designated DPIPWE-approved holding facility or release area must occur between the hours of **1600 and 1100** unless otherwise approved by a DPIPWE Contact Officer.
- 5.4.4 Approval for holding a seal for a longer period than specified above will only be given in circumstances where a DPIPWE Contact Officer is satisfied that an extension of time is necessary and the extension does not present an unacceptable risk to the welfare of the seal.

5.6 Prohibitions

- 5.6.1 Deliberate feeding of seals must not occur in Marine Farming Development Plan Zones or marine farming leases unless authorised under a valid permit.
- 5.6.2 Trapped seals must not be held in a trap in the water for longer than six (6) hours unless otherwise approved by a DPIPWE Contact Officer.

5.7 Record Keeping

- 5.7.1 The Permit holder involved in the trapping of a seal must complete a Seal Trapping and Monitoring Record for every seal trapped and this must accompany a seal for the time it is held.
- 5.7.2 Seal Trapping and Monitoring Records for all seals trapped (including those released immediately and those held in holding cages for an approved period must be forwarded weekly to DPIPWE.

- 5.7.3 All seal trapping, marking and release records will be made available by DPIPWE to the broader industry.
- 5.7.4 DPIPWE may retain copies of Seal Trapping and Monitoring Records for reference in relation to any future permit applications.

6. SEDATION (MRSED)

In situations where all other measures (i.e. use of deterrent devices, trapping or, where practicable, provision of an exit) have failed to result in removal of a fur seal from a fish containment pen, the qualified holder of a **Seal Deterrent Device Permit, MRSED – Sedation** may sedate the fur seal to facilitate its safe removal from the enclosure.

6.1 Sedation of Fur Seals Within a Fish Containment Pen

- 6.1.1 Sedation (chemical immobilisation) of fur seals can only be conducted by a registered veterinarian, or personnel with appropriate authority from a registered veterinarian and who have received training in relevant chemical immobilisation concepts and procedures.
- 6.1.2 Sedation, care and monitoring of sedated fur seals must be conducted as described in a DPIPWE-approved Standard Operating Procedure (SOP) developed by the permit holder or their employer. Sedation equipment must also be approved for use by DPIPWE.
- 6.1.3 A DPIPWE contact officer must be informed of any sedation of a fur seal and supplied with a Seal Sedation Record within 24 hours of sedation taking place.
- 6.1.4 The benzodiazepine sedative midazolam (trade names include Hypnovel®) is the only drug approved by DPIPWE to sedate fur seals by holders of a **Seal Deterrent Device Permit, MRSED – Sedation**.
- 6.1.5 Midazolam must only be delivered to a fur seal using a DPIPWE-approved tranquiliser cap (dart) device deployed from a DPIPWE-approved firearm.
- 6.1.6 DPIPWE recommends a dosage of 0.35-0.50 mg/kg midazolam for tranquiliser darting of fur seals in a fish containment pen.
- 6.1.7 Tranquiliser cap (dart) devices must be limited to a maximum cannula (needle) length of 1.5 inches (38 mm).
- 6.1.8 In circumstances where there are multiple seals within a fish enclosure pen, only one seal may be sedated at a time. Once one (1) individual seal has received a dose of midazolam, no additional seals within the pen can be targeted for sedation until that seal is successfully sedated and removed from the pen.
- 6.1.9 All reasonable efforts must be made to complete sedation and capture once a seal has received at least one (1) dose of midazolam.

- 6.1.10 To minimise stress and ballistic trauma to the seal, it is recommended that the minimum number of tranquiliser cap (dart) devices to enable effective immobilisation of the individual seal are used.
- 6.1.11 In the event that impact of a tranquiliser cap (dart) device is seen to cause an obvious injury to a seal, then the incident must, within one (1) hour of the event, be reported to a DPIPWE Contact Officer.
- 6.1.12 Once a seal is sedated and can be safely removed from a fish containment pen in accordance with a DPIPWE-approved SOP, it must be transferred to a DPIPWE-approved holding cage (see MRTHR 5.2).
- 6.1.13 Where possible, a small incision should be made adjacent to the needle barb (where a needle includes a wire barb) to help minimise damage to tissue caused by the barb during removal of the tranquiliser cap (dart) device from the seal.

6.2 Holding and Monitoring of Sedated Seals

- 6.2.1 A Seal Sedation Record must be filled in immediately and fixed to the holding cage during the time the seal is captive. Details on the sheet must be updated immediately as required during monitoring of the animal.
- 6.2.2 Holding cages containing sedated seals must be delivered to a DPIPWE-approved designated holding facility within an hour of the sedation/s being completed.
- 6.2.3 Sedated seals must be visually checked to assess welfare at least once every hour for a period of at least five (5) hours following sedation, with checks and observations logged on the Seal Sedation Record.
- 6.2.4 All other requirements relating to holding seals in captivity and for transport and release (see 5. MRTHR) must be complied with during the time the seal is held.
- 6.2.5 Sedated seals exhibiting signs of compromised welfare (including death) must be reported to a DPIPWE Contact Officer as soon as possible, and where practicable examined by a veterinarian.
- 6.2.6 A sedation reversing agent may be delivered to a sedated seal in accordance with a DPIPWE-approved SOP if required.
- 6.2.7 Following sedation, a seal must be held for a minimum of 24 hours prior to release unless a registered veterinarian determines the seal has recovered from sedation sufficiently for an earlier release.

6.3. Safety

- 6.3.1 Permit holders or their employer are responsible for developing appropriate Work Health and Safety policies and procedures and DPIPWWE-approved Standard Operating Procedures (SOPs) for sedation of fur seals.
- 6.3.2 All applicable Worksafe Tasmania and *Firearms Act 1996* requirements for the use and storage of firearms shall be complied with for the use and storage of firearms used to deploy tranquiliser cap (dart) devices.
- 6.3.3 A storage unit as described in the *Firearms Act 1996* for Category A and B firearms and ammunition is the standard of storage that is required to lawfully store tranquiliser cap (dart) devices and firearms.

6.4 Prohibitions

- 6.4.1 Unless requested by DPIPWWE, use of tranquiliser cap (dart) devices on seals that are external to a fish containment pen is prohibited.
- 6.4.2 Tranquiliser cap (dart) devices must not be discharged towards the head or underbelly of a seal.
- 6.4.3 Tranquiliser cap (dart) devices may only be used on fur seals, as stated on a **Seal Deterrent Device Permit, MRSED – Sedation**.

6.5 Record Keeping

- 6.5.1 A Seal Sedation Record sheet must be completed immediately following each deployment of a tranquiliser cap (dart) device that strikes a seal.
- 6.5.2 Seal Sedation Record sheets must be forwarded to a DPIPWWE Contact Officer within 24 hours of the sedation attempt taking place.
- 6.5.3 DPIPWWE will retain copies of any Seal Sedation Records for reference in relation to any future permit applications.

7. HUMANE DESTRUCTION (MRHDE)

7.1 Criteria for Consideration of Humane Destruction

- 7.1.1 Humane Destruction of a fur seal as a seal interaction management option will only be considered in circumstances where an individual seal can be clearly identified and demonstrated as representing an unacceptable Work Health and Safety (WHS) risk to fish farm workers.
- 7.1.2 For a seal to be recognised as an unacceptable risk to farm workers, a DPIPWE Contact Officer must be notified by telephone of an unprovoked incident within six (6) hours of the incident.
- 7.1.3 Incident level is defined as either:
- **Level 1:** Unprovoked behaviour by a clearly identifiable fur seal that results in direct contact and/or injury with a person, or with clothing or equipment worn by that person; *or*
 - **Level 2:** Unprovoked behaviour by a clearly identifiable fur seal that presents an unacceptable risk of injury to a person.
- 7.1.4 Humane Destruction of a fur seal will only be considered by the Secretary upon receipt of a written application (see Humane Destruction Application template) and an accompanying report made by a DPIPWE Contact Officer detailing the findings of an investigation into the incident and whether destruction is justified.
- 7.1.5 An application for Humane Destruction of a clearly identifiable seal can only be made following appropriate notification to DPIPWE of the following number of incidents involving that seal:
- **One (1) or more Level 1 incidents; *or***
 - **Three (3) or more Level 2 incidents.**
- 7.1.6 Approval of an application will result in the issuing of a **Permit to Take Protected Wildlife – Fur Seals (*Arctocephalus*)** by the Secretary specific to the identified fur seal.

7.2 Procedural Requirements for an Application for Humane Destruction

- 7.2.1 A DPIPWE contact officer is to be contacted, by telephone, within six (6) hours) of an unprovoked incident involving a fur seal (Level 1 or 2) on a marine farming lease.
- 7.2.2 The DPIPWE Contact Officer must be provided with a written application for Humane Destruction, including required supporting documentation (see checklist on Humane

Destruction Application template), within eighteen (18) hours of a Level 1 incident, or within 18 hours of at least the third Level 2 incident, involving a clearly identifiable individual seal. Applications submitted outside these timeframes will be rejected. Required supplementary information includes:

- (i) Documentary evidence in the form of an incident report relating to any injury or potential injury to personnel caused by the fur seal which identifies the circumstances of the behaviour and persons involved. May include Statutory Declarations and medical reports;
- (ii) The capture history of the identified seal; *and*
- (iii) A description, and ideally photographs, of unique distinguishing marks or features on the seal or a microchip number that can be used to clearly and conclusively identify the individual.

7.2.3 The DPIPWE Contact Officer must, within eighteen (18) hours of receiving the application for humane destruction, undertake a full investigation and where practicable a site inspection to verify that destruction can be justified and the criteria and requirements for considering and undertaking Humane Destruction have been met.

7.2.4 The DPIPWE investigation will follow procedures outlined in a DPIPWE SOP. Should an investigation determine that actions or circumstance contributing to an incident can be safely avoided in the future, then this may affect the issue of further permits for humane destruction involving similar incidents.

7.2.5 If the investigation finds that any non-compliance with the Seal Management Framework has contributed to the incident, the application for Humane Destruction may be denied.

7.2.6 If the investigation finds that all requirements have been met and destruction is appropriate and justified, the DPIPWE Contact Officer will forward notification, upon the same day as the completed investigation, to the Secretary, recommending the application for Humane Destruction be approved.

7.2.7 To allow identification of the fur seal/s involved, it is recommended that the following actions are implemented when an unprovoked incident has caused a direct injury to a person/s (Level 1 incident):

- (i) With approval from a DPIPWE Contact Officer, attempt to mark the fur seal by paint or for a permitted employee to deploy a colour-coded Pneu-Cap; *or*
- (ii) Attempt to trap the fur seal (see 5. MRTHR); *or*

- (iii) Should trapping not be possible and the fur seal is contained within a fish pen, a Sedation permit holder may attempt to sedate the seal to allow capture.
- 7.2.8 Approval to mark a fur seal by paint or for a permitted employee to deploy a colour-coded Pneu-Cap following three (3) Level 2 incidents involving that individual seal must be sought from a DPIPWE Contact Officer.
- 7.2.9 If the fur seal is successfully trapped or sedated, the seal should be scanned for the presence of a microchip and, if present, the seal's capture history must be provided to the DPIPWE Contact Officer.
- 7.2.10 If the fur seal is successfully trapped or sedated, the DPIPWE Contact Officer will advise the applicant with requirements for holding the captured fur seal until the required investigation is completed.
- 7.2.11 Where a **Permit to Take Protected Wildlife – Fur Seals (*Arctocephalus*)** is issued by the Secretary or their delegate, Humane Destruction of the seal must be undertaken in a manner consistent with animal welfare requirements by a qualified veterinarian. Compliance with all conditions on the permit is mandatory.
- 7.2.12 Where a **Permit to Take Protected Wildlife – Fur Seals (*Arctocephalus*)** is NOT issued by the Secretary or delegate, i.e. the application for Humane Destruction is denied, then release of a trapped fur seal shall be in accordance with processes described in 5. MRTHR.

7.3 Record Keeping

- 7.3.1 Within 48 hours of issuing a permit for Humane Destruction of a fur seal, DPIPWE will notify the broader industry and provide relevant general details, subject to commercial in confidence and privacy of personal information, of the incident that triggered the permit application to allow all companies to implement appropriate mitigation measures for similar incidents.
- 7.3.2 DPIPWE will retain copies of applications or any records used to support an application as well as a record of deterrent device usage.

7.4 Cost Recovery

- 7.4.1 DPIPWE will recover any costs incurred in the Humane Destruction of the seal from the applicant.