



Agreed Work Practices - Wellboat Operations

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Tasmanian Salmonid Growers Association



SHARED COMMITMENT3

INTRODUCTION4

LEGISLATIVE REQUIREMENTS4

OPERATIONAL APPROVALS6

NAVIGATION & PILOTAGE.....6

BIOSECURITY.....7

NOISE.....7

LIGHTING7

WILDLIFE8

WATER DISCHARGE.....8

WASTE & HAZARDOUS SUBSTANCES.....9

COMMUNITY STAKEHOLDERS.....10

REFERENCES.....11

SHARED COMMITMENT

Our shared commitment to the community:

Maintaining the integrity of the marine environment and surrounding areas in which we farm is a major factor in the decision-making across TSGA members.

The quality of our fish is a direct reflection of our deep understanding of the local marine environment and how we can minimise our impact – on the water column, on the sediment, on the marine flora and fauna and on the coastline.

TSGA members will continue to act on our responsibilities in relation to wellboat operations to ensure all reasonable and practicable management practices and planning measures are undertaken to prevent or minimise potential environmental harm or negative community impacts.

		
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INTRODUCTION

The use of wellboats in finfish aquaculture represents a global shift in the adoption of new technologies to better manage the bathing and transport of live fish across coastal and offshore waterways. Contemporary wellboats are very sophisticated and used extensively throughout Norway, Scotland, Chile, Canada and, more recently, in Tasmania.

The finfish aquaculture industry uses wellboats for fish bathing, live fish transport and harvest operations. Wellboats can provide significant advantages to aquaculture companies including: enhanced biosecurity; improved efficiency of operations; reduction in stress for stock; reduction in risk of stock escape; as well as provide capacity to operate in more exposed locations. This has become a well-established practice in Tasmanian waters with the use of wellboats commencing in 2014. Today, three wellboats now operate in Tasmanian waters.

The use of wellboats for finfish aquaculture in Tasmania can provide significant benefits to the environment and local communities, including;

- reduced vessel movements, including the significant reduction in towing operations;
- reduction in freshwater use through effective re-use of bathing water; and
- reduced biosecurity risk for other aquaculture industries.

The *Agreed Work Practices for Wellboat Operations* (the Practices) has been developed to support the Tasmanian salmon industry's broader framework for sustainable management of our coastal resources, including improved biosecurity outcomes for all salmon farms in Tasmania. In addition, these Practices seek to establish an industry environmental benchmark for the activity of wellboat operations undertaken by Tasmanian salmon farmers.

The Practices apply to all Tasmanian salmon companies and the operation of their wellboats to ensure all reasonable and practicable management and planning measures are undertaken to prevent or minimise potential environmental harm or negative community impacts.

The Practices provide environmental objectives, principles and management practices that meet current regulations. The Practices specify the operational and management practices to be adopted for wellboat operations and do not incorporate subsequent or preceding processes within the aspects of salmon farming operations.

Wellboats are operated in Tasmania under Class Certification by DNV which is in essence a quality assurance programme that covers ship design, construction, operations, safety, and training of crew. Annual audits are taken to ensure maintenance of ships structure and machinery, safety equipment, documentation, and training. See www.dnv.com for further information.

LEGISLATIVE REQUIREMENTS

The wellboats used in Tasmania have been designed, constructed, and managed under International Maritime Organisation (IMO) conventions which are aimed at promoting marine time safety and environmental protection. Details can be found at www.imo.org.

The over-arching legislative framework for wellboat operations within the Tasmanian marine aquaculture industry is provided by the following International, Commonwealth and State regulations and conventions:

International:

MARPOL (managed by the Marine Environment Protection Committee (MEPC) of IMO) - The International Convention for the Prevention of Pollution from Ships (oil, chemicals, sewage, garbage and air pollutants).

Commonwealth Legislation:

- *Australian Maritime Safety Authority Act 1990*
- *Pollution of the Sea (Prevention of Pollution from Ships) Act 1983*
- *Environment Protection Biodiversity Conservation Act 1999*
- *Agriculture and Veterinary Chemicals (Control of Use) Act 1995*

State Legislation:

- *Biosecurity Act 2019*
- *Environmental Management and Pollution Control Act 1994 (EMPCA)*
- *Environmental Protection Policy (Noise) 2009 - under EMPCA*
- *Living Marine Resources Management Act 1995*
- *Marine Farming Planning Act 1995*
- *Marine and Safety Authority Act 1997*
- *Marine-Related Incidents (MARPOL Implementation) Bill 2019* – currently progressed to first reading in Tasmanian House of Assembly with the aim of replacing the *Pollution of Waters by Oil and Noxious Substances Act 1987 (PWONSA)*

These Practices have been developed in line with the above regulatory requirements.

It is important to note that the salmon industry in Tasmania has an environmental duty under *EMPCA 1994* and a biosecurity duty under the *Biosecurity Act 2019*.

Under the *Environmental Management and Pollution Control Act 1994* a person must take reasonable and practicable steps to prevent or minimise environmental harm or nuisance caused by an activity conducted by that person.

Under the *Biosecurity Act 2019* a General Biosecurity Duty gives all people (including the salmon industry) dealing with any animals, plants, or related products a statutory duty of care to properly manage biosecurity risks.

OPERATIONAL REQUIREMENTS

In Tasmanian State waters, salmon farming may only occur in areas designated for marine farming by a Marine Farming Development Plan (MFDP). MFDPs are prepared by the Tasmanian State Department of Primary Industries, Parks, Water and Environment (DPIPWE), under the *Marine Farming Planning Act 1995*, and approved by the Tasmanian Minister for Primary Industries and Water (the Minister). Comprehensive Environmental Impact Statements are also required to support Amendments to MFDPs, such as expansion into new growth areas (i.e. West of Wedge, Storm Bay and North of Storm Bay).

In order to operate a salmon farm within designated areas, an entity must hold a Marine Farming Lease and a Marine Farming Licence. Marine Farming Leases are granted under the *Marine Farming Planning Act 1995* by DPIPWE and Marine Farming Licences are granted under the *Living Marine Resources Management Act 1995* by DPIPWE.

Since December 2017, operators of finfish farms have been required to also hold an Environmental Licence (EL) under the *Environmental Management and Pollution Control Act 1994 (EMPCA)*.

To operate a wellboat on a marine farming lease, Tasmanian aquaculture companies must ensure that their operations comply with all conditions in each of the four regulatory documents.

OPERATIONAL APPROVALS

As part of the approvals process for the development of marine farms in Storm Bay, Tasmania, EPBC referrals for the proposals from each of the three Tasmanian salmon aquaculture companies were submitted to the Commonwealth Government under the *Environment Protection Biodiversity Conservation Act 1999*.

The Department of Agriculture, Water and Environment assessed each of the proposed developments in Storm Bay as “not a controlled action”. As part of this process, each of the companies committed to complying with a Migratory Whale Interaction Management Plan for Storm Bay, which is also extendable to other marine farming areas. This Plan includes all marine aquaculture activities including wellboat operations.

Risk Management Framework

All activities in which wellboats are used to transport fish should be subject to documented risk assessment and emergency protocols – a Risk Management Framework.

Wellboats should be required to carry on-board the risk management plan/framework and to train operational staff in emergency procedures. Risk assessments for vessels, should take into account the type of activity, vessel features and weather conditions.

Developers of the Risk Management Framework can be guided by the ‘AMSA Risk Management in the National System - A Practical Guide’ for references to values of ‘likelihood’ and ‘consequences’, as well as the Department of Primary Industries, New South Wales for a templated Emergency Management Protocol (EMP).

An example of a Risk Management Framework for salmon farmers is included in Appendix A.

An example of an Emergency Protocol for salmon farmers is included in Appendix B.

NAVIGATION & PILOTAGE

Marine farming in Tasmania occurs in shared waterways and therefore the safe operation of vessels is of high priority for all salmon aquaculture companies. In particular, wellboats are large, sophisticated vessels and therefore require highly trained crews with appropriate Certificates of Competency to operate in Tasmania. It is the responsibility of the vessel captain to ensure that operations in Tasmanian coastal waters comply with relevant marine safety acts and regulations. These include but are not limited to the following:

- The International Regulations for Preventing Collisions at Sea 1972 (COLREGs)
- *Australian Maritime Safety Authority Act 1990 (National Law)*
- *Marine and Safety Authority Act Tasmania 1997 the Marine and Safety (Pilotage and Navigation) Regulations 2017.*
- Tasmanian Port Corporation Marine Pilotage Code

Given the importance of maintaining safe navigation, salmon aquaculture companies will continue to regularly consult with relevant authorities: Australian Maritime Safety Authority (AMSA), Marine and Safety Tasmania (MaST) and Tasmanian Ports Corporation.

BIOSECURITY

To farm salmon successfully, robust and sustainable biosecurity management is required to ensure the health and welfare of our fish and surrounding environment are maintained. An Industry Biosecurity Blueprint has been developed between government and industry to meet Tasmanian State Biosecurity legislative requirements and promote optimum fish health, animal welfare and biosecurity outcomes.

The objective of the Biosecurity Program: Tasmanian Salmon Industry (the Program) is to improve the overall biosecurity of all salmon farming in Tasmania to reduce or eliminate the risks posed by infectious diseases of salmonids and associated aquatic pests. The Program sets standards designed to reduce biosecurity risks between growing regions, year-classes, operators, and individual farms where practically possible.

Although this process has yet to be finalised, a set of principles will be included within the Program that will apply to the management of wellboats in Tasmanian waters, with respect to maintaining the integrity of the industry's biosecurity status.

Tasmanian salmon producers will adhere to this regulated framework when operating wellboats.

NOISE

The management of noise is a key aspect of responsible salmon farming operations. Minimising noise emissions from the activity is essential to mitigating potential impacts to sensitive receptors.

As far as practically possible, the following shall be implemented:

- Determination of potential noise sources to enable effective management of emissions.
- Active management of known noise sources during wellboat operations to ensure emissions remain within the EPA's prescribed regulatory limit of 74 dB(A) at 25 m (including tonal penalties) specified by the *Environmental Management and Pollution Control (Miscellaneous Noise) Regulations 2004*.

Operations will adhere to any lease specific noise restrictions as defined for daytime, evening and night-time limits in Environmental Licence conditions and/or MFDP management controls.

LIGHTING

Lighting of the vessel represents a potential impact to neighboring residents of farming leases, particularly in sensitive inshore lease areas (i.e. Huon River, Upper D'Entrecasteaux Channel) and with 24/7 operations requiring a minimum standard of lighting for safe working operations and navigation. Lights can also potentially change animal behaviour by attracting some species or diverting others from migration paths or habitats. Impacts can include reduced survival rates or reproductive output, and indirectly change habitat or food resource structures within an ecosystem.

Companies will apply the National Light Pollution Guidelines as a means of minimising impacts to seabirds and migratory shorebirds.

As far as practically possible, the following measures shall also be adopted:

- Search lights re-angled away from sensitive receptors when in use.
- Night bathing operations are an essential practice, and the use of lights at night will be managed to prevent visual amenity concerns where practicable.
- Use of lowest practicable intensity lighting appropriate for the task being undertaken.

WILDLIFE

Whales

For wellboat operations, as outlined in the Migratory Whale Interaction Management Plan for Storm Bay, the following measures will be applied in relation to whale sightings and interactions:

- Adoption of the Tasmanian Whale and Dolphin Viewing Guidelines if a whale is sighted during operations.
- Vessel operations (i.e. movement) and other noise generating activity must be shut down if a listed threatened or migratory whale species is observed within one (1) kilometre of any vessel during farming operations within a lease.*

*Situations when vessel operations cannot be shut down are exempt from this requirement:

- Where personnel safety is put at significant risk (e.g. diving/bathing operations)
- Where there is significant risk to property
- Where there is the potential to create significant environmental harm
- Where there is significant risk to fish health (e.g. bathing operations)
- If a whale approaches a vessel or infrastructure, no active dispersal or harassment of the animals may occur.
- If a whale ventures into a situation of potential harm, the crew will immediately advise the Parks & Wildlife Service and/or DPIPWE Marine Conservation Program.
- Wellboat vessel speed must not exceed 5 knots within marine farming lease areas.

Birds

Collision from disorientation due to lighting is the main potential impact to birds from wellboat operations.

In addition to the practical lighting measures outlined above, the handling and treatment of any seabird landing on the vessel during night hours will be undertaken according to the International Association of Antarctica Tour Operators (IAATO) Seabirds Landing on Ships information page.

Seals

All companies have detailed procedures for seal interactions, which contain preventative measures to reduce risks of harm to seals and safety risks to personnel.

For wellboat operations, as per all marine farming activities regarding seals, all requirements as outlined in the Seal Management Framework 2018 will continue to be maintained and implemented. The Framework is regulated by the Tasmanian Department of Primary Industries, Parks, Water and Environment - Wildlife Management Branch, with all direct seal interactions directly reported to the Department by the individual companies, as is current practice.

WATER DISCHARGE

Discharge of bathing water

Release of bathing water (fresh water) is consistent with established bathing methodologies – that is, bathing water is released into the receiving environment, generally alongside the stocked pens.

As part of an ongoing industry practice, the companies, in collaboration/consultation with government, will establish clear directives around areas for discharge outside of marine lease areas to ensure discharge of bathing water can occur under adverse weather conditions. “No go” discharge zones will be developed by industry in collaboration/consultation with government to maintain biosecurity integrity of farming zones, particularly those zones and areas that accommodate farms from multiple leaseholders.

Bathing Water Monitoring

The companies undertake the following monitoring of wellboat bathing water operations under these Practices:

- Maintain daily logs of discharge locations and times.
- Maintain ongoing water quality sampling of the bathing water during operations including, but not limited to: Total Ammoniacal Nitrogen (TAN); temperature; salinity; dissolved oxygen; carbon dioxide; and pH.

WASTE & HAZARDOUS SUBSTANCES

Pollution of the sea in Tasmanian State waters are regulated by general pollution laws such as the *Environmental Management and Pollution Control Act 1994*, however, the *Pollution of Waters by Oil and Noxious Substance Act 1987* deals specifically with discharges of oil and other pollutants from ships. In accordance with current national arrangements, the *Pollution of Waters by Oil and Noxious Substance Act 1987* gives effect in Tasmania to the MARPOL international convention on marine pollution.

In the case of a marine pollution incident involving oil, a liquid chemical, a packaged harmful substance or garbage that occurs within Tasmanian State waters, the master of the ship responsible must notify EPA Tasmania on 1800 005 171.

Refueling

Refueling activities must be undertaken in accordance with State legislation and MARPOL requirements. Comprehensive procedures for refueling must be implemented by operators and these must also include strict protocols for spill prevention and emergency response.

Refueling must also be conducted in accordance with IMO regulations. This includes provision of fuel quality certificate, and retention of fuel samples for each delivery.

Chemical usage

Chemical usage on wellboats must comply with MARPOL Annex IV requirements and with the requirements of the Agriculture and Veterinary Chemicals (Control of Use) Act 1995.

All chemicals must be stored in a bunded facility with adequate volume to contain any spills or failure of the storage container. All chemicals must be treated in accordance with procedures outlined in respective material safety data sheets. As part of scheduled audit checklist, chemicals must be checked for integrity of storage container, appropriate placement within bunded area, and proper disposal pathways for empty containers. Wellboat operators must record the names and quantities and date of use, of all chemicals which have been used on board and retain records for a minimum of five years.

Black water

As per the Annex IV of MARPOL, untreated sewage (black water) cannot be discharged near the coastline or within 12 nautical miles of the nearest land.

Discharge of blackwater is to be undertaken in accordance with MARPOL requirements. Sewage must be held in an on-vessel black water tank, to be pumped out when the vessel is in port. A licensed waste management

contractor must be used to pump the black water and transport the waste to an appropriately licensed treatment and disposal facility (i.e. TasWater).

Grey water

Grey water must be held in an on-vessel greywater tank, to be pumped out when the vessel is in port. A licensed waste management contractor must be used to pump the greywater and transport the waste to an appropriately licensed treatment and disposal facility (i.e. TasWater).

Only biodegradable washing liquids shall be used, and in the recommended quantities.

Fish Mortality Management

All fish mortalities resulting from wellboat operations will be secured in an appropriate manner and disposed of at an approved waste facility on land, as per The Biosecurity Act and associated standards for the salmon industry, Environmental Licence conditions and Marine Farming Development Plan management controls.

As a practice, no harvesting operations are conducted onboard wellboats. Fish may be transported by wellboats and transferred ashore for harvesting. In the event wellboats are used for harvesting operations, as per Environmental Licence conditions for marine farming leases, blood resulting from the harvesting of fish must not be released into the marine environment.

General waste

MARPOL prohibits the disposal of any waste to the marine environment (MARPOL Annex V).

The following measures are implemented on the wellboats to manage general waste:

- Each vessel must have appropriate and secure waste bins with suitable lids.
- Bins will have adequate capacity for the amount of waste generated while the vessel is at sea. When in port, all bins will be emptied using the existing waste contractors.
- Cigarette butts must be placed in butt tins or rubbish bins supplied.
- All rope off-cuts from operations must be placed in suitable bins to prevent the creation of marine debris.

COMMUNITY STAKEHOLDERS

Proactive communication with local community stakeholders and neighbouring residents (to leases) has always been a key priority for the salmon industry. Relevant stakeholders include, but are not limited to:

- Local community groups;
- Indigenous communities;
- Government organisations;
- Commercial waterway users;
- Recreational waterway users; and
- Tourism operators.

Companies will continue to maintain a Complaints Register to ensure complaints are recorded, investigated and actioned.

When companies are demonstrated to be in breach of regulations, measures will be implemented to rectify the breach to maintain working relationships with community stakeholders.

REFERENCES

- AMSA Risk Management in the National System – A Practical Guide
www.amsa.gov.au/sites/default/files/amsa651.pdf
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- DPIPWE, 2010. Great Oyster Bay and Mercury Passage Marine Farming Development Plan October 1998.
- DPIPWE, 2018. Storm Bay off Trumpeter Bay North Bruny Island Marine Farming Development Plan August 2018.
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- Huon Aquaculture Company, 2018. Migratory Whale Interaction Management Plan – Storm Bay.
- International Association of Antarctica Tour Operators, 2010. Guidelines to minimise seabird landing on ships.
- International Maritime Organization, 1972. International Regulations for Preventing Collisions at Sea 1972 (COLREGs).
- Scottish Finfish Aquaculture, Code of Good Practice ANNEXES, 2015 www.scottishsalmon.co.uk/code-of-good-practice#chapters
- Tasmanian Ports Corporation, 2017. Tasports Marine Pilotage Code.
- Tassal Operations Pty Ltd, 2018. Environmental Impact Statement to accompany Draft Amendment No. 5 to the Tasman Peninsula and Norfolk Bay Marine Farming Development Plan November 2005.
- TSGA, 2020. Code of Practice for the Prevention, Control and Re-use of Marine Debris.

Appendix A

Example - Risk Management Framework

Hazard/Risk Title	Hazard/Risk Descriptor	Inherent Risk Rating			Control Procedure	Residual Risk Rating		
		Consequence	Likelihood	Inherent Rating		Consequence	Likelihood	Residual Rating
Wildlife - whales	Collision of boat with Whales/Marine mammals cause death or injury	4	1	4	<p>Potential considered in initial lease assessment</p> <p>Whale management plan – specific to region (update to include operation of Aqua Spa)</p> <p>Use of Whale Interaction Protocol, which includes procedures for entanglement</p> <p>Monitor and record whale observations. If whale is on lease - stop operations and notify Marine Conservation Branch.</p> <p>Echo-sounder for navigation Cruising speed 9 knots</p>			0

Appendix B

Example Emergency Protocol

Emergency Protocol		
Chemical Spill		
Marine Ops Manager Responsibilities	Shore Coordinator Responsibilities	All crew / staff responsibilities
<ul style="list-style-type: none">• Assess situation• Notify authorities• Coordinate until official Incident Controller is appointed.	<ul style="list-style-type: none">• Preventative:<ul style="list-style-type: none">○ Spill kits are provided with instructions;○ Staff/crew are trained to use spill kits;○ Feed boats and smaller vessels are to have bilge pillows fitted inside bilges to absorb any leaks that may occur while the boat is operating.	<p>Spill clean-up kits locations and capacities are known.</p> <p>Training on use of spill kits is requested and undertaken.</p>

