HUON Marine Operations Waste Management Plan

Effective: January 2026

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1. Introduction

The purpose of this Waste Management Plan (WMP) is to identify current waste streams produced by Huon Aquaculture's (HUON) marine operations and outline current management practices and mitigation measures that minimise potential impacts to the environment. Further, the WMP aims to minimise waste through systematic actions and activities, while ensuring waste is managed in compliance with regulatory requirements and minimising the risk of environmental harm or nuisance.

This WMP has been developed to meet requirements set out within the following regulatory frameworks:

- *Environmental Standards for Tasmanian Marine Finfish Farming 2023 – Division 4 (57-58)*
- *Companion Paper for Environmental Standards for Tasmanian Marine Finfish Farming 2023, Section 9 Waste Management*
- Environmental Licences issued under the *Environmental Management and Pollution Control Act 1994 (EMPCA)*
- *Environmental Management and Pollution Control (Waste Management) Regulations 2020*
- *Litter Act 2007 (Tas)*
- *National Environment Protection (Movement of Controlled Waste between States and Territories) Measure (2004) (the Controlled Waste NEPM)*
- *Waste and Resource Recovery Bill 2021*
- *Waste and Resource Recovery Act 2021 (Tas)*
- *2018 National Waste Policy*
- *EPA Tasmania Information Bulletin 105 Classification and Management of Contaminated Soil for Disposal, 2021*

This plan aligns with Huon's existing operational framework by integrating seamlessly into established environmental management systems, compliance protocols, and marine operational procedures. It supports Huon's commitment to sustainable aquaculture practices and reflects the company's ongoing efforts to meet regulatory obligations under its Environmental Policy and associated Environmental Management Plans (EMPs). The plan also complements existing risk management strategies and aligns with internal procedures for vessel operations, discharge management, and stakeholder engagement.

Furthermore, the plan reinforces Huon's broader strategic objectives, including continuous improvement in environmental performance and transparency in regulatory reporting. It has been developed in consideration of current planning pathways and is structured to maintain momentum toward formal approvals, consistent with Huon's governance and planning processes. This ensures that the plan is not only operationally feasible but also strategically aligned with Huon's long-term environmental and compliance goals.

Huon is a member of the Australian Packaging Covenant Organisation (APCO), and this membership reflects our commitment to sustainable packaging and waste management practices across all areas of our operations, including marine activities. As part of our APCO obligations, we

actively work to reduce the environmental impact of packaging through improved design, increased recyclability, and responsible end-of-life management.

In the context of our marine operations, waste generated, including packaging materials used onboard well boats, is managed in accordance with Huon's internal waste management procedures and APCO's sustainable packaging principles. This includes segregation of recyclable materials, minimisation of single-use packaging, and regular auditing to ensure compliance with both APCO targets and broader environmental standards.

1.1 Huon and JBS Australia Group

Huon and the wider JBS Australia Group is committed to operating in an environmentally responsible manner and adopting environmental practices and sustainability initiatives to reduce the environmental impact of its operations. The Group recognises that the key to minimising its environmental impact is a commitment to ongoing environmental protection and sustainable practices in accordance with applicable environmental laws and leading industry best practice.

1.2 Operations Overview

Huon Aquaculture's marine farming operations span three Marine Farming Development Plan areas and include marine farming leases and their associated onshore support facilities, as listed in the:

- *Macquarie Harbour Marine Farming Development Plan*
- *D'Entrecasteaux Channel and Huon River Marine Farming Development Plan*
- *Storm Bay off Trumpeter Bay North Bruny Island Marine Farming Development Plan*

The Macquarie Harbour Marine Farming Development Plan area is wholly located within the Western Biosecurity Zone. The D'Entrecasteaux Channel and Huon River Marine Farming Development Plan area and Storm Bay off Trumpeter Bay North Bruny Island Marine Farming Development Plan area are located within the South-Eastern Biosecurity Zone.

This WMP is applicable to all Huon onshore and on-water marine farming operations undertaken within Tasmania. Regional-specific variations in waste management procedures are detailed for each waste type where they occur.

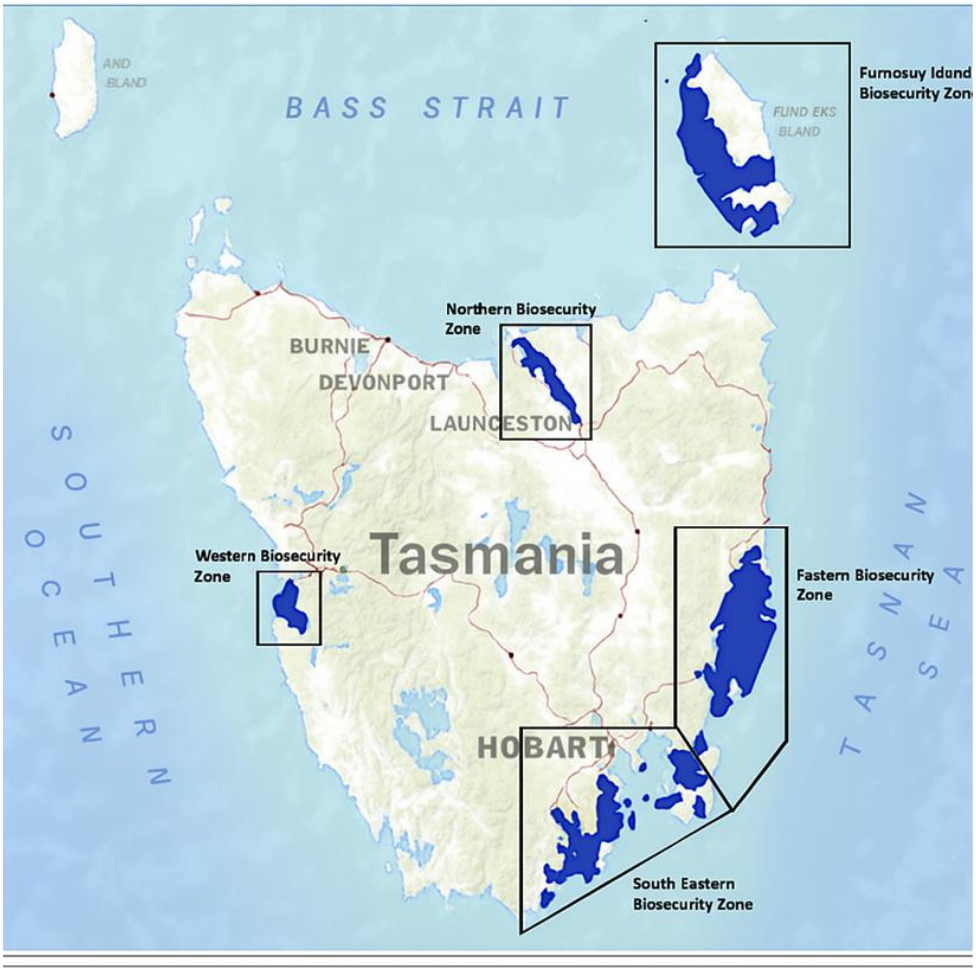

Figure 1 Regional finfish biosecurity zones

1.2.1 Huon's Western Region Marine Farming Operations

Huon's Western Region Marine Farming Operations are located within the Macquarie Harbour MFDP Area under the Western Biosecurity Zone, on the west coast of Tasmania. Marine farms for all three salmonid producers are located within Macquarie Harbour. The below figure overleaf shows the locations of the marine farming leases for Huon and other industry operators (Huon leases marked yellow). The Huon operated marine leases include.

- Marine Farming Lease MF216 (Northeast Pelias Cove), Environmental Licence (EL) No. 9894/4
- Marine Farming Lease MF220 (Northeast Double Cove), EL No. 9895/4
- Marine Farming Lease MF 267 (East of Butt of Liberty), EL No.9896/4

Northeast Pelias Cove (MF216) is sub-leased from Russfal Pty Ltd and operated by Huon Aquaculture Company Pty Ltd, while both Northeast Double Cove (MF220) and East of Butt of Liberty (MF267) is operated by Southern Ocean Trout Pty Ltd under JBS Australia Group.

Figure 2 Macquarie Harbour Leases

Huon marine farming leases within Macquarie Harbour (marked yellow). Shore-bases for all three producers (Tassal Group, Petuna and Huon) in Macquarie Harbour are located at 180 Smiths Cove Road, Strahan with Huon Aquaculture and Tassal sharing the Macquarie Harbour Aquaculture Hub (T-HUB) and Petuna having a separate site adjacent to the T-HUB.

1.2.2 Huon's South Region Marine Farming Operations

Huon's Southern Region Marine Operations operate within the D'Entrecasteaux Channel and Huon River MFDP Area which is located within the Southeastern Biosecurity Zone Figure 3. Huon farms on six active marine farming leases within this MFDP Area with support from four onshore facilities.

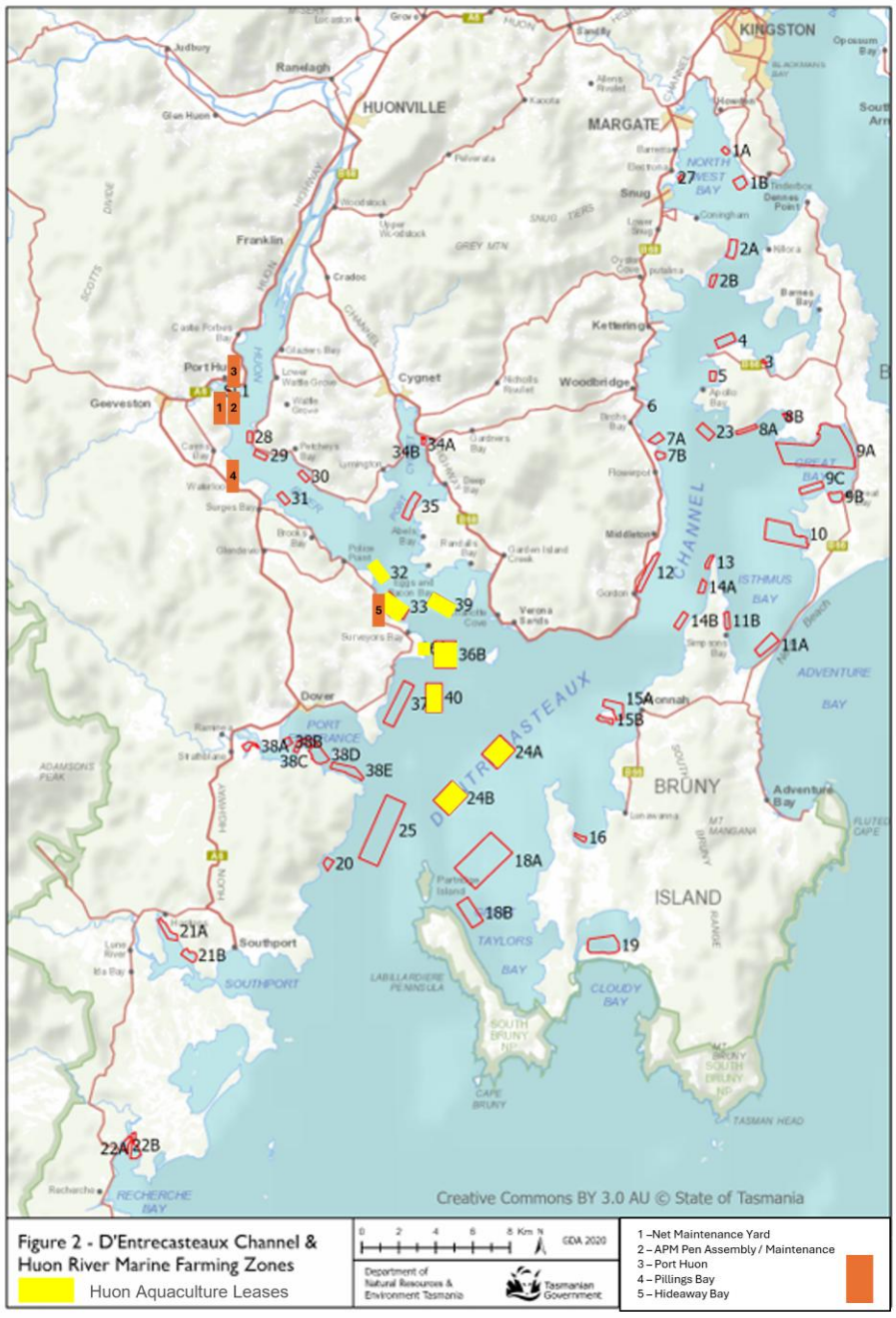

Figure 3 Huon's shore base facilities (orange) and active marine farming leases in Southern Region (yellow)

Marine farming leases:

- Marine Farming Lease MF87 (Flathead Bay), Environmental Licence (EL) No. 9880/4
- Marine Farming Lease MF93 (Hideaway Bay), Environmental Licence (EL) No. 9881/4
- Marine Farming Lease MF141 (South of Zuidpool Rock), Environmental Licence (EL) No. 9882/4
- Marine Farming Lease MF151 (Garden Island), Environmental Licence (EL) No. 9883/4
- Marine Farming Lease MF167 (Police Point), Environmental Licence (EL) No. 9884/4
- Marine Farming Lease MF221 (East of Red Cliffs), Environmental Licence (EL) No. 9885/4

Shore base support facilities:

- Hideaway Bay, Environmental Licence (EL) No. 12055/1 located at 961 Esperance Coast Road, Dover 7117
- Pillings Bay located 132 Pillings Road, Cairns Bay 7116
- APM Wharf (Whale Point) located 1 Whale Point Road, Port Huon 7116
- Port Huon Wharf located at 4355 Huon Highway, Port Huon 7116

1.2.3 Huon's Storm Bay Region Marine Farming Operations

Huon's Storm Bay Marine Operations operate within the Storm Bay off Trumpeter Bay North Bruny Island MFDP Area, located within the Southeastern Biosecurity Zone. Huon farms on two marine farming leases within this MFDP Area, with onshore support facilities at Margate Marina, Electrona and Gunpowder Jetty. The marine farming leases and shore base facilities are:

Marine farming leases:

- Marine Farming Lease MF281 (East of Yellow Bluff), Environmental Licence (EL) No. 10180/3
- Marine Farming Lease MF261 (Storm Bay off Trumpeter Bay), Environmental Licence (EL) No. 9887/6

Shore base support facilities:

- Margate Marina (Storm Bay) located at 40 Marina Drive Baretta 7050
- Gunpowder Jetty (Howden Jetty) located 32 Morwong St, Tinderbox 7054
- Electrona shore base located at Electrona 7054

Figure 4 Huon's active marine farming leases in Storm Bay

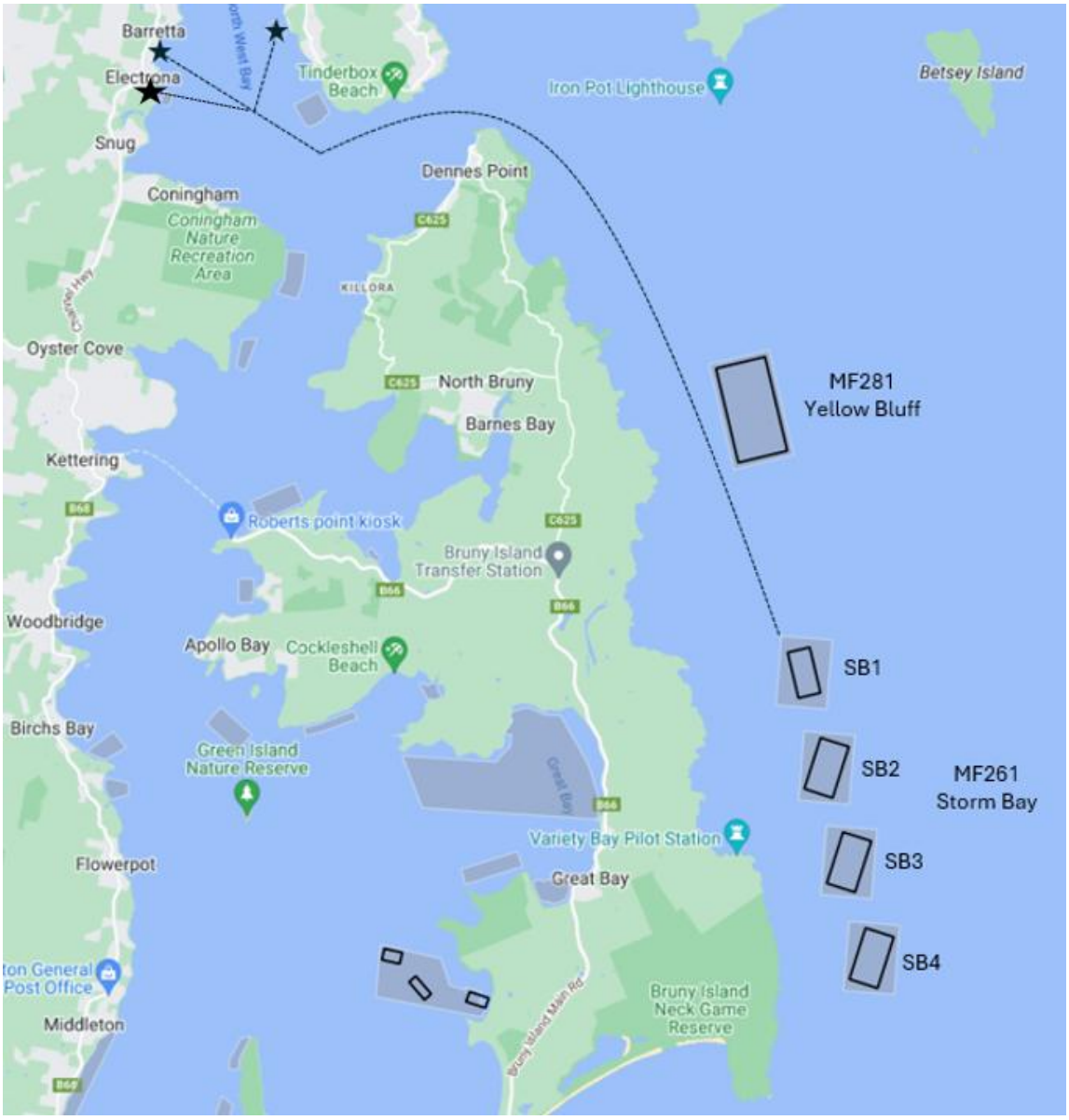

Figure 5 Huon's shore base facilities and active marine farming leases in Storm Bay

1.3 Waste Management Principles

Huon generates multiple organic and non-organic waste streams, including general waste from offices, infrastructure waste from site operations, controlled waste from fish farming and processing, and bilge/oil waste from vessels. Waste management is a core component and focus area of Huon's Sustainability Strategy and Huon continuously seeks ways to minimise waste generation and disposal.

Huon aligns its integrated waste management practices with the waste management hierarchy to promote waste streams to the most preferred solution wherever possible. Huon works to ensure most waste materials are reused, recycled, or recovered, resorting to landfill only when no other options are available.

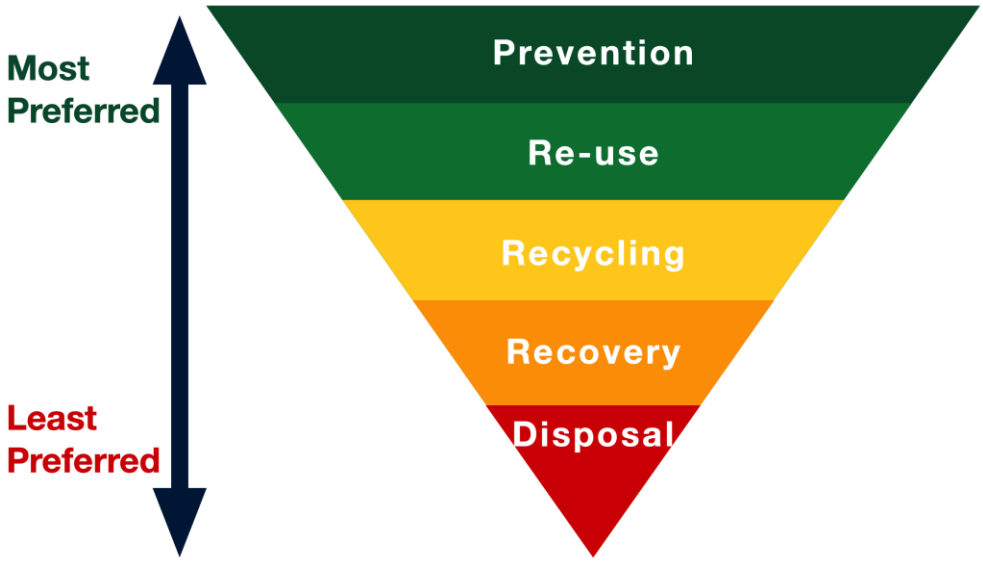

Figure 6 Waste management hierarchy (ISM Waste & Recycling)

1.4 Key Waste Streams

The following are key waste streams produced by Huon marine farming and associated shore base operations which are relevant to the *Environmental Standards For Tasmanian Marine Finfish Farming 2023* – Division 4 (57-58):

- Aquaculture fish feed including feed waste
- Medicated aquaculture fish feed
- Fish mortalities; (routine mortalities and mass mortalities)
- Biofouling (removed from vessels or infrastructure)
- Used nets and other marine finfish farm infrastructure
- Blackwater and greywater
- Blood water
- Fish bathing water (not applicable to Western Region operations)
- Effluent from reverse osmosis (not applicable to Western Region operations)
- Vessel biosecurity washdown

An overview of each waste stream and current management practices across Huon's three farming regions (Western, Southern and Storm Bay) are detailed below.

2. Aquaculture Fish Feed Including Feed Waste

2.1 Waste Details

2.1.1 Source

Aquaculture fish feed used by Huon is a dry, extruded sinking pellet manufactured by Tasmanian suppliers such as Biomar (Wesley Vale) and Skretting (Cambridge). These suppliers operate under strict quality assurance and biosecurity protocols, ensuring feed is nutritionally optimised for our salmon and compliant with EPA Tasmania's environmental standards.

The source of waste feed includes operational factors that lead to feed becoming waste. In marine farming operations, waste feed is produced when feeding rates are not optimally matched to fish appetite. This typically occurs when:

- Feed delivery exceeds consumption rates.
- Fish are stressed or not feeding due to environmental conditions.
- Mechanical or software errors result in overfeeding.

When feed pellets pass through the net system uneaten and settle on the seabed. This is monitored through biological feed conversion ratio (bFCR), which measures feed efficiency (total feed consumed vs. biomass gain). A lower bFCR indicates higher wastage.

Huon mitigates this risk using:

- Real-time camera systems and AI pellet-recognition software.
- Centralised feed control from Hobart HQ.
- Continuous feedback loops to adjust feeding rates.

Despite these controls, any uneaten feed that reaches the seabed is considered waste and is included in the Total Permissible Dissolved Nitrogen Output (TPDNO) calculations, as required by EPA licence conditions.

Waste feed can also originate from handling and storage activities on land and vessels. Common sources include:

- Split or damaged bulk bags during forklift or crane operations.
- Mechanical mismanagement during transfer to hoppers or feed barges.
- Uncontrolled spills onto impermeable surfaces in warehouses or on vessels.
- Expired or contaminated feed due to poor stock rotation or exposure to moisture.

In addition to the feed itself, several ancillary materials associated with fish feed handling and logistics can become waste. These include 1-tonne bulk bags, which are the primary packaging used for feed transport and storage. While these bags are designed for durability, they can be damaged during forklift or crane operations, leading to spills and requiring disposal if contaminated. Wooden or plastic pallets used to stabilise and transport bulk bags may also degrade over time or become

contaminated, necessitating reuse or disposal. Other potential waste sources include plastic wrapping, strapping, and feed hopper liners, which may be discarded during routine operations or maintenance. These materials, while not organic, are managed under Huon's waste protocols.

2.1.2 Scale

Operating at a scale aligned with 32,000 tonnes of biomass annually, feed use is tightly managed with only minimal losses, either through net drop to the seafloor or rare expiry-related disposal, where biosecurity prevents return to the supplier. Feed waste may increase during the peak production period (November – January).

To maximise the nutritional performance of the feed, it is produced on a Just-In-Time basis which means that there is rapid turnover of stock and minimal time between production and consumption. As a result of this, stockholdings of feed and duration of storage are kept to a minimum, and the incidence of feed being held beyond the expiry date is rare.

On rare occasions where fish feed is held beyond its expiry date, or if a feed quality issue is identified before the feed leaves the onshore warehouse, the feed may be able to be sent back to the feed supplier to be re-milled. If the feed has already been delivered to a marine site, it cannot go back to the feed mill for biosecurity reasons and therefore requires waste disposal to composting as a primary option, or landfill as a secondary option. Effective feed inventory management is critical in ensuring that the freshness of feed is maintained, and the disposal of excess feed is avoided.

2.1.3 Composition and Classification

Table 1 Aquaculture fish feed including feed waste composition and classification

Material / Component	Annual Quantities	Classification	Description	Waste Potential	Management Approach
Fish Feed Pellets	<500 t	General solid waste (Putrescible)	Dry, extruded sinking pellets (3–9 mm) formulated for Atlantic salmon.	Waste feed generated via overfeeding, spills, or expired stock.	Monitored via bFCR, AI-controlled feeding, and TPDNO reporting to EPA. Composting preferred; landfill as secondary option. Managed through feed efficiency and spill protocols.
Bulka Bags (1T)	< 20 t	General solid waste (Putrescible)	Woven polypropylene bags are used for	Can be damaged in handling; may	Repaired if possible; disposed of via

			feed transport and storage.	require disposal if contaminated.	recycling or landfill if compromised.
Pallets (Wood)	<50 t	General solid waste (Putrescible) if not treated with copper	Used to stabilize bulk bags during transport and storage.	Breakage or contamination may lead to disposal.	Reuse where possible; disposed of via approved waste streams.
Plastic Wrapping / Strapping	< 10 t	General solid waste (Putrescible)	Secures bulk bags and pallets during transit.	Single-use plastic waste.	Collected and disposed of via general waste or recycling were feasible.
Feed Hopper Liners	< 1 t	General solid waste (Putrescible)	Internal liners used in feed barges or cages.	Wear and tear may lead to disposal.	Inspected regularly; disposed of via general waste.

2.2 Storage Control

2.2.1 Location, Volume Potential, and Duration Held

Fish feed is warehoused onshore at Port Huon and Strahan T-Hub before it is delivered out to the farming leases. Feed is transported from the feed mill to the feed warehouses at Port Huon and Strahan in 1T bulk bags and remains within this original sealed packaging until use. Feed is stored inside the feed warehouse out of the weather, and to prevent spoilage and access by vermin. This ensures negligible interaction with the environment.

The Port Huon storage shed can store a maximum volume of 1,200 T of feed, while the THUB can store approximately 2,000 T of feed. The table below highlights waste types, their temporary storage location, volume potential, and duration held.

Table 2 Aquaculture fish feed including feed waste storage control

Waste Stream	Location	Volume Potential	Duration Held
Damaged Bulka Bags	Port Huon, Strahan T-Hub	Low (isolated incidents)	Short-term (during handling)
Spilled Feed Pellets	Port Huon, Strahan T-Hub	Low to moderate	Immediate (requires clean-up)
Expired Feed	Port Huon, Strahan T-Hub	Rare	Variable (depends on inventory)
Feed pellets to seafloor through net drop	All stocked leases	Rare to low	Immediate breakdown and included in TPDNO allocation
Plastic Wrap, Strapping	Port Huon, T-Hub	Low	Short-term (single use)

Damaged Pallets	Port Huon, T-Hub	Low	Long-term (wear and tear)

2.2.2 Containment Measures

Containment of waste associated with aquaculture fish feed involves proactive management of both organic and non-organic materials. Damaged bulk bags are inspected during handling and repaired where possible using adhesive patches. If compromised beyond repair, they are removed and disposed of appropriately. Spilled feed pellets are cleaned immediately using vacuums or manual tools, with storage areas designed with impermeable surfaces to prevent environmental exposure. Expired feed is minimised through strict inventory control and stock rotation, and when necessary, is disposed of via composting or landfill. Feed that drops through the net system into the marine environment is monitored via AI-controlled feeding systems and included in nitrogen output calculations, with benthic impacts assessed through regular ROV surveys.

Non-organic waste streams such as plastic wrapping, strapping, and damaged pallets are also managed carefully. Packaging materials are collected during unpacking and disposed of via general waste or recycling where feasible. Pallets are reused when intact and disposed of through approved waste channels if broken or contaminated.

2.2.3 Spill management

Huon manages residual feed waste using spill response equipment (brooms, vacuums, dustpans) at all shore bases and vessels. Damp or contaminated feed is bagged and disposed of via composting or general waste. Packaging waste (e.g. plastic wrap, strapping) is collected during unpacking and disposed of appropriately. The pelletised feed allows for efficient clean-up, and all residual waste is logged under Huon's waste protocols to ensure compliance with EPA Tasmania standards.

Feed spills to water are rare and typically contained on feed vessels or barges. If spillage occurs within a marine lease, it is included in the TPDNO calculation and monitored via regular ROV surveys. Huon conducts monthly internal ROV inspections under all pens to assess benthic health and feed wastage. EPA-mandated annual benthic video surveys are submitted within one month, with increased frequency in Macquarie Harbour. If excessive feed dumping is detected, pens must be fallowed until sediment recovery is confirmed by the EPA Director, in accordance with licence condition G9. TPDNO limits are set per region based on feed nitrogen content.

2.2.4 Odour Management

Odour concerns are minimal.

- Strahan T-Hub: Located >2.2 km from the nearest sensitive receptor and 1.8 km from the main road. No odour complaints have been recorded.

- Port Huon: Located ~300 m from the nearest sensitive receptor and 225 m from the main road. Feed is stored in enclosed sheds, and odour is only detectable in proximity when feed is damp or contaminated.

Mitigation Measures:

- Enclosed storage
- Regular removal of excess feed
- Stock planning and rotation
- Sampling and testing to prevent spoilage
- Strategic site location away from sensitive receptors

2.2.5 Vermin control

Vermin, such as rodents, insects, and birds, are a significant potential problem for this waste stream. Feed is stored where access to it by vermin is minimised to prevent it from being consumed or spoiled. Vermin can also cause holes in bags resulting in spills and being exposed to the environment.

Huon implements the following vermin control and waste control measures during transport and storage:

- Just-In-Time feed delivery from feed mill to shore base warehouse means rapid turnover
- All feed is stored inside the shore base warehouse and doors remain closed when not in use
- Bird scarers are deployed inside the entrance to the warehouse
- Feed is stored on concrete slab to prevent spoilage from the environment and facilitate clean-up of spills
- Traps and bait stations are deployed across the site and regularly maintained by professional pest control operators. The pest control programme at the Strahan T-Hub is managed by Flick, and for the SE operations the pest control programmes are operated by Rentokil
- At Strahan T-Hub, perimeter fencing has been installed to restrict wildlife from accessing the shore base. At Port Huon the feed warehouse is on the wharf with a gated access that restricts wildlife from accessing the wharf.
- Maintaining site cleanliness.

2.3 Waste Transfer and Disposal

2.3.1 Waste Receiver Destinations, Transportation, and Authorisations

Table 3 Aquaculture fish feed including feed waste transfer and disposal

Waste Stream	Primary Destination	Secondary Destination	Transport
Unused Feed (onshore)	Re-milling by manufacturer (if	Composting (Pure Living Soil, Dulverton – EPN 11640/1)	Licensed transport company

Landfill only if re-milling or composting is not viable.	biosecurity permits)		
Expired or Contaminated Feed Must be bagged and handled per EPA waste protocols.	Composting (preferred)	Copping Landfill (Southern Waste Solutions EPN 11495	Licensed transport company
Spilled Feed (unrecoverable) Damp or contaminated feed excluded from reuse.	Composting (if uncontaminated)	Copping Landfill (Southern Waste Solutions EPN 11495	Licensed transport company
Feed Pellets to Seafloor Monitored via ROV; benthic impact assessed under EPA licence conditions.	Accounted in TPDNO calculation (no physical recovery)	N/A	Licensed transport company
Damaged Bulka Bags Repaired if possible; otherwise disposed.	Recycling (if clean and intact)	Copping Landfill (Southern Waste Solutions EPN 11495	Licensed transport company
Packaging Waste (Plastic Wrap, Strapping) Segregated during unpacking.	General waste or recycling (where feasible)	Copping Landfill (Southern Waste Solutions EPN 11495	Licensed transport company
Damaged Pallets Inspected regularly	Reuse (if intact)	Landfill or wood waste stream	Licensed transport company

- EPN versions and status are subject to change

2.3.2 Record Keeping

To ensure compliance with EPA Tasmania and uphold environmental accountability, Huon maintains comprehensive duty of care records for all feed-related waste streams. These records include detailed documentation of waste transport and transfer activities, such as consignment notes, waste tracking forms, and copies of transport licences for all contractors involved in moving waste offsite. For each waste stream, Huon retains evidence of the receiving facility's authorisation, including current Environmental Protection Notices (EPNs), permit numbers, and licence conditions for composting sites, landfills, and hazardous waste facilities (e.g., Copping Landfill and C Cell).

In addition, Huon logs all spill incidents, including location, volume, cause, and response actions, supported by photographic evidence where applicable. Waste quantity records are maintained for

each site and waste type, including monthly totals of expired feed, packaging waste, damaged materials, and feed lost to the marine environment (as calculated under TPDNO reporting). Location records are kept for all storage, handling, and disposal points, ensuring traceability from origin to destination. These records are reviewed regularly as part of internal audits and are available for inspection by regulatory authorities to demonstrate compliance with waste management obligations and environmental licence conditions.

3. Medicated Aquaculture Fish Feed

3.1 Waste Details

3.1.1 Source

Huon aims to minimise the use of medicated fish feed, however in some circumstances, treatment is necessary to maintain fish health and welfare standards and reduce production losses. Medicated aquaculture fish feed is sourced from local suppliers within Tasmania including Biomar and Skretting under authorisation of the company veterinarian.

Medicated feed can also be produced by coating existing feed supplies with medication onsite. All treatments of farmed fish are carried out under the advice and direction of a veterinarian and undertaken by approved and trained staff under veterinarian direction.

Waste medicated fish feed may be generated during on-water feeding operations on marine leases, particularly during treatment periods when uneaten feed accumulates on the seafloor.

3.1.2 Scale

Medicated feed use is only ever used when necessary under veterinary instruction, with no applications recorded in the Western Region over the past decade. In contrast, the Southeast region has experienced outbreaks of *Piscirickettsia salmonis*, which have required antibiotic treatment. These treatments are typically short-term, lasting 7–10 days, and are limited to specific pens under veterinary supervision.

During treatment, fish may exhibit reduced appetite, resulting in uneaten medicated feed passing through pen nets and settling on the seabed. This waste behaves similarly to non-medicated feed but requires additional consideration due to the presence of active pharmaceutical ingredients. To manage this risk, Huon implements comprehensive environmental monitoring programs in accordance with EPA Tasmania's requirements.

These programs assess the presence and persistence of antibiotic residues in seabed sediments and wild fish, helping to understand the environmental fate of these compounds. Monitoring intensity, including the number of sampling sites, is determined using a risk-based approach that considers both the quantity of medicated feed administered and site-specific environmental factors.

Residual medicated feed that is not transferred to marine sites, due to expiry, contamination, or spills, is classified as controlled waste. This material is stored securely onsite where it awaits disposal off site. The volume of waste generated is dependent on the number of pens and stock undergoing treatment, making precise estimates difficult. However, waste volumes typically align with the duration and scope of treatment.

3.1.3 Composition and Classification

Table 4 Medicated aquaculture fish feed composition and classification

Waste	Annual Quantities	Classification	Description	Waste Potential	Management Approach
Waste Medicated Fish Feed Pellets	Variable (e.g. <1.5 tonnes wasted in 2025)	Controlled Waste	Standard feed formulation with added medication (e.g. OTC).	Uneaten feed during treatment periods; expired or contaminated stock.	Managed through feed efficiency and spill protocols. Disposal via EPA-approved landfill.
Bulka Bags (1T)	Variable (e.g. < 1 tonne in 2025)	Controlled Waste (if contaminated)	Woven polypropylene bags used for medicated feed transport and storage.	May be damaged or contaminated during handling.	Repaired if possible; disposed of via approved controlled waste channels.
PPE (gloves, masks, aprons)	Variable (e.g. < 1 tonne in 2025)	Controlled Waste	Used during handling of medicated feed.	Single-use items requiring disposal after use.	Bagged and disposed of via licensed controlled waste transport to approved landfill.

3.2 Storage Control

3.2.1 Location, Volume Potential, and Duration Held

Medicated feed is stored at Port Huon in sealed 1-tonne bulk bags, separate from standard feed. Warehousing is enclosed to prevent spoilage and vermin access. Waste streams that arise are:

Table 5 Medicated aquaculture fish feed storage control

Waste Stream	Location	Volume Potential	Duration Held
Medicated feed waste	Port Huon	Very Low	Short-term (during treatment)

Bulk bags which contained medicated feed waste	Port Huon	Very Low	Short-term (during handling)
Spilt medicated feed returned to waste	Port Huon	Very Low	Immediate (requires clean-up)
Expired feed becoming a waste	Port Huon	Very Low	Variable (depends on inventory)
Used PPE	Port Huon	Low	Long-term (wear and tear)
Feed pellets wasted on the sea floor through net drop	All stocked leases	Low	Immediate breakdown and included in TPDNO allocation.

3.2.2 Containment Measures

Containment of waste associated with medicated aquaculture fish feed involves strict handling protocols and secure storage to prevent environmental exposure and ensure regulatory compliance. Medicated feed waste as it arises is stored in sealed 1-tonne bulk bags placed on level concrete surfaces to minimise spill risk and facilitate clean-up.

Each bag is clearly labelled to prevent misapplication and ensure traceability. During handling and transport, packaging integrity is inspected; if compromised, feed waste is repackaged into suitable containers to maintain containment standards.

Waste prescription veterinary compounds are stored in locked facilities under the supervision of the company veterinarian, in accordance with legislative and regulatory requirements. Any damaged or contaminated packaging, including bulk bags and PPE used during feed handling, is classified as controlled waste and managed through approved disposal pathways. These containment measures are critical in preventing the unintended release of medicated materials and maintaining the integrity of treatment protocols.

3.2.3 Spill Management

Spill management for medicated feed is tightly controlled due to its classification as controlled waste. At shore bases and on vessels, spills are promptly cleaned using dedicated equipment such as brooms, vacuums, and dustpans.

Pelletised feed allows for efficient recovery, and any spilled medicated feed is bagged separately, clearly labelled, and disposed of via EPA-approved channels. If feed spills into the marine environment, it is monitored through regular ROV surveys and accounted for in environmental reporting, with benthic impacts assessed under EPA licence conditions.

3.2.4 Odour management

Odour concerns are consistent with those described in Section 2.2.4 for non-medicated feed.

3.2.5 Vermin Control

Vermin control measures are consistent with those described in Section 2.2.5 for non-medicated feed.

3.3 Waste Transfer and Disposal

3.3.1 Waste Receiver Destinations, Transportation, and Authorisations

Table 6 Medicated aquaculture fish feed waste transfer and disposal

Waste Stream	Primary Destination	Transport
Waste medicated fish feed	Copping C Cell or Dulverton Landfill	Licensed controlled waste transporter
Packaging (bulk bags)	Copping or Dulverton Landfill	Licensed controlled waste transporter
PPE used in handling	Copping or Dulverton Landfill	Licensed controlled waste transporter

3.3.2 Record Keeping

To ensure compliance with EPA Tasmania and uphold environmental accountability, Huon maintains comprehensive duty of care records for all feed-related waste streams. These records include detailed documentation of waste transport and transfer activities, such as consignment notes, waste tracking forms, and copies of transport licences for all contractors involved in moving waste offsite.

For each waste stream, Huon retains evidence of the receiving facility's authorisation, including current Environmental Protection Notices (EPNs), permit numbers, and licence conditions for composting sites, landfills, and hazardous waste facilities (e.g., Copping Landfill and C Cell).

4. Fish Mortalities

4.1 Waste Details

4.1.1 Source

Salmonid mortalities are classified as controlled waste (classification DEADF) and originate from fish that have died or been killed during finfish farming operations, excluding those harvested for consumption. These mortalities can result from a range of factors including environmental conditions that affect fish health and marine operations, fish transfer processes, adverse weather, predation, and disease. Despite extensive mitigation strategies and risk planning, mortality events may still occur.

Collection of mortalities is carried out using several methods. LiftUp systems, which are permanently installed suction-based pipelines within each pen, retrieve deceased fish from the bottom net to the surface. Divers are also employed in regions where LiftUp systems are impractical or as a supplementary method. Additionally, surface collection may be conducted using airlift systems. Once retrieved, mortalities are immediately placed into 1,000-litre insulated and lidded bins for transport to shore bases, where they are either treated or disposed of. No further treatment is undertaken on marine leases or at shore bases.

Regional practices vary slightly. In the Western Region, both divers and LiftUp systems are used, and mortalities are stored at the T-HUB in designated skip bins. Handling in this region follows the Biosecurity Zone Management Plan – Western Zone. In the Southeastern Region, including Storm Bay, LiftUp systems and divers are also used, although diver retrieval is limited due to pen depths exceeding 30 metres. Here, the LiftUp system directs deceased fish toward a cone-shaped intake for suction transfer to recovery vessels.

Strict biosecurity measures are in place to prevent disease transmission. Mortality bins from the Western Region are kept separate and must be thoroughly cleaned and disinfected after each use. Vessels transporting mortalities must disinfect decks and dewater areas before leaving any lease, and ensure bins are lidded and secure. If a veterinary biosecurity certifier identifies mortalities that pose a biosecurity risk, Huon is required to notify other producers within the Western Biosecurity Zone.

Regulatory oversight of salmonid mortalities is comprehensive. Huon reports mortality data to relevant regulatory bodies including the EPA and NRE (Aquaculture Branch and Biosecurity Tasmania). This reporting is governed by several frameworks: the *Environmental Standards for Tasmanian Marine Finfish Farming 2023* (Division 5), the *Tasmanian Salmonid Industry Biosecurity Program* (Part 4), the *Environmental Licence (G8 Finfish Mortalities)*, and *Marine Farming Licences* which cover incidents of disease or mortality detection.

4.1.2 Scale

Fish mortality volumes in salmonid farming vary due to operational decisions, environmental conditions, disease outbreaks, and seasonal harvesting. These factors make accurate predictions difficult, as fluctuations occur quickly and vary by region.

Summer months (November–February) typically see higher mortalities due to warmer water temperatures, which stress fish and increase vulnerability. Historical data confirms consistent seasonal variation across farming areas.

Storm Bay consistently records the highest mortality biomass, largely due to its larger starting stock and its role as Huon's most extensive farming site.

Huon maintains monthly records of total dead fish weight from marine farms, submitted to the EPA to support timely oversight and identify significant mortality events.

Historic data indicates a strong seasonal trend across all regions, with fluctuation corresponding with environmental conditions. Higher average mortality typically occurs during the summer months from November to February corresponding with increased water temperatures.

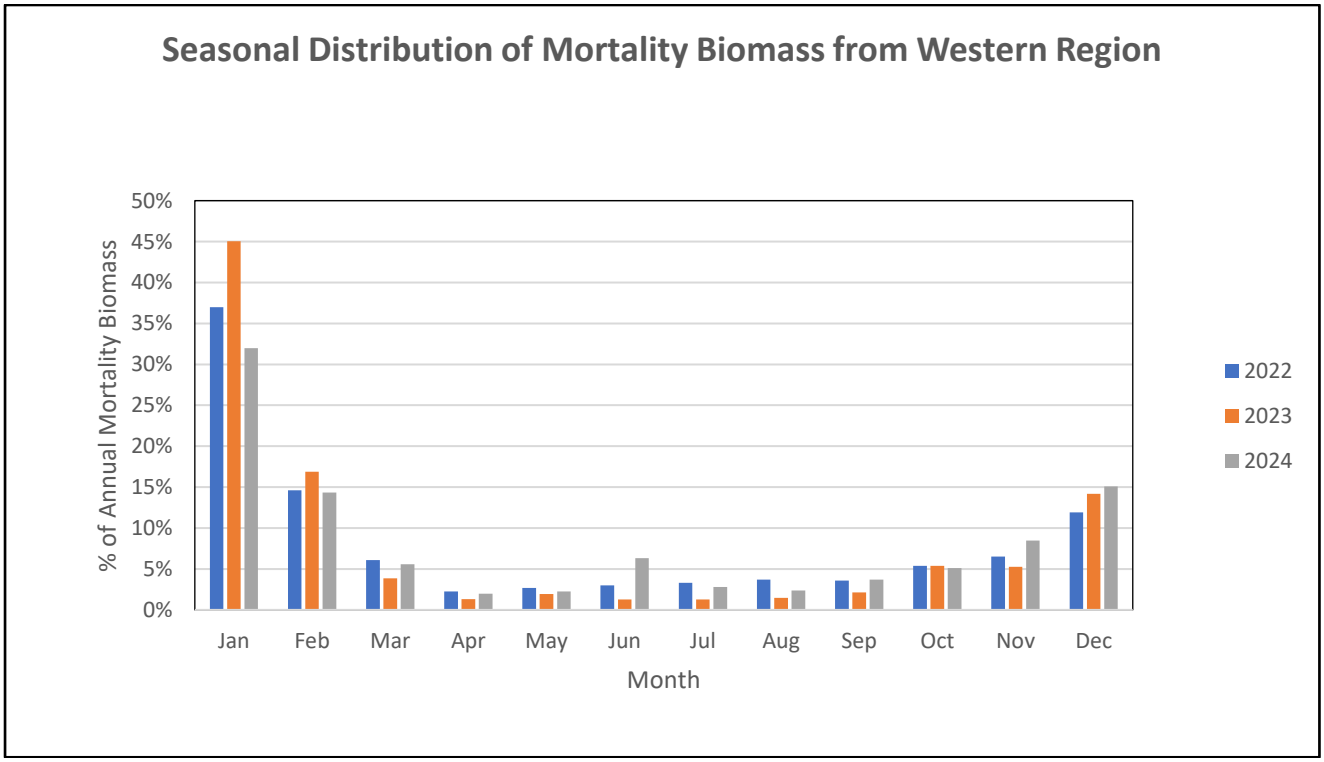

Figure 7 Western Region Mortality Biomass - Seasonal Distribution

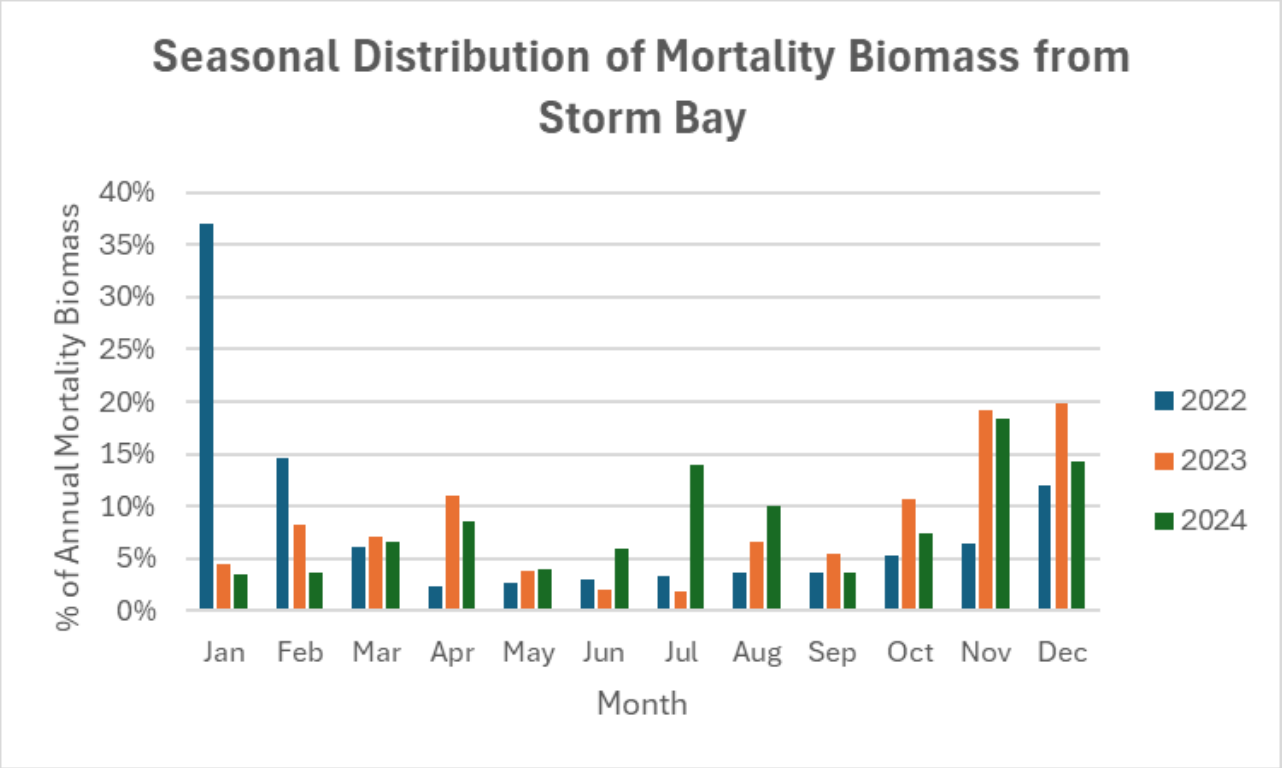

Figure 8 Storm Bay Region Mortality Biomass - Seasonal Distribution

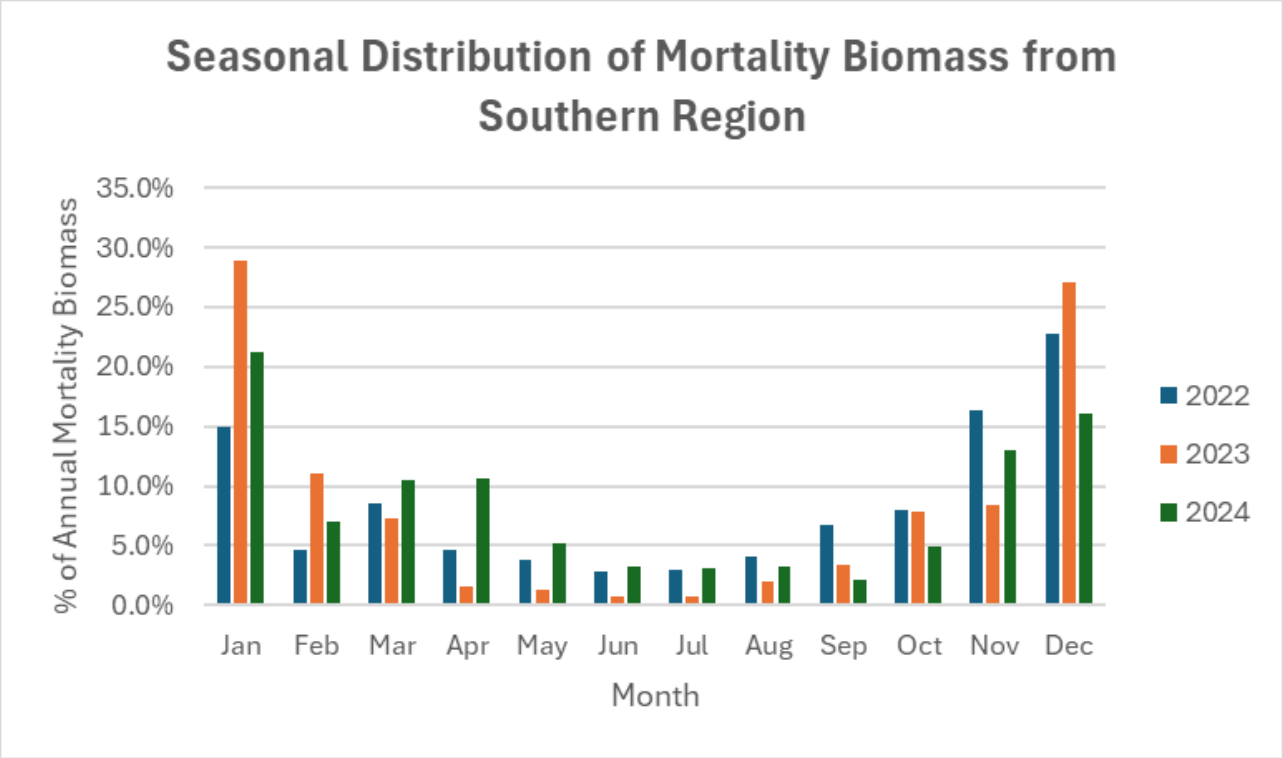

Figure 9 Southern Region Mortality Biomass – Seasonal Distribution

4.1.3 Composition and Classification

Mortalities are primarily composed of Atlantic salmon, and their biochemical makeup reflects the nutritional profile of the species. Based on dry weight analysis, fresh salmon tissue contains approximately 43.7% protein, 49.8% lipid, 3% carbohydrate, and 3.5% ash. This composition highlights the high energy and nutrient density of salmon carcasses, which is relevant both for waste management and potential resource recovery.

The chemical composition of salmon waste, including faeces and uneaten feed, are rich in organic matter and essential nutrients. Faecal matter from farmed salmon retains about 70% of the carbon and 50% of the nitrogen content of the original feed, while phosphorus levels in faeces are even higher. As a result, salmon mortality waste, along with associated particulate discharges, contain nutrient loadings which require appropriate management. Consequently, the classification of salmon mortalities as controlled waste ensures that their collection, transport, and disposal are subject to strict regulatory oversight. This includes protocols for containment, disinfection, and reporting to environmental authorities, aimed at minimising biosecurity risks and environmental harm.

Table 7 Fish mortalities composition and classification

Waste	Annual Quantities	Classification	Description	Waste Potential	Management Approach
Salmonid Mortalities	Variable (seasonal and regional)	Controlled waste (DEADF)	Whole Atlantic salmon that have died during farming operations.	High organic load; risk of nutrient release, disease transmission, and biosecurity hazard.	Daily retrieval via Lift Up systems or divers; stored in sealed 1,000 L bins; transported to shore for disposal. No treatment on lease or shore. Managed under EPA and NRE regulations.
Mortality Bin Residue	<5 t (estimated)	Controlled waste (DEADF)	Organic residue remaining in bins post transport.	Potential contamination and biosecurity risk.	Bins cleaned and disinfected after each use; physical removal of organic matter followed by disinfection (e.g., Virkon).
Retrieval Equipment Waste	<1 t (estimated)	General solid waste (Putrescible)	Worn or damaged LiftUp hoses, diver gear, or vessel components.	Low volume but may be contaminated.	Inspected regularly; disposed of via general waste or recycling if feasible. Subject to

					biosecurity cleaning protocols.

4.2 Storage Control

4.2.1 Location, Volume Potential, and Duration Held

Table 8 Fish mortalities storage control

Waste Stream	Location	Volume Potential	Duration Held
Fish mortalities (retrieved)	All marine leases	Medium to High	Short-term (until shore transfer)
Fish mortalities (in 1,000 L bins	Shore bases (T-HUB, Hideaway Bay, Electrona)	Medium to High	Short-term (typically <24 hours)
Ensiled fish waste	Electrona, Hideaway Bay, Oatlands	High	Variable (stored in sealed tanks)
Mortalities awaiting disposal	Oatlands, Interlaken, Dulverton, Copping	Medium to High	Short-term (pending transport/disposal)
Mortalities sent for rendering	Triabunna	Medium	Short-term (subject to facility capacity)
Mortalities in transport	All regions (via Spectran)	Medium to High	Immediate (sealed, in transit)

Mortalities are retrieved daily using LiftUp systems and divers, placed in sealed 1,000 L HDPE bins, and transported to the Strahan T-HUB. At the T-HUB, bins are emptied into leak-proof 10-tonne skip bins supplied by Spectran. One skip bin is typically onsite for up to 7 days in cooler months, with more frequent removal in summer.

Huon has access to 5 bins under its agreement, with 3 additional bins available in Northern/Western Tasmania if needed. Mortalities are temporarily held before transport to Spectran's ensiler (Oatlands), composting at Pure Living Soil (Interlaken), or landfill at Dulverton.

Western Region

Mortalities and bins from the Western region are kept separate to reduce biosecurity risks. Bins must be clearly marked for Macquarie Harbour use only and thoroughly cleaned and disinfected after each use. Cleaning includes full removal of organic material and disinfection. Retrieval vessels and equipment are disinfected with Virkon. Vessels must:

- Wash down and disinfect decks and dewater areas before leaving a lease.
- Ensure bins are lidded and secure before returning to T-HUB.

Huon must notify other producers in the Western Biosecurity Zone if a veterinary biosecurity certifier identifies a significant environmental release of mortalities. No additional treatment occurs on leases or shore bases.

Southern Region

Mortalities are collected in sealed 1,000 L bins and transported to the Hideaway Bay shore base. Storage capacity includes 250 bins and 2 skip bins. Mortalities are processed through the Hideaway Bay ensiler or sent to Tassal's Triabunna rendering facility. If volumes exceed processing capacity, bins are transferred to Spectran's Oatlands ensiler. Ensiled material is stored in sealed 20,000 L tanks before offsite transport.

Storm Bay Region

Mortalities are stored in sealed 1,000 L HDPE bins with disposable liners and transported from Margate to Electrona (approx. 2 km) via licensed vehicles. The Electrona site can store over 20 bins on a graded concrete pad, though Huon aims to process all morts within 24 hours of recovery. The site includes two sealed 23 kL tanks (46 kL total capacity) for ensiled material. Bins are rarely stockpiled, and immediate processing is prioritised to maintain operational efficiency and reduce odour.

4.2.2 Containment Measures

Western Region

Figure 10 Sealed 1,000L mortality bins

Daily mortality retrieval (weather permitting) uses permanently installed LiftUp systems in each pen, which suction mortalities from the bottom net to the surface. Divers assist as needed. Mortalities are placed in sealed, leak-proof 1,000 L bins designated for Macquarie Harbour only.

Bins are cleaned and disinfected after each use. Vessels disinfect decks and dewater areas before leaving leases. Spectran ensures containment and decontamination of vehicles and containers.
At the Strahan T-HUB, bins are unloaded and transferred into sealed 10-tonne skip bins supplied by Spectran.

These skips are leak-proof, watertight, and covered except during filling or emptying. Typically, one skip remains onsite for up to 7 days in cooler months, with more frequent removal in summer.

Huon has access to 5 skip bins under its agreement, with 3 additional bins available in Northern/Western Tasmania if required.

Figure 11 10T Mortality Skip

Southern & Storm Bay Regions

Mortalities are collected in sealed 1,000 L bins and transported to shore bases at Hideaway Bay (Southern Region) and Margate/Tinderbox (Storm Bay Region). Spectran supplies 4x 10-tonne skip bins for Huon's operations, with 2 additional skips available. Additional storage is planned for summer 2025.

Typically, the following mortality storage bins are kept on site:

Table 9 Mortality bin storage availability (Southern and Storm Bay region). Skip bins are provided by Spectran Group.

Region	1000 L Mort Bins	10 T Skip Bins
Southern	250	2
Storm Bay	80	2

Huon operates two Scale AQ ensilers, Electrona (Storm Bay), and Hideaway Bay (Southern Region), each capable of processing up to 12 bins per hour or 288 tonnes/day. Located away from residences, these systems improve processing speed, biosecurity, and operational resilience.

Mortalities for ensiling at Hideaway or Electrona are processed per Section below. Ensiling stabilises the material, which is stored in sealed 20,000 L tanks before beneficial reuse on approved agricultural properties.

Bins destined for Tassal's Triabunna Rendering Facility are also sealed. If volumes exceed processing capacity, contents are transferred to sealed 10-tonne skips and sent to Spectran's Oatlands facility for maceration and ensiling prior to land application. Huon has engaged Spectran to provide additional skip bins and storage options for the upcoming 2025 summer.

All bins and skips are leak-proof and sealed during transport and storage. Ensilers at Hideaway Bay and Electrona use enclosed tanks with formic acid dosing. Storage areas are bunded, and transport vehicles are enclosed and regularly cleaned. No open stockpiling occurs.

Figure 12 Electrona ensiling facility

The upgraded ensilage systems also serve as a key corrective measure following the February 2025 mortality event, and its installation is critical to ongoing business operations.

The ensilage process includes:

1. 1,000L mortality bins are loaded via forklift into a rotating bin tipper.
2. Once secured, the bin is tipped to over >90° which deposits all whole mortalities within the 1,000L bin into the Ensiler tank.
3. Inside the Ensiler tank, an internal grinder will continuously macerate the material and in conjunction dose (with an adjustable ratio) formic acid (approx. 2.5%). This process takes approximately 20-30 minutes per full 1,000L bin. Ensiled material within the Ensiler tank is then transferred to the 40kL storage tank and routinely agitated with circulation pumps until a sufficient quantity (>22kL) of ensilage, washdown water and harvest blood water is stored for transport offsite for land spreading on approved properties.
4. The ensilage (inclusive of the harvest wastewater) is sent via a third party with an approved controlled waste transport license for DEADF and K100 to an approved land spreading site, several times a week – subject to mortality and harvest volumes.

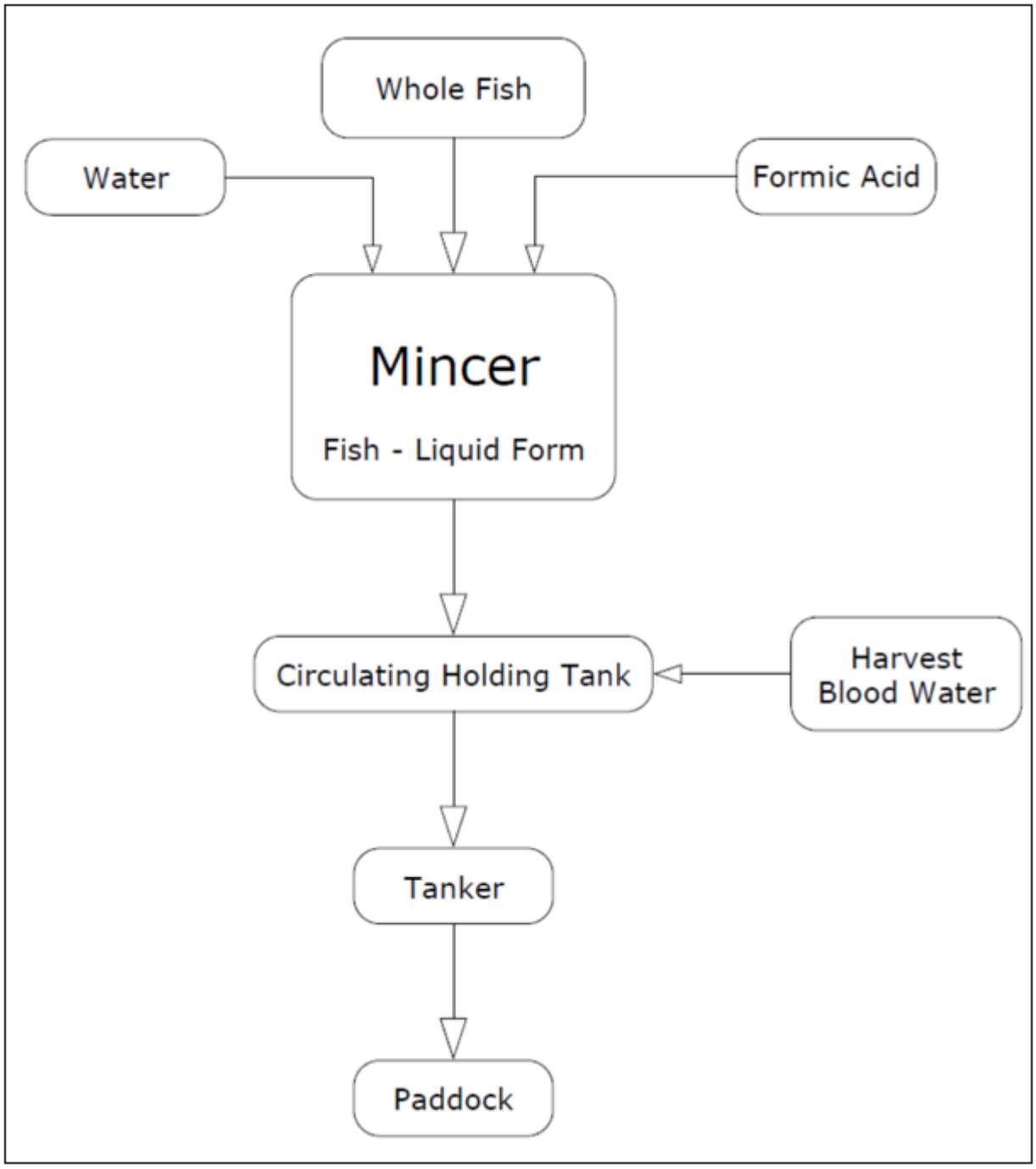

Figure 13 Hideaway Bay & Electrona ensiler process flow diagram (noting, blood water is not applicable to the Electrona ensiler)

Ensilers are essential for processing peak-period mortalities onsite into stabilised liquid waste suitable for beneficial reuse, an outcome that significantly reduces risk.

Currently, ensiled liquid is land spread at two properties near Oatlands: *St Peters Pass* and *Strathburn*, under Council-issued EPNs and environmental management plans. See section below for destination details.

4.2.3 Spill Management

Spill risks are minimised using leak-proof 1,000 L bins with secure lids, strapping to prevent tipping, sealed skip bins, and regular inspections of transport vehicles and containers. Spectran transports mortalities and ensiled material in sealed tankers, with robust procedures in place.

At Electrona, a ramped bund surrounds the ensiler area for spill containment. In the event of a spill, absorbent materials (pads, booms, spill kits) are used. Major spills are reported to the EPA under Environmental Licence condition O11 and EMPCA obligations.

Spills during transport are rare due to strict containment measures. All transport vehicles are enclosed and cleaned regularly. No mortalities are stockpiled in the open.

4.2.4 Odour Management

Western Region

The T-HUB shore base is located over 2.2 km from the nearest sensitive receptor and 1.8 km from the main road, accessed via a locked private road. No odour complaints have been recorded since operations began. Odour risk is minimal due to the remote location and strict containment protocols.

Mortalities are stored in sealed 1,000 L bins and transferred into leak-proof skip bins, which are regularly removed from site. Transport vehicles are fully enclosed, cleaned after each trip, and inspected to prevent leaks or odour release. Bins are not overloaded, and all containers are cleaned between uses in line with biosecurity protocols. These measures ensure effective odour control and compliance with environmental obligations.

Southern Region

Hideaway Bay shore base, located at 961 Esperance Coast Road, is near residential properties approximately 300 m and 780 m away. All mortalities from the Southern Region are landed and processed here. Odour is managed through rapid processing using sealed 1,000 L bins and an upgraded ensiler capable of handling 12 bins per hour.

The facility includes a 40,000 L storage tank, a 20,000 L blood water tank, and a 26,000 L grinder tank, which improve processing efficiency and reduce bin accumulation. Vessels unload full bins via onboard cranes and reload with empty bins to continue retrieval. All bins and skips are leak-proof and sealed, cleaned regularly, and removed promptly, especially during peak periods. Transport

vehicles are enclosed and sanitised to prevent odour release. No recent complaints have been received, and any issues are investigated with corrective actions implemented swiftly.

Table 2 – Survey Measurement Location Details

#	Location	Easting	Northing
1	52 Norris Road	505318	5208890
2	981 Esperance Coast Road	505596	5209821
3a	On-site "Control" - 1007 Esperance Coast Road	505864	5209540
3b		505844	5209496

Figure 14 Aerial image of the Hideaway Bay site (marked orange) and residential locations (marked green)

Storm Bay Region

Mortalities are recovered in sealed 1,000 L HDPE bins with liners and transported to Margate, then approximately 2 km south to the Electrona shore base. The Electrona site is in an industrial estate, with the nearest residence 325 m away. Odour is managed through an enclosed ensiling process, bunded storage areas, and immediate processing, typically within 24 hours of recovery. The site includes two sealed 23 kL tanks (46 kL total), and bins are rarely stockpiled.

Mortalities are ensiled promptly to maintain bin availability and minimise odour. Transport routes pass through built-up areas, but bins and tankers are sealed to prevent odour and spills. Vehicles are cleaned and inspected regularly, and any spills are contained using absorbent materials and spill kits. Significant spills are reported to the EPA under Environmental Licence condition O11 and EMPCA obligations. These procedures ensure odour is effectively controlled and biosecurity risks are minimised.

Vessels transport mortality bins to Margate, Electrona or Tinderbox shore bases.

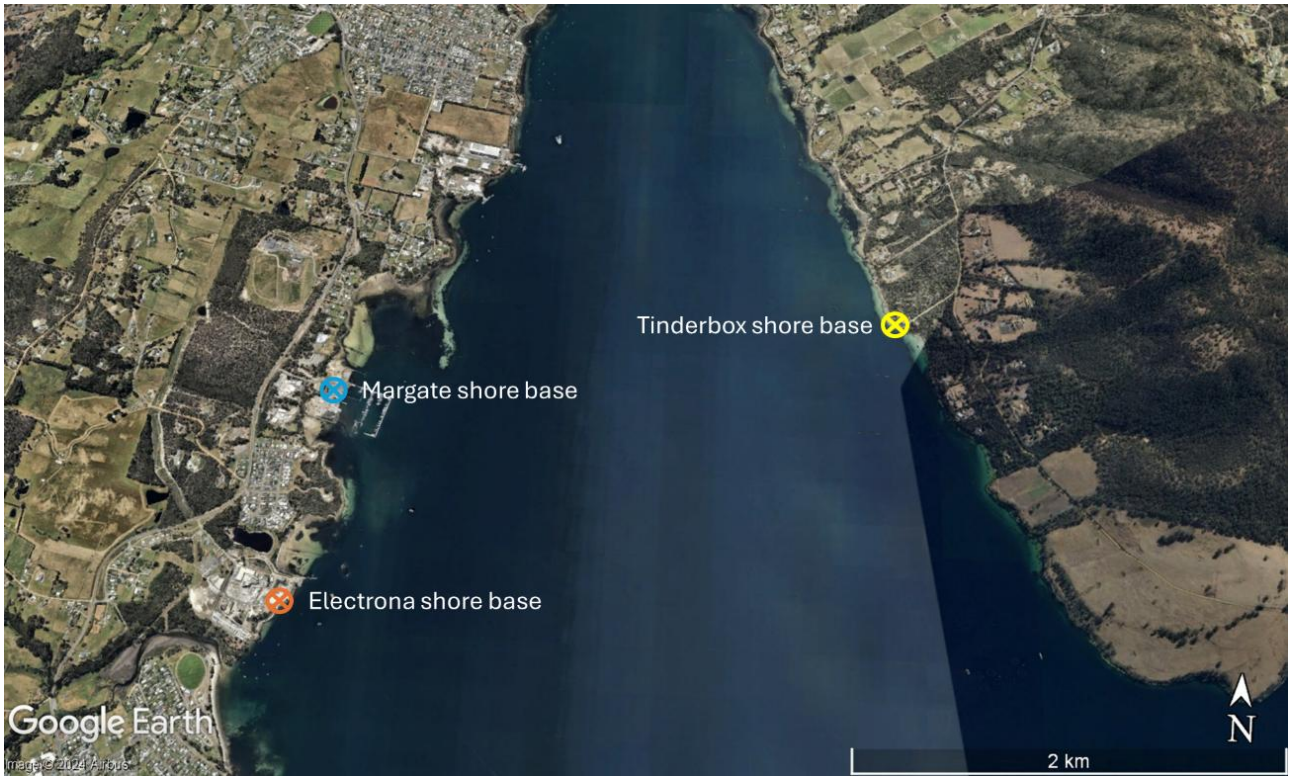

Figure 15 Electrona, Margate and Tinderbox (Gunpowder) shore base

Figure 16 Mortality transport route between Margate Marina and Electrona

4.2.5 Vermin Control

Vermin such as rodents, insects, and birds pose a risk to mortality waste streams if not properly managed. Huon implements a comprehensive set of control measures across all shore bases to mitigate this risk and ensure compliance with biosecurity protocols. Mortalities are stored in sealed 1,000 L bins and skip bins to prevent access by pests. These containers are deployed on concrete pads, which facilitate spill containment and thorough cleaning. All bins are cleaned and disinfected between uses to avoid attracting vermin.

Traps and bait stations are installed and maintained by licensed pest control contractors, including Flick and Rentokil, and perimeter fencing is used where feasible to restrict wildlife access. Access to skip bins is further controlled through sealed lids and netting where required. These combined measures effectively prevent vermin intrusion and maintain hygiene standards across all operational sites.

4.3 Waste Transfer and Disposal

4.3.1 Waste Receiver Destinations, Transportation, and Authorisations

Western Region

In the Western Region, Huon contracts Spectran Environmental Management Pty Ltd (Unique Registration Number 7666) as its licensed waste transporter for all mortality and ensiled material movements. Spectran is authorised to manage controlled waste under the DEADF code, which includes fish mortalities from finfish farming. All transport skips and vehicles undergo full physical and chemical decontamination before re-entry to the T-HUB site, ensuring compliance with biosecurity protocols.

Table 10 Spectran Environmental Management Pty Ltd authorised controlled waste codes

Name	URN	Controlled Waste Codes
Spectran Environmental Management Pty Ltd	7666	B100, C100, D120, D130, D140, D150, D160, D190, D200, D210, D220, D230, D270, DEADF, H100, J100, J120, K100, K110, K130, K140, M100, M270, N100, N120, N140, N150, N160, N190, N205, N220, R100, R140, T140

Mortalities are never deliberately discharged into the marine environment. Routine daily lease inspections and mortality retrieval using Lift-Up systems and divers ensure timely removal. Since summer 2024/25, Huon has invested in additional Lift-Up systems, vessels, and net tensioning improvements to enhance retrieval efficiency. Trials are underway for net capture systems on dewatering lines to prevent fine mortality waste from entering the environment.

If accidental discharge occurs, Huon initiates immediate containment using booms or barriers, and recovery using nets or skimmers. Shoreline inspections are conducted to monitor for any deposits. Any incident likely to cause environmental harm is reported to the EPA in accordance with Environmental Licence conditions and EMPCA obligations.

Disposal options for Western Region mortalities, in order of preference, include the Spectran ensiler facility at Oatlands (EPN 11747/1) for ensiling and land spreading, the Interlaken composting site (EPN 11640/1), and the Dulverton refuse disposal site (EPN 7852/1). Huon prioritises reuse through land spreading and composting, with landfill used only when necessary.

Southern Region

In the Southern Region, mortalities are first directed to Tassal's Rendering Facility at Triabunna (EPN 11778/1), where they are processed into fish meal and oil. This facility, the only salmon rendering plant in Tasmania, has limited capacity and prioritises Tassal's own mortalities. During peak summer periods, rendering may be unavailable, and Huon shifts to ensiling at its Hideaway Bay shore base.

Ensiled material is stored in sealed tanks and transported by Spectran in ISO tankers (22 kL capacity) to approved land spreading sites. The silage is low in odour, does not require refrigeration, and is typically reused on agricultural land. Composting is used as a secondary option when land spreading is not feasible.

Huon ensures mortalities are not released into the environment. Enhanced retrieval systems and daily inspections support this, and any accidental discharge is managed through containment and recovery protocols. EPA notification is mandatory for any significant environmental impact. Disposal options for the Southern Region include Tassal's Triabunna Rendering Facility, Huon's ensilers at Hideaway Bay, the Spectran ensiler at Oatlands, Interlaken composting site, and the Copping landfill (EPNs 6133, 11495, 9931, 7564/2, 8700, 11654/1). Huon prioritises reuse and maintains strict environmental and biosecurity controls throughout the process.

Storm Bay Region

Storm Bay Region follows similar protocols to the Southern Region. Mortalities are transported to the Electrona shore base, where they are ensiled using Huon's onsite facility. The ensiled material is stored in sealed tanks and transported by Spectran for land spreading or composting. When capacity allows, mortalities may also be sent to Tassal's Triabunna Rendering Facility.

The Electrona site is in an industrial estate, with the nearest residence approximately 325 m away. Odour and biosecurity risks are managed through sealed bins, bunded storage areas, and rapid processing, typically within 24 hours. Huon avoids open stockpiling and ensures bins are cleaned and disinfected between uses.

Huon does not discharge mortalities into the marine environment. Daily inspections and enhanced retrieval systems, including trials of net capture technology, help prevent environmental release. In the event of accidental discharge, containment and recovery measures are deployed, and EPA notification is made if significant harm is likely.

Disposal options for Storm Bay include rendering at Triabunna, ensiling at Electrona or Oatlands, composting at Interlaken, and landfill at Copping. Huon prioritises reuse through land spreading, which offers agricultural benefits such as improved soil health and reduced reliance on synthetic fertilisers. Spectran manages all transport and disposal activities under strict environmental approvals.

A summary of disposal locations for all regions is provided below, noting information is for January 2025 during the peak of summer and does not include all disposal locations (i.e.: Interlaken composting site and Dulverton refuse).

An example of the breakdown management and distribution of combined mortality biomass for all regions under the consolidated Mortality Reporting requirement to the EPA (Condition G8) for July 2025 included:

Table 11 Management and destination of mortality for all regions in January 2025

Site	Oatlands	Interlaken	Forcett	Bothwell	Ouse	Copping	Tassal Rendering
Disposal Type	Agricultural Reuse	Agricultural Reuse	Agricultural Reuse	Agricultural Reuse	Agricultural Reuse	Landfill	Rendering
Disposal Method	Land spreading and ensiling	Composting	Shallow Burial	Shallow Burial	Shallow Burial	Landfill	Rendering
Activity managed by	Spectran	Pure Living Soil	Clasam Pty Ltd	Spectran Environmental Management	Spectran Environmental Management	SWS	Tassal
Property name or suburb	St Peters Pass / Strathburn	Interlaken Road, Oatlands	Delmore	Thorpe	Brandon	Copping	Triabunna
Reg Authority	EPA / Southern Midlands Council	EPA	Sorrell Council	Central Highlands Council	Central Highlands Council	EPA	EPA
EPN ID	U7200004 & U7200003 & 11747/1	EPN 11640/1	2023 / 00115	43831	43101	11654/1 & 7564/2	11778/1
% Split	57.59%	2.19%	-	-	-	-	40.2%

4.3.2 Record Keeping

Huon records all fish mortalities in its internal system, *Fish Talk*, which serves both operational and regulatory functions. Mortalities are counted and classified promptly upon retrieval. The classification process involves two steps: first, operational staff classify mortalities based on external observations when fish are pumped from pens using Lift-Up systems; second, technical staff conduct necropsies and gross pathology assessments to refine classification and support health monitoring.

All mortality data must be entered into *Fish Talk* as soon as possible and formally closed at the end of each month. Once closed, records cannot be amended. This system forms a critical part of Huon's financial audit controls, aligning with JBS accounting standards and Sarbanes–Oxley (SOX) compliance requirements. Independent audits by Big Four financial institutions verify the integrity of this data.

Mortality reporting to regulators is derived directly from *Fish Talk* and submitted monthly to the Tasmanian Environmental Protection Authority (EPA) in accordance with Environmental Licence condition G8 and the *Environmental Standards for Tasmanian Marine Finfish Farming*. Reporting also supports compliance with the *Tasmanian Salmonid Industry Biosecurity Program* and Marine Farming Licence conditions, particularly regarding disease or mortality incidents.

Huon's commitment to transparency and regulatory compliance ensures that mortality data is accurately recorded, securely managed, and appropriately reported to support both environmental oversight and industry standards.

5. Mass Mortality

5.1 Waste Details

5.1.1 Source

Fish mortalities arise from routine aquaculture operations and disease outbreaks. Following the incomparable mortality levels during Summer 2024/25, Huon reviewed its mortality retrieval and waste management systems. Mortalities are not deliberately discharged into the marine environment.

Daily lease inspections and enhanced retrieval systems, including Lift-Up systems, net tensioning improvements, and trialled net capture systems, will continue to ensure prompt removal and containment of mortalities in coming summers.

5.1.2 Scale

Huon has modelled worst-case scenarios based on disease profiles like Infectious Salmon Anaemia Virus (ISAV) and Infectious Pancreatic Necrosis Virus (IPNV), which have caused catastrophic losses globally.

These viruses can result in daily mortality rates of 0.5–3.5%, with cumulative losses reaching 80–90% of a cohort over several weeks. Huon's regional response plans are designed to manage up to 1.5% mortality/day, equating to 50% of lease biomass over 7–8 weeks.

5.1.3 Composition and Classification

Fish mortalities are classified as controlled waste under the DEADF code, as per the Environmental Management and Pollution Control Act 1994 (EMPCA). This classification reflects the biological and environmental risks associated with decomposing organic matter, including nutrient release, odour, and pathogen transmission.

5.2 Storage Control

5.2.1 Location, Volume Potential, and Duration Held

Western Region

As previously described in Section 4 under standard mortality management, mass mortalities will also be stored at the T-HUB in sealed 1,000 L bins and transferred to skip bins. The site is remote (2.2 km from sensitive receptors), and skips can be held for up to 7 days.

The following table depicts the Western region's response actions for an increasing amount of mortality shown as 3 stages. Stages 1-3 require increasing number of retrieval vessels and skip collection by Spectran. Stage 1 represents a baseline capacity; stage 2 is based on the 2025 event and stage 3 moves towards an exhaustive mortality event.

Table 12 Mass mortality stages for Macquarie Harbour

Stage	Description
Stage 1	Baseline capacity – Southern Star dayshift (1 staff) completing 2 x trips per day and up to 2 x skips collected daily from the site
Stage 2	Southern Star dayshift (1 staff) completing 2 x trips per day, & Spartan (2 staff) completing 3 x trips per day, and up to 3 x skips collected daily from the site
Stage 3	Southern Star dayshift (1 staff) completing 2 x trips per day, & Sampson (3 staff) completing 2 x trips per day, and up to 5 x skips collected daily from the site

* Huon will notify the EPA prior to moving past response stage 1 (BAU stage 1)

The figure below (Figure 17) shows historical, forecast and worst-case daily mortality biomass in the blue lines and stage response capacity in the orange lines.

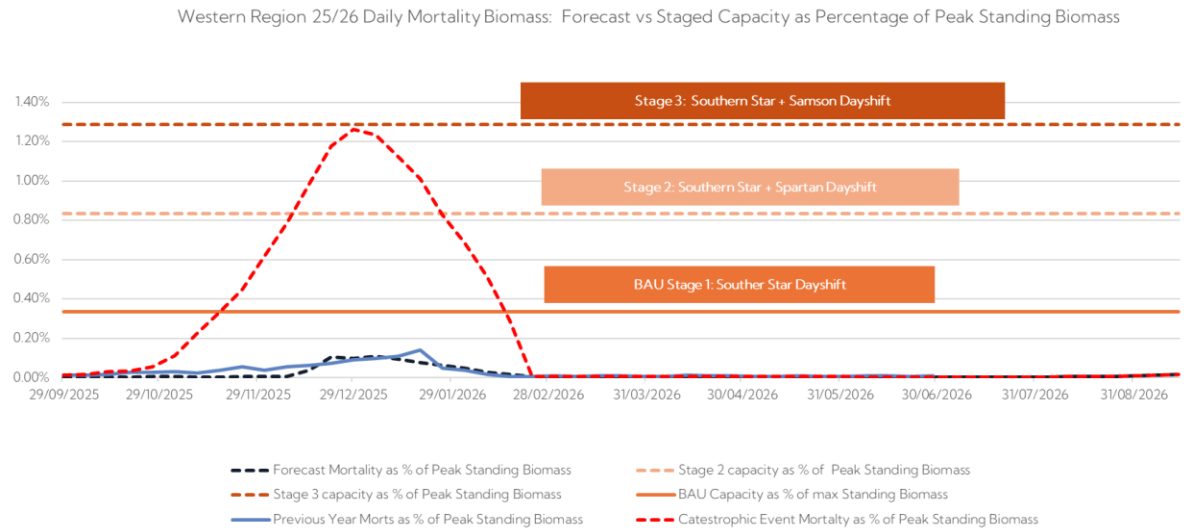

Figure 17 Western region mortality biomass 25/26 - forecast vs staged management response

Southern Region

The following table depicts the Southern region's response actions for changes in mortality volumes. Seasonal changes in mortality are considered as business as usual (BAU) and are covered by response stages 1-4. Vessel capacity planned under BAU stages far exceeds expected mortality levels (see Table 13 below), as is aimed at reducing retention times of mortalities in pen. Tanker numbers highlighted in the table below are calculated as the maximum biomass removal achievable with the dedicated fleet of vessels. Movement between BAU response stages is implemented prior to the point of stage capacity being reached. Stages 5-6 are also outlined below

are considered beyond BAU and would be triggered in the management of a catastrophic mortality event.

Table 13 Mass mortality stages for Southern Region

Stage	Description
Stage 1 (prior to 2026)	Baseline capacity – 2 x dedicated mortality removal vessels, 1 for smolt leases, 1 for grow out leases, dayshift ensiler operations, 1 tanker of ensiled waste leaving site per day
Stage 1 (from 2026)	Baseline capacity – 2 x dedicated mortality removal vessels, 1 for smolt leases, 1 for grow out leases, dayshift ensiler operations, 1 tanker of ensiled waste leaving site per day. Larger vessel substituting into fleet
Stage 2	Additional contractor vessel providing dayshift support for grow-out region, 2 tankers of ensiled waste leaving site per day
Stage 3	Additional contractor vessel providing 24/7 support for grow-out region, substitution of smaller vessel with larger vessel, 2 tankers of ensiled waste leaving site per day
Stage 4	Heavy works vessel and crew diverted to dayshift mortality operations, 5 tankers of ensiled waste leaving site per day
Stage 5	2nd heavy works vessel and crew diverted to dayshift mortality operations, nightshift ensiling operations, 7 tankers of ensiled waste leaving site per day
Stage 6	3rd heavy works vessel and crew diverted to dayshift mortality operations, nightshift ensiling operations, 10 tankers of ensiled waste leaving site per day, DEADF process enacted at 1 – 2 skips per week

* Huon will notify the EPA prior to moving past response stage 4 (BAU stage 1-4)

- Stages 1-3 involve increasing numbers of vessels supporting retrieval operations, and Spectran tanker collection trips.
- Stage 5 involves expanded hours of on-site ensiling operations.
- Stage 6 involves implementation of DEADF waste stream management i.e. skips filled for transfer to Spectran's Oatlands site for ensiling.
- Introduction of nightshift operations and increased DEADF capacity (more skip movements) to provide additional support for backlog management if at any stage weather prevents access for collection for an extended period.

The figure below shows in the blue line's historical average daily mortality biomass, summer 2025 levels, and forecast levels for 2026. The orange lines indicate the staged response capacity with vessel and shift allocation annotated. Stage 5 capacity is a 30% increase from Summer 2025 levels. All mortality and capacity values are displayed as a percentage of peak standing biomass for the region.

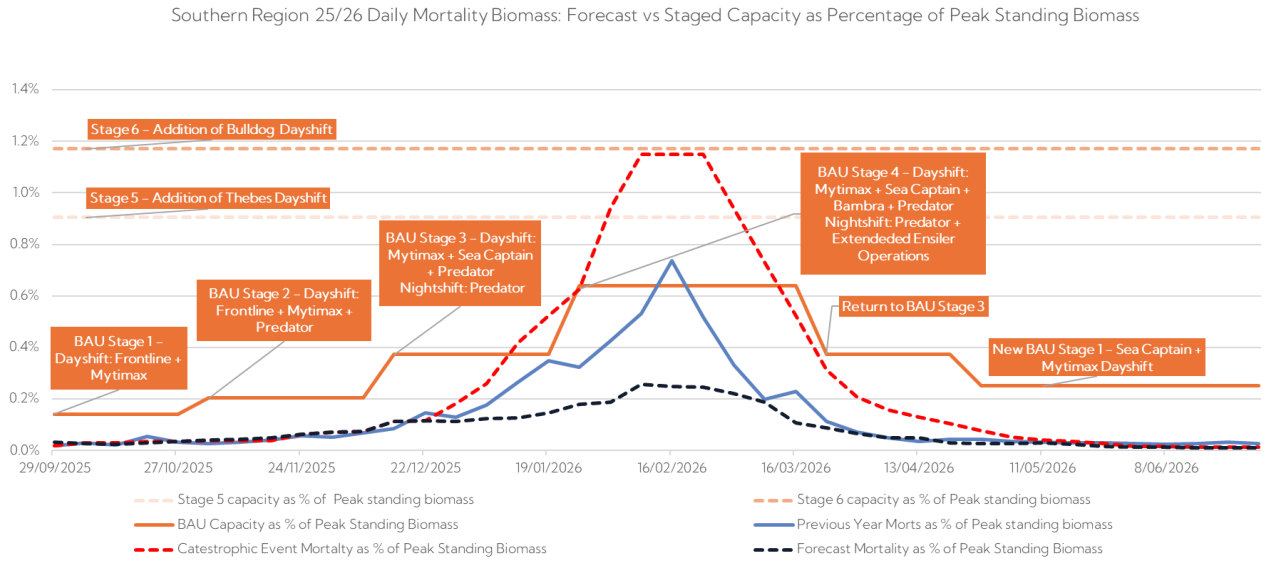

Figure 18 Southern region mortality biomass 25/26 - forecast vs staged management response

Storm Bay Region

The following table depicts Storm Bay's region's response actions for an increasing amount of mortality shown as 4 stages.

Table 14 Mass mortality stages for Storm Bay

Stage	Description
Stage 1 (BAU)	BAU capacity – 2 x dedicated mortality removal vessels, 1 for smolt leases, 1 for grow out leases, dayshift ensiler operations, 1 tanker of ensiled waste leaving site per day
Stage 2-4	Heavy works vessel and crew diverted to dayshift mortality operations to allow 30T x 2 trips, introduction of nightshift ensiler operations, transfer of bin from other regions, 5 tankers of ensiled waste leaving site per day, deadF process enacted, 7 – 10 tankers per day

* Huon will notify the EPA prior to moving past response stage 1 (BAU stage 1)

- Stages 1 dayshift operations only
- Stages 2-4 introductions of night shift ensiling operations, diversion of heavy works vessel to mortality retrieval, transfer of mort bin resources from other regions and introduction of DEADF waste management when bin capacity is bottlenecked

The figure below shows historical, forecast and worst-case daily mortality biomass in the blue lines and stage response capacity in the orange lines.

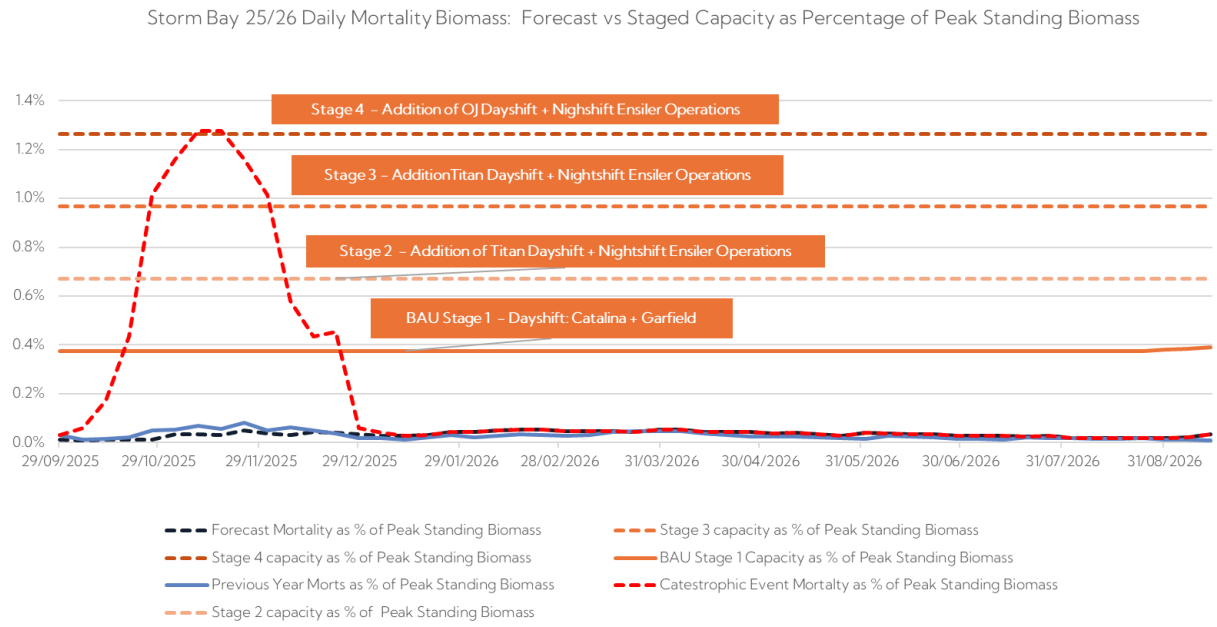

Figure 19 Storm Bay region mortality biomass 25/26 - forecast vs staged management response

Staged Trigger Levels

The stage response levels, and the mortality biomass percentages that trigger them, are mutually exclusive and are not comparable between regions. Each region's stage activation is influenced by a unique combination of factors, including the number of pens, standing biomass, pen configuration and alignment, logistical constraints such as distance from shore bases, infrastructure capacity, availability of contractors, and region-specific environmental risks.

The response stages do not represent escalating phases of a single mortality event. Instead, they are designed to indicate the level of additional infrastructure and resources required to effectively manage increases in mortality

5.2.2 Containment Measures

All bins and skips are leak-proof and sealed. Storage areas are bunded to contain spills. Transport vehicles are enclosed and cleaned regularly. These measures align with biosecurity protocols and EPA licence conditions.

Each Region response level identifies requirements for specific vessels, crews, rosters, ensiling, bins, tankers, and disposal. Observing that any exotic disease mortality event must also follow the requirements of the national AQUAVETPLAN implemented by the Department of Agriculture, Water and the Environment.

5.2.3 Spill Management

In the event of accidental discharge, Huon deploys containment booms, skimmers, and shoreline inspections. EPA notification is mandatory for any incident likely to cause environmental harm, in accordance with Environmental Licence condition G8 and EMPCA.

5.2.4 Odour Management

Odour is managed through rapid processing, sealed containers, bunded storage, and regular cleaning. Electrona and Hideaway Bay ensilers operate enclosed systems with formic acid dosing to stabilise waste and minimise odour.

5.2.5 Vermin Control

Vermin risks are mitigated through sealed bins, concrete pads, regular cleaning, and pest control services (Flick and Rentokil). Perimeter fencing is used where feasible to prevent wildlife access.

5.3 Waste Transfer and Disposal

5.3.1 Waste Receiver Destinations, Transportation and Authorisations

Huon has a 3-year service agreement with Spectran Environmental Management Pty Ltd (Reg. No. 7666) for waste transport, ensiling, and disposal. Spectran is authorised to manage DEADF waste and has acquired additional tankers to support peak mortality periods.

Western Region

1. Spectran Ensiler, Oatlands (EPN 11747/1) – Ensiling and land spreading
2. Interlaken Composting Facility (EPN 11640/1)
3. Dulverton Refuse Disposal Site (EPN 7852/1)

Southern & Storm Bay Regions

1. Tassal Rendering Facility, Triabunna (EPN 11778/1)
2. Huon Ensilers at Hideaway Bay and Electrona
3. Spectran Ensiler, Oatlands
4. Interlaken Composting Facility
5. Copping Landfill (EPNs 6133, 11495, 9931, 7564/2, 8700, 11654/1)

Huon supports Southern Waste Solutions' proposal to expand composting capacity at Copping, which would enhance resilience and reduce reliance on landfill.

Huon has entered into a 3-year Service Agreement with Spectran Environmental Management Pty Ltd (ABN 30 167 464 182) for the provision of waste transport, ensiling and disposal of liquid and

solid organic wastes.This has provided Spectran with the security required for them to acquire an additional tanker to be operational prior to Summer 25/26.

Additionally, Huon has entered into Service Agreements with 3rd Party Diving Services and Labour Hire Services to ensure that all the planned Scenarios can be adequately resourced.

Following the mortality event in Summer 24/25, Huon identified improvements that were required in the capacity to extract elevated volumes of mortalities from the pens promptly. As a result, significant investment, (more than $2.1m) has already been made or is currently under way.

Table 15 Current and planned investment in response to 24/25 summer mortality event

Project Area	2025 Spend YTD	Additional Planned Spend
Ensiler Upgrades	$36,569	$1,281,030
Lift-Up Mortality Retrieval Systems	$409,765	$79,374
Bins	$232,697	-
Transport & Storage	$91,015	-

5.3.2 Record Keeping

All mortality data is recorded in Huon's internal system *Fish Talk*, which supports operational tracking, health monitoring, and regulatory reporting. Data is finalised monthly and used for EPA reporting under Licence condition G8 and the Environmental Standards for Marine Finfish Farming. *Fish Talk* also supports JBS financial audit controls and Sarbanes, Oxley compliance.

Huon will also ensure compliance with Biosecurity Program Tasmanian Salmonid Industry regarding disease detection and notification (MOS12, 14, 15) and mortality recording (MOS19). Additionally, marine farming licence conditions and reporting requirements.

6. Biofouling

6.1 Waste Details

6.1.1 Source

Biofouling is a natural marine process where organisms such as hydroids, algae, barnacles, mussels, and other marine species attach to submerged aquaculture infrastructure. This accumulation affects water flow, structural integrity, and fish health. Huon's operations in the Southern and Storm Bay Regions experience significant biofouling due to nutrient-rich and high-exposure marine environments. In contrast, Macquarie Harbour (Western Region) has minimal biofouling due to high freshwater input from surrounding river systems.

Biofouling waste is generated during both in-situ cleaning (on marine leases) and onshore maintenance activities. In-situ cleaning disperses waste directly into the marine environment, while onshore cleaning produces solid waste requiring containment and disposal.

6.1.2 Scale

Huon conducts regular in-situ net cleaning to monitor for, and remove biofouling from nets, pens and mooring components. Due to the significant freshwater input into Macquarie Harbour from surrounding river systems marine biofouling growth is minimal in that location. Biofouling accumulation is low, generating less than 5 tonnes annually.

However, for Huon's Southern Region and Storm Bay, biofouling poses a significant issue that requires constant removal. These regions produce significant volumes due to harsher marine conditions. In the first half of 2025, 1,114 tonnes of biofouling waste were transported for composting. Net washing generates approximately 60,000 L of wash water every three months, and around 240,000 L annually.

In-Situ Collar and Net Cleaning

It is not possible to estimate the volume of biofouling removed from marine farming infrastructure during in-situ cleaning operations. This is because biofouling waste generated from net cleaning operations is dispersed back into the environment on the marine lease. The current cleaning technology that Huon utilises does not allow capture of biofouling detritus.

On-Shore Net and Collar Cleaning & Maintenance

Pen collars from Storm Bay Region are returned to the yard approximately every 2 years and Southern Region pens are returned to the yard approximately every 3-5 years. This is because of the additional wear and tear on Storm Bay pens, and higher rates of biofouling due to a more marine environment. At Macquarie Harbour, nets are brought ashore to the Strahan T-Hub once per year,

at the end of each farming cycle, for cleaning and maintenance. Estimated volumes are provided below:

Table 16 Onshore net and collar cleaning waste quantities

Location	Origin	Type	Quantity
Western Region	On-shore cleaning	Biofouling	~5 t annually
Western Region	On-shore cleaning	Net wash (organics, citric acid & water)	-
Southeast Region (Southern & Storm Bay)	On-shore cleaning	Biofouling	~ 2,228 t annually
Southeast Region (Southern & Storm Bay)	On-shore cleaning	Net wash (organics and water)	~ 240,000L annually

6.1.3 Composition and Classification

Biofouling waste includes hydroids (e.g., *Ectopleura*, *Plumalaria*, *Obelia*, *Sarsia* spp.), anemones, mussels, oysters, barnacles, sea squirts, algae, and macroalgae. Calcareous deposits from *Spirorbis* spp. may also be present. Net wash water contains organic matter and citric acid. While not classified as controlled waste under EMPCA, biofouling waste is managed with environmental safeguards due to its biological content and potential for odour, leachate, and benthic impact.

6.2 Storage Control

6.2.1 Location, Volume Potential, and Duration Held

Huon uses state-of-the-art in situ net cleaners for in-pen net cleaning of both the inner net and outside predator net. Huon uses the AKVA manufactured FNC8 ROV net cleaner. The FNC8 is a powerful remote net cleaning system that is operated via a handheld mobile console and transported by a supporting net cleaning vessel.

Cleaning is carried out using high water pressure jets and thruster propulsion to move up and down the nets. The in-situ net cleaner works by positioning rotating high pressure water jets close to the surface of the net. This washes the biofilm and fouling from the net dispersing the material into the water. No chemicals are added, the cleaner uses seawater only. Seawater is pumped through the net cleaners to dislodge/remove buildup of biofouling detritus and dispersed back into the environment within the lease area.

In alignment with new Environmental Licence condition OP1 regarding the use of antifoulants, this waste management plan includes measures to ensure that any waste associated with antifoulant application, storage, or removal is handled in accordance with regulatory requirements. Procedures are in place to prevent contamination of marine environments, and all antifoulant-related waste is

managed through approved disposal pathways, consistent with Huon's broader environmental compliance framework.

Western Region

In Macquarie Harbour due to the significant freshwater input from surrounding river systems, marine biofouling growth is reduced with inner net cleaning required less frequently than in the SE. In Macquarie Harbour, the inner nets are in-situ cleaned every 10-12 days (35mm mesh) or every 5 days (15mm mesh) in the warmer months and every 14 days during the Winter. The outer predator nets are cleaned every 180 days during the year.

In the Western Region, removal of biofouling from pen collars is generally not required due to the surface freshwater layer in Macquarie Harbour, but where required the collars are cleaned in-situ on the lease using the FNC8 ROV net cleaner, or if necessary, with divers.

At Macquarie Harbour, nets are brought ashore to the Strahan T-Hub once per year, at the end of each farming cycle, for cleaning and maintenance. The nets are first cleaned in situ on the farming lease before they are brought into the shore base. In some seasons the nets have a calcareous deposit formed by a polychaete spirorbic worm (*Spirorbis spp*). This is removed by soaking the net in a container with a dilute solution of citric acid, the system is approximately 15,000L. On completion of the net cleaning process the container is pumped out by waste contractor Spectran, typically yearly. Material is taken by Spectran to the Oatlands ensile facility and disposed of via land spreading. This waste is included in Huon's blood water waste management process.

Due to the low rate of biofouling in Macquarie Harbour, the pen collars generally do not require cleaning. Where necessary they are cleaned in-situ on the lease using the FNC8 ROV or if necessary, divers can be used to scrape off fouling. If collars need to be brought back to the Strahan T-Hub for repairs and maintenance, they are in-situ cleaned on the lease before being towed to the T-Hub.

The bulk of biofouling cleaning operations are undertaken on the marine leases. No storage of biofouling is required on-water, however, there may be instances where biofouling is present on infrastructure brought back to the shore base for maintenance. In these instances, biofouling would be promptly removed from infrastructure and stored in sealed 10T skip bins or 1,000L mortality bins prior to composting. Estimated volumes is less than 5 tonne per annum.

Southern Region and Storm Bay Region

In the South-East, net pens are cleaned using in-situ net cleaners which clean both the inner and outer nets. Inner nets and outer nets are removed periodically and returned to the net slab at Whale Point for cleaning and repairs.

In the Southern Region, Huon operates approximately 20 x 240m circumference pens with 35mm net mesh, and 29 x 168m circumference with 15mm, 25mm or 35mm mesh inner nets (according to

the production stage) and outer predator nets. During the production cycle, the inner nets are in-situ cleaned using the FNC8 ROV approximately every 7 days during Spring, Summer and Autumn. During the Winter the frequency of cleaning drops back to every 12 days, except for the 15mm mesh nets which require cleaning every 7 days. The outer predator nets are in-situ cleaned using the FNC8 ROV once every 30 days in Spring, Summer and Autumn, and once every 70 days in Winter. This cleaning strategy prevents a significant build-up of biofouling on the inner net and predator net. When inner nets need to be removed from the collar and taken to the Whale Point net slab for repair or replacement with a different mesh size, the inner net is in-situ cleaned approximately 3 days before being removed and taken ashore.

In Storm Bay Region, Huon operates approximately 52 pens with 15mm,25mm and 35mmmesh inner net and 125mm outer predator nets. The inner nets are in-situ cleaned every 5-10 days during Spring, Summer and Autumn and every 7-15 Days in Winter. The outer predator nets are cleaned every 30-40 days during Springs, Summer and Autumn and every 60-70 days in Winter.

In the Southern and Storm Bay Regions, in-situ collar cleaning is not generally carried out, but the collars are returned periodically to the Pen Slab at Whale Point for cleaning and maintenance. Pen collars from Storm Bay Region are returned to the yard approximately every 2 years and Southern Region pens are returned to the yard approximately every 3-5 years. This is because of the additional wear and tear on Storm Bay pens, and higher rates of biofouling due to a more marine environment.

Inner cage nets and predator nets are periodically brought back to the Net Yard at Whale Point for repairs and maintenance. The frequency is generally 6-12 months for inner nets and every 3-5 years for predator nets.

Prior to being returned to the net slab, the nets receive an in-situ net clean on the marine lease, to remove the bulk of the biofouling. The nets are returned to Whale Point on the deck of one of the farm service vessels and lifted off onto the concrete pad at Whale Point Jetty.

The nets remain on the pad at Whale Point Jetty until the Net Yard has capacity to receive them, at which point they are lifted onto a truck or trailer using an 80T mobile crane, and delivered to the Net Yard. The nets are queued temporarily adjacent to the net washer, before being lifted into the net washer and cleaned after which they are lifted out onto the Net Slab for inspection and repair.

Pen collars are returned periodically to the pen assembly area at Whale Point for cleaning and repair. Pen collars from Storm Bay Region are returned to the yard approximately every 2 years and Southern Region pens are returned to the yard approximately every 3-5 years.

The bulk of biofouling cleaning operations are undertaken on the marine lease. Biofouling waste is generated at the two shore bases - Whale Point Pen Assembly Area and at the Net Yard.

When pen collars are returned to Whale Point for repairs and maintenance, cleaning as far as practicable is first conduced on the marine lease. Once on shore, biofouling is manually scraped off and stockpiled on the concrete slab by staff. The collars are then cleaned using a high-pressure

washer and the solids from this are also captured and added to the stockpile. The stockpile of biofouling is mixed on the concrete slab with woodchips, (approximate ratio 50:50) which reduces odour and leachate during temporary storage, before being loaded into Spectran skip bins and delivered to Pure Living Soil at Interlaken for composting.
When inner nets and predator nets arrive back at Whale Point, they are initially offloaded from the deck of the service vessel onto the slab at the Whale Point Jetty, where they are allowed to drain to reduce their weight before handling. Drainage water from the net returns to the marine environment at the Whale Point Jetty. After the nets have drained, they are lifted onto a truck or trailer using an 80T crane and transported up to the Net Slab. The nets are queued on the Net Slab adjacent to the net washer, until they can be washed.

As nets are washed in the net washer, there is an accumulation of biofouling material e.g. shells, weed, etc inside the net washer. Periodically the net washer contents are pumped out over a sieve, with the water returning to the net washer for further use, and the solids being stockpiled on the Net Slab until they can be collected for disposal. The solids from the Net Washer are collected in the same truck as the solids from the Pen Assembly Area and transported to Interlaken for composting.

1,114 t of biofouling was transported for disposal to composting from the pen assembly area and the net slab in the first 6 months of 2025. Approximately, 60,000L of net wash water is generated every 3 months and sent to Copping Landfill.

6.2.2 Containment Measures

Biofouling waste is stored in sealed 10T skip bins or 1,000 L mortality bins. Concrete slabs at Whale Point prevent runoff. Waste is mixed with woodchips (50:50 ratio) to reduce odour and leachate. Net wash water is collected in sealed tanks and disposed of by licensed contractors (e.g., Spectran).

Biofouling from shore base maintenance activities is disposed of in waste skip bins or trailers and transported to approved waste management facilities by appropriately licensed contractor Spectran. Biofouling waste is primarily disposed of through composting. If composting is unavailable, landfill serves as an alternative disposal method.

6.2.3 Spill management

Biofouling generated from shore base maintenance activities is collected via telehandler bucket, or broom and shovels as required. The net washer and citric acid net wash facility are installed on concreted areas and care is taken to ensure that the net is fully drip dried and hung over the washers prior to moving. This helps to prevent any spills from occurring within the activity area.

6.2.4 Odour management

Biofouling detritus removed by the in-situ net washer during on-water cleaning operations on the marine leases is not collected, therefore no odour nuisance occurs.

Any biofouling generated at the shore-bases is immediately stored in sealed skip bins, mortality bins or stockpiled with sawdust on the net slab and removed as soon as practical to minimise odour.

6.2.5 Vermin control

Vermin can be attracted to bins where biofouling may be stored onshore. Huon implements the following vermin control and mitigation measures:

- Waste is stored in sealed skip bins and containers to prevent access by vermin and removed as soon as practicable;
- Traps and bait stations are deployed across the site;
- Perimeter fencing at the THUB has been installed to prevent wildlife from accessing the shore base. Limited fencing is also present at the Whale Point facility;
- Biofouling is mixed with sawdust/chips to prevent odours attracting vermin; and
- Bird scarers and visual deterrents installed on some shed facilities.

6.3 Waste Transfer and Disposal

6.3.1 Waste Receiver Destinations, Transportation and Authorisations

Western Region

Biofouling waste and net wash water (including citric acid) are transported by Spectran to the Oatlands ensiler facility for land spreading, or to Dulverton landfill. This waste is managed under Huon's blood water protocols.

Southern and Storm Bay Regions

Waste is transported to Interlaken composting facility. If composting is unavailable, Copping Landfill serves as a backup. Net wash water is sent to Copping every three months.

Spectran Environmental Management Pty Ltd is Huon's licensed waste transporter, operating under a multi-year service agreement. Spectran is authorised to manage organic waste streams and has invested in additional tankers to support peak operational periods. Waste is transported in skip bins or trailers under strict containment protocols.

Biofouling detritus from cleaning operations is dispersed back into the environment and not captured, it is left to naturally disperse and decompose. Biofouling detritus naturally decomposes without excessive accumulation and is monitored by Huon during monthly under-pen video surveys below all pens at all sites monthly and during annual video surveys (AVS).

Huon implements the following mitigation measure to minimise the impacts of biofouling:

- Adequate fallowing between year classes

- Weekly net cleaning during summer to prevent excessive biofouling build-up
- Routine cleaning and maintenance of pen infrastructure
- Monitoring of spat falls (mussels and oysters) to ensure they are removed from infrastructure as soon as possible preventing build up
- Pre-stocking and under pen assessments to predict ecological response and seabed condition

6.3.2 Record Keeping

Benthic monitoring is conducted by Huon during monthly under-pen video survey and AVS surveys. AVS surveys are conducted under pens with the highest biomass and number of net washes in a 12-month period. All AVS surveys are submitted to the EPA as per Environmental Licence (EL) requirements. Benthic conditions are noted during these surveys including all known indicators of enrichment associated with finfish farming and net washing. Net cleaning frequency must also be reported quarterly through EL reporting requirements.

Huon also keeps records of all waste transported off site from net cleaning operations by waste contractors. This aligns with reporting requirements under the EL Waste Management Plan conditions (WM1).

7. Used nets and other marine finfish farm infrastructure waste

7.1 Waste Details

7.1.1 Source

This waste stream originates from daily marine farming operations, infrastructure maintenance, and decommissioning activities. There are several components.

General Waste

From routine workplace activities, vessel operations, and shore base facilities.

Plastics

Includes HDPE, MDPE, LDPE, and other polymers from damaged or end-of-life marine infrastructure such as nets, pen components, feed pipes, and walkways.

Feed Bags

Woven polypropylene 1T Bulka Bags used for feed delivery.

Multi-polymer plastics (including nets)

Non-recyclable materials such as ropes and nets.

Scrap metals and alloys

From decommissioned vessels, anchors, moorings, and infrastructure. Volumes are generally low; Western Region ~10T per annum; Southern Region ~30T/annum, Storm Bay ~30T/annum.

Timber

Primarily from CHEP hire pallets used for transporting feed.

Lighting, electronics and batteries

From vessel and shore base maintenance, including navigation systems. Approximate annual volumes are Western Region 2m^3/year; Southern Region 5m^3/year; and Storm Bay Region 6m^3/year.

Unsecured Marine Farming Equipment and Marine Debris

Resulting from human error, weather, or equipment failure.

7.1.2 Scale

The scale of waste generated from used nets and other marine finfish farm infrastructure is significant and varies across Huon's operational regions, reflecting differences in infrastructure density, operational intensity, and environmental exposure.

In the Western Region, general waste is produced at a rate of approximately 10 m³ per month, with over 100 m³ of plastic waste and more than 10 m³ of scrap metals and alloys generated annually. The Southern Region, being a hub of operational activity, produces the highest volumes, approximately 45 m³ of general waste per month, over 30 m³ of recyclable plastics, more than 30 m³ of scrap metals, and over 50 m³ of timber annually.

The Storm Bay Region generates around 30 m³ of general waste monthly, with similar volumes of scrap metals and 6 m³ of battery and electronic waste annually. Net wash water, bilge water, and waste oil are also generated in substantial volumes, with bilge water tanks ranging from 1,000 L to 5,000 L and waste oil tanks up to 2,000 L.

These figures highlight the need for robust waste management systems to ensure timely collection, storage, and environmentally responsible disposal or recycling of diverse waste streams across all regions.

7.1.3 Composition and Classification

The main composition of the waste streams is provided below:

Table 17 Finfish farm waste streams and classification

Waste	Annual Quantities	Classification	Description	Waste Potential	Management Approach
General Waste	Western: 120 m³ Southern: 540 m³ Storm Bay: 360 m³	General solid waste (Putrescible)	Non-recyclable waste from daily operations, vessels, and shore bases.	Moderate volume: low environmental risk if managed properly.	Stored in sealed bins on vessels and shore; regularly collected by licensed contractors for landfill disposal.
Plastics (HDPE /MDPE/ LDPE)	Western: >100 m³ Southern: 30 m³	General solid waste / Recyclable	Damaged or end-of-life marine infrastructure (e.g., pipes, pen components).	High volume; recyclable if clean.	Chipped on-site or sent to Tas Oil for recycling; transported to approved facilities in Victoria.
Multi-polymer Plastics (e.g., nets, ropes)	Included in general waste	General solid waste (non-recyclable)	Non-recyclable synthetic materials used in marine operations.	Low to moderate volume; landfill only.	Disposed of to landfill due to mixed material composition; reuse /recycling options under investigation.

Feed Bags (Poly propylene)	Variable	Recyclable	1T woven polypropylene Bulka Bags used for feed delivery.	Moderate volume; recyclable.	Compacted and stored at feed warehouses; sent to Big Bag Recovery (Toowoomba) for recycling.
Scrap Metals and Alloys	Western: >10 m³ Southern: >30 m³ Storm Bay: >30 m³	Recyclable	Decommissioned infrastructure, anchors, moorings, and vessel components.	High value; low environmental risk.	Collected in designated bins; sent to approved recyclers (e.g., Drysdale J.V. Engineering, Recycal).
Timber (CHEP Pallets)	Western: 2 m³ Southern: >50 m³	Recyclable / Reusable	Wooden pallets used for transporting feed and materials.	Low risk; reusable.	Returned to CHEP depot or reused /recycled on-site.
Cardboard	Southern: ~1 m³ every 14 days	Recyclable	Packaging material from feed and equipment deliveries.	Low volume; recyclable.	Stored in lidded bins; collected fortnightly for recycling.
Lighting, Electronics, Batteries	Western: 2 m³ Southern: 5 m³ Storm Bay: 6 m³	Controlled / Recyclable	Redundant navigation systems, lighting, and batteries from vessels and shore.	Low volume; potential environmental hazard if not properly managed.	Stored in dedicated containers; collected and recycled by licensed providers (e.g., Drysdale's, Recycal).
Bilge Water	Southern: 5,000 L Storm Bay: 2,000 L	Liquid Waste (Controlled)	Water contaminated with oil and fuel from vessel bilges.	Potential environmental hazard if spilled.	Stored in sealed, bunded tanks (IBC or fixed tanks); uplifted as required by licensed contractors.
Waste Oil	Southern: 2,000 L Storm Bay: 2,000 L	Liquid Waste (Controlled)	Used engine and hydraulic oils from vessels and machinery.	Hazardous if spilled; requires secure containment.	Stored in sealed, bunded tanks; uplifted as required by licensed contractors for appropriate disposal or recycling.
Marine Debris / Unsecured Equipment	Variable (monitored)	General solid waste / Controlled (if applicable)	Lost or dislodged marine farming equipment (e.g., nets, ropes, floats).	Environmental hazard; risk to marine life and navigation.	Regular shoreline clean-ups (internal and via Pakana Services); equipment tracked via registers, GPS, and ID tags; removal & reporting.

7.2 Storage Control

7.2.1 Location, Volume Potential, and Duration Held

Western Region

Waste is stored at the Strahan T-Hub and on vessels. General waste is held in 50 L bins on vessels and transferred to 15 m³ skip bins. Scrap metals are stored in 3 m³ bins. Used batteries are stored in 1.5 m³ containers. Timber pallets are returned every 1–2 weeks.

Southern Region

Waste is stored at Port Huon shore base and on vessels. Storage includes 10 m³ skip bins for general waste, 1 m³ bins for cardboard, sealed tanks for bilge water (5,000 L) and waste oil (2,000 L), and batteries stored on pallets under cover. Approximately two truckloads of CHEP pallets are returned weekly.

Storm Bay Region

Waste is stored at Gunpowder Jetty and other shore bases. General waste is held in 50 L bins on vessels and transferred to 15 m³ skip bins. Scrap metals are stored in 3 m³ bins. Bilge water and waste oil are stored in 1,000 L IBCs. Batteries are stored on bunded pallets.

7.2.2 Containment Measures

All waste is stored in sealed or lidded containers to prevent leakage and exposure. Skip bins are covered with mesh or sealed lids. Waste oil and bilge water are stored in sealed, bunded tanks. Batteries are stored in dedicated containers or on bunded pallets under cover. Waste is secured on vessels during transport using sealed containers or tie-downs. Large infrastructure is towed following Huon's SOPs and regulatory requirements.

7.2.3 Spill Management

Spill risks are minimal as the waste is primarily solid. Bins are sealed or lidded to prevent discharge. Woven netting is used on skip bins to prevent wind-blown waste. Any spills are promptly cleaned using appropriate methods. Containment fences are installed at the Southern Net and Pen Slab area and Pilings shore base to prevent waste migration, with weekly cleaning schedules in place.

Huon employs a range of preventative measures to ensure waste materials are not unintentionally discharged into the environment during marine operations. These include strict onboard waste segregation protocols, secure containment systems, and routine crew training in spill prevention and response.

All vessels operate under documented procedures such as the Marine Waste Management Procedure and the Spill Response Plan, which outline steps for managing waste and responding to accidental releases. In the event of a known unintentional discharge, the incident is recorded, investigated, and managed in accordance with Huon's Environmental Incident Reporting Procedure, with corrective actions implemented to prevent recurrence. Once waste is returned to shore, it is transferred to licensed waste contractors for appropriate disposal or recycling, in line with Huon's broader waste management strategy and regulatory obligations.

This waste management plan incorporates measures aligned with new Environmental Licence condition OP2, which addresses unsecured marine farming equipment. Procedures are in place to ensure that all equipment used during marine operations is properly secured and maintained to prevent loss or unintentional discharge into the environment. Regular inspections and equipment logs are maintained to support compliance, and any incidents involving unsecured items are managed through Huon's Environmental Incident Reporting Procedure.

7.2.4 Odour Management

Odour risk associated with this waste stream is considered low due to its predominantly non-organic composition. Waste is stored in sealed bins and removed regularly to prevent accumulation. Prior to storage, infrastructure is cleaned of any residual biofouling, further reducing the potential for odour generation. The T-HUB facility, located more than 2.2 km from the nearest sensitive receptor and 1.8 km from the main road, has not received any odour complaints since operations began. Mitigation measures include the use of sealed storage for general waste, visual inspection and emptying of feed bags before storage, secure indoor storage where necessary, effective site drainage to prevent standing water, and routine site cleanliness to ensure odour remains controlled.

7.2.5 Vermin Control

Vermin are not a major issue for this waste stream but may be attracted to general waste or feed bags. Control measures include:

- Sealed storage of waste
- Visual inspection and emptying of feed bags before storage
- Storage in secure sheds with secure doors
- Good drainage to prevent standing water
- Traps and bait stations
- Perimeter fencing (e.g., T-HUB, some Southeast sites)
- Bird scarers and visual deterrents
- Routine site cleanliness

7.3 Waste Transfer and Disposal

7.3.1 Waste Receiver Destinations, Transportation and Authorisations

General Waste

Western Region: Collected by West Coast Council and disposed of at Zeehan landfill or Dulverton refuse disposal site.

Southern and Storm Bay Regions: Managed by Spectran and disposed of at Copping or Dulverton landfill.

Plastics

Recyclable plastics (e.g., HDPE) are chipped and sent to Tas Oil or transported to Victoria for recycling. Non-recyclable multi-polymer plastics are disposed of to landfill.

Feed Bags

Sent to Big Bag Recovery in Toowoomba for recycling.

Scrap Metals and Alloys

Stored at shore bases, then sent to approved recyclers e.g. Drysdale J.V. Engineering or Recycal.

Timber

Reused on-site, returned to suppliers, or recycled.

Lighting, Electronics, and Batteries

Collected in designated bins and sent to the same recyclers as scrap metals.

Unsecured Marine Farming Equipment and Marine Debris

As per Environmental Licence Condition OP2, any unsecured marine farming equipment observed during benthic video surveys is recorded and removed were safe and practical. Items found outside lease areas are reported to the Aquaculture Branch.

Mitigation Measures:

- Marine Farming Equipment Register for all floating infrastructure
- Unique ID tagging of nets and pens
- GPS tracking on select infrastructure
- Internal marine compliance audits and marine debris surveys

- Secure, covered bins on vessels
- ROV inspections for infrastructure monitoring
- Onshore rope cutting and packaging removal
- Standardisation of equipment
- Seafloor marine debris removal using specialised ROVs

Marine Debris Clean-Up Initiatives:

- Western Region: Regular shoreline clean-ups in Macquarie Harbour in collaboration with other industry operators. Each company is allocated a section of coastline, and reporting is coordinated across the industry.
- Southern and Storm Bay Regions: Fortnightly shoreline clean-ups conducted by Pakana Services, a not-for-profit Aboriginal social enterprise supporting community employment and environmental stewardship.

Table 18 Waste transfer and disposal for marine finfish farm waste

Waste Stream	Primary Destination	Transport	Authorization
General Waste	Western: Zeehan Landfill, Dulverton Refuse Disposal Site Southern & Storm Bay: Copping Refuse Disposal Site, Dulverton Refuse Disposal Site	Vessels to shore; skip bins collected by West Coast Council (Western) or Spectran (Southeast)	Disposal authorised under Environmental Licence; managed by licensed contractors
Plastics (HDPE/MDPE/LDPE)	Tas Oil (Wyvenhoe) or approved Victorian recycling facilities	Returned to shore base; chipped or trucked by recycling providers	Managed under general waste/recycling protocols; coordinated by licensed recyclers
Multi-polymer Plastics (e.g., nets, ropes)	Approved landfill or waste transfer facilities	Managed under general waste/recycling protocols; coordinated by licensed recyclers	Managed as general waste; disposal authorised under general waste regulations
Feed Bags (Polypropylene)	Big Bag Recovery (Toowoomba)	Compacted and trucked from feed warehouses	Managed by licensed recycling provider
Scrap Metals and Alloys	Drysdale J.V. Engineering, Recycal	Collected in bins; transported by licensed recyclers	Managed under general recycling protocols
Timber (CHEP Pallets)	CHEP Depot or on-site reuse/recycling	Returned via truck to CHEP or reused on site	Managed under CHEP return agreements or general recycling

Lighting, Electronics, and Batteries	Drysdale J.V. Engineering, Recycal	Stored in dedicated bins; collected by licensed recyclers	Managed under e-waste and battery recycling regulations
Bilge Water	Licensed liquid waste treatment facilities	Stored in sealed, bunded tanks; uplifted by licensed contractors	Managed under controlled waste regulations
Waste Oil	Licensed liquid waste treatment facilities	Stored in sealed, bunded tanks; uplifted by licensed contractors	Managed under controlled waste regulations
Marine Debris / Unsecured Equipment	Removal and reporting to DNRET; disposal to landfill or recycling as appropriate	Retrieved via vessel or ROV; stored at shore base	Managed under Environmental Licence Condition OP2; reported to DNRET

7.3.2 Record Keeping

Huon maintains a database of waste produced by site, waste category, waste classification and disposal/reuse destination. This database is generally updated monthly and includes source data (e.g. invoices, weigh bridge documents, proof of delivery).

General waste and farm infrastructure waste is sent to appropriately licensed and approved disposal or reuse sites by appropriately licensed waste transporters. Waste reporting will be done in accordance with Environmental Licence conditions (WM1) and under section 58. Waste Management Plan Conditions in the Environmental Standards for Tasmanian Marine Finfish Farming 2023.

Huon maintains records of all marine debris clean ups, including date, length of coastline, number of hours and volume of debris collected (general rubbish and attributable to fish farming). All data is provided to NRE and available through the Salmon Farming Portal.

8. Blackwater and Greywater

8.1 Waste Details

8.1.1 Source

Two types of liquid waste, black water and grey water, are generated from staff facilities and vessels (boats and barges) across Huon's marine farming operations.

Blackwater - typically refers to wastewater that is contaminated with human waste (sewage), often from toilets.

Greywater - is wastewater from sinks, showers, or laundry, which typically does not contain human waste but may contain oils, detergents, and food waste.

8.1.2 Scale

Table 19 Quantity of black and grey water generated across Huon's marine farming regions

Region	Black Water	Grey Water
Western	10,000L annually	10,000L annually
Southern	117,865L annually	117,865L annually
Storm Bay	120,000L annually	120,000L annually

Note:

- Figures represent only the wastewater generated from on-water marine farming operations that is disposed of by licensed waste contractors.
- Wastewater generated from onshore T-HUB operations is not included, as it is managed through a communal wastewater system operated by Salmon Tasmania. This wastewater is irrigated and applied to approved land, with volumes not able to be recorded.
- Black and grey water is amalgamated at Southern and Storm Bay region and treated as black water.

8.1.3 Composition and Classification

Blackwater Composition: Typically consists of human waste (faeces and urine), along with water from toilets. Additional waste contaminants may include cleaning agents used in onsite facilities (e.g., staff kitchen facilities).

Greywater Composition: Consists of wastewater from sinks, showers, kitchens, and laundries. It may contain soaps, detergents, oils, grease, food particles, and other non-toxic contaminants. Greywater may also contain trace amounts of organic material and suspended solids.

8.2 Storage Control

8.2.1 Location, Volume Potential, and Duration Held

Western Region

Blackwater and greywater are generated from Macquarie Harbour farming operations from the single on-water moored barge (Hammerhead) that houses toilets, showers and kitchen facilities. Two large vessels (Captain Bill and Samson) operating on the leases also have toilet and onboard kitchen facilities with wastewater (grey and black) stored on board.

No treatment of grey or black water is undertaken on the marine leases. All grey and black water from vessels and barges is captured in storage tanks onboard and collected via service vessel approximately every 3-6 months as required. Wastewater is taken back to the shore base and transferred to a licensed contractor tanker (Tassie Waste) for disposal to the TasWater STP in Strahan.

Waste water (both grey and black) generated onshore from toilet block and kitchen facilities is captured in an Ecocycle septic tank system. Wastewater is then transferred into the communal 80,000L storage tank systems at the T-HUB. Treated wastewater from the Envirocycle system is spread onto the grass land on the T-HUB site. As this is a communal system, it is managed by the property Manager, Salmon Tasmania.

Southern Region

The feed barges Huon, Hibbs and Hippolyte each have a 3,700 L black water/grey water tank below deck. The tanks have level sensors and are checked routinely by the on-water maintenance team. The tanks are emptied as required by the feed delivery vessels, which pump the barge tanks out to holding tanks on the feed delivery vessel for transfer back to shore at Port Huon.

Vessels with black water/grey water tanks discharge as required to a holding tank at Port Huon Wharf which is emptied by contractor Veolia.

Storm Bay Region:

The feed barges Hulk and Hogan have 3,100 L tanks and the feed barges Half-Tide and Hope have 3,700 L tanks for holding black water/grey water. The tanks have level sensors and are checked routinely by the on-water maintenance team. The tanks are emptied as required by the feed delivery vessels, which pump the barge tanks out to holding tanks on the feed delivery vessel for transfer back to shore at Port Huon. Several farm vessels have black water/grey water tanks. These tanks are emptied as required by pumping into the sewerage system at Margate Marina, or by decanting into a transfer tank at Gunpowder Jetty, Tinderbox. The transfer tank is then emptied by a Veolia vacuum truck for disposal.

8.2.2 Containment Measures

Table 20 Black and greywater containment measures

Region	Location	Storage Type	Waste Material	Capacity	Duration	Contain	Number Of
Western	Barge - Hammerhead	Tank	Grey Water	5,000 L	6 Months	Sealed, bunded	1
	Barge - Hammerhead	Tank	Black Water	5,000 L	6 Months	Sealed, bunded	1
	Vessel - Samson	Tank	Grey Water	5,000 L	6 Months	Sealed, bunded	1
	Vessel - Samson	Tank	Black Water	5,000 L	6 Months	Sealed, bunded	1
	Shore base	Ecocycle Septic	Black and Grey	5,000 L	Not Spec	Septic Tank	1
	Shore base	Tank	B and G	80,000 L	Not Spec	Sealed	1
Southern	Barge - Huon	Tank	B and G	3, 700 L	4-6 wks	Below	1
	Barge – Hibbs	Tank	B and G	3, 700 L	4-6 wks	Below	1
	Barge - Hippolyte	Tank	B and G	3, 700 L	4-6 wks	Below	1
Storm Bay	Barge – Hulk	Tank	B and G	3, 100 L	4-6 wks	Below	1
	Barge – Hogan	Tank	B and G	3, 100 L	4-6 wks	Below	1
	Barge Half tide	Tank	B and G	3, 700 L	4-6 wks	Below	1
	Barge – Hope	Tank	B and G	3, 700 L	4-6 wks	Below	1
	Vessel – Olivia Joan	Tank	B and G	560 L	4-6 wks	Below	1
	Vessel – Atretis	Tank	B and G	200 L	On demand	Below	1
	Vessel – Vortex	Tank	B and G	200 L	On demand	Below	1
	Vessel – Sadie	Tank	B and G	200 L	On demand	Below	1
	Vessel - Cataphract	Tank	B and G	100 L	On demand	Below	1
	Vessel – Joan M	Tank	B and G	327 L	On demand	Below	1
Central Services	Vessel – Southern Condor	Portable Tank in Lifting Cage	B and G	3,700 L	After each trip	Portable	2
	Vessel – Southern Condor	Tank	B and G	2,000 L	On demand	Below	1
	Vessel – Huon Supply	Tank	B and G	7,000 L	On demand	Below	1
	Vessel – Huon Supply	Tank	B and G	6,460 L	On demand	Below	1
	Vessel – Huon Supply	Tank	B and G	6,460 L	On demand	Below	1

8.2.3 Spill Management

Fully stocked spill kits are available on each vessel and barge. These kits contain booms, soaker pads and containment systems to clean up minor spills or contain larger spills until larger coordinated response can be initiated. Each vessel has a smaller fully stocked kit, while barges have large 120L spill kits with more comprehensive equipment. Large vessels also have larger spill kits on-board. All staff undergo regular spill response training annually, coordinated by site managers.

Huon has not had any recent spill incidents regarding black or grey water and is a minor risk. If the spill is significant, it will be reported to relevant authorities (EPA) in accordance with Environmental Licence conditions and obligations under EMPCA.

Further information is provided below, applicable to each farming region.

Western Region

Both black and greywater stored on marine leases maintained in fully sealed and bunded containment systems minimising the risk of spills to the environment. Tanks are monitored and maintained in a good condition to avoid failures or leaks. Transport vessels with large additional capacity storage tanks are fully bunded and sealed inside the vessel. The volume of wastewater generated by on-water operations is not large with volumes of approximately 5000L every 6 months produced. This large tank capacity requires pumping for disposal only twice a year reducing the likelihood of any potential spills.

Southern Region

Black and greywater tanks stored on marine leases are generally not directly bunded but are contained within the hull of the barge or vessel, minimising the risk of spills to the environment. Tanks are monitored and maintained in a good condition to avoid failures or leaks. Transport vessels within the feed supply are fully bunded and sealed.

Storm Bay Region

Black and greywater tanks stored on marine leases are generally not directly bunded but are contained within the hull of the barge or vessel, minimising the risk of spills to the environment. Tanks are monitored and maintained in a good condition to avoid failures or leaks. Black/Grey water transfer tanks on the feed supply vessels are fully bunded and sealed.

8.2.4 Odour Management

Odour concerns for this waste stream are minimal as the tanks are fully sealed.

Western Region

The T-HUB shore base at Macquarie Harbour is located more than 2.2km away from the nearest sensitive receptor and is 1.8km from the main road, located at the end of a private road with access via a locked gate. The facility is private with access restricted. No odour complaints have been received since the site has been in operation.

Mitigation measures for odour management includes:

- Fully sealed and contained wastewater tanks on vessels including barges
- Large capacity tanks reducing transport and disposal (approximately twice a year)
- Immediate disposal by licensed contractors once onshore
- Commercial Ecocycle system used at the shorebase – reducing odours
- Regular servicing and maintenance of septic and land spreading system by contractors
- Shore base is located at a significant distance from the public and other sensitive receptors

Southeast Region

Black/grey water is held within sealed tanks on the barges and collected into sealed and bunded transfer tanks on the feed supply vessels. Transfer is by pumping with camlock connections to minimise spillage risk resulting in odours.

- Black/grey water tanks on vessels are pumped to a sealed and bunded transfer tank at Hideaway Bay, with camlocked connections to minimise spillage risk and odours.
- Hideaway Bay shore base is approximately 650m from the nearest residence. Port Huon Wharf is approximately 365m from the nearest residence minimising odour issues during transfer.

Storm Bay Region

- Black/grey water tanks on vessels are pumped directly to mains sewage at Margate Marina or to a sealed and bunded transfer tank at Gunpowder Jetty, Tinderbox, with camlocked connections to minimise spillage risk.
- Margate Marina is approximately 220m from the nearest residence, and Gunpowder Jetty is approximately 300m from the nearest residence minimising odour issues during transfer.

No recent odour complaints have been received regarding black and grey water storage or transport. The risk of odours is minimal as wastewater is stored in contained sealed systems.

8.2.5 Vermin Control

Not applicable to this waste stream. All wastewater is in sealed fully contained tank systems.

8.3 Waste Transfer and Disposal

8.3.1 Waste Receiver Destinations, Transportation and Authorisations

Western Region

Grey and black water is collected from the Hammerhead barge every 6 months or as required, by the Huon service vessel (Samson) which has 2 x 5,000L bunded wastewater tanks. The Samson takes the wastewater back to the shore base where the tanks are emptied directly to a contractor's vacuum truck for disposal to the local STP. All black and grey water collection and disposal is by Tassie Waste and is disposed of to TasWater Strahan STP.

Southern Region

Black and grey water storage tanks on the feed barges are emptied as required by the feed delivery vessels, which pump the storage tanks out into holding tanks on the Southern Condor or Huon Supply. These holding tanks have high level alarms and are emptied as required at Port Huon Wharf by pumping out into a Veolia vacuum truck for disposal to a local TasWater STP. Farm vessels with black and grey water holding tanks empty these tanks as required by pumping to a holding tank at Hideaway Bay for collection by Veolia and disposal to a local TasWater STP. All black and grey water collection and disposal is by Veolia and disposed to local TasWater STP's.

Storm Bay Region

Black and grey water storage tanks on the feed barges are emptied as required by the feed delivery vessels, which pump the storage tanks out into holding tanks on the Southern Condor or Huon Supply. These holding tanks have high level alarms and are emptied as required at Port Huon Wharf by pumping out into a Veolia vacuum truck for disposal to a local TasWater STP. Farm vessels with black and grey water holding tanks empty these tanks as required by pumping to the sewage disposal system at Margate Marina. No black water or grey water is discharged or deposited into the environment. All wastewater is fully contained, transported and managed in compliance with Environmental Licence requirements.

8.3.2 Record Keeping

Records and volumes of wastewater (grey and black water) disposed to waste management facilities by licensed contractors is recorded and retained. Huon will comply with all reporting requirements under Environmental Licence conditions – Waste Management (WM1) and Environmental Standards for Tasmanian Marine Finfish Farming 2023 (Division 4 Waste Management Plan).

Records and volumes of wastewater from the T-HUB shore base is not recorded, as wastewater from the T-Hub facilities is managed through the communal septic and land spreading system operated by Salmon Tasmania.

9. Blood water

9.1 Waste Details

9.1.1 Source

Blood water is generated during the harvesting and processing of Atlantic salmon from on-water marine farming operations. Huon operates an onshore harvest system in the Southeast located at Hideaway Bay servicing both Southern and Storm Bay regions. While in Macquarie Harbour a vessel the Captain Bill has been customised for harvesting operations.

Blood water is generated from the humane euthanasia process using mechanical stunners and exsanguination to ensure product quality and animal welfare. Blood mixed with seawater is generated requiring capture and disposal to appropriate waste management facilities.

9.1.2 Scale

Western Region

Approximately 100,000L per annum of blood water is collected from Macquarie Harbour harvest operations depending on harvest schedule and volume. This does not include the blood-water that is transported with the fish to the processing facility.

Southeast Region

Approximately 1,300,000L per annum of blood water is produced from the Hideaway Bay harvest operation for disposal to land spreading. This does not include the blood-water that is transported with the fish to the Parramatta Creek processing facility.

9.1.3 Composition and Classification

Blood water is a broad term referring to the byproduct of Atlantic salmon harvesting operations, which includes a mixture of blood, mucus, scales, organs, flesh, faeces, and water.

9.2 Storage Control

9.2.1 Location, Volume Potential, and Duration Held

Western Region

Huon carries out harvesting using a custom vessel, the Captain Bill, that collects fish from inside the marine pens by crowding and pumping them on board, to an elevated harvesting platform. The harvesting vessel is equipped with stunning devices to humanely dispatch the fish, followed by a

throat cut, to allow the fish to be exsanguinated, which improves the fish quality. The fish are then gravity fed into a tanker on the deck, which contains an ice slurry. This means that most of the fish blood and any residual seawater from the pumping is collected directly into the tanker truck.

The harvest system is designed to catch any splashes of blood and associated material for collection in a 10,000 litre bunded tank located on the deck. The harvest vessel captures all blood water generated from harvesting, no blood water is directly discharged into the environment.

After the harvest is completed, the vessel returns to the Strahan T-HUB, and the tankers are driven off the vessel and depart to the processing plant at Parramatta Creek Processing Facility. Almost all the blood water is transported with the fish to the processing plant. The harvest system is then cleaned using hot pressure washers and cleaning and sanitising chemicals (Aqua Foam Chloroclean and Aqua San Quat), with the resultant wash-down liquid also being collected in the 10,000-litre tank on deck. The 10,000-litre tank is pumped out as required (1-2 times a week during harvest operations) through an underground line to two 25,000L bunded tanks on shore at the THUB. The onshore tanks are emptied every 1-2 weeks as required during harvest operations using a vacuum truck operated by Spectran and disposed of to the Oatlands ensiler for end use as land spreading. Harvesting typically occurs over a month-long period each year, however, is dependent on commercial plans and logistical considerations.

Blood water that is contained within the harvest tankers is separated from the fish on entry to the processing line at Parramatta Creek and stored temporarily on site before collection by De Bruyns Transport tanker for disposal at the TasWater Sewage Treatment Plant at Pardoe, East Devonport.

The Huon harvest vessel "Captain Bill" takes the blood water back to the shore base where it is transferred to two 25,000L storage holding tanks. Approved contractor Spectran pumps the blood water from the storage tanks into a 22,000-litre tanker and transports it for disposal to approved land spreading sites in the Oatlands area. This occurs weekly during the harvest period.

Southeast

Harvesting for all of Huon's fish from the Southern Region and Storm Bay Region farms is carried out onshore at the Hideaway Bay shore base harvest system. Harvest fish are transported in the well boats Ronja Storm and Ronja Huon from the marine farms back to holding pens at Hideaway Bay where they are rested before harvest. During the harvest operation the fish are pumped from the holding pens to an onshore harvesting system in an elevated container, where they are humanely despatched using a pneumatic stunning system, which also exsanguinates the fish before they are transferred by gravity into a fish tanker containing an ice-slurry.

Blood water being captured in the harvest container, from where it is pumped to a holding tank inside the bunded area around the Hideaway ensiler operation. During the clean down of the harvesting system, additional blood water is generated which is collected by the bunding system in the harvest container and held temporarily in bunded storage tanks beside the harvest container then pumped to a holding tank inside the bunded ensiler area. No blood water is directly discharged

or deposited into the marine environment. The holding tank is pumped out into a Spectran tanker as required and transported to Oatlands for disposal by land spreading.

The tankers carrying the harvested fish from Hideaway Bay to Parramatta Creek also contain residual blood water which is separated from the fish on entry to the processing line at Parramatta Creek and handled as per the blood water from Macquarie Harbour harvests (see above).

Blood water is pumped into a 22,000L or 28,000L Spectran tanker from the storage tank within the ensiler bunded area at Hideaway Bay and transported to Oatlands for land spreading. Camlock hoses are used for all transfers, minimising the risk of any spills (also applicable to Western Region).

9.2.2 Containment Measures

Western Region

Table 21 Blood water containment measures - Western Region

Location	Storage Type	Material	Capacity of Storage	Duration	Containment Measures	Number of
Vessel "Captain Bill"	Bunded tank	Blood water	10,000L	24-48 hours	Sealed bunded	1
T-Hub	Tank	Blood water	25,000L	Weekly	Sealed bunded	2

Southeast Region

Table 22 Blood water containment measures - Southern Region

Location	Storage Type	Material	Capacity of Storage	Duration	Containment Measures	Number of
Harvest System – Hideaway Bay	Tank	Blood water	2,000L	3 hours	Sealed	1
Storage tank within ensiler bund at Hideaway Bay	Bunded tank - Silage	Blood water and ensiled fish	24,000L	12 -24hrs	Tank contained within bunded area	1

Storm Bay

Not applicable – no harvest operations are undertaken at this region.

9.2.3 Spill Management

Western Region

Most of the blood water generated from on-water harvesting operations is directed immediately to the harvest tankers which transport the fish to the processing plant. Any residual blood water from the cleaning of the harvesting system is fully contained within the harvest room on the harvest vessel and stored in fully sealed and bunded 10,000 litre tank to minimise the risk of spills to the environment. On arrival at the T-HUB shore base the onboard blood water tank is pumped out to two 25,000L bunded blood water tanks on shore. Camlock hose connections are used to minimise the risk of spillage. Blood water tanks and hoses are monitored and maintained in a good condition to avoid failures or leaks. The storage tanks are large capacity tanks and regularly pumped during the harvest period to ensure sufficient capacity is available.

Harvesting only occurs during a month-long period every year. The two large onshore tanks only require contractors to dispose of the blood water once a week during harvest season reducing the likelihood of any potential spills. Spill containment materials are readily available on-site to contain any blood water spill were it to occur.

Southeast

The blood water generated from the onshore harvest system at Hideaway Bay is either contained within the harvest tanker or is collected within the bunded area of the harvest container (including wash-down). Blood water is directed to a 2,000L holding tank underneath the harvest container, from where it is pumped to the larger holding tank within the ensiler bunded area. It is then held until it is pumped out into the Spectran tanker. Camlock hose connections are used to minimise the risk of spillage. Blood water tanks and hoses are monitored and maintained in a good condition to avoid failures or leaks. Spill containment materials are readily available on-site to contain any blood water spill were it to occur.

Huon has not had any recent spill incidents regarding blood water and is a minor risk (also applicable to Western Region). If the spill is significant, it will be reported to relevant authorities (EPA) in accordance with Environmental Licence conditions and obligations under EMPCA.

9.2.4 Odour management

Odour concerns for this waste stream are minimal.

Mitigation measures for odour management include:

- Sealed storage tank on the harvest vessel in Western Region and onshore harvest system at Hideaway Bay
- Harvest systems at Western Region and Southern Region designed to capture of all blood water from harvest operations with no discharge to the environment

- Sealed and bunded onshore storage tanks
- Regular disposal of blood water
- Shore bases located at a distance from the public and other sensitive receptors
- Vehicles used for transporting blood water are fully enclosed, ensuring that odours are confined and not released into the surrounding environment during transport. This minimises the risk of odour nuisance, particularly in populated or sensitive areas.

9.2.5 Vermin control

Vermin, such as rodents, insects, and birds, are not a significant problem for this waste stream. Vermin will only become an issue if blood-water is not adequately cleaned from the harvest vessel or harvest container following harvest operations. All blood water is kept in sealed and bunded tanks, preventing access from vermin.

Huon implements the following vermin control and mitigation measures:

- Fully sealed containment systems
- Adequate cleaning between harvest operations
- Bunded systems to prevent spills
- Traps and bait stations are deployed across the site and maintained by licensed pest control agents
- Maintaining site cleanliness

9.3 Waste Transfer and Disposal

9.3.1 Waste Receiver Destinations, Transportation and Authorisations

Blood water transport and disposal to the land spreading operations at Oatlands is managed via Spectran, EPN 11747/1

No blood water discharge or deposition into the environment occurs during harvest operations. All blood water is fully contained, treated, and managed in compliance with Environmental Licence and Biosecurity requirements.

9.3.2 Record Keeping

Monthly records and volumes of blood water disposed to waste management facilities by licensed contractors is retained. All reporting obligations adhere to Environmental Licence conditions.

10. Fish bathing water (freshwater)

This is not applicable to Western Region operations as freshwater bathing does not occur there. All freshwater bathing operations take place in the Southeast Region.

10.1 Waste Details

10.1.1 Source

Southeast

Salmon in the SE Biosecurity Zone are regularly bathed in freshwater to control amoebic gill disease (AGD) caused by the parasite *Neoparamoeba perurans*. Freshwater baths for controlling AGD is a major operational requirement for Huon.

Huon adopts a proactive strategy to AGD bathing which aims for fish to be bathed at low levels of gill disease. This not only minimises the stress in fish associated with the bath process, but it also minimises the productivity losses to the disease (i.e. mortality and growth). If AGD is managed proactively, mortality associated with the disease is minimal, however, the resources required for bathing are significant.

Freshwater is collected from onshore dams and associated water fill stations at Roaring Beach (MF221), Flathead Bay (MF87) and Hideaway Bay (MF93). Huon also has a water fill station at the Whale Point / Port Huon shore base which utilises river water from the Kermandie River and treated re-use water from the Whale Point nursery.

The water collected comes from dams or from the mouth of rivers before freshwater mixes with sea water. This reduces the environmental or social impact of our use of freshwater. Huon also has the capacity to generate its own freshwater through the reverse osmosis (RO) plant located on the Ronja Storm. All freshwater is transported to the marine farming leases via the wells in the well boat for use in bating.

After the fish are bathed, they are pumped back to the seawater pen, with the freshwater being retained to bathe more fish. The freshwater can be replenished from a make-up tank or from the reverse osmosis plant (RO). Water quality is monitored throughout each bath cycle. After several uses, if key parameters such as pH, salinity, ammonia, un-ionised ammonia, or CO_2 fall outside acceptable limits, the water is discharged before the vessel returns to the freshwater refill site to take on more water.

Discharge of used bathing water occurs on the marine lease where the final bath is completed, and any potential impact is therefore subject to regular Broadscale Environmental Monitoring Program (BEMP) surveys under requirements from the Environmental Licence.

10.1.2 Scale

Table 23 Fish bathing water volume and usage

Vessel	Storage Volume	2024 Freshwater Usage (Megaliters -ML)
Ronja Storm	7,450 m^3	1638.9 Megaliters (ML)
Ronja Huon	3,000 m^3	

10.1.3 Composition and Classification

Table 24 Fish bathing water composition and classification

Location	Percentile	Salinity ppt	CO_2 mg/l	pH	Ammonia mg/l	Unionized Ammonia mg/l
Ronja Storm	50th % ile	1.11	14.29	7.01	0.16	0.0007
7.7ML Discharge	80th % ile	1.44	18.4	7.25	0.52	0.0031
Ronja Huon	50th % ile	0.33	18.5	6.9	0.143	0.0006
3.3ML Discharge	80th % ile	0.64	22.9	7.19	0.304	0.0015

10.2 Storage Control

10.2.1 Location, Volume Potential, and Duration Held

The *Ronja Storm* is 116 meters in length, with the capacity to bathe an entire 240-meter Fortress Pen, or two 168-meter circumference pens in its 7,450 m^3 capacity tanks. The *Ronja Storm* has four wells to transfer and bathe fish and is a highly sophisticated and contemporary vessel that has an inbuilt water cooling and control system for strengthened monitoring and environmental control. Freshwater is pumped on-board the vessel from water transfer stations located in the Huon River stored in holding dams and pen liners. The vessel also has an on-board desalination plant capable of producing freshwater for bathing.

The smaller *Ronja Huon*, is Huon's original well boat and is used to bathe 168 m pens and lower biomass 240m pens. The *Ronja Huon* has a capacity of 3,000 m^3 and has been used since 2015.

Fish are bathed by mooring the well boats alongside a stocked pen. The fish are crowded within the pen using nets and floating crowd pipes. Fish are pumped onboard the well boat into the freshwater wells and bathed for approximately two hours before being returned directly back into the pen or transferred to another pen. The freshwater inside the wells can be re-used multiple times before being treated and discharged to sea. Fish are typically bathed every 30 days,

however, this can be brought forward or delayed depending on operational requirements, fish health, and weather. Each bathing transaction uses approximately 2ML of freshwater.

Water quality is monitored continuously, and inspections are undertaken after six transactions of cargo and reviewed by the Master of the vessel. Water is also replaced when the cumulative biomass cap of 2880 tonnes is reached or as required.

10.2.2 Containment Measures

Contained within bathing wells onboard the well boats – *Ronja Storm* and *Ronja Huon*.

- Ronja Storm: 7,450 m3 capacity tanks
- Ronja Huon 3,000 m^3 capacity tanks

10.2.3 Spill Management

The release of bathing water and hypersaline brine (generated from RO plant) from well boat operations occurs at reliable distances offshore, where there are no visual receptors such as coastal residences, recreational areas, or public viewpoints. As a result, any aesthetic effects are considered negligible. Natural mixing processes rapidly attenuate any formation of visible plumes. The visual differences are minor and localized, typically dissipating within tens of meters from the discharge point, making them undetectable to the human eye from shore or nearby vessels. Environmental monitoring and hydrodynamic modelling consistently show that these effects are minimal and short-lived. The operations comply with relevant environmental discharge standards and best practice guidelines, ensuring that both ecological and aesthetic risks are effectively managed.

10.2.4 Odour Management

Odour concerns are not a concern to freshwater bathing operations.

10.2.5 Vermin Control

Vermin concerns are not applicable to freshwater bathing operations.

10.3 Waste Transfer and Disposal

10.3.1 Waste Receiver Destinations, Transportation, and Authorisations

Direct discharge of used freshwater from the well boats to the marine environment from designated discharge locations. Locations include:

- Southern Region – Huon Island
- Storm Bay – outside lease area

10.3.2 Record Keeping

Huon retains records of the monthly usage of freshwater used across marine farming operations for bathing. Records include the amount (ML), location and origin.

11. Effluent from reverse osmosis (RO) plants

11.1 Waste Details

11.1.1 Source

Freshwater bathing is not conducted in Western Region operations; therefore, this section is not applicable to that area.

The well boat *Ronja Storm* is equipped with a Reverse Osmosis (RO) plant that enables the production of freshwater from seawater. The RO plant works through a process of reverse osmosis (water purification technology). The plant uses a semi-permeable membrane at high pressure to separate the salt and natural minerals from seawater to turn it into freshwater.

This capability allows more fish to be bathed per fill and reduces the frequency with which the vessel must return to a fill station to replenish freshwater supplies. The RO process generates a hypersaline waste stream, which is discharged directly into the marine environment during operation.

The RO plant on *Ronja Storm* has a production capacity of approximately 625 m³/hour of freshwater, and concurrently discharges around 700 m³/hour of hypersaline brine with a salinity of 65 ppt. A second well boat, *Ronja Huon*, is expected to have its RO plant commissioned in October 2025. Once operational, it will produce approximately 125 m³/hour of freshwater and discharge around 140 m³/hour of hypersaline brine at 65 ppt.

The discharge of hypersaline brine occurs continuously while the RO plants are operating during bathing procedures.

11.1.2 Scale

Table 25 Effluent from reverse osmosis (RO) plants waste details and scale

Vessel	Freshwater Production Capability	Hypersaline Brine Discharge	Concentration (ppt)
Ronja Storm	625 m³/hour	700 m³/hour	65ppt
Ronja Huon	125 m³/hour	140 m³/hour	65ppt

11.1.3 Composition and Classification

Freshwater and hypersaline brine (65 ppt).

11.2 Storage Control

11.2.1 Location, Volume Potential, and Duration Held

Direct discharge of hypersaline brine from the well boat RO plant to the marine environment. Hypersaline brine is not retained or stored on the vessel.

11.2.2 Containment Measures

Freshwater contained within bathing wells onboard the well boats – *Ronja Storm* and *Ronja Huon*.

- Ronja Storm: 7,450 m^3 capacity tanks
- Ronja Huon 3,000 m^3 capacity tanks

11.2.3 Spill Management

Refer to Section 10.2.3.

11.2.4 Odour Management

Odour concerns are not a concern to freshwater bathing operations.

11.2.5 Vermin Control

Vermin concerns are not applicable to freshwater bathing operations.

11.3 Waste Transfer and Disposal

11.3.1 Waste Receiver Destinations, Transportation, and Authorisations

Direct discharge of hypersaline brine from the well boats to the marine environment. No designated discharge locations.

11.3.2 Record Keeping

No current recording of hypersaline brine discharge. Records will be kept on RO freshwater generation and hypersaline discharge as required to comply with EL WM1 conditions.

12. Vessel biosecurity washdown (disinfectants/chemicals)

12.1 Waste Details

12.1.1 Source

Virkon Aquatic is the primary chemical used for site biosecurity and is used for a wide range of cleaning and disinfection purposes including vehicle washing. Virkon is a very potent disinfectant however has a very low toxicity to other non-target aquatic organisms, domestic animals and humans. Virkon does not produce any vapour, degrades rapidly, is non-residual, and does not contain any component that can be a product health hazard issue.

It is therefore safe to use routinely as an all-purpose sanitizer/disinfectant and as a biosecurity tool without putting at risk farmed animals, workers, or the surrounding natural environment. Virkon is used to clean and disinfect marine farming equipment, vessels, vehicles and clothing and footwear.

Virkon typically comes in powder form and requires mixing with water. As a general guide, Virkon should be used at a concentration of 0.5-1% solution (i.e. 1:100-1:200 dilution rate) for surface disinfection with 10-15 minutes' contact time. Below are specific dosages to be used for various disinfection and sanitation applications.

12.1.2 Scale

Table 26 Vessel biosecurity washdown (disinfectants/chemicals) scale and waste details

Location	Volume (kg)
Western	400kg
Southern	940kg
Storm Bay	480kg
Central Services	40kg

12.1.3 Composition and Classification

Virkon works primarily by oxidizing proteins and other components of cell protoplasm, resulting in inhibition of enzyme systems and loss of cell wall integrity. It is based around potassium monopersulphate (an oxidizing agent) but also generates several other biocides in-situ. The key components in this generation are potassium monopersulphate (KMPS), sodium chloride, and sulphamic acid. Dissolved in water, the KMPS reacts with the sodium chloride to generate chlorine.

The chlorine is stabilised and held in solution by it reacting with sulphamic acid to form an intermediate complex. This complex then reacts with water to generate hypochlorous acid. Hypochlorous acid breaks down to produce chloride, which can then react again with KMPS. The reaction is thus cyclic. The key biocides present are the KMPS itself, chlorine and hypochlorous acid.

The secondary biocides are the organic acids (sulphamic and malic) and the sulphamic acid adduct with chlorine.

12.2 Storage Control

12.2.1 Location, Volume Potential, and Duration Held

Refer to Section 12.2.2.

12.2.2 Containment Measures

Western Region

Table 27 Vessel biosecurity washdown (disinfectants/chemicals) containment measures – Western Region

Location	Storage Type	Material	Volume	Duration	Containment Measures	Number #
Onshore	Chemical container	Virkon	~100kg	Quarterly	Sealed bunded	1
Vessels	Chemical cabinet	Virkon	~20kg	Weekly	Sealed bunded	1
Barge	Chemical cabinet	Virkon	~20kg	Weekly	Sealed bunded	1

Southern Region

Table 28 Vessel biosecurity washdown (disinfectants/chemicals) containment measures – Southern Region

Location	Storage Type	Material	Volume	Duration	Containment Measures	Number #
Onshore	Chemical container	Virkon	~1200kg	Quarterly	Sealed bunded	1
Vessels	Chemical cabinet	Virkon	~10kg	Weekly	Sealed	3
Barge	Chemical cabinet	Virkon	~10kg	Weekly	Sealed bunded	1

Storm Bay Region

Table 29 Vessel biosecurity washdown (disinfectants/chemicals) containment measures – Storm Bay

Location	Storage Type	Material	Volume	Duration	Containment Measures	Number #
Onshore	Chemical container	Virkon	~100kg	Quarterly	Sealed bunded	1
Vessels	Chemical cabinet	Virkon	~20kg	Weekly	Sealed bunded	1

Barge	Chemical cabinet	Virkon	~20kg	Weekly	Sealed bunded	1

12.2.3 Spill Management

Virkon is not transported in large quantities, with containers holding only 10kg of powder. Virkon comes in sealed plastic tubs with internal plastic wrapping and is stored in chemical containers and cabinets located at the shore bases, barges and on vessels which are fully bunded.

If powder is spilled, it may be cleaned using dustpan and broom. Residual powder may be washed using water to dilute the powder.

12.2.4 Odour Management

Not applicable for this waste type. Virkon has a minor odour which quickly disperses and cannot be detected more than 10 meters away.

12.2.5 Vermin Control

Virkon powder is sealed in plastic tubs and stored within chemical containers and cabinets. Vermin are not a significant problem for this product and highly unlikely to interact with the product.

12.3 Waste Transfer and Disposal

12.3.1 Waste Receiver Destinations, Transportation, and Authorisations

Virkon powder is transported to site in sealed plastic 10kg tubs in powder form and stored in a cool, dry place out of direct sunlight. Virkon is mixed with water to make a liquid form for cleaning and disinfection. In the rare event Virkon powder becomes expired, Huon would contract an appropriate licenced waste management provider (such as Spectran or Veolia) to retrieve the expired chemicals and send them to the appropriate chemical disposal facility

Virkon quickly degrades within the environment, causing as little disruption to the environment as possible. It is non-residual, breaks down in response to water, organics and UV light and does not contain any component that is a health hazard issue. The ingredients are carefully selected for their ability to degrade quickly, making it suitable for use in aquaculture environments. Intended destination of the product includes:

- On water operations – dissipates into the marine environment
- On shore operations – water dilution and dissipation into the environment

12.3.2 Record Keeping

Records of Virkon quantities purchased are available through purchase and chemical records. However, daily usage and quantities of Virkon and other disinfectants are not tracked, with only

records of powdered Virkon being retained, as mixed product is not captured and disposed of into the environment.