



PETUNA AQUACULTURE PTY LTD

WASTE MANAGEMENT PLAN

Marine Operations

Petuna[™]
AQUACULTURE

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1 Introduction

Petuna is a vertically integrated aquaculture company specialising in the responsible farming of Atlantic salmon (*Salmo salar*) and ocean trout (*Oncorhynchus mykiss*) in Tasmania. With marine farming operations in Macquarie Harbour and the Tamar Estuary, supported by a freshwater hatchery in Cressy and a processing facility in East Devonport, Petuna is committed to operating with integrity, environmental responsibility, and a culture of continuous improvement

This Marine Site Waste Management Plan (**WMP**) outlines the systems, responsibilities, and procedures in place to manage the waste generated across all stages of Petuna's marine finfish aquaculture operational sites. It is designed to ensure compliance with environmental legislation and lease/licence conditions, including the *Environmental Standards for Tasmanian Marine Finfish Farming 2023*, *Living Marine Resources Management Act 1995*, *Environmental Management and Pollution Control Act 1994* (**EMPCA**), the *Work Health and Safety Act 2012* (**Tas**) and relevant Environment Protection Notices (**EPNs**) issued by the Environment Protection Authority Tasmania (**EPA**), and demonstrate best-practice sustainability and waste management solutions. The WMP also aligns with industry standards such as Best Aquaculture Practices (**BAP**) and supports the company's commitments under third-party sustainability certification schemes.

This plan reflects Petuna's broader sustainability strategy and our focus on responsible resource use, circularity, and minimising environmental impact. By embedding best-practice waste management into daily operations, we seek to improve environmental performance, reduce landfill dependency, and identify opportunities for waste-to-value transformation, including product recovery from offcuts, organic waste, and other by-products.

Petuna recognises and respects the expectations of communities, customers, regulators, and industry stakeholders. Transparent waste management practices are integral to maintaining our social licence and contributing to Tasmania's clean, green reputation. We show our commitment by living our values every day, championing innovation, prioritising safety, and collaborating across the business to manage our environmental impact.

All Petuna marine staff are trained annually on the contents on this plan, including awareness around all waste disposal systems and Petuna's legislative obligations.

Scope

This plan applies to all waste streams associated with Petuna's marine farm operations in Tasmania. It includes the management of:

- Organic waste: fish mortalities, blood water, waste fish feed.
- Operational waste: net cleaning residue, biofouling materials, mooring debris.

- General waste: plastics, PPE, office waste.
- Hazardous waste: oils, chemicals, batteries, spill materials; and
- Polystyrene and marine debris: including discontinued floatation materials and external waste retrieved at sea.

This WMP is integrated with Petuna’s broader environmental management and works alongside our Standard Operating Procedures (**SOPs**), biosecurity protocols, and incident response procedures. Responsibilities for each waste stream are assigned to specific operational teams to ensure accountability until end of life.

Petuna is actively collaborating with industry partners and our peak body, Salmon Tasmania and the Fisheries Research and Development Corporation, to coordinate waste management initiatives. This collaboration involves regular meetings and dedicated workshops, aimed at developing a comprehensive, industry-wide Waste Management Plan with an expanded scope including mass mortality events. **Principles and Review**

The plan is guided by the waste hierarchy: prioritising avoidance, followed by reduction, reuse, recycling, repair/recover (including energy recovery), treatment, and, only as a last resort, disposal. Petuna also aims to maximise opportunities for beneficial reuse of waste, bioproducts and by-products, including through partnerships in rendering, fertiliser production, and marine bioproducts research.



Figure 1 Waste hierarchy pyramid.

This WMP is a live document. It will be reviewed annually, or in response to any major regulatory, operational, or environmental changes, and updated to reflect emerging risks, stakeholder expectations, and opportunities for innovation.

Petuna will act in accordance with the approved WMP and will resubmit an updated plan for approval if the annual review identifies any changes.

2 Relevant Legislation, Regulations and Certifications

Petuna's waste management practices are governed by a range of Tasmanian and Commonwealth laws, regulations, and environmental licence conditions.

Compliance with these instruments is mandatory and applies to all personnel, contractors, and activities undertaken across Petuna's marine and land-based operations.

Environmental Management and Pollution Control Act 1994 (EMPCA)

Under EMPCA, any person who causes material environmental harm by polluting the environment may be found guilty of an offence. This means that both Petuna as a company, and individual employees, may be held liable if waste is intentionally or recklessly discharged to the environment, including waterways.

The Act prohibits the release of garbage such as plastics (e.g. garbage bags, ropes, and piping), fibreglass, cigarette filters, and oils outside of designated facilities or landfill. Waste must be appropriately contained, transported, and disposed of in accordance with licence conditions and approved methods.

Environmental Management and Pollution Control (Waste Management) Regulations 2020

Petuna ensures all controlled and general waste is managed in accordance with regulatory approvals, including the reuse, recycling, and responsible disposal of by-products from aquaculture operations, including mortality.

Environmental Standards for Tasmanian Marine Finfish Farming 2023

Petuna is required to develop and implement a WMP, this plan, that addresses all waste streams generated during farming operations. This includes the prohibition of releasing blackwater and blood water into the marine environment, with disposal only permitted at approved facilities. Dead fish must be promptly removed, recorded, and reported as controlled waste due to their potential environmental risk. These measures ensure waste is managed to minimise environmental harm and comply with licence conditions.

Living Marine Resources Management Act 1995

This Act establishes the legal framework for marine farming in Tasmania. It sets out the conditions under which marine farming licences and leases are granted, including environmental management obligations. Petuna is required to comply with all relevant licence conditions relating to waste, emissions, and site maintenance.

Tasmanian Litter Act 2007

This legislation prohibits the deposit of litter in public places except in appropriately designated receptacles. Petuna is required to provide and maintain adequate waste receptacles across its sites and vessels, ensuring they are clearly marked, appropriately located, and emptied frequently to avoid overflow and mitigate against any environmental risk.

Work Health and Safety Act 2012

As a Person Conducting a Business or Undertaking (**PCBU**), Petuna must ensure, so far as is reasonably practicable, that workers and other persons are not put at risk from work activities, including those related to waste. This includes providing for the safe use, handling, and storage of substances and ensuring that all staff are trained in the appropriate use of personal protective equipment (**PPE**). Workers also have a duty to take reasonable care of their own health and safety and that of others, and to comply with waste handling instructions and safety procedures.

Biosecurity Act 2019 (Tas)

Where applicable, Petuna is also subject to the *Biosecurity Act 2019 (Tas)*, which places a general biosecurity duty on all individuals and entities to prevent, minimise, or eliminate biosecurity risks. The improper handling or disposal of fish wastes e.g. mortalities, contaminated water, which could pose a biosecurity hazard and must be managed in accordance with this Act and Petuna's biosecurity protocols.

Environmental Licences and Notices

In addition to statutory obligations, Petuna operates under environmental protection notices (**EPNs**) and site-specific environmental licences (**ELs**) issued by the EPA Tasmania. These instruments set enforceable conditions on waste discharge, monitoring, reporting, and corrective actions. Any non-compliance may result in penalties, remediation orders, or the suspension of operations.

Petuna must only engage contractors with appropriate authorisations for the removal, transport and disposal of waste, particularly controlled such as mortalities, wastewater sludge, and other materials regulated under environmental law.

Industry Certifications

Petuna holds Best Aquaculture Practices (**BAP**) certification and complies with both mandatory and voluntary standards, including Hazard Analysis and Critical Control Points (**HACCP**), SEDEX Members Ethical Trade Audit (**SMETA**), and the Australian Packaging Covenant Organisation (**APCO**).

These certifications and frameworks set clear expectations for waste management, traceability, ethical sourcing, packaging stewardship, and environmental performance.

Compliance supports access to key markets, strengthens customer and retailer confidence, and reflects Petuna's commitment to responsible, high-quality production.

Registered Providers

This plan contains several references to "Registered Providers" involved in managing our waste streams. For Petuna, a Registered Provider for waste transport refers to a person or business officially authorised by the EPA Tasmania to transport controlled waste in accordance with the *Environmental Management and Pollution Control (Waste Management) Regulations 2020*.

3 Waste Types and Sources

Effective waste management is central to Petuna's environmental stewardship and regulatory compliance.

Our marine farming operations generate a range of waste streams, each requiring tailored handling, containment, and disposal practices to prevent harm to the environment and ensure operational integrity.

This section outlines the primary waste types produced at Petuna's marine sites, including organic, chemical, sanitary, and operational wastes, and describes the systems in place to manage these materials responsibly in accordance with licence conditions, industry standards, and our commitment to continuous improvement.

3.1 Feed Waste

Minimising feed waste is important for improving farm efficiency, reducing environmental load, and controlling input costs. To address this, Petuna is committed to maximising feed utilisation across its sites by constantly monitoring its Feed Conversion Ratio (**FCR**) and reducing fish waste through working closely with feed suppliers searching for higher quality, more digestible feed ingredients.

Petuna also uses modern feed camera technology that allows real-time pellet detection, enabling operators to monitor feeding behaviour closely and adjust feed rates immediately to minimise overfeeding and reduce waste at the source. If fish are not actively feeding, the system allows feeding to be halted immediately, preventing unnecessary waste.

Petuna's approach also includes:

- Using high-quality feed ingredients that enhance digestibility and reduce waste.
- Trialling algal oil as a partial replacement for wild-caught fish oil, reducing reliance on marine resources.
- Striving for a Fish-In-Fish-Out (**FIFO**) ratio below one, ensuring more seafood is produced than consumed in feed ingredients.
- Feed batches allow traceability procedures, ensuring effective recall at critical control points.
- All feed should be loaded, transported, unloaded and stored in supplier approved bags or storage containers.
- Feed is to be stored onsite in designated areas with sufficient weather protection.
- All feed receptions, daily feed amounts, and end of month stocktake are entered into our production management system.

- Feed storage areas must have adequate pest management further detailed in section 8 of this plan.
- If a feed spill occurs on site, alongside feed barges or at a land-based farm cage system any feed that can be recovered should be the priority. Any feed that cannot be recovered or is contaminated must be cleaned up and is not of a significant volume (<20kg) can be placed into the mortality skip bins for organised disposal.
- Although feed spills occur very rarely, volumes are typically low (<5kg). In the event of a major spill of more than 20kg, the Tasmanian EPA and NRE Aquaculture Branch to be contacted immediately to report a spill.
- Feed spill kits are located at the main storage facilities, transfer vessels and barges to ensure a rapid response to any spills.
- Feed bags must be completely empty before being compacted into bales and stored in designated area for pick up to be recycled.

While diets are adjusted according to species, size, and seasonal factors, the following table outlines a typical composition:

Ingredient Category	Specific Ingredients	Approximate Inclusion
Marine Protein	Fish Meal	10%
Land Animal Protein	Poultry meal, feather meal, blood meal	23%
Vegetable Protein	Wheat gluten, faba bean, lupin, soy products	21%
Oils & Fats	Poultry oil, fish oil, canola oil	28%
Carbohydrates	Wheat	11%
Technical & Additives	Vitamins, minerals, pigments, binders	7%

3.2 Medicated Feed

Medicated feed requires strict controls due to its classification as a controlled waste and its potential regulatory and environmental implications. While not routinely used in Petuna’s operations, it may be required under specific veterinary guidance for short periods. When this occurs, additional safeguards are implemented across storage, handling, traceability, and disposal to ensure compliance with all relevant conditions and to prevent off-target impacts.

The following procedures outline how medicated feed is managed on site.

- Waste medicated feed is a controlled waste and must be strictly managed.
- Disposal of any unused medicated feed can only be done with the approval of the EPA Director, in consultation with the CVO and Petuna's Veterinary Officer. Disposal must only occur at an approved facility.
- Composition of Medicated feed will be controlled by Petuna's Veterinary Officer.
- All medicated feed must be clearly labelled during use, including specific traceability and batch numbers.
- Medicated feed will be stored in a dedicated area that is clearly signed and allows for separation of medicated feed.
- Any feed stored at land-base or in barge silos will be clearly labelled with highly visible signage, including a readily available SDS for handling of the product.
- Any medicated feed would be sourced through our major feed supplier, under direction of Petuna's Veterinary Officer, and ultimately pending approval of the Tasmanian Chief Veterinary Officer (**CVO**).
- Therapeutant is to be added by the feed manufacturer. The feed manufacturer will manage the disposal of packaging.
- To prevent any feed being deposited on the lease, the Veterinary Officer and Feed Manager will oversee the entire process, including ensuring the stock have a reasonable level of appetite prior to feeding, setting strict rations, strict consumption monitoring, environmental cut-offs and confirming all feed equipment is checked for optimal feedback.
- Medicated feed packaging would be treated in line with normal feed packaging management, however, would be identified and stored separately. The decision on how the bags are disposed will be determined based on condition and likely contamination of the bags. This process will also involve consultation with the recycling operator, and relevant authorities.

3.3 Fish Mortalities

As a livestock producer, Petuna recognises that mortalities are an inherent aspect of aquaculture operations. While every effort is made to maintain optimal animal health and welfare through proactive husbandry, biosecurity, and environmental management practices, some level of mortality is unavoidable.

Operational mortalities are managed in accordance with regulatory requirements and company procedures to ensure biosecurity, environmentally responsible handling and disposal. Mortalities are collected, recorded, and removed from site promptly to minimise biosecurity risks and environmental impact, with final disposal undertaken through approved methods such as ensiling and land application consistent with relevant EPA and NRE guidelines.

Any fish mortalities are a controlled waste and must be managed as such. The collection of fish mortalities from marine sites must be performed in line with Petuna site specific SOPs. Disposal must be undertaken by an approved contractor at a registered and approved facility.

- Both Strahan and Rowella utilise air-lift systems which is an innovative solution for removing mortalities in aquaculture.
- This system uses compressed air to lift mortalities from the bottom of pens and cage systems to the surface for removal, reducing disease spread and improving farm hygiene. Divers are used frequently to validate efficacy of airlifts.
- It is a Petuna requirement for each site to remove mortalities at the highest frequency possible to prevent decomposed fish and resultant oil entering the waterway. In the instance of higher levels of mortality, extra vessel resource will be dedicated ensuring all pens can be pumped on an as-needs basis. Dedicated dive and Remotely Operated Vehicle (**ROV**) teams check pens routinely to ensure the efficacy of the air-lift systems.
- Daily mortality removal is only delayed in the event of severe weather, where safety risks prevent access to pens.
- Both of Petuna's marine sites own multiple compressors to facilitate the process of air lifts efficiently, so more than one pen can be processed simultaneously
- Once lifted to the surface, mortalities are de-watered and transferred into tote bins designated exclusively for this purpose. Where higher levels of decomposition are anticipated, the de-watering process is adjusted to capture material greater than 30mm in size. If decomposition is advanced and material is fragmenting, oyster mesh may be applied to reduce the aperture of the de-watering unit, ensuring finer particles are effectively retained.
- Once complete, these bins are transported to the shore base to be emptied into the designated mortality skip bin located at specific locations on the land base.
- The lid on the mort skip bin must be closed securely after each deposit is made.
- Once a skip bin approaches capacity (>80%), or is likely to be full within 24 hours, the site's Operations Manager, or designated person, is notified that collection is required and contacts the authorised waste transporter.
- During periods of very low mortality, smaller bins can be used to ensure an acceptable frequency of removal from site is maintained.
- The skip bin is then collected and transported to a registered rendering, ensilage, composting or landfill site for disposal.
- In the instance of rendering, fish waste will remain in designated tote bins, stored in a refrigerated container prior to being transported to a registered rendering facility. This process will align with internal procedure. Details of Petuna's specific waste destinations are outlined in (**section 5**).

Petuna issues mortality notifications in accordance with Section G8(3) of its Environmental Licences. The company maintains detailed records for all mortality removals, including the date of removal, pen identification, number of fish, total biomass, and, where known, the suspected or confirmed cause of mortality. These records support compliance obligations and assist with operational and environmental performance monitoring.

3.4 Fish Mortality Odour Control

Odour from decomposing fish mortality waste is caused by the release of volatile organic compounds during breakdown. These odours can become strong and offensive if not properly managed.

To minimise the risk of odour generation, the following control measures must be implemented:

- All mortality storage containers must be fitted with secure, sealable lids to prevent the escape of odours.
- Containers should be stored in shaded, well-ventilated areas wherever practicable.
- Collection frequency must be increased during periods of elevated mortality or warmer conditions, when decomposition rates are likely to accelerate.

These measures help ensure a safe, compliant, and low impact working environment.

3.5 Mortality Management - Thresholds and Seasonal Variation

Under standard operational conditions, Petuna maintains mortality levels within expected biological parameters and below the defined threshold for reportable Mortality Events, as specified under Environmental Licence conditions and the Aquaculture Environmental Management and Monitoring Program (**AEMMP**). Continuous mortality tracking is embedded within daily production reporting, enabling early identification of trends or deviations from baseline performance.

Seasonal variation in mortality is typically limited; however, elevated risk periods coincide with warmer months when environmental stressors such as increased water temperature, salinity, dissolved oxygen variability, and pathogen activity can affect fish resilience. Consistent with EPA Tasmania's environmental management framework, adaptive mitigation measures are implemented during these periods, including heightened environmental monitoring, proactive veterinary review, and adjustments to feeding and husbandry regimes. These actions ensure mortality rates remain below threshold limits and that responses are both proportionate and environmentally responsible.

Waste Handling and Disposal in the Event of Threshold Exceedance

If mortality thresholds are exceeded, and the event is classified as a High Mortality Event under Environmental Licence provisions. Site-level incident response protocols are immediately activated, including containment, quantification, classification, and regulatory notification steps. Mortalities are promptly removed from pens to prevent further environmental impact or animal health risks and are stored in sealed, leak-proof containment on impermeable hardstand areas to prevent odour, leachate, or pest attraction.

All mortalities are weighed and logged through Petuna's production reporting system, with cumulative data reviewed by Environmental and Fish Health teams to determine cause and assess recurrence risk. Material is classified as Category 2 Animal By-Product under the *Environmental Management and Pollution Control (Waste Management) Regulations 2020*. Mortalities are managed through Petuna's disposal processes, with the resultant product ensiled and land spread by a licensed contractor under approved guidelines and consistent with the relevant site approvals and nutrient management plans.

Regulatory References

This Mortality Management section has been developed in alignment with the following legislation, regulatory instruments, and guidance materials:

- Environmental Management and Pollution Control Act 1994 (EMPCA) – Part 4: Environmental Authorisations and Regulation of Activities.
- Environmental Management and Pollution Control (Waste Management) Regulations 2020 – Classification, handling, and transport of animal by-products and controlled wastes.
- Living Marine Resources Management Act 1995 – Regulation of aquaculture operations and marine farming activities.
- Marine Farming Planning Act 1995 – Provisions relating to environmental standards and management controls for marine farming licences.
- EPA Tasmania, Aquaculture Environmental Management and Monitoring Program (AEMMP) Guidelines – Framework for environmental monitoring, reporting, and compliance.
- EPA Tasmania, Bunding and Spill Management Guidelines (2015) – Requirements for containment, odour, and leachate management on hardstand areas.
- EPA Tasmania, Waste Acceptance and Land Application Guidelines (latest revision) – Requirements for the environmentally sustainable land application of ensiled fish mortalities and by-products.
- Site-specific Environmental Licence (EL) Conditions – Mortality thresholds, classification, reporting, and response protocols.

3.5.1 High Mortality

In accordance with Condition G8 of our Environmental Licenses, *high mortality* is defined as:

- Stock loss exceeding 0.25% over three consecutive days from any pen, or
- Stock loss exceeding 0.5% on any single day

3.5.2 Mass Mortality

A Mass Mortality Event (**MME**) refers to a sudden or rapidly escalating loss of fish beyond normal operational or seasonal variation. Classification is determined by severity and scale, considering fish size and average pen biomass.

This classification is not clearly quantifiable under any standing reporting framework, however Petuna consider stages 5 and 6, documented in section 3.7 of this plan to be a **MME**, and will trigger the appropriate response.

3.6 High Mortality Event Response

Sudden stock loss events may result in a rapid increase of organic and non-organic waste volumes. These events can place pressure on normal waste handling procedures and must be addressed promptly to maintain site hygiene, regulatory compliance, and operational continuity.

To ensure regulatory compliance, protect environmental standards, and maintain site operations, contingency plans and resourcing arrangements must be established in advance. These must include scalable waste storage, removal, and disposal procedures, with clear responsibilities and response timeframes documented and understood across operational teams. Petuna has developed a staged response to variable levels of mortality, further detail in section 3.7 of this plan.

Petuna will react to any level of mortality in accordance with the staged response described in this plan, however, In the event of any high mortality event, Petuna will:

- Prioritise the immediate collection and secure containment of deceased stock,
- Manage disposal in accordance with EPA-approved methods and site-specific licence conditions,
- Follow standard removal procedures, with increased frequency and resources deployed to meet volume and timing requirements.

Additional non-organic waste, such as gloves, bin liners, and cleaning materials, may also be generated. This waste will be handled, stored, and disposed of as per the

protocols outlined in the general waste classification and segregation sections of this plan.

All recordkeeping and reporting obligations will be met, with a focus on environmental control and biosecurity throughout the response.

3.7 Staged Response to Mortality

Below is Petuna's defined response framework for six levels of mortality. Levels 1 and 2 represent low, routine mortality consistent with typical operational expectations. In accordance with our licence conditions, the EPA will be notified at Levels 3 and 4, and should Levels 5 or 6 occur, Petuna will report to the EPA immediately upon becoming aware.

Level 1: Business as usual

Mortality rates are in line with operational forecasts and seasonal expectations.

Characteristics:

Routine daily mortalities within predicted baseline ranges

- No pattern of elevation across pens or sites
- No operational or environmental triggers of concern

Response:

- Standard monitoring and record keeping
- No internal escalation required

Level 2: Slight Elevation

Mortality levels show a minor, short term increase, however, remain below 0.25 percent per day.

Characteristics:

- Elevated but stable and not sustained
- No pattern indicating deterioration
- Typically associated with normal operational variation

Response:

- Increased internal observation
- Review husbandry, environmental parameters and fish behaviour

Level 3: Elevated Mortality

Mortality greater than 0.25 percent per day for three consecutive days.

Regulatory Trigger: EPA must be alerted via weekly reporting.

Characteristics:

- Clear, sustained upward trend
- Potential early signs of health, environmental or operational stressors
- May require veterinary review or intervention

Response:

- Immediate internal escalation to Site Management and Vet.
- Diagnostic sampling and enhanced monitoring
- EPA notified through the weekly mortality report

Level 4: Acute Mortality

Mortality greater than 0.5% on a single day.

Regulatory Trigger:

EPA must be alerted via Mortality Notification in line with Environmental Licence conditions.

Further Notification:

EPA must be alerted if a site average of >0.5% mortality occurs for 5 consecutive days.

Characteristics:

- Sharp spike indicating a significant acute event
- Typically associated with sudden environmental conditions or an operational incident

Response:

- Rapid internal escalation to senior management and vet
- Immediate investigation and mitigation actions
- EPA notified through the weekly mortality report

Level 5: Mass Mortality Event

≥6% of standing biomass lost in a single day.

Regulatory Trigger: EPA must be alerted at time of becoming aware.

Characteristics:

- Severe environmental, biological or operational failure
- High risk

Response:

- Full incident management activation as detailed on page 16 of this plan.
- Real time reporting to Executive Team
- Immediate EPA engagement
- Comprehensive post incident review and corrective action.

Level 6: Critical Mass Mortality Event

Definition: A mass mortality event impacting the entire site. Mortality rates above 10% for one day and may occur over successive days.

Regulatory Trigger: EPA must be alerted at time of becoming aware.

Characteristics:

- Severe environmental, biological or operational failure
- Critical risk

Response:

- Full incident management activation as detailed on page 16 of this plan.
- Real time reporting to Executive Team

- Immediate and regulator engagement with the EPA.
- Comprehensive post incident review and corrective actions

Operational considerations for level 5 and 6

The points below outline Petuna's operational commitments during a **MME**, clearly defining the key requirements that must be prioritised above all other activities. Petuna maintains and frequently reviews detailed site-specific operational procedure for mass mortality response.

Daily Situation Report (SITREP), Triage and planning

- Divers, Remote Operated Vehicles (**ROV**) and feed cameras are to be used in determining mortality estimates in all pens, providing a SITREP for site management.
- Site management are to use updated information in generating daily robust operational planning and communication with all levels of staff and contractors.
- Conservative estimates on mortality numbers can be discussed with waste transporters and disposal sites to ensure all parties have a clear understanding on volume and can plan accordingly.

Activate enhanced biosecurity protocols

- Isolation procedures
- Enhanced personnel, vessel and equipment hygiene

Prioritise mortality collection

- Normal daily operations maybe suspended to ensure all available personnel and equipment are diverted to mortality removal
- Operations that are not critical to short-term fish containment, health and welfare may be postponed.

Mobilise all available internal resource

- All Vessels typically designated for other tasks (such as harvest and mooring works) will be directed to a mortality response of this level.
- Utilizing these large vessels to boost capacity in such a response ensures our capacity is maximised and reliance on external contractors can be limited.

Increase removal frequency

- Mortality removal as often as safely practical.
- If a contagious pathogen is suspected, removal frequency may be adjusted under veterinary supervision to prevent spread

Engage waste provider proactively

- Request additional bins
- Increase transport frequency
- Clear all on-site mortality immediately

Prepare night shift crew if required and safe.

- Commence a 24-hour operation to optimise removal from site.

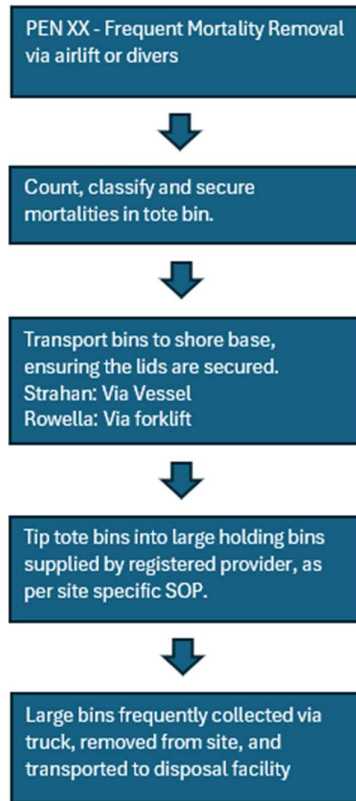
Ensure immediate availability of critical personnel and equipment:

- All vessels (including harvest vessel if necessary)
- Forklifts and tippers
- Compressors compatible with mortality lift-up system
- Fuel reserves (anticipate high consumption)
- Contract operations crew, divers
- Contract vessels and skippers

3.8 Mortality Removal Flow Chart

The below chart illustrates the mortality removal workflow as documented in this plan. The chart illustrates typical operation at both marine sites and excludes some extra measures that may be required in a **MME** (detailed in **section 3.7** of this plan)

As this plan is actively updated to reflect changes to waste removal, all current transport and waste treatment facilities utilised by Petuna are documented in **section 5** of this plan and will be reviewed frequently.



3.9 Biofouling

Biofouling accumulates on all in-water infrastructure, generating organic waste that must be actively managed during removal. If not controlled, this waste can reduce water quality and pose risks to fish health and the surrounding marine environment.

Petuna follows a scheduled net-cleaning program, with increased frequency during periods of high fouling, particularly in summer. Net-cleaning equipment is selected for its ability to limit waste dispersal and maximise removal efficiency.

Waste produced during biofouling removal, including organic material, sediment, and

cleaning residues, is treated as a controlled waste stream. Management procedures must be in place to prevent environmental release. Water quality is monitored during cleaning activities to confirm compliance with licence conditions and protect site and ecosystem health.

Each site follows written operational procedure (**SOPs**), noting different procedure for each type of net cleaner. The procedures ensure best biosecurity practices and record keeping aligning with the *National Biofouling Guidelines*.

Each marine site has specific fouling profiles and environmental factors. Site-level waste management procedures are provided in the following sections.

Macquarie Harbour

Macquarie Harbour features a tannin rich, stratified water column. Biofouling growth is restricted below 5 metres all year round due to the low light conditions of the harbour. Due to relatively “soft” growth, frequent in-situ net cleaning ensures minimal biofouling occurs. Farm infrastructure such as pens, barges and boats do not require cleaning due to attracting little growth in the harbour.

Macquarie Harbour Net Cleaning procedure is completed following OPS-185: Cleaning Nets using FNC (**Flying Net Cleaner**).

If a net is removed and transported to the shore base, it will receive an in-water net clean first, in line with internal procedure. Any small mussel or shell growth that remains will be cleaned on the site’s dedicated net-slab. This organic material is captured and transferred to fish mortality bins for appropriate disposal, noting that mussel shells are unable to be ensiled and are re-directed for composting.

Rowella

Petuna’s Rowella site relies on strong tidal conditions to maintain optimum growing conditions. To maximise flow, it is critical for this site to maintain frequent net cleaning to optimise health outcomes for the stock and minimise drag on mooring equipment. Rowella can operate up to three net cleaners at any one time, and due to the nature of being a shore-based system farm there are rarely any impacts to the frequent cleaning schedule due to weather. High frequency net cleaning prevents any significant biofouling from occurring.

Any Rowella nets that are removed will be cleaned beforehand, ensuring no organic waste remains on the nets when in storage. Rowella fish nets remain in the water for their entire useful life and are disposed of as detailed in section 3.8 of this plan.

3.10 Nets and other non-organic marine finfish farming waste

Petuna is committed to responsible resource management and circular economy principles, ensuring that end-of-life nets and retired gear is handled with sustainability in mind. The plan is guided by the waste hierarchy, with avoidance as the priority, followed by reduction, reuse, recycling, repair and recovery (including energy recovery), treatment, and, only as a last resort, disposal. Petuna applies this hierarchy by maintaining reusable nets and essential spares and carefully storing materials that continue to serve a purpose in our operations. Any redundant or end-of-life equipment is assessed for its recyclability, with viable materials directed toward appropriate recycling initiatives to support a closed-loop system. Petuna also seeks to maximise opportunities for beneficial reuse of waste, bioproducts, and by-products through partnerships in rendering, fertiliser production, and marine bioproducts research.

Where recycling is not feasible, disposal is conducted in strict accordance with regulator-approved processes, ensuring environmental responsibility remains at the core of our practices. Additionally, for any newly produced items, we actively request recyclable materials from suppliers, reinforcing our commitment to sustainable sourcing and circularity in our operations.

Petuna uses a range of equipment to adequately conduct farming operations. Some of this equipment may include rope, buoys, weights and feed pipe. All equipment used is recorded in Petuna's gear register, which is reviewed annually and updated to include any new additions. All Petuna equipment is either a unique colour or branded/labelled to identify Petuna as the owner. This ensures accountability to the owner.

All equipment is used in a responsible way and often used following a specific SOP related to the task. All staff are trained on effective rigging techniques.

Petuna understands the responsibility of collecting any unintentionally released equipment and conduct frequent shoreline cleanups in line with industry standard. These cleans are undertaken at a high frequency and are catalogued and reported to NRE Tasmania.

3.11 Blackwater and Greywater

Blackwater and greywater at the land bases of Strahan and Rowella is treated onsite in a typical Waste Treatment System (**WTS**); this WTS is inspected and serviced at least six-monthly intervals by a contracted service provider.

At the Strahan site, there are three feed barges, and two large vessels that hold all blackwater. The blackwater is stored in tanks on each vessel and is routinely pumped out by a registered service provider. The current provider is Tassie Waste.

Tassie Waste typically provides a 10,000L pump truck, which features a fully equipped spill kit. This truck is transported to each barge/vessel on Petuna’s Landing Barge – Combie Trader.

The blackwater capacity of each vessel is stated below:

Vessel	Tank capacity	Pump-out frequency
Combie Trader	2000L	Monthly
Yakka	1000L	Monthly
Provender	3000L	Monthly
Sarah	3000L	Monthly
Liberty	10000L	Monthly

Please see table 3 in section 6 of this plan for further detail on storage limits. All Blackwater and Greywater that is returned to the Strahan land-base (via the service providers container) is taken away by our registered provider and disposed of under their management.

3.12 Blood water

Blood water is generated through our harvesting operations at both sites. To ensure effective and hygienic harvests that comply with our strict HACCP certification, a volume of water is used for wash-down during harvests. A small volume of water comes from the fish and associated pumping to harvest system. The “blood water” is contained and captured, this is further detailed below.

3.12.1 Strahan

Wastewater generated during harvesting and washdown operations on the Combi Trader is collected onboard in designated intermediate bulk containers (IBCs). Throughout the harvest, staff add a water treatment biocide to each IBC to ensure proper mixing with the coagulant and odour control while stored. The chemical is “HYDRO 360” and is stored and used appropriately as per site MSDS’s and SOPs. The volume of blood water produced, along with the quantity of chemicals used, is recorded on the interim harvest report for every harvest.

Any waste generated from end-of-life blood water containers, chemical containers and associated PPE waste are stored appropriately and collected by a registered provider for appropriate and safe disposal. This is detailed further in section 3.11.4 of this plan

Once harvesting is complete, these IBCs are transported to the land-based facility via forklift, where their contents are decanted into a larger storage tank with a capacity of

25,000 litres (table 1). When this tank approaches 80% capacity, designated site staff schedule the collection of the liquid for further processing and disposal from our registered provider.

Any additional blood water from harvesting that enters the harvest tankers is transported to our Devonport processing facility, where it is treated through our trade waste treatment system.

3.12.2 Rowella

Wastewater generated during harvesting and washdown operations within Rowella's Harvest Room is collected through drains and pipework and stored temporarily in a large poly storage tank of 24,000 litres (table 1). When this tank approaches 80% capacity, designated site staff schedule the collection of the liquid for further processing and disposal from our registered provider. Small quantities of chlorine (tablet form) are added to the Rowella storage tank to manage odour. Appropriate disposal of chemical containers is detailed in section 3.11.4 of this plan.

Any additional blood water from harvesting that enters the harvest tankers is transported to our Devonport processing facility, where it is treated through our trade waste treatment system.

Petuna's sanitary waste streams at marine farms arise primarily from staff hygiene facilities, including toilets and changerooms. This stream also covers disposable personal protective equipment (**PPE**) such as gloves, masks, and aprons, along with any associated contaminated packaging.

Non-contaminated items, for example used hand towel and personal items not linked to hazardous material handling, are disposed of in the general waste bins provided.

Sanitary waste considered hazardous, such as baby wipes, menstrual and incontinence items, perfumes, or unused medication, must be placed in a clearly labelled, secure bin. These bins are serviced on a routine schedule by a registered waste contractor.

Petuna's approved contractor provides specialised sanitary waste management services across all marine sites, covering collection, treatment, and disposal. Their service scope includes sanitary, clinical, and liquid waste, ensuring all materials are managed in line with regulatory requirements and environmental standards.

3.13 Oils and Other Hydrocarbons

Petuna uses oils and hydrocarbons across marine sites for vessel operations, machinery, vehicles, and generators. These include diesel, lubricants, hydraulic oils, greases, and related products. If not properly managed, these substances present a

significant risk of environmental harm through potential contamination of soil, groundwater, and marine environments.

All oils and hydrocarbons must be stored in bunded and weather-protected areas with secondary containment in place to capture any leaks or spills. Storage containers are to be clearly labelled and maintained in good condition, with regular inspections forming part of site checks. Storage and containment arrangements are consistent with *EPA Bunding and Spill Management Guidelines* (2015).

Used oils, oily rags, filters, and other contaminated materials are segregated from general waste and collected for recycling or approved disposal by a licensed contractor. Spill kits are located at all fuel storage and transfer points, and staff are trained in their use to ensure immediate response to accidental releases.

Petuna's management of oils and hydrocarbons follows the waste hierarchy by prioritising avoidance of spills, reducing volumes used where practicable, reusing recovered oils through recycling pathways, and ensuring safe treatment and disposal of residual materials that cannot be recovered.

3.13.1 Source Points

Key source points for oils and hydrocarbons across Petuna's operations include:

- Vessel refuelling stations and onboard fuel storage
- Maintenance workshops and vehicle servicing areas (for example, Strahan and Rowella)

Each of these locations must be designed, operated, and maintained in line with *EPA Bunding and Spill Management Guidelines* (2015) and relevant Dangerous Goods regulations. This includes provision of bunded areas, secondary containment, and spill response equipment at all fuel storage and handling points. Regular inspections are undertaken to confirm containment integrity and environmental compliance.

3.13.2 Storage and Handling

Effective storage and handling of oils and fuels is critical to preventing spills, minimising environmental risk, and ensuring compliance with regulatory standards. Hydrocarbons are a high-risk material stream, and Petuna's management practices are designed to meet or exceed statutory requirements while supporting safe operations across all marine and land-based sites.

Oils and fuels must be stored in bunded, clearly labelled containers in accordance with *AS 1940:2017 – The Storage and Handling of Flammable and Combustible Liquids*. Secondary containment must have the capacity to hold at least 110% of the volume of the largest single container.

Spill kits must be installed at all hydrocarbon storage and transfer locations and checked

monthly to ensure readiness. Refuelling and decanting may only take place in designated areas that are set back from stormwater drains and natural waterways and must comply with *EPA Tasmania's Bund Construction and Operation Guidelines (2015)*.

All personnel involved in hydrocarbon handling must be trained in safe storage practices, spill prevention, emergency response procedures, and incident reporting protocols. Training is refreshed at regular intervals to maintain competency and ensure site-wide preparedness.

3.13.3 Spill Response

Petuna must respond immediately to any spill and take all reasonable and practicable action to minimise any adverse environmental effects from the incident as per Environmental Licence condition G4.

- All spills must be contained immediately using equipment from site spill kits.
- Minor spills are volumes <20L.
- Significant spills are >20L or any release to land or water.
- Major Spills are >100L or any release to land or water.
- All spills whether minor, significant or major are recorded in Petuna's HR3 software. These are categorised as environmental incidents and if required can be escalated internally or externally as per reporting requirements.
- Major spills must be reported to the EPA in accordance with licence conditions under the *Environmental Management and Pollution Control Act 1994 (EMPCA)* and the site's Environmental Licence (e.g. Condition G8).

3.13.4 Disposal

- Used oils, oily rags, filters, absorbents, and grease cartridges must be stored in sealed, labelled containers and removed by a licensed waste contractor in compliance with the *Waste and Resource Recovery Act 2022 (Tas)*.
- Disposal records must be retained and tracked in the Environmental Compliance Register.
- Hydrocarbon waste must never be discharged to general waste, stormwater systems, or wastewater infrastructure, in accordance with *TasWater Trade Waste Policy*.

3.13.5 Monitoring and Review

- Petuna ensures the maintenance and regular inspection of spill kits, fuel and oil

storage areas, and bunded areas.

- Annual audit of waste volumes and contractor compliance with regulated transport and disposal obligations.
- Continuous improvement actions may include the adoption of biodegradable lubricants, upgrades to bunding and storage infrastructure, and regular staff refresher training.
- Compliance will be maintained with the *Dangerous Goods (Road and Rail Transport) Act 2010 (Tas)*, the *Environmental Management and Pollution Control Act 1994*, and site-specific marine farming and environmental licence conditions issued by the EPA and NRE Tasmania.

3.14 Chemical Waste

Petuna is committed to minimising the risks associated with the use, storage, and disposal of chemical substances across its operations to protect both employee safety and the surrounding environment. This commitment includes full compliance with the *Work Health and Safety Act 2012 (Tas)*, *Work Health and Safety Regulations 2012*, and relevant environmental legislation.

Petuna has documented procedures in place which outline requirements for the safe storage, handling, and disposal of chemical substances, including cleaning agents, sanitisers, water treatment additives, veterinary chemicals, and pest control products.

3.14.1 Source Points

- On-site pest and biosecurity controls.
- A Site-Specific Chemical Register
- Veterinary treatments, vaccines, or therapeutants used at marine sites.

3.14.2 Storage and Handling

- All chemicals must be stored in designated, secure chemical storage areas with secondary containment, in accordance with *AS/NZS 4452:1997 – The Storage and Handling of Toxic Substances* and *AS 3780:2008 – The Storage and Handling of Corrosive Substances*. *AS1940:2017 - The Storage and Handling of Flammable and Combustible Liquids*.
- Safety Data Sheets (SDS) must be maintained, accessible, and reviewed for all hazardous substances.
 - WHS-60 Petuna Chemical Management Procedure

- Chemicals must be clearly labelled and segregated according to compatibility.
- Appropriate PPE must be worn when handling chemicals, with training provided to relevant staff.
- Emergency eyewash and shower stations must be installed and tested in accordance with *AS 4775:2007*.

3.14.3 Spill Response and Incident Management

- Chemical spill kits must be available in all high-risk storage and handling locations.
- Staff complete yearly “Chemical Awareness and Spills” training, including specific control measures on their site.
- Spills must be managed immediately using the appropriate containment and cleanup methods as per SDS guidance.
- Any significant release to land or water must be reported to the Site Manager and, where required, recorded into HR3 environmental incident register and where required to the EPA in accordance with *EMPCA 1994* and environmental licence conditions.
- All chemical incidents are to be logged in the incident reporting system and investigated.

3.14.4 Disposal

- Unused or expired chemicals must be disposed of via a licensed hazardous waste contractor.
- Chemical containers may be collected via recycling agents where eligible or otherwise managed in accordance with local council or waste contractor requirements. Currently DrumMUSTER via Tassie Waste.
- Disposal records must be kept in the Environmental Compliance Register.
- No chemical waste is to be disposed of via stormwater systems, general waste, or effluent streams.

3.14.5 Monitoring and Review

- Quarterly inspections of chemical storage and handling areas.
- Annual review of chemical inventory and usage volumes.

- Safety audits to ensure compliance with WHS regulations and safe operating procedures.
- Opportunities for reduction in chemical usage, substitution with less hazardous alternatives, and safer application methods are to be explored as part of continuous improvement.

3.11.6 Regulatory Compliance

Chemical waste management at Petuna aligns with:

- *Work Health and Safety Act 2012 (Tas).*
- *Work Health and Safety Regulations 2012.*
- *Environmental Management and Pollution Control Act 1994 (EMPCA).*
- *Environmental Management and Pollution Control (Waste Management) Regulations 2020*
- EPA Tasmania environmental licence conditions.
- Australian Dangerous Goods Code (ADG Code) where relevant to transport.
- Manufacturer and supplier SDS directions.

As well as the following relevant *National Environment Protection Measures* (NEPMs)

- Movement of Controlled Waste between States and Territories
- Assessment of Site Contamination
- National Pollutant Inventory (NPI)
- Used Packaging Materials

3.15 Reverse osmosis plants

Not applicable – Petuna does not operate any reverse osmosis systems at its current sites.

3.16 Fish Bathing Wastewater

Not applicable – Petuna does not conduct freshwater bathing treatments as part of its current aquaculture operations.

3.17 Equipment and Vessel Biosecurity Washdown

Petuna undertakes equipment and vessel washdown to conform with the relevant

Biosecurity Program: *Tasmanian Salmonid Industry*. Petuna's adherence to relevant biosecurity legislation is vital for preserving Tasmania's unique ecosystems and supporting safe and sustainable aquaculture practices.

Full procedure is documented on company SOPs to ensure effective washdown regime, and 'Decontamination certificates' are issued by staff members after decontamination and inspection and communicated to other neighbouring companies by Petuna's Veterinary Biosecurity Officer where required according to the MH biosecurity zone management plan. Potential waste streams from this process are listed below

3.17.1 Decontaminants utilised in washdown

To maintain best practice in biosecurity washdown, Petuna use Virkon® Aquatic. The product is designed to meet biosecurity needs with broad-spectrum efficacy against viruses, bacteria, and fungi.

Virkon is supplied in 5L buckets in powder form, with a scoop included for measuring doses. Due to being in dry form, the Virkon will not impregnate/contaminate the container. Once rinsed, these containers are safe for recycling.

Petuna utilise clearly labelled sprayers to mix the product with at the recommended ratio. The sprayer is then used to coat the surface of the equipment. These sprayers can be re-used many times, prior to being rinsed and disposed of at end-of-life as per section 3.11.4 of this plan.

If a cleaning agent is required, each marine site utilises AQIS approved, non-hazardous and biodegradable products, such as "CITRUS 6000". Containers from any cleaning agents are safely disposed of as per 3.11.4 of this plan.

Disposable PPE utilised for these processes is disposed of in general waste bins provided.

3.17.2 Washdown Wastewater

Decontaminant Virkon® Aquatic is applied at the recommended dilution factor (1:100 with fresh water) to adequately cover the surface of the equipment or vessel being cleaned. Due to the efficacy of the product, only a small amount is used. This is applied as per label instruction and will immediately react to the surface of the vessel/equipment and any biofilm that may remain. Once dried for 10 minutes, the vessel/equipment is thoroughly rinsed – increasing the dilution factor substantially. The resultant water includes a very diluted form of the decontaminant, which is readily biodegradable and breaks down into benign substances such as potassium salts and oxygen. This process is in line with good biosecurity and husbandry practices.

Virkon® Aquatic is Australian Pesticides and Veterinary Medicines Authority (**APVMA**) approved and is registered on the Registered Label Product database. APVMA Approval Number: 68503/129249. During the process of registering the disinfectant, the manufacturer must supply modules including environmental and non-target animal toxicology. These modules are assessed by the APVMA when the labels are approved.

The APVMA-approved labelling for Virkon® Aquatic states that “small amounts of washings and rinsate from sprayed areas may be disposed of into estuarine waters, including the ocean”. Petuna Aquaculture operate under these restrictions.

A basic record is kept for each washdown, noting the date, location, operator, and environmental conditions. Any deviations or unusual observations are recorded. Personnel conducting washdowns are trained in safe handling, correct dilution, in-situ rinsing techniques, and environmental safeguards, and have access to the current SDS and SOP.

Any spillage or misapplication is managed under Petuna’s spill response procedures and reported to the Site Manager.

3.17.3 Strahan Emergency Spill Kits

Spill response kits are located across vessels and key operational areas in Strahan to support immediate containment and clean-up of fuel, oil, or chemical spills. All kits are clearly marked and include absorbent materials, personal protective equipment (**PPE**), and step-by-step instructions. Staff are professionally trained in spill response procedures and must follow the provided instructions.

Strahan Spill Kit Locations

- Combie Trader II – 60 L drum (engine room)
- Sapphire Star – 60 L drum (forward compartment)
- Provender – 240 L bin (rear deck)
- Liberty Barge – 240 L bin (lower cargo area)
- Smith Cove – 240 L bin (inside the shed beside the diesel tank, lower pad area)
- Smith Cove – 1100 L bin (by the dive compressor shed)
- Smith Cove Workshop – Absorbent pads only, for land-based clean-ups (inside cage)
- Yakka – 240 L bin (underneath wheelhouse)
- Sarah Barge – 240 L bin (inside the workshop)

Strahan Spill Response Guidelines

- All spill kits contain clear instructions, which must be followed during spill

response.

- Feed boats and smaller vessels must be equipped with bilge pillows to absorb leaks during operation.
- Oil- or fuel-contaminated materials (e.g. rags, pillows, pads) must be sealed in bags before disposal.
- If a vessel's bilge contains oil/fuel in a quantity large enough to be pumped, the contaminated water must be transferred into 1000 L IBCs located with the waste oil storage area for approved disposal.
- Minor bilge spills that cannot be pumped must be absorbed using soaker pads and disposed of in the same manner.
- Used oil and fuel filters must be drained into waste oil drums before being placed in the dedicated filter disposal drum located beside the waste oil IBCs.
- All environmental spills must be reported using the WHS-104 Incident Notification Form (Environmental Incident).
- If unsure how to respond or report, contact your site supervisor or WHS Coordinator. In the event of a major fuel or oil spill, refer to the Environmental Contacts List at the end of this plan.

3.17.4 Rowella emergency spill kits

Spill response kits are located at key operational areas across the Rowella site to support the immediate containment and clean-up of fuel, oil, or chemical spills. All kits are clearly marked and contain absorbent materials, personal protective equipment (PPE), and step-by-step instructions. Staff are trained in spill response procedures and must follow the provided instructions when managing a spill.

Rowella Spill Kit Locations

- Diesel and ULP fuelling station adjacent to Ice Machine - 240 L bin
- Maintenance Workshop – 240 L bin (by the compressor shed)
- Net Cleaner A on Floating System farm – 20 L spill kit bag
- Net Cleaner B on System farm – 20 L spill kit bag
- Tamar Diemen (service vessel) – 20L spill kit bag.
- Crib Room Understorey - Absorbent pads only, for land-based spill clean-ups.

4 Storage and environmental controls

To minimise environmental risk and ensure the safe handling of hazardous substances, all chemicals that require SDS' and are used or stored on site must be managed in accordance with legislative requirements and site-specific protocols.

The following controls are to be implemented to maintain safe storage practices and prevent contamination or accidental release:

- **Storage Compliance:** All hazardous substances must be stored in accordance with the requirements outlined in their respective SDS and secured to prevent unauthorised access, particularly by visitors or contractors.
- **Access Control:** Storage areas must be lockable and remain locked when not in active use.
- **Inventory Minimisation:** Hazardous substances should be stored in the minimum quantities required for operational needs, considering usage frequency and shelf life.
- **Container Management:** Where practicable, substances should be stored in their original containers. If decanting is necessary, ensure the new container is compatible with the chemical type and volume, and that seals and closures are secure.
- **Labelling:** All chemical containers must be clearly labelled with accurate identification of contents, including decanted products, to support safe handling and emergency response.
- **Storage Hierarchy:** Liquids must not be stored above solids to prevent cross-contamination in the event of a spill or container failure.
- **Containment Measures:** Corrosive substances must be stored on appropriate spill containment trays or within bunded storage cabinets to mitigate environmental risk.
- **Housekeeping:** Container exteriors must be kept clean to prevent secondary contamination. All cardboard and packaging materials should be removed promptly to maintain a clean and organised area.
- **Routine Inspections:** The chemical storage area must be subject to regular inspection to verify compliance, identify deteriorating containers, and maintain housekeeping standards.
- **Stock Review and Disposal:** Hazardous substances must be reviewed periodically. Outdated or surplus chemicals should be segregated and disposed of in accordance with relevant local and state waste disposal regulations.

4.1.1 Onsite waste treatment and handling

Petuna manages several waste streams onsite through appropriate containment, treatment, and handling processes to meet environmental licence conditions and operational requirements.

- **Mortalities:** Mortalities are collected and stored onsite in their whole, untreated form prior to offsite transport.
- **Harvest Blood water:** Blood water generated during harvest is collected and stored in sealed containers onsite. Chemical treatment is applied to reduce biological growth and odour prior to transport and disposal. All handling is conducted in line with safety protocols for hazardous substances.
- **Ice Machine Intake Water (Strahan):** The Strahan ice machine draws water from the harbour. A chemical dosing system is used onsite to treat the intake water before storage and ice production, ensuring compliance with food safety standards. Citric acid is used to adjust pH and help reduce microbial growth.
- **Pest Management:** Petuna maintains a pest management program aligned with BAP certification requirements. This includes proactive prevention, routine monitoring, targeted control measures, and regular record keeping. Pest management supports site-level biosecurity, operational hygiene, and environmental responsibility.
- **Other Waste Streams:** General waste, recyclables, metal, nets, used PPE, and maintenance-related waste (e.g. used filters, absorbents) are segregated at source and stored in designated onsite collection points. These waste types are collected by licensed contractors and transported offsite for treatment, recycling, or disposal in accordance with relevant regulations.

4.2 Site HAZCHEM Maps

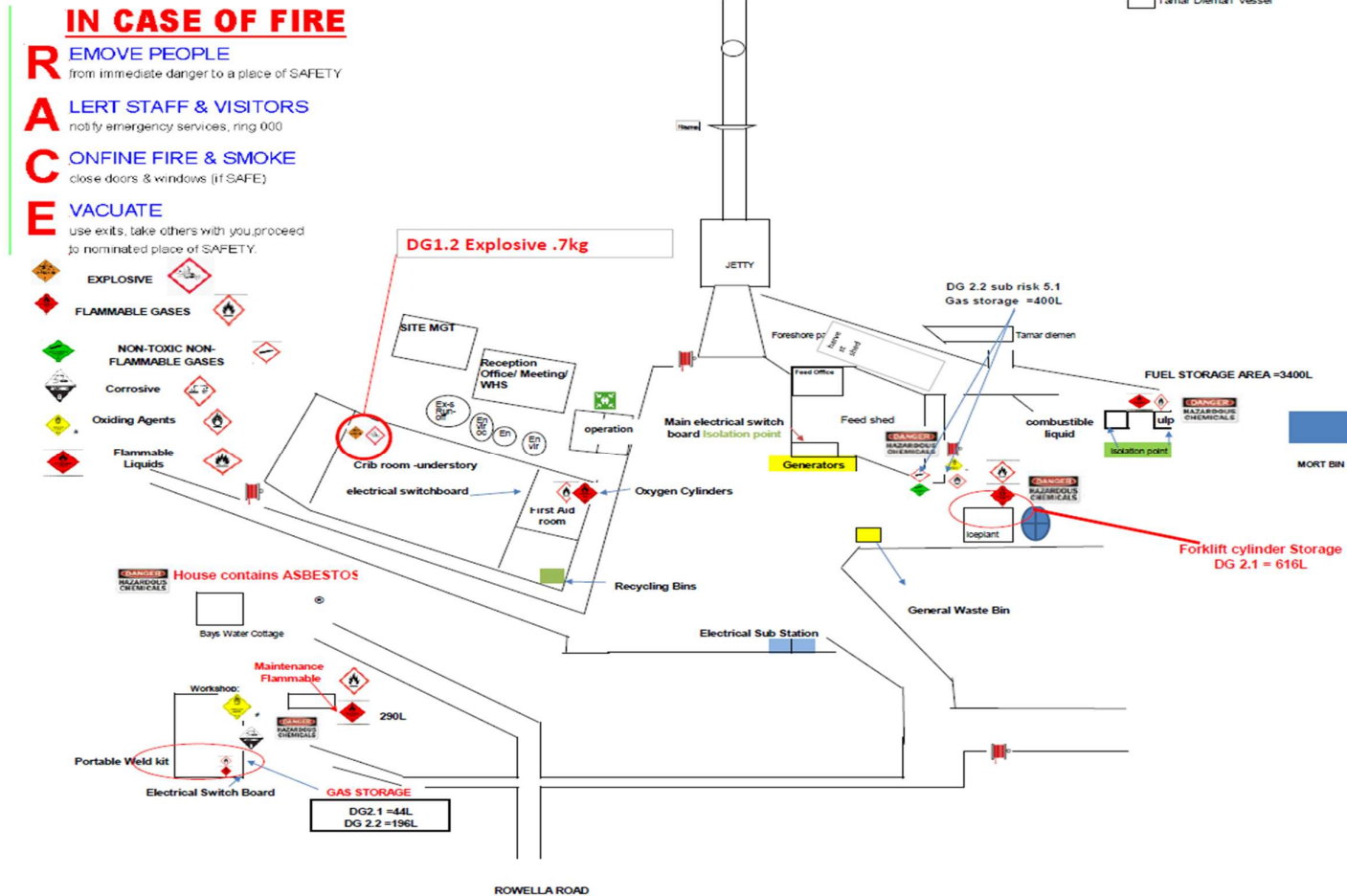


Figure 2 Rowella Site Layout

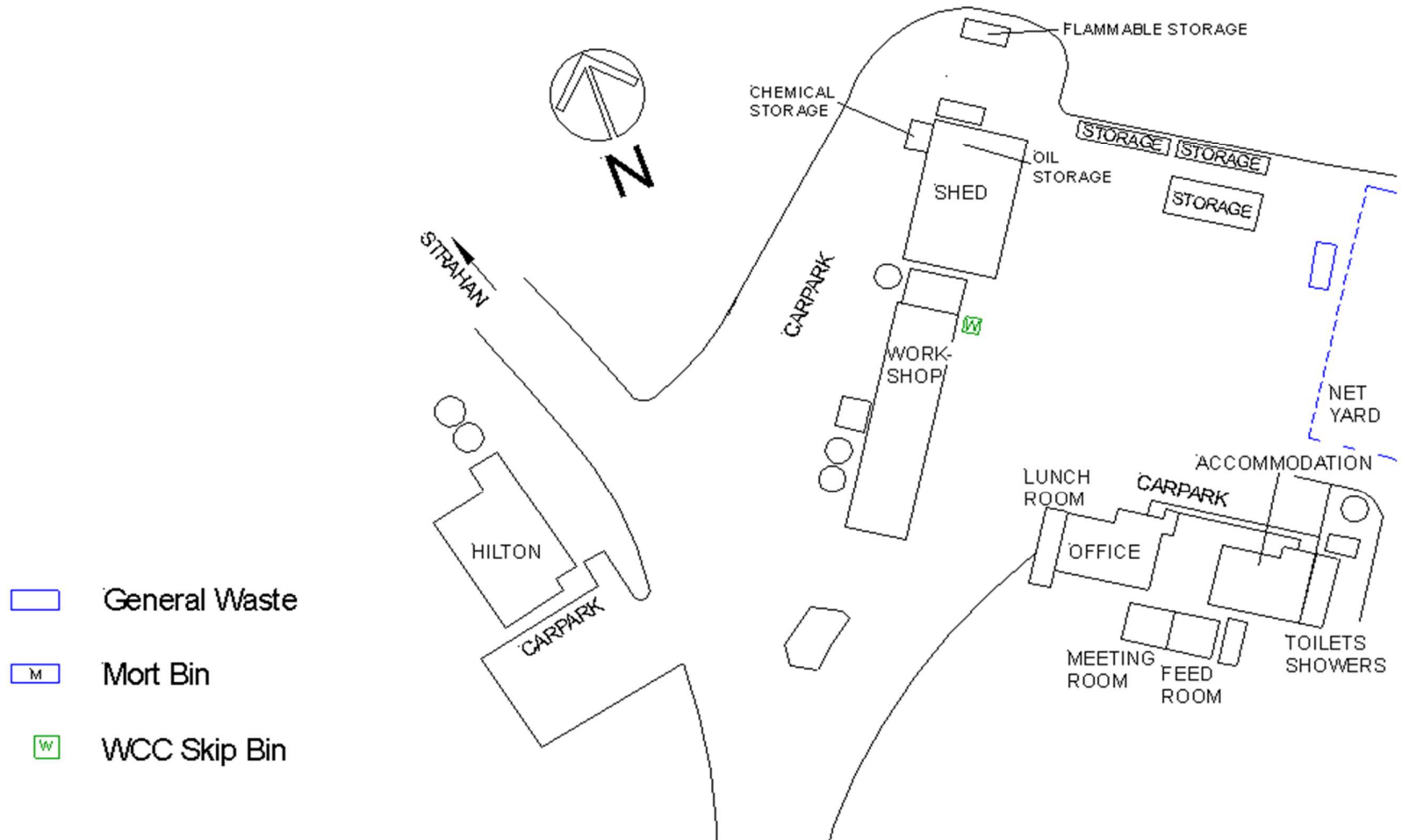


Figure 3 Strahan Upper Pad Site layout.

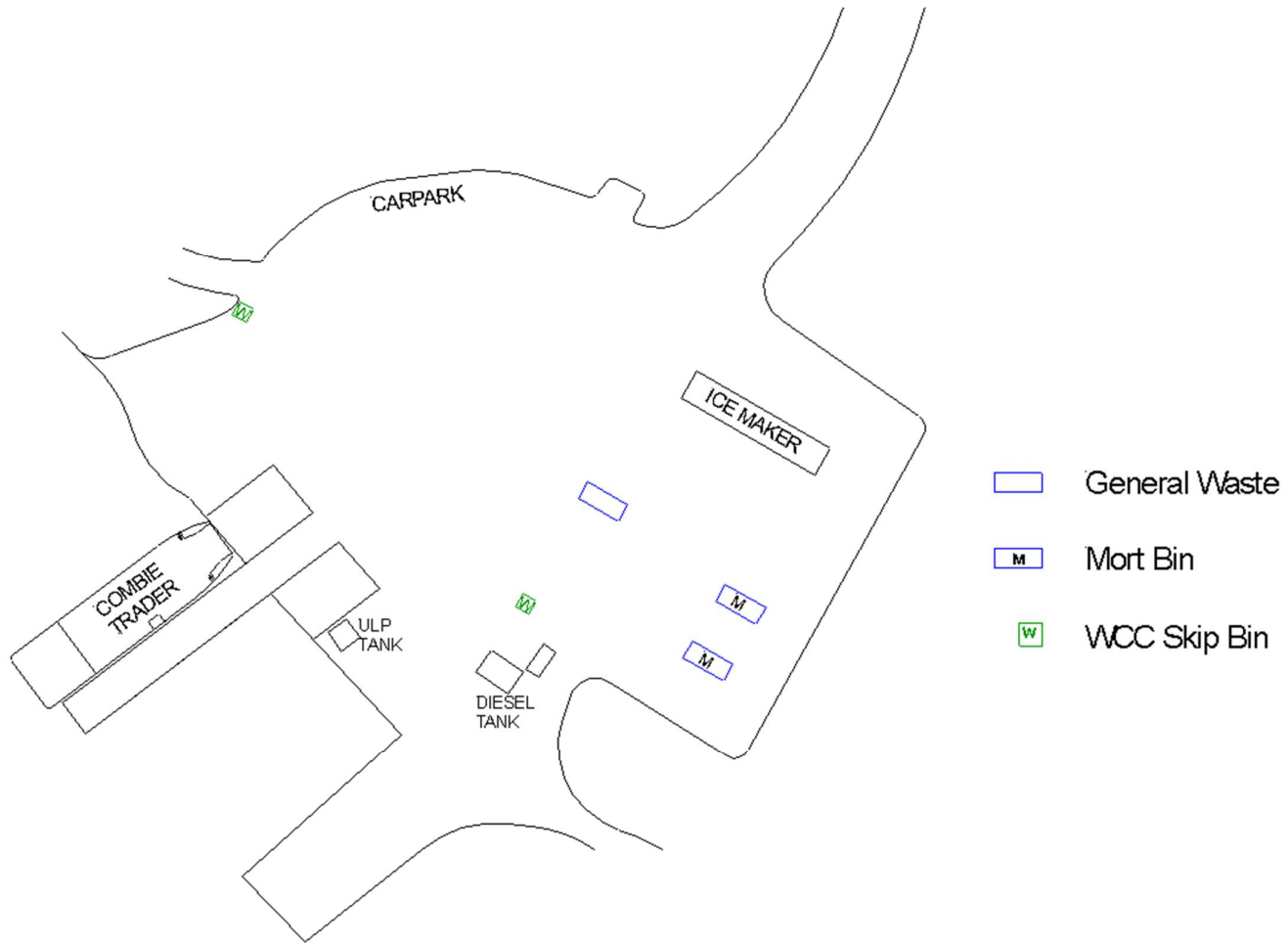


Figure 4 Strahan Lower Pad Site layout.

5 Waste destination and authorisations

Table 1: Strahan waste types, transporter, destinations and disposal method.

Site	Waste Type	Transporter	Waste destination	Disposal Method
Strahan	Fish Mortalities	Spectran	Oatlands ensilage system (*pending approval*)	Liquid Land spreading (*pending approval*)
		Spectran	Interlaken Compost facility	Organic Compost
		Spectran	Multiple approved sites	Landfill
		De Bruyns	Tassal Triabunna Rendering Facility	Rendering
	Harvest blood water	Tassie Waste	TasWater's East-Devonport WTP	Primary Treatment and Saltwater discharge
	Harvest tanker ice slurry	Wynyard Transport	Devonport Processing facility trade waste system & TasWater's East-Devonport WTP	Primary treatment and saltwater discharge
	Oils and Bilge Water	Hagen Oils	Hagen Oils Invermay, Launceston	Re-use
	Chemical Containers	Tassie Waste	drumMUSTER – Burnie Waste Management Centre	Recycled
	Metal Recycling	Recycal	Rocherlea, Launceston	Metal Refinery
	Nets and other end of life rope	Spectran	Dulverton Waste Facility	Landfill
		Spectran	Southern Waste Solutions – Copping Waste	Landfill
		Variable registered operators based on destination	N/A	Circularity initiatives/donations (Under EPA guidance)
	HDPE (cage structures, stanchions, and feed pipe)	Wynyard Contracting	Vinidex Wynyard	Recycled
	General Waste	West Coast Transport	Queenstown West Coast Council Waste Depot	Landfill
West Coast		Zeehan West Coast	Landfill	

		Transport	Council Waste Depot	
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Table 2: Rowella waste types, transporter, destinations and disposal method.

Site	Waste Type	Transporter	Waste destination	Disposal Method
Rowella	Fish Mortalities	Spectran	Oatlands ensilage system (*pending approval*)	Liquid Land spreading (*pending approval*)
		Spectran	Interlaken Compost facility	Organic Compost
		Spectran	Multiple approved sites	Landfill
	Harvest blood water	Spectran	Westbury "Exton House"	Liquid Land Spreading
		Spectran	Oatlands	Liquid Land Spreading
		Spectran	TasWater's East-Devonport WTP	Primary Treatment and Saltwater discharge
	Harvest tanker ice slurry	Wynyard Transport	Devonport Processing facility tradewaste system & TasWater's East-Devonport WTP	Primary Treatment and Saltwater discharge
	Oils and Bilge Water	Hagen Oils	Hagen Oils Invermay, Launceston	Re-use
	Metal Recycling	Recycal	Rocherlea, Launceston	Metal Refinery
	Nets and other end of life rope	Spectran	Dulverton Waste Facility	Landfill
		Spectran	Southern Waste Solutions – Copping Waste	Landfill
		Variable registered operators based on destination	N/A	Circularity initiatives – donations to farmers, zoo's etc.
	HDPE (cage structures, stanchions, and feed pipe)	Wynyard Contracting	Vinindex Wynyard Depot	Recycled
	General Waste	Veolia	Launceston City Council Waste Depot Invermay	Landfill

6 Maximum storage volumes

Table 3: Maximum storage volumes

Site	Site location	Freshwater (litres)	Greywater (litres)	Blackwater (litres)	Blood water (litres)	Diesel (litres)	ULP (litres)
Strahan	Land base (office)	140,000	2,500	5,000 (septic)	20,000	2,400	4,500
	Land Base (Accommodation)			5,000 (septic)			
	Provender Barge	4,000	3,000 -		-	24,000	-
	Liberty Barge	22,000	11,000 -		-	67,000	-
	Sarah Barge	3,500	3,500 -		-	22,000	-
	Saphire Star (vessel)	2,000	1,000 -		-	6,000	-
	Combie Trader	7,000	2,000		Variable: Stored in multiple sealed 1000L IBC's	30,000	-
	Yakka (vessel)	1,200	1,000 -		-	4,500	-
	Ice Machine	38,000	-	-	-		-
Rowella	Land base	Town Supply	21,000	-	26,000	2,500	1,000
	Ice Machine	40,000	-	-	-	-	-
	Onsite Dam	15,000 ³	-	-	-	-	-

7 Emergency Procedures

7.1 Fuel and Chemicals

The handling, storage, and use of fuels and chemicals on site pose potential safety and environmental risks. To manage these risks, appropriate controls must be in place to prevent spills, minimise exposure, and ensure a prompt and effective response in the event of an incident. The following procedures and equipment requirements support safe chemical and fuel management in line with site protocols and relevant legislation.

- Suitable firefighting equipment must be located near all fuel and chemical storage areas.
- In the event of exposure to hazardous substances, first aid measures outlined in the relevant SDS must be followed. Seek medical advice if required.
- All spills must be managed in accordance with Petuna's Refuelling and Spill Containment SOPs.
- Spill kits must be assembled based on the requirements outlined in the applicable SDSs and may include absorbent materials, gloves, eye protection, and other response tools. Kits must be located at:
 - Fuel storage areas
 - Maintenance workshop
 - Barges, larger support vessels, and designated site work areas
- All personnel must be informed of the location of spill kits. Clear signage must be used to ensure spill kits are easily identifiable.
- Any incident involving a hazardous substance must be reported immediately to the WHS Coordinator. An incident investigation should be conducted as soon as practicable to determine the cause and identify controls to prevent recurrence.

8 Vermin Control

Effective vermin control is essential to protect feed quality, maintain biosecurity, and ensure compliance with food safety standards. Petuna implements a proactive pest management approach across all marine sites, combining good housekeeping, physical barriers, and scheduled inspections by licensed contractors. These measures are designed to prevent contamination, minimise pest activity, and safeguard operational integrity.

- All feed is stored in a manner that prevents contamination by pests.
- Storage areas must be kept clean and dry.
- Registered third party pest-control contractors are engaged at each site to maintain a regular vermin control and inspection program, this includes but not limited to; Inspecting for signs of pests, checking and replacing bait stations (noting a clear buffer zone to ensure no contamination of feeds) and reporting activity.
- Weekly inspection checklist to be completed by trained staff
- Access to feed storage is to remain clear, and all access doors are to remain closed when not in use.

Location	Approved Contractor	ABN	Contact
Rowella	Northern Tas Pest Control	68 613 291 701	0439 943 232
Strahan	Flick	85 000 059 665	1300 661 384

9 Record keeping, Procedure and Monitoring

Petuna Aquaculture maintains comprehensive records of all waste streams in accordance with the *Environmental Management and Pollution Control Act 1994* (Tas), the conditions of its EPA Environmental Licence, and applicable requirements under the *National Environment Protection (Movement of Controlled Waste between States and Territories) Measure 1998*. Records cover the volume, type, and composition of waste generated across operational sites, together with details of storage, transport, treatment, and disposal.

All data is captured routinely and stored in a secure cloud-based system to ensure accessibility, accuracy, and integrity. This system is designed to meet audit and inspection requirements and to support ongoing compliance with regulatory and reporting obligations. We maintain minimum retention periods for records of 5 years or as required under EMPCA/EPN conditions.

Monitoring activities include routine site inspections, contractor service records, and waste tracking documentation (for example, consignment authorisations for controlled waste transport). These activities underpin continuous improvement, support internal and external audits, and ensure transparent reporting to regulators such as EPA Tasmania and other relevant authorities.

Petuna's record keeping and monitoring framework also supports the objectives of the *Tasmanian Waste and Resource Recovery Strategy 2022–2025*, ensuring alignment with state priorities to reduce waste generation, increase resource recovery, and strengthen transparency across the waste system. This structured approach ensures Petuna not only meets its statutory obligations but also upholds best-practice waste management, enabling early identification of risks, effective waste minimisation, and demonstration of environmental accountability across all operations.

9.1 Procedure

Petuna maintains comprehensive SOPs that govern the management of waste across all operational areas. These SOPs form part of our internal management system and are considered commercially sensitive due to their operational, biosecurity, and proprietary nature. Accordingly, they are not included within this plan and will not be made available in full. Ongoing review of this Waste Management Plan (WMP) may identify the need for new policies and procedures. Any additions or updates will be documented in this section of the WMP.

Appendix 1: Key Contacts

Table 4: Key Contacts for access and notifications.

Site	Name	Position title	Contact email	Mobile
Corporate	Tom Mountney	Public Affairs & Sustainability Manager	thomas.mountney@petuna.com	+61 429 706 750
Corporate	Greg Creedon	Health and Safety Manager	Greg.Creedon@petuna.com	+61 456 219 772
Strahan	Neil Gillies	Farm Manager Strahan	neil.gillies@petuna.com	+61 407 462 002
Strahan	Tyronne Becker	Assistant Farm Manager Strahan	tyrone.becker@petuna.com	+61 417 766 057
Rowella	Cimarron Jackson	Rowella Site Manager	Cimarron.Jackson@petuna.com	+61 429 338 757
Rowella	Greg McEvoy	Assistant Farm Manager Rowella	Greg.McEvoy@petuna.com	+61 466 787 396

Appendix 2: Strahan specific waste collection locations

Table 5 Strahan specific waste collection locations

Waste Classification	Storage Method	Location	Collection Procedure	Responsible Staff	Cost
General Rubbish	General Bins Wheelie Bin x 2 Wheelie Bin x 1 Veolia Skip	Offices / Lunchrooms Feed Shed and Staff accommodation Bottom Car Park & Workshop	Emptied into wheelie bin when full. Council collection of 1 front end skip bin. Veolia collection Fortnightly Veolia collection on call	Operations Staff Scheduled service	Included in Council Rates. Contract price
Co- mingled Recycling, Glass bottles, cans, cardboard, newspaper, Plastic containers Labelled 1 2 3 4 5 6 7	Collection Skip with Lid 1x commingled wheelie Bin 1x paper bin	Outside Main Office Lunchroom Office	Collected by Tassie Waste at request.	Admin Staff	Contract price
White paper, whole or shredded	Recycle bins Document destruction bin		Emptied to main document bin when full Collection on call	Admin Staff	Monthly fee for rental, disposal fee when emptied

Waste Classification	Storage Method	Location	Collection Procedure	Responsible Staff	Cost
Empty Feed Bags Recyclable	Baled	Behind Feed Shed	Emptied bags are baled, stacked separately, collected and delivered via DeBruyn's to Transport DeBruyn's Devonport to facilitate transfer to Big Bag Recovery (Recycling)	Assistant Site Manager	Transport fee + cost on tonnage
Empty Salt bags	Empty Feedbag, marked	Ice Plant	Emptied bags are baled, stacked separately, collected and delivered via DeBruyn's to Transport DeBruyn's Devonport to facilitate transfer to Big Bag Recovery (Recycling)	Assistant Site Manager	Transport fee + cost on tonnage
Fish Mortalities	Hook Bins	Lower Pad – next to Green Shed	Spectran Group collection on request	Dive supervisor and Assistant Site Manager	Contract price.
Waste blood water	IBC	Bottom car park	Spectran Group collection on request	Harvest Supervisor and Assistant Manager	Contract price.
Feed Pallets	Stacked	Lower Pad	Pallets stacked in rows until enough for removal by Wynyard Transport	Feed Manager	Contract price
Hazardous Waste	Chemical Store until sufficient for collection	Workshop specific locations	Veolia collection on request – ad hoc	Maintenance Supervisor Admin Staff	Ad hoc pricing

Waste Classification	Storage Method	Location	Collection Procedure	Responsible Staff	Cost
Used oil	Designated drum	Workshop	Full drums delivered to the Exeter Transfer Station.	Maintenance Supervisor	Transfer Station fee
Scrap Metal/Alloy	Metal Skip Bin	Workshop	Recycal	Maintenance Supervisor	Deducted from scrap sell price
Black/Grey Water	Envirocycle	Behind Administration Offices	N/A	Serviced by Professional Plumbing P/L	Contract price.
Sanitary Waste	Provided sanitary waste bin	Toilets and Staff Accommodation	Hygiene services	Veolia	Contract price

Appendix 3: Rowella specific Waste collection locations

Table 6 : Rowella specific waste collection locations

Waste Classification	Storage Method	Location	Collection Procedure	Responsible Staff	Cost
General Rubbish	General Bins	Offices / Lunchroom	Emptied into wheelie bin when full.		
	Wheelie Bin x 2	Under Amenities Deck Under	Council collection of 1 wheelie bin F/N excess to skip.	Operations Staff	Included in Council Rates.
	Wheelie Bin x 1	Amenities Work Area	Veolia collection Fortnightly	Scheduled service	Contract price
	Wheelie Bin x 2	System Farm			
	Veolia Skip	Bottom Car Park & Workshop			
Co- mingled Recycling	Collection bin	Lunchroom & Admin office	Emptied into wheelie bin when full.	Operations Staff	
Glass bottles, cans, cardboard, newspaper, Plastic containers Labelled 1 2 3 4 5 6 7	Wheelie Bin x 2	Under amenities room deck	Council collection of 2 wheelie bin per F/N	Maintenance Staff	Included in Council Rates.
			Excess recycling bagged to be delivered to Waste Transfer Station	Admin Staff	No fee for Recycling.
White paper,	Recycle bins	Admin Offices x 1	Emptied to main	Admin Staff	

Waste Classification	Storage Method	Location	Collection Procedure	Responsible Staff	Cost
whole or shredded	Document destruction bin	Feed shed Office x 1 Admin office x 1	document bin when full Collection on call		Monthly fee for rental, disposal fee when emptied
Cardboard	Flattened inside wheelie recycling bins	Under Amenities deck	Removed via council collection	Admin staff Operations/maintenance	Included in Council Rates
Empty Feed Bags Recyclable	Baled	Behind Feed Shed	Emptied bags are stacked in bales separately, collected and delivered to Veolia Devonport	Feed Manager & Assistant Site Manager	Transport fee + cost on tonnage Transport fee
Empty Salt bags	Recycled Feed bag, marked	Ice Plant	Emptied salt bags are placed feed bags, stacked and delivered to waste collection centre via Spectran-ad hoc	Maintenance Manager	Transport fee + cost on tonnage
Fish Mortalities	Skip Bin	Bottom Car Park	Spectran Group collection on request – ad hoc	Dive supervisor	Contract price.
Waste blood water	24,000L Tank	Bottom car park	Spectran Group collection on request – ad hoc	Operations manager	Contract price.
Pallets	Stacked	Amenities area	Pallets stacked in rows until sufficient quantity for removal by Wynyard Transport	Feed Manager	Contract price
Hazardous Waste	Chemical Store until	Workshop	Veolia collection on request – ad hoc	Maintenance	Ad hoc

Waste Classification	Storage Method	Location	Collection Procedure	Responsible Staff	Cost
	sufficient for collection			Supervisor Admin Staff	pricing
Used oil	Designated drum	Workshop	Full drums delivered to the Exeter Transfer Station.	Maintenance Supervisor	Transfer Station fee
Scrap Metal/	Recycal	Workshop	Recycal	Maintenance Supervisor	Deducted from scrap sell price
Black/Grey Water	Envirocycle	Behind Administration Offices	N/A	Serviced by Professional Plumbing P/L	Contract price.
Sanitary Waste	Provided sanitary waste bin	Female Toilet	Hygiene services	Contractor	Contract price